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TABLES AND CHARTS OF EQUILIBRIUM NORMAL SHOCK AND SHOCK-TUBE SOLUTIONS FOR HELIUM-HYDRODGEN MIXTURES WITH VELOCITIES TO 70 km/sec

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PREFACE

Equilibrium thermodynamic and flow properties are presented in tabulated and graphical form for moving, standing, and reflected normal shock waves into helium-hydrogen mixtures representative of proposed outer planet atmospheres. The volumetric compositions of these mixtures are 0.35He-0.65H_2, 0.20He-0.80H_2, and 0.05He-0.95H_2. Properties include pressure, temperature, density, enthalpy, speed of sound, entropy, molecular-weight ratio, isentropic exponent, velocity, and species mole fractions. Incident (moving) shock velocities are varied from 4 to 70 km/sec for a range of initial pressure of 5 N/m^2 to 100 kN/m^2. The present results are applicable to shock-tube flows and to free-flight conditions for a blunt body at high velocities. A working chart illustrating idealized shock-tube performance with a 0.20He-0.80H_2 test gas and heated helium driver gas is also presented.

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SUMMARY

Equilibrium thermodynamic and flow properties are presented in tabulated and graphical form for moving, standing, and reflected normal shock waves into helium-hydrogen mixtures representative of proposed outer planet atmospheres. The volumetric compositions of these mixtures are $0.35He-0.65H_2$, $0.20He-0.80H_2$, and $0.05He-0.95H_2$. Properties include pressure, temperature, density, enthalpy, speed of sound, entropy, molecular-weight ratio, isentropic exponent, velocity, and species mole fractions. Incident (moving) shock velocities are varied from 4 to 70 km/sec for a range of initial pressure of 5 N/m^2 to 100 kN/m^2. The present results are applicable to shock-tube flows and to free-flight conditions for a blunt body at high velocities. A working chart illustrating idealized shock-tube performance with a $0.20He-0.80H_2$ test gas and heated helium driver gas is also presented.

INTRODUCTION

Interest in entry probes to Jupiter, Saturn, Uranus, and Neptune ushered in a number of proposed atmospheric models for these planets. These models consisted primarily of helium and hydrogen. (For example, see refs. 1 and 2.) Exploratory studies with helium-hydrogen mixtures have been undertaken in the arc-driven Langley 6-inch shock tube (ref. 3), where incident shock velocities from approximately 12 to 30 km/sec were generated in a $0.20He-0.80H_2$ mixture. Such studies require a means for determining thermodynamic properties and flow velocity for incident, standing, and reflected shock waves in helium-hydrogen mixtures and a means for estimating shock-tube performance prior to a test with these mixtures. The wide range of flow conditions and very short test times impose stringent requirements on shock-tube instrumentation. In order to prepare facility instrumentation properly for a test, the investigator must have reasonable estimates of the magnitude of flow quantities to be measured.

The purposes of this report are threefold: (1) to present charts and tables for use in the determination of thermodynamic properties, flow velocity, and species mole fractions for incident (moving), standing, and reflected normal shocks in helium-hydrogen mixtures; (2) to provide a convenient means of determining post-normal-shock flow conditions for a vehicle at high velocities in a helium-hydrogen mixture; and (3) to provide reasonable estimates of shock-tube performance in a $0.20He-0.80H_2$ mixture for an arc-heated helium driver gas.

Three mixtures, representing the maximum, approximate mean, and minimum atmospheric models proposed for Jupiter (ref. 1) and Saturn (ref. 2), were used for the present calculations. The volumetric compositions for these mixtures were 0.35He-0.65H_2, 0.20He-0.80H_2, and 0.05He-0.95H_2. Normal-shock conservation relations for an incident, standing, and reflected shock and the method of solution of these relations, as well as the procedure for determining shock-tube performance, are discussed briefly herein and in detail in reference 4.

SYMBOLS

a	speed of sound, m/sec
h	specific enthalpy, m^2/sec^2 (J/kg)
p	pressure, N/m^2
R	universal gas constant, 8.31434 kJ/kmol-K
s	specific entropy, kJ/kg-K
sW_O/R	nondimensional specific entropy
T	temperature, K
U	velocity, m/sec
U_r	velocity of reflected shock, m/sec
U_s	velocity of incident shock, m/sec
W	molecular weight, kg/kmol
W_O	molecular weight of undissociated gas mixture, kg/kmol
Z^*	number of kmoles of dissociated gas mixture per number of kmoles of undissociated gas mixture, W_O/W
γ_E	isentropic exponent, $\left(\frac{\partial \log p}{\partial \log \rho}\right)_{sW_O/R}$
ρ	density, kg/m^3

Subscripts:

1	state of quiescent test gas ahead of incident normal shock
2	state of test gas behind incident normal shock (see fig. 1)
2r	state of test gas behind reflected normal shock into region ② (see fig. 1)
2s	state of test gas behind standing normal shock in region ② (see fig. 1)
3	state of expanded driver gas (see fig. 1)
4	driver-gas conditions at time of diaphragm rupture

CONVERSION FACTORS AND CONSTANTS

Conversion factors between the International System of Units (SI) and U.S. Customary Units (ref. 5) for the quantities presented in tables I to III and figures 2 to 10 are

$$1\ N/m^2 = 9.8692 \times 10^{-6}\ atm = 1.4504 \times 10^{-4}\ psi = 2.0885 \times 10^{-2}\ lbf/ft^2$$

$$1\ kg/m^3 = 6.2428 \times 10^{-2}\ lbm/ft^3 = 1.9403 \times 10^{-3}\ slug/ft^3$$

$$1\ J/kg = 1\ m^2/sec^2 = 10.764\ ft^2/sec^2 = 4.3021 \times 10^{-4}\ Btu/lbm$$

$$1\ m/sec = 3.2808\ ft/sec = 2.2369\ mph$$

Physical constants appearing herein are

Mixture	W_O, kg/kmol	h_1, MJ/kg	a_1, km/sec	$\gamma_{E,1}$	T_1, K	Z_1^*
$0.35He\text{-}0.65H_2$	2.711	2.842	1.160	1.463	300	1.0
$0.20He\text{-}0.80H_2$	2.413	3.334	1.217	1.433	↓	↓
$0.05He\text{-}0.95H_2$	2.115	3.964	1.288	1.406		

COMPUTATION PROCEDURE AND ANALYSIS

Shock-Tube Flow Regions

The regions of interest for a shock tube are illustrated in figure 1. The quiescent driver gas at the time of diaphragm rupture is designated as region ④, and the quiescent

test gas is designated as region ① (fig. 1(a)). Upon rupture of the diaphragm, an incident shock wave propagates into region ① with velocity U_s. The flow conditions immediately behind this shock are denoted as region ② (fig. 1(b)). An expansion wave propagates into the driver gas; the region between the contact surface and the expansion wave is designated as region ③. For a blunt model positioned in the driven section of the shock tube, a standing shock wave is formed at the model, provided the flow in region ② is supersonic (fig. 1(c)). The flow conditions immediately behind this standing shock are designated as region (2s).

When the incident shock wave reaches the end wall of the shock tube, it is reflected back into region ② (fig. 1(d)). The gas behind the reflected shock wave is brought to rest, relative to the shock tube. Flow conditions behind this reflected shock wave, which is propagating upstream with a velocity U_r, are designated as region (2r).

Conservation Relations

For an incident normal shock wave moving through region ①, in a laboratory-fixed coordinate system, the conservation relations for mass, momentum, and energy are

$$\rho_1 U_s = \rho_2 (U_s - U_2) \tag{1a}$$

$$p_1 + \rho_1 U_s^2 = p_2 + \rho_2 (U_s - U_2)^2 \tag{1b}$$

$$h_1 + \tfrac{1}{2} U_s^2 = h_2 + \tfrac{1}{2} (U_s - U_2)^2 \tag{1c}$$

The conservation relations for a standing normal shock wave, where the conditions downstream of the incident shock wave (region ②) are the upstream conditions for this standing shock wave, are

$$\rho_2 U_2 = \rho_{2s} U_{2s} \tag{2a}$$

$$p_2 + \rho_2 U_2^2 = p_{2s} + \rho_{2s} U_{2s}^2 \tag{2b}$$

$$h_2 + \tfrac{1}{2} U_2^2 = h_{2s} + \tfrac{1}{2} U_{2s}^2 \tag{2c}$$

The conservation relations for a reflected normal shock wave, where the conditions in region ② are the upstream conditions for this reflected shock wave, are

$$\rho_2 (U_2 + U_r) = \rho_{2r} U_r \tag{3a}$$

$$p_2 + \rho_2\left(U_2 + U_r\right)^2 = p_{2r} + \rho_{2r}U_r^2 \tag{3b}$$

$$h_2 + \tfrac{1}{2}\left(U_2 + U_r\right)^2 = h_{2r} + \tfrac{1}{2}U_r^2 \tag{3c}$$

Thermodynamic Properties

The equation of state (that is, source of thermodynamic properties for real-gas mixtures) takes the form of the thermochemical equilibrium procedure of references 6 and 7. (The equation of state cannot be expressed in closed analytical form when chemical processes occur.) This procedure, which is based upon the Gibbs free-energy minimization method of reference 8, includes dissociation and first and second ionization. Basic assumptions are:

(1) The mixture is composed of ideal gases (intermolecular force effects are neglected).

(2) For diatomic species the rigid-rotor harmonic-oscillator model is used with vibrational-rotational corrections.

(3) Only electronic levels with principal quantum number less than or equal to five are included.

For a given pressure and temperature, the free energies for individual species are computed from partition functions of statistical mechanics. The equilibrium composition is then obtained by minimization of the free energy. In the present study, iterations on species concentration (number of kmoles of species i per mass of mixture) were continued until the absolute value of each concentration changed by less than 10^{-8} between successive iterations. This iterative criterion is referred to in reference 6 as the absolute criterion. A relative criterion was also employed to prevent termination of the iterations while a minor species was still changing by as much as 0.1 of its previous value. Once the equilibrium set of species concentrations are known, the mixture properties $(\rho,\ h,\ s,\ a,\ Z^*,$ and $\gamma_E)$ can be calculated.

In order to examine what effect the absolute criterion might have on the present results, a number of sample cases were run in which the absolute criterion was relaxed to 10^{-4}. These cases were for a $0.20He\text{-}0.80H_2$ mixture, with initial pressure p_1 of 10 N/m^2 and 100 kN/m^2 and an incident shock velocity U_S ranging from 4 to 64 km/sec in increments of 1.2 km/sec. Comparison of these results with those obtained with an absolute criterion of 10^{-8} showed that the largest variations occurred in the second-order properties $(a$ and $\gamma_E)$. In no instance did these variations exceed 0.07 percent. The maximum variation in mole fractions was 0.4 percent. Hence, the absolute criterion of 10^{-8} employed in the present computations provides a high level of precision.

In reference 7, it is shown that calculations of thermodynamic properties of air, as obtained with the program of references 6 and 7, generally agreed with the more rigorous imperfect air results of references 9 and 10. For the temperature range 1500 K to 15 000 K and pressure range 0.7 N/m^2 to 0.7 MN/m^2, first-order properties (ρ, h, s, and Z^*) agreed to within 1 percent and second-order properties agreed to within 5 percent (ref. 7). Since the same sort of difference between computational schemes could be expected for other atmospheres, the method of references 6 and 7 should give, for the present study, first-order properties to within 1 percent and second-order properties to within 5 percent over the range in which results were extensively checked ($T \leq 15\,000$ K, $0.7\ N/m^2 \leq p \leq 0.7\ MN/m^2$). Thermodynamic properties are expected, in general, to be in better agreement than species concentrations (mole fractions).

Required inputs to the procedure of references 6 and 7 and an iterative-interpolation scheme enabling determination of thermodynamic properties from combination of h, p, sW_O/R, and ρ are discussed in reference 4. The species used in the present calculations for helium-hydrogen mixtures are

e^-	H
He	H^+
He^+	H_2
He^{++}	

Thermodynamic data for the helium-hydrogen species were obtained from reference 11, and a listing of the thermodynamic data is presented in reference 4.

Method of Solution

As mentioned previously, the upstream conditions for the standing and reflected shock waves are conditions in region ②. Hence, it is necessary to solve first for conditions behind the incident shock wave. The thermodynamic properties and gas composition (mole fractions) in region ① are assumed to be known, as is the incident shock velocity U_S. Hence, quantities appearing on the left-hand side of the conservation relations for an incident normal shock (eqs. (1a) to (1c)) are known. The method of successive approximations (iteration on ρ_2, ref. 4) is used to solve equations (1a) to (1c) for ρ_2, p_2, h_2, and U_2, in conjunction with the equation of state $\rho_2 = \rho_2(p_2, h_2)$. (Thermodynamic properties corresponding to p_2 and h_2 are obtained from the equation of state.) With the conditions determined in region ②, the corresponding conditions in regions ②s and ②r are obtained in a similar manner, that is, by an iterative procedure on density ρ_{2s} and ρ_{2r}, respectively.

In predicting shock-tube performance, the helium driver-gas pressure p_4 and temperature T_4 are assumed to be known, in conjunction with p_1 and T_1. Thermodynamic properties in region ④ are determined from imperfect-gas relations based on the virial form of the equation of state (ref. 4). The unsteady expansion, which occurs upon rupture of the diaphragm, is assumed to be isentropic. An array of thermodynamic properties, including p_3, is generated in the expansion (region ③) and the corresponding velocity U_3 is obtained numerically from the differential equation for one-dimensional unsteady expansion. By varying U_s over a range, an array of U_2 and p_2 is also generated. The solution is found by requiring that p_3 equal p_2 and U_3 equal U_2; that is, the solution is the intersection of the U_2,p_2 and U_3,p_3 curves (ref. 4).

Accuracy

The iterative procedure for solving the conservation relations (eqs. (1)) was continued until successive values of density (ρ_2, ρ_{2s}, and ρ_{2r}) were within 0.5 percent. To examine the effect of this iterative tolerance, the tolerance on density was decreased to 0.25, 0.1, and 0.05 percent and increased to 1 percent. This variation was performed for a $0.20He\text{-}0.80H_2$ mixture at two values of p_1 (10 N/m^2 and 100 kN/m^2) and U_s from 4 to 64 km/sec. Increasing the tolerance from 0.5 percent to 1 percent had essentially no effect (less than 0.07 percent) on thermodynamic conditions in region ② and resulted in a variation of less than 0.6 percent for thermodynamic conditions and less than 0.9 percent for velocity in regions ⑵s and ⑵r. Variations in thermodynamic conditions and velocities in regions ②, ⑵s, and ⑵r, resulting from a decrease in iterative tolerance from 0.5 to 0.05 percent, were less than 0.4 percent. This relatively small increase in accuracy with decrease in tolerance from 0.5 percent was not warranted, in view of the corresponding large increase in computer time required for the smaller tolerance.

Comparison of results from the present computational procedure and those of similar studies was performed. Since results for helium-hydrogen mixtures for the present range of conditions were not found in the open literature, the program (ref. 4) used to generate the results herein was also exercised with a 16-species CO_2 model (e^-, O, O^+, O^{++}, O^-, O_2, O_2^+, O_2^-, C, C^+, C^{++}, C^-, C_2, CO, CO^+, and CO_2). Incident, standing, and reflected shock solutions were compared to the graphical results of reference 12 (which are based on a 10-species CO_2 model including second ionization) for an incident shock velocity range of 1 to 16 km/sec and initial pressure of 100 N/m^2. With the exception of a few points (3 out of 105), the thermodynamic properties of reference 12 for regions ②, ⑵s, and ⑵r (as read from charts) were within 2 percent of the results obtained with the program of reference 4. In no case did disagreement exceed 4 percent. For this range in U_s, the maximum values of T_2 and T_{2s} were approximately 17 000 K and 25 000 K, respectively.

A similar comparison was performed by exercising the program of reference 4 with a 26-species air model and comparing these data with the tabulated results of reference 13. The volumetric composition of air was the same for both studies (0.7808 N_2, 0.2095 O_2, and 0.0097 Ar), as was the initial pressure (6.67 N/m^2). The incident shock velocity was varied from 17.1 to 34 km/sec. This range of U_S corresponds to a range in T_2 of 15 000 K to 42 000 K (ref. 13). Agreement between the studies, for quantities p_2, T_2, ρ_2, h_2, and U_2, was within 1 percent for U_S to 30 km/sec, corresponding to a T_2 of 34 000 K. Above this U_S, the agreement in these quantities diminishes rapidly, being within 5 percent at a U_S of 32 km/sec and within 20 percent at a U_S of 34 km/sec (maximum U_S examined). This rapid diminishing of agreement is attributed to the fact that first and second ionization were included in the present air calculations, whereas third ionization was included in the more rigorous calculations of reference 13.

The present computational procedure yields thermodynamic properties and velocities, for CO_2 and air, within 2 percent of results of similar studies (refs. 12 and 13) for temperatures less than 25 000 K to 30 000 K. For the more simple helium-hydrogen mixture model, the uncertainty in thermodynamic properties and velocities is not expected to exceed that observed for the CO_2 and air comparisons. As stated previously, the thermodynamic properties are more accurate than the mole fractions. For example, the comparison of CO_2 results showed that thermodynamic properties agreed to within 2 percent, whereas the agreement for individual species mole fractions was within 10 to 12 percent in the U_S range (T_2 range) where the mole fraction was near its maximum value. The accuracy in mole fractions is expected to be at least within the limits of reference 13, these being less than 1, 5, and 20 percent at temperatures less than 10 0[illegible] 5 000 K, and 25 000 K, respectively.

DISCUSSION OF TABLES AND CHARTS

Before discussing the present tables and charts, it should be noted that flow properties behind the normal portion of the bow shock wave of a hypervelocity entry body are equivalent to the properties behind a moving shock in a shock tube. In free-flight, the free-stream conditions and flight velocity correspond to the initial conditions in region ① and the shock-wave velocity, respectively, whereas the conditions behind the bow shock correspond to conditions in region ②. In the present study, an initial temperature T_1 of 300 K was used for all calculations. A method permitting use of a range of ambient temperatures is discussed in reference 12, and should prove useful in determining free-flight conditions using the present tables and charts for an incident normal shock wave.

Tables

The solutions for incident (moving), standing, and reflected normal shocks are presented in tables I to III. The volumetric composition (mole fraction) of the helium-hydrogen mixture is 35 percent helium and 65 percent hydrogen $(0.35He\text{-}0.65H_2)$ in table I, 20 percent helium and 80 percent hydrogen $(0.20He\text{-}0.80H_2)$ in table II, and 5 percent helium and 95 percent hydrogen $(0.05He\text{-}0.95H_2)$ in table III. These tabulated computer results are arranged in groups of constant pressure in region ① (P1) and the incident shock velocity (US1) is varied within the group. In tables I to III, p_1 is varied from 5 N/m^2 to 100 kN/m^2 and U_s is varied from 4 to 30 km/sec in increments of 1 km/sec and from 30 to 70 km/sec in increments of 2 km/sec.

For each p_1, a complete list of calculated thermodynamic properties (p, T, ρ, h, a, sW_0/R, Z^*, and γ_E), flow velocity (U), and species volumetric composition is given for the three shock-tube regions under consideration. The rows in the upper portion of each tabulation, for a given p_1 and U_s, are identified by letters (FORTRAN symbols), the designations of which, in terms of the symbols defined, are given in the following table:

FORTRAN symbol	Moving shock	Standing shock	Reflected shock
P	p_2/p_1	p_{2s}/p_1	p_{2r}/p_1
T	T_2/T_1	T_{2s}/T_1	T_{2r}/T_1
RHO	ρ_2/ρ_1	ρ_{2s}/ρ_1	ρ_{2r}/ρ_1
H	h_2/h_1	h_{2s}/h_1	h_{2r}/h_1
A	a_2/a_1	a_{2s}/a_1	a_{2r}/a_1
S	s_2/s_1	s_{2s}/s_1	s_{2r}/s_1
Z	Z_2^*/Z_1^*	Z_{2s}^*/Z_1^*	Z_{2r}^*/Z_1^*
GAME	$\gamma_{E,2}/\gamma_{E,1}$	$\gamma_{E,2s}/\gamma_{E,1}$	$\gamma_{E,2r}/\gamma_{E,1}$
U	U_2/a_1	U_{2s}/a_1	U_r/a_1

The lower portion of each tabulation illustrates the species composition for moving, standing, and reflected shock regions. Rows are identified by the species symbol.

The conditions in region ① are used to nondimensionalize calculated properties in regions ②, ⑵s, and ⑵r. The temperature in region ① T_1 is 300 K for all cases in tables I to III. Corresponding thermodynamic properties for the three helium-hydrogen mixtures in region ①, in SI Units (see section on Symbols), are given in the following tables.

INITIAL CONDITIONS AHEAD OF INCIDENT

SHOCK IN $0.35He-0.65H_2$

$T_1 = 300$ K

$h_1 = 2.842 \times 10^6$ J/kg

$a_1 = 1.160 \times 10^3$ m/sec

$Z_1^* = 1.0$

$\gamma_{E,1} = 1.463$

p_1, N/m^2	ρ_1, kg/m^3	$\frac{s_1 W_o}{R}$
5	5.435×10^{-6}	26.09
10	1.087×10^{-5}	25.40
20	2.174×10^{-5}	24.71
50	5.435×10^{-5}	23.79
100	1.087×10^{-4}	23.10
200	2.174×10^{-4}	22.40
500	5.435×10^{-4}	21.49
1 000	1.087×10^{-3}	20.79
2 000	2.174×10^{-3}	20.10
5 000	5.435×10^{-3}	19.18
10 000	1.087×10^{-2}	18.49
20 000	2.174×10^{-2}	17.80
50 000	5.435×10^{-2}	16.88
100 000	1.087×10^{-1}	16.19

INITIAL CONDITIONS AHEAD OF INCIDENT

SHOCK IN $0.20He-0.80H_2$

$T_1 = 300$ K

$h_1 = 3.334 \times 10^6$ J/kg

$a_1 = 1.217 \times 10^3$ m/sec

$Z_1^* = 1.0$

$\gamma_{E,1} = 1.433$

p_1, N/m^2	ρ_1, kg/m^3	$\frac{s_1 W_o}{R}$
5	4.838×10^{-6}	26.03
10	9.675×10^{-6}	25.34
20	1.935×10^{-5}	24.64
50	4.838×10^{-5}	23.73
100	9.675×10^{-5}	23.03
200	1.935×10^{-4}	22.34
500	4.838×10^{-4}	21.42
1 000	9.675×10^{-4}	20.73
2 000	1.935×10^{-3}	20.04
5 000	4.838×10^{-3}	19.12
10 000	9.675×10^{-3}	18.43
20 000	1.935×10^{-2}	17.73
50 000	4.838×10^{-2}	16.82
100 000	9.675×10^{-2}	16.13

INITIAL CONDITIONS AHEAD OF INCIDENT

SHOCK IN $0.05He\text{-}0.95H_2$

$T_1 = 300$ K

$h_1 = 3.964 \times 10^6$ J/kg

$a_1 = 1.288 \times 10^3$ m/sec

$Z_1^* = 1.0$

$\gamma_{E,1} = 1.406$

p_1, N/m^2	ρ_1, kg/m^3	$\frac{s_1 W_0}{R}$
5	4.240×10^{-6}	25.81
10	8.480×10^{-6}	25.11
20	1.696×10^{-5}	24.42
50	4.240×10^{-5}	23.50
100	8.480×10^{-5}	22.81
200	1.696×10^{-4}	22.12
500	4.240×10^{-4}	21.20
1 000	8.480×10^{-4}	20.51
2 000	1.696×10^{-3}	19.82
5 000	4.240×10^{-3}	18.90
10 000	8.480×10^{-3}	18.21
20 000	1.696×10^{-2}	17.51
50 000	4.240×10^{-2}	16.60
100 000	8.480×10^{-2}	15.90

It is recommended in reference 7 that pressures should be restricted to less than 10 MN/m^2 and temperatures restricted to less than 15 000 K in order to insure accurate calculations of equilibrium compositions. This recommended upper limit on pressure is to minimize imperfect-gas (intermolecular force) effects. Temperatures considered must be such that only negligible contributions are realized from coulomb interactions and from electronic energy levels past the fifth electron shell. These considerations are not accounted for in the equilibrium program of references 6 and 7. For temperatures below 15 000 K or so, the latter consideration should be negligible. Comparisons made in a previous section entitled "Accuracy" showed that equilibrium CO_2 and air thermodynamic properties, as generated by using the method of references 6 and 7, are in good agreement (within 2 percent) with CO_2 and air calculations (refs. 12 and 13) for temperatures to 25 000 K. Now, in the present results of tables I to III, no upper limitations on pressure and temperature are imposed; hence, values of pressure exceeding 10 MN/m^2 and of temperature exceeding 25 000 K are presented for the three shock-tube regions of interest. The user of these tables is cautioned to exercise discretion in employing the present results at pressures exceeding 10 MN/m^2 and temperatures exceeding 25 000 K.

Charts

Working charts for the helium-hydrogen mixtures (corresponding to the results of tables I to III) are shown in figures 2 to 10. In these figures, the nondimensionalized thermodynamic properties and flow velocity for regions ②, ②s, and ②r are plotted as a function of incident shock velocity U_s for various quiescent test gas pressures. For each property in each region, the incident-shock-velocity scale is 0 to 32 km/sec and 30 to 62 km/sec, and is 0 to 40 km/sec for the standing (except in fig. 9) and reflected shocks. This division of the U_s scale is to enhance the readability of these charts. The figures were generated by machine and linear line segments were used to connect adjacent data points.

Unlike tables I to III, maximum pressure and temperature limitations were imposed on the results of figures 2 to 10, these being $p \leqq 10$ MN/m^2 and $T \leqq 25\,000$ K; calculated quantities above these limitations are not plotted. Again, the properties in region ① presented previously must be used to obtain the desired value of the thermodynamic property or flow velocity from the ratio presented.

THEORETICAL SHOCK-TUBE PERFORMANCE

Before a study is performed in a shock tube, it is essential that the theoretical performance be ascertained for the gas being tested. The wide range of flow conditions and very short test times (generally, a few microseconds to several milliseconds) impose stringent requirements on shock-tube instrumentation. Thus, in preparing shock-tube

instrumentation for a test, it is necessary that the physical quantities to be measured be known to within reasonable limits.

Results from the procedure for determining shock-tube performance for a $0.20He\text{-}0.80H_2$ mixture test gas are shown in figure 11 for heated helium driver gas. In figure 11, the ratio of driver pressure in region ④ to quiescent test-gas pressure in region ① is shown as a function of incident shock velocity for various driver-gas temperatures T_4. With p_4, T_4, and p_1 known, a theoretical value of U_s may be obtained from figure 11. (Some discrepancy between real physical conditions and conditions calculated by using a simple shock-tube theory is expected, with this discrepancy increasing with decreasing p_1 due principally to the "leaky-piston" effect (ref. 14).) Corresponding thermodynamic properties and flow velocity in regions ②, ⑵ⓢ, and ⑵ⓡ may be obtained from figures 5 to 7, or from table II. Variation in p_4/p_1 is obtained by varying p_1. The range of T_4 is 4000 K to 16 000 K and p_4 is equal to 68.95 MN/m^2. At the maximum T_4 of 16 000 K and p_4 of 68.95 MN/m^2, ionization of the helium driver gas is essentially negligible (ref. 15), and the results of reference 4 are applicable.

CONCLUDING REMARKS

Equilibrium thermodynamic and flow properties are presented in tabulated and graphical form for moving, standing, and reflected normal shock waves into helium-hydrogen mixtures representative of proposed outer planet atmospheres. The volumetric compositions of these mixtures are $0.35He\text{-}0.65H_2$, $0.20He\text{-}0.80H_2$, and $0.05He\text{-}0.95H_2$. Properties include pressure, temperature, density, enthalpy, speed of sound, entropy, molecular-weight ratio, isentropic exponent, velocity, and species mole fractions. Incident (moving) shock velocities are varied from 4 to 70 km/sec for a range of initial pressure of 5 N/m^2 to 100 kN/m^2. The present results are applicable to shock-tube flows and to free-flight conditions for a blunt body at high velocities. A working chart illustrating idealized shock-tube performance with a $0.20He\text{-}0.80H_2$ test gas and heated helium driver gas is also presented.

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The user is cautioned about using these tables at pressures exceeding 10 MN/m^2 and temperatures exceeding 25 000 K.

Table I.- Nondimensional Thermodynamic Properties and Flow Velocity for Incident (moving), Standing, and Reflected Normal Shocks in a 0.35He-0.65H_2 Mixture

[User cautioned about using table at pressures exceeding 10 MN/m^2 and temperatures exceeding 25 000 K]

$p_1 = 5$ N/m^2

P1 = 5.00E+00 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3947E+01	2.8752E+01	7.2139E+01
T	3.5541E+00	4.4737E+00	6.3510E+00
RHO	3.9203E+00	6.4274E+00	1.1325E+01
H	3.4325E+00	4.4133E+00	4.8589E+00
E	1.8776E+00	2.0893E+00	2.2815E+00
S	1.0536E+00	1.0554E+00	1.0687E+00
Z	1.0000E+00	1.0000E+00	1.0078E+00
GAME	9.8770E-01	9.7537E-01	8.9049E-01
U	2.5703E+00	1.5599E+00	1.3450E+00

SPECIES	MOLE FRACTIONS		
E-	5.0044E-08	1.6427E-29	6.2006E-18
HE	3.5000E-01	2.5000E-01	2.4693E-01
HE+	3.9698E-04	3.7792E-04	1.5725E-03
HE++	0.	0.	0.
H	1.9747E-07	2.0122E-05	5.5377E-03
H+	8.1243E-20	8.1343E-20	6.2817E-18
H2	6.5000E-01	6.4998E-01	6.4543E-01

P1 = 5.00E+00 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5302E+01	9.0503E+01	2.2271E+02
T	7.3748E+00	8.8705E+00	9.4228E+00
RHO	6.0025E+00	9.1237E+01	3.0144E+01
H	9.2809E+00	1.0855E+01	1.8747E+01
E	2.4582E+00	2.7255E+00	2.8848E+00
S	1.1298E+00	1.1492E+00	1.1747E+00
Z	1.0225E+00	1.0895E+00	1.1352E+00
GAME	7.9155E-01	7.7853E-01	7.7801E-01
U	5.0282E+00	1.4140E+00	1.2526E+00

SPECIES	MOLE FRACTIONS		
E-	4.2785E-15	2.3456E-12	1.8181E-11
HE	3.4120E-01	3.2124E-01	3.0832E-01
HE+	1.9423E-37	3.2230E-31	1.0888E-29
HE++	0.	0.	0.
H	4.9793E-02	1.4433E-01	2.3818E-01
H+	4.2784E-15	2.3454E-12	1.8181E-11
H2	4.7863E-01	5.1443E-01	5.2355E-01

P1 = 5.00E+00 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2032E+01	5.8205E+01	1.2280E+02
T	4.9830E+00	6.5224E+00	7.7346E+00
RHO	4.4207E+00	8.8844E+00	1.5851E+01
M	5.1732E+00	7.1540E+00	9.9167E+00
A	2.1921E+00	2.2956E+00	2.5196E+00
S	1.0790E+00	1.0825E+00	1.0990E+00
Z	1.0001E+00	1.0046E+00	1.0275E+00
GAME	9.5427E-01	8.6860E-01	7.9885E-01
U	2.3251E+00	1.6584E+00	1.3352E+00

SPECIES	MOLE FRACTIONS		
E-	4.4128E-24	1.5731E-17	2.5449E-14
HE	3.4995E-01	3.4867E-01	3.4804E-01
HE+	3.5896E-52	4.8756E-42	3.8369E-36
HE++	0.	0.	0.
H	2.0613E-04	8.9491E-03	5.2439E-02
H+	8.1335E-20	1.5812E-17	2.5449E-14
H2	5.4983E-01	6.4264E-01	6.0591E-01

P1 = 5.00E+00 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0805E+01	3.6571E+02	5.0576E+02
T	9.2085E+00	9.4174E+00	1.0182E+01
RHO	7.1881E+00	2.1251E+01	4.1281E+01
M	1.2041E+01	1.9939E+01	2.3907E+01
A	2.5581E+00	2.9638E+00	3.1052E+00
S	1.1580E+00	1.1915E+00	1.2213E+00
Z	1.0879E+00	1.1579E+00	1.2126E+00
GAME	7.7848E-01	7.7820E-01	7.8000E-01
U	5.0263E+00	1.3751E+00	1.2521E+00

SPECIES	MOLE FRACTIONS		
E-	1.4944E-13	3.0675E-11	1.5327E-10
HE	3.3084E-01	3.0228E-01	2.8863E-01
HE+	6.7878E-25	9.1805E-29	1.7261E-27
HE++	0.	0.	0.
H	1.0338E-01	2.7264E-01	3.5070E-01
H+	1.4944E-13	3.0675E-11	1.5327E-10
H2	5.5574E-01	4.2507E-01	3.6067E-01

P1 = 5.00E+00 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3307E+01	1.1184E+02	1.9607E+02
T	6.4332E+00	7.8833E+00	8.6200E+00
RHO	4.9982E+00	1.3699E+01	2.1213E+01
M	7.0798E+00	1.0859E+01	1.3431E+01
A	2.3603E+00	2.5621E+00	2.6866E+00
S	1.1097E+00	1.1130E+00	1.1239E+00
Z	1.0005E+00	1.0260E+00	1.0722E+00
GAME	8.4189E-01	7.9135E-01	7.8086E-01
U	4.1271E+00	1.5080E+00	1.2747E+00

SPECIES	MOLE FRACTIONS		
E-	1.4611E-17	5.5161E-14	1.1159E-12
HE	3.4827E-01	3.3785E-01	3.2439E-01
HE+	5.2487E-46	4.8338E-34	7.7225E-33
HE++	0.	0.	0.
H	9.8796E-03	4.9411E-02	1.2490E-01
H+	1.4692E-17	5.5161E-14	1.1159E-12
H2	4.4185E-01	5.9276E-01	5.3871E-01

P1 = 5.00E+00 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8575E+01	5.3788E+02	7.4057E+02
T	8.5106E+00	1.0362E+01	1.0945E+01
RHO	8.4257E+00	4.1927E+01	5.3366E+01
M	1.5068E+01	2.5444E+01	3.0267E+01
A	2.4882E+00	3.1477E+00	3.2699E+00
S	1.1915E+00	1.2390E+00	1.2731E+00
Z	1.0984E+00	1.2382E+00	1.3025E+00
GAME	7.7308E-01	7.8201E-01	7.8713E-01
U	6.8343E+00	1.3705E+00	1.2785E+00

SPECIES	MOLE FRACTIONS		
E-	1.6074E-12	2.3240E-10	9.4416E-10
HE	3.1865E-01	2.8247E-01	2.6870E-01
HE+	6.8412E-22	1.5418E-27	1.3408E-25
HE++	0.	0.	0.
H	1.7914E-01	2.8673E-01	4.4457E-01
H+	1.6074E-12	2.3240E-10	9.4416E-10
H2	5.3219E-01	3.2250E-01	2.4473E-01

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, USI= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.838[illegible]E+01	7.8390E+02	1.0790E+03
T	8.969[illegible]E+00	1.1110E+01	1.1780E+01
RHO	9.594[illegible]E+00	5.3070E+01	6.5280E+01
H	1.840[illegible]E+01	3.2060E+01	3.7380E+01
A	2.814[illegible]E+00	3.4140E+00	3.6320E+00
S	1.227[illegible]E+00	1.2910E+00	1.3290E+00
Z	1.146[illegible]E+00	1.3290E+00	1.4040E+00
GAME	7.720[illegible]E-01	7.8900E-01	7.9790E-01
U	7.721[illegible]E+00	1.3960E+00	1.3290E+00

SPECIES	MOLE FRACTIONS		
E-	7.05886E-12	1.3797E-09	5.2911E-09
NE	2.0[illegible]45E-01	2.4333E-01	2.4935E-01
NE+	1.[illegible]E-31	2.[illegible]E-25	9.2379E-24
NE++	0.	0.	2.8430E-88
N	2.[illegible]E-01	4.952[illegible]E-01	5.7[illegible]E-01
N+	7.05886E-12	1.3797E-09	5.2911E-09
N2	4.[illegible]E-01	2.[illegible]E-01	1.75[illegible]E-01

P1 = 5.00E+00 N/SQ-M, USI= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.702[illegible]E+02	1.802[illegible]E+03	2.5[illegible]90E+03
T	1.016[illegible]E+01	1.5100E+01	2.2970E+01
RHO	1.265[illegible]E+01	7.3490E+01	6.8310E+01
H	3.054[illegible]E+01	5.5010E+01	6.7210E+01
A	3.237[illegible]E+00	4.8080E+00	6.466[illegible]E+00
S	1.352[illegible]E+00	1.4600E+00	1.5150E+00
Z	1.324[illegible]E+00	1.6240E+00	1.650[illegible]E+00
GAME	7.79[illegible]E-01	9.4280E-01	1.1030E+00
U	1.032[illegible]E+01	1.7770E+00	2.3440E+00

SPECIES	MOLE FRACTIONS		
E-	2.9137E-10	8.3991E-07	4.[illegible]217E-04
NE	2.[illegible]420E-01	2.[illegible]58[illegible]E-01	2.1210E-01
NE+	1.9271E-27	2.3390E-18	1.9982E-17
NE++	0.	2.3762E-69	6.7790E-44
N	4.8978E-01	7.4822E-01	7.866[illegible]E-01
N+	2.9137E-10	8.3991E-07	4.[illegible]217E-04
N2	2.[illegible]93E-01	1.[illegible]214E-02	3.4833E-04

P1 = 5.00E+00 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.202CE+02	1.0830E+03	1.4700E+03
T	9.358CE+00	1.194CE+01	1.284CE+01
RHO	1.071CE+01	6.347CE+01	7.560CE+01
H	2.210CE+01	3.910CE+01	4.537CE+01
A	2.945CE+00	3.696CE+00	3.995CE+00
S	1.266CE+00	1.346CE+00	1.389CE+00
	1.200CE+00	1.429CE+00	1.514CE+00
[illegible] E	7.729CE-01	8.009CE-01	8.209CE-01
U	8.595CE+00	1.451CE+00	1.419CE+00

SPECIES	MOLE FRACTIONS		
E-	2.759[illegible]E-11	7.298EE-09	3.440ZE-08
HE	2.917BE-01	2.449[illegible]E-01	2.312EE-01
HE+	5.876ZE-11	1.708AE-23	8.731ZE-22
HE++	0.	5.049ZE-88	1.440AE-81
H	3.326ZE-01	6.002IE-01	6.785BE-01
H+	2.759[illegible]E-11	7.298EE-09	3.440ZE-08
H2	3.755EE-01	1.548BE-01	5.017QE-02

P1 = 5.00E+00 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.442CE+02	1.430DE+03	1.945CE+03
T	9.755CE+00	1.361CE+01	1.503DE+01
RHO	1.174CE+01	7.167DE+01	8.308DE+01
H	2.615CE+01	4.678DE+01	5.463DE+01
A	3.066CE+00	4.061DE+00	4.753DE+00
S	1.308CE+00	1.404DE+00	1.452DE+00
Z	1.259CE+00	1.533DE+00	1.619DE+00
GAME	7.752CE-01	8.273DE-01	9.298DE-01
U	9.461CE+00	1.550DE+00	1.625DE+00

SPECIES	MOLE FRACTIONS		
E-	9.5[illegible]E-11	4.585DE-08	7.130IE-07
HE	2.777ZE-01	2.287DE-01	2.181ZE-01
HE+	1.2[illegible]E-08	1.446QE-21	1.430ZE-18
HE++	0.	3.017ZE-79	4.411QE-69
H	6.111ZE-01	6.955IE-01	7.450SE-01
H+	9.55[illegible]E-11	4.585ZE-08	7.130IE-07
H2	3.104IE-01	7.420BE-02	1.983ZE-02

P1 = 5.00E+00 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.982CE+02	2.132QE+03	3.291QE+03
T	1.058CE+01	2.031QE+01	3.054QE+01
RHO	1.343CE+01	6.364QE+01	6.468QE+01
H	3.529CE+01	6.351QE+01	8.030QE+01
A	3.403CE+00	6.120QE+00	6.906QE+00
S	1.398CE+00	1.507QE+00	1.558QE+00
Z	1.394QE+00	1.649QE+00	1.666QE+00
GAME	7.847QE-01	1.118QE+00	9.374QE-01
U	1.117QE+01	2.358QE+00	2.925QE+00

SPECIES	MOLE FRACTIONS		
E-	8.524ZE-10	9.637QE-05	9.639IE-03
HE	2.[illegible]9E-01	2.122QE-01	2.101IE-01
HE+	2.041AE-24	3.744QE-13	4.311QE-08
HE++	0.	3.953QE-50	8.908QE-32
H	5.657QE-01	7.854QE-01	7.707QE-01
H+	8.524ZE-10	9.637QE-05	9.639IE-03
H2	1.832ZE-01	8.380AE-04	5.463SE-05

P1 = 5.00E+00 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.281QE+02	2.446QE+03	3.967QE+03
T	1.108QE+01	2.636QE+01	3.482QE+01
RHO	1.402QE+01	5.611QE+01	6.707QE+01
H	3.038QE+01	7.238QE+01	9.256QE+01
A	3.595QE+00	6.714QE+00	7.166QE+00
S	1.446QE+00	1.544QE+00	1.599QE+00
Z	1.469QE+00	1.654QE+00	1.699QE+00
GAME	7.941QE-01	1.034QE+00	8.680QE-01
U	1.201QE+01	3.001QF+00	3.174QE+00

SPECIES	MOLE FRACTIONS		
E-	2.473ZE-09	2.389ZE-03	2.869QE-02
HE	2.382QE-01	2.116QE-01	2.060QE-01
HE+	3.027QE-25	1.162QE-09	7.446QE-07
HE++	0.	1.554QE-27	2.763QE-27
H	6.384QE-01	7.834QE-01	7.365QE-01
H+	2.473ZE-09	2.389ZE-03	2.869QE-02
H2	1.223ZE-01	1.129QE-04	2.767QE-05

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.03E+00 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5995E+02	2.7934E+03	4.6011E+03
T	1.3731E+01	3.1107E+01	3.7784E+01
RHO	1.6335E+01	5.2854E+01	6.9987E+01
H	4.5819E+01	8.2025E+01	1.0488E+02
A	2.8635E+00	6.8570E+00	7.6449E+00
S	1.6951E+00	1.5749E+00	1.5206E+00
Z	1.7652E+00	1.4708E+00	1.3359E+00
GAME	8.1477E-01	9.1657E-01	8.6357E-01
U	1.2878E+01	3.4121E+00	3.3044E+00

SPECIES	MOLE FRACTIONS		
E-	1.0776E-08	1.2516E-03	5.1675E-03
NE	2.2550E-01	2.0948E-01	2.0116E-01
NE+	1.1140E-22	6.3965E-08	3.4200E-06
NE++	1.2362E-38	4.4774E-22	8.6550E-25
N	7.0570E-01	7.4564E-01	7.9547E-01
N+	1.0776E-08	1.2516E-03	5.1672E-03
N2	4.7758E-02	4.5307E-05	1.8463E-05

P1 = 5.00E+00 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5405E+02	2.8589E+03	4.5063E+03
T	2.0536E+01	3.8294E+01	4.2648E+01
RHO	1.0507E+01	4.2430E+01	5.6275E+01
H	6.3931E+01	1.1276E+02	1.3979E+02
A	4.1386E+00	7.5089E+00	8.1148E+00
S	1.6230E+00	1.6761E+00	1.7242E+00
Z	1.6502E+00	1.7757E+00	1.8776E+00
GAME	1.1120E+00	8.2914E-01	8.2274E-01
U	1.4816E+01	3.6540E+00	3.4018E+00

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]95E-04	7.0799E-02	1.2123E-01
NE	[illegible]209E-01	1.9710E-01	1.8637E-01
NE+	1.3313E-12	5.5596E-06	3.4908E-05
NE++	9.5560E-49	3.7306E-24	2.9228E-21
N	7.8723E-01	4.6129E-01	5.7114E-01
N+	2.7485E-04	7.0793E-02	1.2120E-01
N2	1.2693E-04	9.8152E-06	6.7333E-06

P1 = 5.00E+00 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9279E+02	3.09[illegible]E+03	[illegible]
T	1.2856E+01	3.[illegible]E+01	[illegible]
RHO	1.60[illegible]E+01	[illegible]	[illegible]
M	[illegible]	[illegible]	1.1725E+03
A	[illegible]	7.1183E+00	[illegible]
S	1.[illegible]	1.60[illegible]	1.[illegible]
Z	1.41[illegible]	1.7012E+00	1.78[illegible]
GAMF	8.8446E-01	8.[illegible]	8.[illegible]
U	1.[illegible]	3.[illegible]	2.[illegible]

SPECIES	MOLE FRACTIONS		
E-	8.8374E-08	3.[illegible]	7.[illegible]
NE	9.1665E-01	2.[illegible]	1.[illegible]
NE+	2.[illegible]	[illegible]	[illegible]
NE++	[illegible]	1.4779E-28	[illegible]
N	7.6220E-01	7.[illegible]	[illegible]
N+	8.[illegible]	3.[illegible]	[illegible]
N2	[illegible]	[illegible]	[illegible]

P1 = 5.00E+00 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6994E+02	3.[illegible]E+03	4.4159E+03
T	2.4868E+01	3.5804E+01	4.3825E+01
RHO	9.4763E+00	4.0153E+01	5.2274E+01
M	7.0[illegible]E+01	1.[illegible]E+02	1.[illegible]E+03
A	6.4264E+00	7.7197E+00	8.3274E+00
S	1.[illegible]E+00	1.70[illegible]E+00	1.7584E+00
Z	1.6[illegible]E+00	1.8[illegible]E+00	1.9274E+00
GAMF	1.[illegible]E+00	8.[illegible]E-01	8.[illegible]E-01
U	1.[illegible]E+01	3.[illegible]E+00	3.4134E+00

SPECIES	MOLE FRACTIONS		
E-	3.040[illegible]E-03	9.31[illegible]E-02	1.4400E-01
NE	2.1144E-01	1.92[illegible]E-01	1.81[illegible]E-01
NE+	[illegible]	[illegible]	5.4922E-05
NE++	2.44[illegible]E-28	[illegible]	1.4399E-20
N	7.8[illegible]E-01	4.21[illegible]E-01	5.3047E-01
N+	[illegible]	9.3147E-02	1.4394E-01
N2	[illegible]	7.1579E-04	[illegible]

P1 = 5.00E+00 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2661E+02	3.[illegible]E+03	4.8669E+03
T	1.[illegible]E+01	3.4548E+01	4.[illegible]E+01
RHO	1.2331E+01	4.7862E+01	5.3977E+01
M	[illegible]	1.025[illegible]	1.2873E+03
A	[illegible]	7.[illegible]	7.[illegible]
S	1.[illegible]	1.[illegible]	1.[illegible]
Z	1.[illegible]	1.7362E+00	1.8314E+00
GAMF	1.1018E+00	8.[illegible]	8.[illegible]
U	1.42[illegible]	3.[illegible]	2.[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	[illegible]	[illegible]
NE	2.1[illegible]	2.0159E-01	[illegible]
NE+	[illegible]	[illegible]	2.0921E-05
NE++	[illegible]	[illegible]	[illegible]
N	[illegible]	[illegible]	[illegible]
N+	[illegible]	[illegible]	[illegible]
N2	[illegible]	[illegible]	[illegible]

P1 = 5.00E+00 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2781E+02	3.[illegible]E+03	4.4331E+03
T	2.8124E+01	4.1341E+01	4.[illegible]E+01
RHO	9.[illegible]	4.[illegible]	[illegible]
M	7.7647E+01	1.[illegible]	1.[illegible]
A	[illegible]	[illegible]	[illegible]
S	1.[illegible]	1.[illegible]	[illegible]
Z	1.[illegible]	1.[illegible]	1.[illegible]
GAMF	[illegible]	8.[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]	1.[illegible]	[illegible]
NE	2.09[illegible]	[illegible]	[illegible]
NE+	1.[illegible]	2.[illegible]	9.[illegible]
NE++	[illegible]	6.[illegible]	1.[illegible]
N	7.[illegible]	[illegible]	[illegible]
N+	1.[illegible]	1.[illegible]	[illegible]
N2	1.[illegible]	[illegible]	[illegible]

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6938E+02	3.4346E+03	5.0540E+03
T	3.0479E+01	4.2953E+01	4.4728E+01
RHO	9.1063E+00	6.1598E+01	8.2915E+01
M	8.5119E+01	1.4035E+02	1.9064E+02
A	6.6406E+00	8.2214E+00	8.8598E+00
S	1.7017E+00	1.7705E+00	1.8237E+00
Z	1.5911E+00	1.9222E+00	2.0448E+00
GAME	8.6552E-01	8.1848E-01	8.2153E-01
U	1.6880E+01	2.4989E+00	3.5091E+00

SPECIES	MOLE FRACTIONS		
E-	2.4334E-02	1.4161E-01	1.9307E-01
HE	2.0654E-01	1.8204E-01	1.7191E-01
HE+	1.0859E-07	4.3485E-05	1.5784E-04
HE++	5.3039E-31	6.1985E-21	4.8903E-19
H	7.4434E-01	5.2473E-01	4.4285E-01
H+	2.4334E-02	1.4157E-01	1.9291E-01
H2	7.3615E-06	4.3511E-04	3.0171E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.1044E+02	6.8678E+03	1.0717E+04
T	3.6156E+01	6.7713E+01	8.1473E+01
RHO	9.7391E+00	6.8677E+01	9.0024E+01
M	1.0976E+02	1.9175E+02	2.3244E+02
A	7.1449E+00	9.0844E+00	9.8193E+00
S	1.7727E+00	1.8531E+00	1.9225E+00
Z	1.7835E+00	2.1066E+00	2.2515E+00
GAME	8.1419E-01	8.2185E-01	8.2876E-01
U	1.9235E+01	2.9853E+00	3.7498E+00

SPECIES	MOLE FRACTIONS		
E-	7.4864E-02	2.1420E-01	2.6714E-01
HE	1.9524E-01	1.4409E-01	1.5478E-01
HE+	2.3390E-04	2.2817E-04	6.7485E-04
HE++	2.9244E-24	2.6561E-18	1.4749E-16
H	6.5703E-01	4.0193E-01	2.1090E-01
H+	7.4864E-02	2.1377E-01	2.6449E-01
H2	2.1869E-04	2.1903E-04	1.3561E-04

P1 = 5.00E+00 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.139?E+02	3.8516E+03	5.5063E+03
T	3.2307E+01	4.4547E+01	4.8322E+01
RHO	9.2568E+00	4.3670E+01	5.4978E+01
M	9.2976E+01	1.6370E+02	1.9698E+02
A	6.8001E+00	8.4386E+00	9.1626E+00
S	1.7254E+00	1.8007E+00	1.8562E+00
Z	1.718?E+00	1.9799E+00	2.1103E+00
GAME	8.3287E-01	8.1891E-01	8.2329E-01
U	1.7683E+01	3.7491E+00	3.5762E+00

SPECIES	MOLE FRACTIONS		
E-	3.9885E-02	1.6662E-01	2.1811E-01
NE	2.0365E-01	1.7670E-01	1.6560E-01
NE+	4.0351E-07	8.1276E-05	2.?9A1E-04
NE++	6.1430E-29	5.24A5E-20	4.3334E-18
N	7.1656E-01	4.9004E-01	3.9818E-01
N+	3.9885E-02	1.6654E-01	2.178?E-01
N2	5.2287E-06	3.4721E-06	3.34?9E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6243E+02	5.4519E+03	7.7621E+03
T	3.4?25E+01	4.5301E+01	5.3438E+01
RHO	1.0013E+01	5.0940E+01	6.2445E+01
M	1.1873E+02	2.1136E+02	2.5187E+02
A	7.3213E+00	9.3920E+00	1.0171E+01
S	1.?9A7E+00	1.8933E+00	1.9?53E+00
Z	1.9198E+00	2.1709E+00	2.3261E+00
GAME	8.1024E-01	8.2427E-01	8.3224E-01
U	2.0170E+01	3.6A58E+00	3.?504E+00

SPECIES	MOLE FRACTIONS		
E-	9.3322F-02	2.3993E-01	2.9064E-01
NE	1.9232F-01	1.6084E-01	1.4939E-01
NE+	4.6814E-06	3.6643E-06	1.0741E-05
NE++	4.?034E-25	1.4?4?E-17	8.0892E-16
N	4.2103E-01	3.5928E-01	2.4929E-01
N+	9.3317E-02	2.?95?E-01	2.8958E-01
N2	2.5984E-06	1.7090E-05	5.9214E-07

P1 = 5.00E+00 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.6111E+02	4.332?E+03	6.2505E+03
T	3.3828E+01	4.6132E+01	4.9971E+01
RHO	9.4805E+00	4.6019E+01	5.7292E+01
M	1.0120E+02	1.7885E+02	2.1435E+02
A	6.9795E+00	8.7866E+00	9.4831E+00
S	1.7690E+00	1.8312E+00	1.8891E+00
Z	1.7696E+00	2.0408E+00	2.1794E+00
GAME	8.2094E-01	8.2004E-01	8.2573E-01
U	1.8504E+01	3.8129E+00	3.5?84E+00

SPECIES	MOLE FRACTIONS		
E-	5.6933E-02	1.9150E-01	2.4292E-01
NE	2.0004E-01	1.7136E-01	1.6017E-01
NE+	1.0726E-06	1.3852E-04	4.?108E-04
NE++	2.1?52E-27	3.8?94E-19	2.593AE-17
N	5.8609E-01	4.4563E-01	3.?399E-01
N+	5.6932E-02	1.9134E-01	2.4250E-01
N2	4.0007E-06	2.7575E-04	1.8000E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.1662E+02	6.0814E+03	8.6177E+03
T	3.7458E+01	5.0910E+01	5.5288E+01
RHO	1.0293E+01	5.3345E+01	6.4873E+01
M	1.2802E+02	2.2867E+02	2.7197E+02
A	7.6992E+00	9.7100E+00	1.0539E+01
S	1.8210E+00	1.9250E+00	1.9904E+00
Z	1.8582E+00	2.2393E+00	2.4027E+00
GAME	8.0795E-01	8.2703E-01	8.3620E-01
U	2.1099E+01	4.0546E+00	3.9407E+00

SPECIES	MOLE FRACTIONS		
E-	1.1204E-01	2.6?14E-01	3.1327E-01
NE	1.8824E-01	1.5572E-01	1.4396E-01
NE+	7.9017E-06	5.7794E-06	1.7081E-05
NE++	3.4449E-24	7.7301E-17	4.3914E-15
N	5.8753E-01	3.1795E-01	2.2949E-01
N+	1.1204E-01	2.6258E-01	3.1?15E-01
N2	3.1467E-06	1.3106E-06	7.0305E-07

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7256E+02	6.7529E+03	9.5352E+03
T	3.8497E+01	5.2554E+01	5.7255E+01
RHO	1.0570E+01	5.5836E+01	6.7120E+01
H	1.3748E+02	2.4665E+02	2.9294E+02
A	7.6789E+00	1.0039E+01	1.0927E+01
S	1.8457E+00	1.9570E+00	2.0256E+00
Z	1.8986E+00	2.3094E+00	2.4812E+00
GAMF	8.0674E-01	8.3030E-01	8.4041E-01
U	2.1948E+01	4.1518E+00	4.0811E+00

SPECIES	MOLE FRACTIONS		
E-	1.3093E-01	2.8559E-01	3.3500E-01
HE	1.8434E-01	1.5064E-01	1.3833E-01
HE+	1.3047E-05	9.0096E-04	2.7337E-03
HE++	2.2204E-23	3.9401E-16	2.3974E-14
H	5.5381E-01	2.7819E-01	1.9147E-01
H+	1.3091E-01	2.8648E-01	3.3227E-01
H2	1.7863E-06	9.8257E-07	4.7491E-07

P1 = 5.00E+00 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0180E+03	9.8072E+03	1.3778E+04
T	4.2287E+01	5.9860E+01	6.4501E+01
RHO	1.1592E+01	6.3023E+01	7.4255E+01
H	1.7980E+02	3.2508E+02	3.8571E+02
A	8.4219E+00	1.1470E+01	1.2530E+01
S	1.9480E+00	2.0876E+00	2.1663E+00
Z	2.0748E+00	2.5996E+00	2.7864E+00
GAMF	8.0764E-01	8.4539E-01	8.4734E-01
U	2.5198E+01	4.6357E+00	4.6539E+00

SPECIES	MOLE FRACTIONS		
E-	2.0850E-01	3.6529E-01	4.0785E-01
HE	1.5844E-01	1.2939E-01	1.0788E-01
HE+	4.6676E-05	5.2493E-03	1.7730E-02
HE++	9.3647E-21	2.2716E-13	2.1307E-11
H	4.2054E-01	1.4003E-01	7.6427E-02
H+	2.0543E-01	3.6004E-01	3.9012E-01
H2	8.5791E-07	2.2334E-07	6.5476E-08

P1 = 5.00E+00 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.3080E+02	7.4640E+03	1.0513E+04
T	3.9488E+01	5.4251E+01	5.9236E+01
RHO	1.0841E+01	5.7776E+01	6.9229E+01
M	1.4769E+02	2.6529E+02	3.1485E+02
A	7.8606E+00	1.0380E+01	1.1324E+01
S	1.8707E+00	1.9894E+00	2.0604E+00
Z	1.9407E+00	2.3813E+00	2.5892E+00
GAME	8.0627E-01	8.3395E-01	8.4441E-01
U	2.2587E+01	4.2580E+00	4.2121E+00

SPECIES	MOLE FRACTIONS		
E-	1.4979E-01	3.0711E-01	3.5526E-01
HE	1.8033E-01	1.4558E-01	1.3238E-01
HE+	2.0546E-05	1.3967E-03	4.3803E-03
HE++	1.1943E-22	1.9492E-15	1.3041E-13
H	5.2010E-01	2.6021E-01	1.5710E-01
H+	1.4976E-01	3.0571E-01	3.5088E-01
H2	1.4908E-06	7.1648E-07	3.1079E-07

P1 = 5.00E+00 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9116E+02	8.2159E+03	1.1554E+04
T	4.0435E+01	5.6022E+01	6.1586E+01
RHO	1.1109E+01	5.9761E+01	7.1139E+01
M	1.5804E+02	2.8459E+02	3.3763E+02
A	8.0428E+00	1.0733E+01	1.1732E+01
S	1.8958E+00	2.0219E+00	2.0955E+00
Z	1.9840E+00	2.4540E+00	2.6371E+00
GAME	8.0635E-01	8.3789E-01	8.4747E-01
U	2.3524E+01	4.3743E+00	4.3535E+00

SPECIES	MOLE FRACTIONS		
E-	1.6833E-01	3.2763E-01	3.7432E-01
HE	1.7638E-01	1.4046E-01	1.2564E-01
HE+	3.1081E-05	2.1647E-03	7.0754E-03
HE++	5.5658E-22	9.5076E-15	7.2908E-13
H	4.8696E-01	2.0427E-01	1.2571E-01
H+	1.6830E-01	3.2547E-01	3.6725E-01
H2	1.2474E-06	5.0581E-07	1.9214E-07

P1 = 5.00E+00 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1531E+03	1.1523E+04	1.6197E+04
T	4.4091E+01	6.4183E+01	7.1718E+01
RHO	1.3025E+01	6.8528E+01	7.7235E+01
M	2.0329E+02	3.6814E+02	4.3654E+02
A	8.8142E+00	1.2211E+01	1.3308E+01
S	2.0014E+00	2.1523E+00	2.2364E+00
Z	2.1748E+00	2.7799E+00	2.9241E+00
GAME	8.1020E-01	8.4797E-01	8.4449E-01
U	2.6846E+01	4.9314E+00	4.9542E+00

SPECIES	MOLE FRACTIONS		
E-	2.4122E-01	3.9778E-01	4.3572E-01
HE	1.6080E-01	1.1508E-01	8.2722E-02
HE+	1.3330E-04	1.2652E-02	3.6973E-02
HE++	1.1944E-19	5.4448E-12	4.2496E-10
H	5.5456E-01	8.9352E-02	4.5832E-02
H+	2.6118E-01	3.8512E-01	3.9975E-01
H2	5.7436E-07	8.4048E-08	2.1871E-08

P1 = 5.00E+00 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2961E+03	1.3343E+04	1.8772E+04
T	4.7911E+01	6.8831E+01	7.7219E+01
RHO	1.3192E+01	7.7583E+01	7.9505E+01
M	2.2750E+02	4.1249E+02	4.9128E+02
A	9.2258E+00	1.2914E+01	1.4200E+01
S	2.0566E+00	2.2187E+00	2.3059E+00
Z	2.2780E+00	2.8596E+00	3.0538E+00
GAME	8.1385E-01	8.4428E-01	8.5395E-01
U	2.8523E+01	5.2338E+00	5.2424E+00

SPECIES	MOLE FRACTIONS		
E-	2.7568E-01	4.2501E-01	4.5946E-01
HE	1.5039E-01	7.6699E-02	5.3280E-02
HE+	2.5754E-04	2.7268E-02	6.1132E-02
HE++	1.3218E-18	1.2351E-10	5.8549E-09
H	2.9525E-01	5.5279E-02	2.7346E-02
H+	2.7542E-01	3.9774E-01	3.9826E-01
H2	3.7109E-07	2.9760E-08	7.7221E-09

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4669E+03	1.5249E+04	2.1526E+04
T	4.7804E+01	7.3449E+01	8.4634E+01
PHO	1.2688E+01	6.9225E+01	8.0086E+01
M	2.5345E+02	4.6176E+02	5.5011E+02
A	9.6625E+00	1.3448E+01	1.5508E+01
S	2.1117E+00	2.2834E+00	2.3758E+00
Z	2.3855E+00	2.9909E+00	3.1759E+00
GAME	8.1871E-01	8.4556E-01	8.9482E-01
U	3.0169E+01	4.5309E+00	5.4756E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.0833E-01	4.4832E-01	4.8044E-01
HE	1.4622E-01	6.8922E-02	3.4548E-02
HE+	4.9424E-04	4.8190E-02	8.5558E-02
HE++	1.3779E-17	1.2227E-09	9.9847E-08
H	2.3712E-01	3.4425E-02	1.4441E-02
H+	3.0783E-01	4.0022E-01	3.9490E-01
H2	2.2465E-07	1.0729E-08	1.7952E-09

P1 = 5.00E+00 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9441E+03	2.0580E+04	3.1298E+04
T	5.6820E+01	9.8228E+01	1.4599E+02
PHO	1.3047E+01	6.4029E+01	6.4620E+01
M	3.3058E+02	4.1787E+02	7.7740E+02
A	1.1197E+01	1.8254E+01	2.1178E+01
S	2.2382E+00	2.6701E+00	2.5720E+00
Z	2.7182E+00	3.2722E+00	3.3279E+00
GAME	8.4139E-01	1.0356E+00	9.2318E-01
U	3.5015E+01	7.1392E+00	8.9913E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.9257E-01	6.9574E-01	8.0418E-01
HE	1.2434E-01	6.3370E-02	1.7113E-04
HE+	4.4074E-03	1.0242E-01	9.6084E-02
HE++	2.8350E-14	6.9511E-06	8.9356E-03
H	8.9464E-02	4.1578E-02	4.1452E-04
H+	3.8878E-01	3.9313E-01	3.9023E-01
H2	2.3009E-08	9.7058E-11	6.2391E-13

P1 = 5.00E+00 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6054E+03	1.7178E+04	2.4586E+04
T	4.9846E+01	7.9053E+01	9.8639E+01
RHO	1.2992E+01	6.9959E+01	7.4262E+01
H	2.8078E+02	5.1215E+02	6.1776E+02
A	1.0132E+01	1.4555E+01	1.8211E+01
S	2.1683E+00	2.3484E+00	2.4477E+00
Z	2.4963E+00	3.1061E+00	3.2683E+00
GAMF	8.2505E-01	8.6277E-01	1.0288E+00
U	3.1802E+01	5.8671E+00	6.4693E+00

SPECIES	MOLE FRACTIONS		
E-	3.3901E-01	4.6879E-01	4.9515E-01
HE	1.3924E-01	4.1636E-02	4.9027E-03
HE+	9.6746E-04	7.1045E-02	1.0218E-01
HE++	1.4897E-16	1.3935E-08	4.5653E-06
H	1.8274E-01	2.0781E-02	4.7949E-03
H+	3.3804E-01	3.9775E-01	3.9294E-01
H2	1.2414E-07	3.5823E-09	1.5295E-10

P1 = 5.00E+00 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1241E+03	2.1799E+04	3.4078E+04
T	5.7953E+01	1.1548E+02	1.5769E+02
RHO	1.2993E+01	5.7214E+01	6.3958E+01
H	3.7104E+02	6.7183E+02	8.4990E+02
A	1.1743E+01	2.0495E+01	2.1568E+01
S	2.3292E+00	2.5224E+00	2.6175E+00
Z	2.8209E+00	3.2934E+00	3.3789E+00
GAME	8.4246E-01	1.1024E+00	8.7205E-01
U	3.6596E+01	8.3169E+00	9.3205E+00

SPECIES	MOLE FRACTIONS		
E-	4.1508E-01	4.9904E-01	5.1167E-01
HE	1.1281E-01	7.9266E-04	8.5790E-05
HE+	1.0259E-02	1.0529E-01	7.9783E-02
HE++	5.2348E-13	1.8170E-04	2.3716E-02
H	5.6018E-02	1.3183E-03	2.8528E-04
H+	4.0482E-01	3.9338E-01	3.8446E-01
H2	8.6954E-09	7.1206E-12	2.8420E-13

P1 = 5.00E+00 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7713E+03	1.9026E+04	2.8094E+04
T	5.2140E+01	8.4259E+01	1.2511E+02
RHO	1.3025E+01	6.4779E+01	6.9103E+01
H	3.0949E+02	5.6449E+02	6.9918E+02
A	1.0644E+01	1.5991E+01	2.1110E+01
S	2.2254E+00	2.4109E+00	2.5173E+00
Z	2.6083E+00	3.2069E+00	3.2973E+00
GAME	8.3307E-01	9.1967E-01	1.0803E+00
U	3.3419E+01	5.3295E+00	7.9074E+00

SPECIES	MOLE FRACTIONS		
E-	3.6729E-01	4.8548E-01	4.9960E-01
HE	1.3220E-01	1.8100E-02	4.8838E-04
HE+	1.9897E-02	9.1039E-02	1.0499E-01
HE++	1.8414E-15	1.7938E-07	6.7301E-04
H	1.3301E-01	1.0933E-02	9.9404E-04
H+	3.6540E-01	3.9444E-01	3.9324E-01
H2	6.0710E-08	8.6460E-10	4.4235E-12

P1 = 5.00E+00 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3119E+03	2.3062E+04	3.4871E+04
T	6.1305E+01	1.3364E+02	1.4700E+02
RHO	1.2942E+01	6.2181E+01	6.4225E+01
H	4.0389E+02	7.2779E+02	9.2308E+02
A	1.2219E+01	2.1076E+01	2.2273E+01
S	2.3952E+00	2.5488E+00	2.6407E+00
Z	2.9138E+00	3.3067E+00	3.4277E+00
GAME	8.3584E-01	1.0090E+00	8.6410E-01
U	3.8173E+01	9.4703E+00	9.6288E+00

SPECIES	MOLE FRACTIONS		
E-	4.3374E-01	5.0101E-01	5.2003E-01
HE	9.8155E-03	2.2599E-04	5.3158E-05
HE+	2.1961E-02	1.0285E-01	6.1431E-02
HE++	8.2285E-12	2.7725E-03	6.0328E-02
H	3.4348E-02	5.2989E-04	2.2206E-04
H+	4.1178E-01	3.9262E-01	3.7794E-01
H2	2.9154E-09	9.0346E-13	1.6868E-13

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = [illegible] N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	2.4797E+04	3.9936E+04
T	[illegible]	1.4586E+02	1.7626E+02
RHO	1.2942E+01	5.0574E+01	6.4761E+01
H	4.3817E+02	7.8814E+02	9.9976E+02
A	1.7488E+01	2.1026E+01	2.3208E+01
S	2.4594E+00	2.6104E+00	2.[illegible]24E+00
Z	3.0006E+00	3.3395E+00	3.[illegible]85E+00
GAME	8.3955E-01	9.0168E-01	8.7240E-01
U	3.9743E+01	1.0146E+01	9.9366E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible]5012E-01	[illegible]0578E-01	[illegible]2837E-01
HE	7.7811E-02	1.1740E-04	2.1488E-05
HE+	3.8821E-02	9.2772E-02	[illegible]3051E-02
HE++	8.4989E-11	1.1996E-02	[illegible]6959E-02
H	2.1955E-02	3.1682E-04	1.7797E-04
H+	4.1129E-01	3.6907E-01	3.7141E-01
H2	1.0835E-09	2.9018E-13	1.0720E-13

P1 = [illegible] N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1381E+03	3.0303E+04	4.9124E+04
T	[illegible]7275E+01	1.7266E+02	2.2847E+02
RHO	1.2546E+01	[illegible]0194E+01	5.9093E+01
H	5.4917E+02	9.8720E+02	1.2683E+03
A	1.5104E+01	2.2910E+01	2.9921E+01
S	2.6118E+00	2.7313E+00	2.8353E+00
Z	3.2369E+00	3.4956E+00	3.[illegible]85E+00
GAME	9.1198E-01	8.6940E-01	1.0770E+00
U	[illegible]6417E+01	1.1134E+01	1.1976E+01

SPECIES	MOLE FRACTIONS		
E-	[illegible]9026E-01	5.2811E-01	[illegible]4652E-01
HE	1.4604E-02	2.6712E-05	1.0527E-04
HE+	9.3521E-02	4.3466E-02	3.1030E-03
HE++	4.9273E-08	[illegible]4404E-02	9.3090E-02
H	4.8809E-03	1.5131E-04	5.7780E-05
H+	[illegible]9474E-01	3.7164E-01	3.5723E-01
H2	3.8526E-11	6.0845E-14	9.3472E-15

P1 = [illegible] N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7132E+03	2.6844E+04	4.3220E+04
T	6.7934E+01	1.5447E+02	1.8753E+02
RHO	1.2948E+01	5.0846E+01	4.4755E+01
H	4.7984E+02	8.5248E+02	1.0814E+03
A	1.3279E+01	2.1443E+01	2.4566E+01
S	2.5048E+00	2.6503E+00	2.7453E+00
Z	3.9844E+00	3.2863E+00	3.5591E+00
GAME	8.3522E-01	8.4763E-01	9.0419E-01
U	4.1355E+01	1.0559E+01	1.0337E+01

SPECIES	MOLE FRACTIONS		
E-	4.6[illegible]E-01	[illegible].1[illegible]E-01	[illegible].3440E-01
HE	5.551[illegible]E-02	6.8804E-05	1.5504E-05
HE+	[illegible].795[illegible]E-02	7.7489E-02	2.[illegible]360E-02
HE++	6.3829E-10	2.5798E-02	7.2963E-02
H	1.4379E-02	2.3513E-04	1.3775E-04
H+	4.0[illegible]C9E-01	3.8366E-01	3.6[illegible]12E-01
H2	4.2[illegible]E-10	1.542[illegible]E-13	6.2864E-14

P1 = [illegible].00E+00 N/SQ-M, US1= [illegible].80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3493E+02	3.0673E+04	5.0234E+04
T	8.6096E+01	1.8054E+02	2.6094E+02
RHO	1.1856E+01	4.7771E+01	[illegible].2784E+01
H	5.8858E+02	1.0541E+03	1.3723E+03
A	1.7075E+01	2.3930E+01	3.2724E+01
S	2.6597E+00	2.7742E+00	2.8823E+00
Z	3.2810E+00	3.5487E+00	3.6471E+00
GAME	1.0321E+00	8.9182E-01	1.12[illegible]E+00
U	4.[illegible]771E+01	1.1366E+01	1.3246E+01

SPECIES	MOLE FRACTIONS		
E-	4.9711E-01	[illegible].3504E-01	5.4759E-01
HE	3.7822E-05	1.4349E-05	1.7037E-07
HE+	1.0289E-01	2.8410E-02	7.6330E-04
HE++	1.0489E-06	7.0209E-02	9.[illegible]203E-02
H	2.0017E-03	1.1840E-04	3.1863E-05
H+	3.9422E-01	3.6622E-01	3.[illegible]442E-01
H2	[illegible].1244E-12	3.4911E-14	2.4246E-15

P1 = [illegible].00E+00 N/SQ-M, US1= [illegible].40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9243E+02	2.8834E+04	4.6452E+04
T	7.1820E+01	1.6470E+02	2.0245E+02
RHO	1.2843E+01	[illegible].0880E+01	4.[illegible]254E+01
H	[illegible].1087E+02	9.1929E+02	1.1699E+03
A	1.3945E+01	2.2093E+01	2.675[illegible]E+01
S	2.[illegible]89[illegible]E+00	2.6903E+00	2.7892E+00
Z	3.16[illegible]E+00	3.6408E+00	3.6097E+00
GAME	9.[illegible]537E-01	9.6126E-01	9.7475E-01
U	4.2922E+01	1.08[illegible]E+01	1.035[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.7875E-01	[illegible].2064E-01	5.4290E-01
HE	3.2443E-02	4.4061E-05	[illegible].3205E-06
HE+	7.710[illegible]E-02	[illegible].0521E-02	1.1048E-02
HE++	4.[illegible]69[illegible]E-09	4.1147E-02	8.[illegible]907E-02
H	[illegible].0310E-02	1.8779E-04	9.[illegible]900E-05
H+	4.0145E-01	3.7763E-01	3.6004E-01
H2	1.[illegible]248E-12	9.6413E-14	2.9464E-14

P1 = [illegible].00E+00 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]526E+03	2.9739E+04	4.9266E+04
T	9.[illegible]87E+01	1.9042E+02	2.9[illegible]23E+02
RHO	1.0824E+01	4.34[illegible]2E+01	4.[illegible]730E+01
H	[illegible].2889E+02	1.1181E+03	1.4743E+03
A	1.911[illegible]E+01	2.[illegible]320E+01	3.[illegible]079E+01
S	2.7048E+00	2.8198E+00	2.9289E+00
Z	3.29[illegible]8E+00	3.5940E+00	3.6491E+00
GAME	1.1127E+00	9.3609E-01	1.1357E+00
U	4.6932E+01	1.1707E+01	1.4[illegible]61E+01

SPECIES	MOLE FRACTIONS		
E-	4.9937E-01	5.4077E-01	[illegible].4782E-01
HE	[illegible].5[illegible]7E-04	6.2483E-06	3.[illegible]176E-08
HE+	1.0[illegible]50F-01	1.5764E-02	2.298[illegible]E-04
HE++	4.0590E-05	8.1641E-07	9.[illegible]684E-02
H	6.[illegible]000E-04	8.6968E-05	1.8192E-05
H+	3.9279E-01	3.6173E-01	3.[illegible]623E-01
H2	3.9489E-13	1.6763E-14	[illegible].6180E-14

Table I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7610E+03	2.8939E+04	4.8658E+04
T	1.1412E+02	2.0371E+02	3.3054E+02
RHO	9.9834E+00	3.9197E+01	4.0232E+01
M	5.7044E+02	1.1825E+03	1.5785E+03
A	2.0047E+01	2.7284E+01	3.7053E+01
S	2.7438E+00	9.8433E+00	2.9704E+00
Z	3.3013E+00	3.6241E+00	3.6496E+00
GAME	1.0490E+00	1.0084E+00	1.1980E+00
U	6.8086E+01	1.2242E+01	1.5828E+01

SPECIES	MOLE FRACTIONS		
E-	5.0019E-01	5.4472E-01	5.4790E-01
HE	1.5475E-04	2.1187E-04	8.3281E-05
HE+	1.0FC7E-01	7.0739E-03	8.8118E-05
HE++	7.8986E-04	8.9459E-02	9.5812E-02
H	2.5176E-04	5.9931E-05	1.1201E-05
H+	3.9256E-01	3.5845E-01	3.5619E-01
H2	4.5869E-14	7.0071E-15	2.1675E-14

P1 = 5.00E+00 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4975E+03	3.1247E+04	5.2235E+04
T	1.4018E+02	2.4995E+02	4.0797E+02
RHO	9.6814E+00	3.1724E+01	3.4271E+01
M	8.0970E+02	1.3087E+03	1.8553E+03
A	2.0097E+01	3.1408E+01	4.3631E+01
S	2.8445E+00	2.9411E+00	3.0417E+00
Z	3.3828E+00	3.6487E+00	3.6499E+00
GAME	8.4944E-01	1.1731E+00	1.1389E+00
U	8.2428E+01	1.5456E+01	2.0093E+01

SPECIES	MOLE FRACTIONS		
E-	5.1228E-01	5.4778E-01	5.4794E-01
HE	2.3971E-04	4.2052E-04	3.4537E-10
HE+	7.8580E-02	3.3889E-04	1.3795E-05
HE++	2.4960E-02	9.5585E-02	9.5878E-02
H	7.6521E-05	1.7028E-05	3.7557E-06
H+	3.8411E-01	3.5427E-01	3.5617E-01
H2	3.3507E-15	4.1213E-16	2.0220E-17

P1 = 5.00E+00 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.98A8E+03	2.8944E+04	4.9824E+04
T	1.2595E+02	2.2296E+02	3.4853E+02
RHO	9.5364E+00	3.5827E+01	3.7041E+01
M	7.1364E+02	1.2502E+03	1.6919E+03
A	1.9817E+01	2.9788E+01	3.9135E+01
S	2.7793E+00	3.9000E+00	3.0051E+00
Z	3.2146E+00	3.6405E+00	3.6498E+00
GAME	9.3936E-01	1.0829E+00	1.1286E+00
U	4.9378E+01	1.3133E+01	1.7139E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.0259E-01	5.4477E-01	5.4792E-01
HE	6.2322E-05	5.6460E-07	2.5719E-08
HE+	1.0027E-01	2.5479E-03	4.1145E-05
HE++	5.2021E-03	9.3572E-02	9.5854E-02
H	1.3448E-04	3.9175E-05	7.4242E-04
H+	3.9183E-01	3.5705E-01	3.5617E-01
H2	1.1314E-14	2.6749E-15	8.6243E-17

P1 = 5.00E+00 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7709E+03	3.2784E+04	6.1926E+04
T	1.4554E+02	2.9562E+02	5.0515E+02
RHO	9.5692E+00	3.0388E+01	3.3586E+01
M	8.5295E+02	1.4764E+03	2.0955E+03
A	2.0494E+01	3.5021E+01	4.5824E+01
S	2.8747E+00	2.9865E+00	3.0850E+00
Z	3.4258E+00	3.4494E+00	3.6500E+00
GAME	8.4264E-01	1.1348E+00	1.1389E+00
U	5.6078E+01	1.7002E+01	2.1516E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.1835E-01	5.4787E-01	5.4794E-01
HE	1.4452E-05	1.4444E-08	1.6784E-10
HE+	4.8259E-02	1.6128E-04	9.6214E-06
HE++	9.6791E-02	9.5795E-02	9.5882E-02
H	4.4377E-05	1.2031E-09	2.8573E-08
H+	3.7941E-01	3.5421E-01	3.5417E-01
H2	2.3699E-16	1.9291E-18	1.1810E-17

P1 = 5.00E+00 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2345E+03	2.9913E+04	5.3033E+04
T	1.3404E+02	2.6477E+02	4.1124E+02
RHO	9.6428E+00	3.3512E+01	3.5333E+01
M	7.5871E+02	1.3228E+03	1.8187E+03
A	1.9795E+01	3.1528E+01	4.1244E+01
S	2.8170E+00	2.9322E+00	3.0348E+00
Z	3.3459E+00	3.6467E+00	3.6499E+00
GAME	8.7376E-01	1.1207E+00	1.1388E+00
U	5.0962E+01	1.4326E+01	1.8570E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.0684E-01	5.4752E-01	5.4792E-01
HE	3.6223E-05	1.4550E-07	9.1419E-10
HE+	9.0729E-02	8.9197E-04	2.2348E-05
HE++	1.3850E-02	9.5088E-02	9.5871E-02
H	9.5644E-05	2.5419E-05	5.1844E-06
H+	3.8844E-01	3.5547E-01	3.5617E-01
H2	5.2774E-15	1.0910E-15	3.9811E-17

Table I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.87[illegible]E+01	7.22[illegible]E+01
T	3.[illegible]41E+00	4.[illegible]38E+00	4.[illegible]92E+00
RHO	3.9293E+00	6.4269E+00	1.1278E+01
H	3.63[illegible]E+00	4.6132E+00	4.8[illegible]9E+00
A	1.873[illegible]E+00	2.089[illegible]E+00	2.40[illegible]E+00
S	1.0[illegible]8E+00	1.0[illegible]2E+00	1.0[illegible]7E+00
Z	1.0000E+00	1.0000E+00	1.0022E+00
GAMF	9.877[illegible]E-01	9.7402E-01	9.0222E-01
U	2.[illegible]03E+00	1.[illegible]90E+00	1.[illegible]38E+00

SPECIES	MOLE FRACTIONS		
E-	1.8020E-48	5.8144E-20	5.4930E-18
HE	3.5000E-01	3.5000E-01	3.492[illegible]E-01
HE+	[illegible].4728E-64	[illegible].3522E-[illegible]4	2.7597E-[illegible]2
HE++	0.	0.	0.
H	1.3993E-07	1.4227E-0[illegible]	4.[illegible]034E-03
H+	8.1343E-20	8.1343E-20	[illegible].[illegible]742E-18
H2	[illegible].[illegible]000E-01	6.4999E-01	6.4445E-01

P1 = 1.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible].[illegible]215E+01	1.9849E+02	3.1[illegible]8E+02
T	7.[illegible]133E+00	9.[illegible]445E+00	9.7111E+00
RHO	[illegible].8946E+00	2.02[illegible]7E+01	2.8860E+01
H	[illegible].[illegible]712E+00	1.4810E+01	1.[illegible]35[illegible]E+02
A	2.4843E+00	2.7697E+00	2.9284E+00
S	1.1327E+00	1.1511E+00	1.1768E+00
Z	1.0226E+00	1.083[illegible]E+00	1.1294E+00
GAMF	8.0328E-01	7.8280E-01	7.818[illegible]E-01
U	[illegible].[illegible]81E+00	1.[illegible]40E+00	1.2841E+00

SPECIES	MOLE FRACTIONS		
E-	9.[illegible]46E-1[illegible]	[illegible].[illegible]17E-12	2.9997E-11
HE	[illegible].4224E-01	[illegible].2201E-01	[illegible].[illegible]989E-01
HE+	[illegible].7789E-27	1.[illegible]09E-20	[illegible].761[illegible]E-29
HE++	0.	0.	0.
H	4.4243E-02	1.5420E-01	2.2919E-01
H+	9.[illegible]47E-15	[illegible].[illegible]17E-12	2.9997E-11
H2	[illegible].[illegible]59E-01	[illegible].2278E-01	[illegible].[illegible]092E-01

P1 = 1.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.203CE+01	6.7721E+01	1.2332E+02
T	4.9865E+00	6.5606E+00	7.9008E+00
RHO	4.4191E+00	8.7681E+00	1.6729E+01
M	5.173CE+00	7.1385E+00	9.9[illegible]9E+00
A	2.1945E+00	2.4102E+00	2.[illegible]38E+00
S	1.0811E+00	1.0846E+00	1.1015E+00
Z	1.0001E+00	1.0035E+00	1.[illegible]248E+00
GAME	9.6408E-01	8.9244E-01	8.0[illegible]43E-01
U	3.3348E+00	1.6798E+00	1.3619E+00

SPECIES	MOLE FRACTIONS		
E-	1.6675E-26	1.4462E-17	3.5948E-14
HE	3.4997E-01	3.4879E-01	3.41[illegible]1E-01
HE+	5.17[illegible]E-[illegible]2	2.9882E-42	1.8130E-35
HE++	0.	0.	0.
H	1.4661E-0[illegible]	6.9078E-[illegible]	4.8486E-32
H+	8.1[illegible]38E-20	1.4543E-17	3.[illegible]948E-14
H2	6.4988E-01	6.4430E-01	6.1000E-01

P1 = 1.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2237E+01	1.0938E+02	1.9484E+02
T	6.4820E+00	8.0362E+00	8.8[illegible]49E+00
RHO	4.9[illegible]37E+00	1.2188E+01	2.0602E+01
M	7.0752E+00	1.0542E+01	1.3[illegible]4[illegible]E+01
A	2.3866E+00	2.[illegible]718E+00	2.7252E+00
S	1.10[illegible]4E+00	1.1193E+00	1.13[illegible]3E+00
Z	1.0039E+00	1.0320E+00	1.0681E+00
GAME	8.752[illegible]E-01	7.974[illegible]E-01	7.8[illegible]21E-01
U	4.1278E+00	1.5499E+00	1.3062E+00

SPECIES	MOLE FRACTIONS		
E-	1.6853E-17	7.72[illegible]E-14	1.8082E-12
HE	3.4863E-01	3.391[illegible]E-01	3.27[illegible]7E-01
HE+	7.5430E-43	8.9479E-3[illegible]	2.[illegible]577E-32
HE++	0.	0.	0.
H	7.8023E-03	6.201UE-02	1.27[illegible]7E-01
H+	1.6934E-17	7.72[illegible]E-14	1.8082E-12
H2	6.4356E-01	5.9884E-01	[illegible].447[illegible]E-01

P1 = 1.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible].0440E+01	3.3342E+02	4.[illegible]78E+02
T	8.2039E+00	9.9017E+00	1.0[illegible]27E+01
RHO	7.01[illegible]E+00	2.9298E+01	3.9223E+01
M	1.2030E+01	1.983[illegible]E+01	2.[illegible]519E+01
A	2.601[illegible]E+00	3.9842E+00	3.[illegible]559E+00
S	1.1618E+00	1.1928E+00	1.2229E+00
Z	1.0538E+00	1.1[illegible]03E+00	1.2056E+00
GAME	7.8281E-01	7.8151E-01	7.8476E-01
U	[illegible].9129E+00	1.4165E+00	1.2[illegible]46E+00

SPECIES	MOLE FRACTIONS		
E-	2.6642E-13	[illegible].9286E-1[illegible]	2.[illegible]34E-10
HE	3.321[illegible]E-01	3.0429E-01	2.90[illegible]E-01
HE+	4.[illegible]434E-[illegible]	3.[illegible]749E-28	1.[illegible]912E-[illegible]
HE++	0.	0.	0.
H	1.02C1E-01	2.4123E-01	3.4112E-01
H+	2.64[illegible]E-1[illegible]	4.9284E-11	2.[illegible]13[illegible]E-10
H2	[illegible].[illegible]8[illegible]E-01	[illegible].[illegible]449E-01	3.[illegible]858E-01

P1 = 1.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.82[illegible]4E+01	[illegible].1829E+02	7.[illegible]20E+02
T	8.[illegible]47[illegible]E+00	1.07C2E+01	1.134[illegible]E+01
RHO	[illegible].[illegible]0[illegible]E+00	3.9608E+01	[illegible].[illegible]46E+01
M	1.[illegible]037E+01	2.5[illegible]4E+01	3.0279E+01
A	2.72[illegible]E+00	3.2149E+00	3.[illegible]089E+00
S	[illegible].1961E+00	1.239[illegible]E+00	[illegible].2795E+00
Z	1.0934E+00	1.2291E+00	1.2944E+00
GAME	7.7671E-01	7.8[illegible]7E-01	7.9129E-01
U	[illegible].80[illegible]7E+00	1.414[illegible]E+00	1.31[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.3[illegible]9E-12	3.9220E-10	1.[illegible]39E-09
HE	3.2011E-01	3.[illegible]477E-01	2.7039E-01
HE+	[illegible].[illegible]43[illegible]E-[illegible]	9.2133E-27	9.[illegible]40E-25
HE++	0.	0.	0.
H	1.7082E-01	3.727[illegible]E-01	4.[illegible]493E-01
H+	2.3[illegible]9E-12	3.9220E-10	1.[illegible]39E-09
H2	[illegible].09[illegible]7E-01	3.4248E-01	3.746[illegible]E-01

Table I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.89F1E+01	7.5452E+02	1.0502E+03
T	9.2227E+00	1.1505E+01	1.2237E+01
RHO	9.3246E+00	4.9741E+01	6.1541E+01
H	1.8390E+01	3.1920E+01	3.7417E+01
A	2.8452E.00	3.4682E+00	3.7003E+00
S	1.2296E+00	1.2907E+00	1.3294E+00
Z	1.1400E+00	1.3185E+00	1.3946E+00
GAME	7.7553E-01	7.9794E-01	8.0239E-01
U	7.6949E+00	1.4429E+00	1.3729E+01

SPECIES	MOLE FRACTIONS		
E-	1.2573E-11	2.2855E-09	9.0613E-09
HE	3.0701E-01	2.6545E-01	2.5100E-01
HE+	2.5896E-30	1.6282E-24	6.2070E-23
HE++	0.	3.3243E-90	3.0388E-85
H	2.4547E-01	4.8316E-01	5.6572E-01
H+	1.2573E-11	2.2855E-09	9.0613E-09
H2	4.4732E-01	2.5139E-01	1.8327E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4972E+02	1.1352E+03	2.5022E+03
T	1.0516E+01	1.2745E+01	2.2854E+01
RHO	1.2241E+01	4.9472E+01	6.4329E+01
H	2.0522E+01	5.6833E+01	6.9078E+01
A	2.2914E+00	4.7895E+00	5.4670E+00
S	1.3527E+00	1.4553E+00	1.5128E+00
Z	1.2344E+00	1.6125E+00	1.4493E+00
GAME	7.8270E-01	9.2108E-01	1.1095E+00
U	1.0200E+01	1.0115E+00	2.3323E+00

SPECIES	MOLE FRACTIONS		
E-	5.0183E-10	9.0898E-07	3.0507E-04
HE	2.6588E-01	2.1705E-01	2.1221E-01
HE+	9.1024E-27	4.8910E-18	1.2256E-11
HE++	0.	1.0008E-67	1.6509E-44
H	4.8071E-01	7.5970E-01	7.8648E-01
H+	5.0183E-10	9.0898E-07	3.0507E-04
H2	2.5341E-01	2.3243E-02	7.0112E-04

P1 = 1.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1988E+02	1.0415E+03	1.428?E+03
T	9.561?E+00	1.2279E+01	1.33?9E+01
RHO	1.0395E+01	?.9400E+01	?.1131E+01
M	2.2089E+01	3.8944E+01	4.?431E+01
A	2.9914E+00	?.7?68E+00	4.0707E+00
S	1.26L?E+00	1.3448E+00	1.3882E+00
Z	1.1930E+00	1.4164E+00	1.?032E+00
GAME	7.7423E-01	8.0495E-01	8.2?11E-01
U	8.?485E+00	1.5007E+00	1.4670E+00

SPECIES	MOLE FRACTIONS		
E-	?.01A1E-11	1.1792E-08	?.800?E-08
HE	2.9237E-01	2.4710E-01	2.3293E-01
HE+	6.2?02E-29	9.8026E-23	4.9939E-21
HE++	0.	3.2993E-8?	1.0329E-78
H	3.2261E-01	?.8800E-01	A.49??E-01
H+	?.0161E-11	1.1792E-08	?.800?E-08
H2	3.83?2E-01	1.4490E-01	9.7620E-02

P1 = 1.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.976AE+02	2.0512E+03	3.1843E+03
T	1.0972E+01	2.0220E+01	3.0943E+01
RHO	1.2998E+01	5.1849E+01	6.1?8?E+01
M	3.?276E+01	A.335?E+01	8.0268E+01
A	3.462?E+00	6.0928E+00	7.02?1E+00
S	1.3983E+00	1.?04?E+00	1.?570E+00
Z	1.38?0E+00	1.6473E+00	1.6628E+00
GAME	7.88?3E-01	1.1102E+00	9.?918E-01
U	1.1138E+01	2.3414E+00	?.9?98E+00

SPECIES	MOLE FRACTIONS		
E-	1.47??E-08	A.?342E-08	7.8070E-08
HE	?.?3?AE-01	2.1264E-01	2.1049E-01
HE+	9.A543E-26	2..280E-12	4.7230E-08
HE++	0.	1.0930E-?0	1.3994E-31
H	?.5489E-01	7.8?73E-01	7.7380E-01
H+	1.47??E-08	A.?342E-08	7.8049E-03
H2	1.90?7E-01	1.4797E-01	9.821?E-??

P1 = 1.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4377E+02	1.3745E+03	1.888?E+03
T	1.008AE+01	1.3489E+01	1.?471E+01
RHO	1.138?E+01	A.7045E+01	7.?809E+01
M	2.613?E+01	4.6602E+01	?.4663E+01
A	?.1360E+00	4.1249E+00	4.7802E+00
S	1.3092E+00	1.4011E+00	1.4501E+00
Z	1.2520E+00	1.?198E+00	1.6103E+00
GAME	7.7881?-01	8.2993E-01	9.1725E-01
U	9.4331E+00	1.6023E+00	1.A680E+00

SPECIES	MOLE FRACTIONS		
E-	1.AA76E-10	A.?76AE-08	8.9704E-07
HE	2.79?AE-01	2.3029E-01	2.1736E-01
HE+	9.0196E-28	7.29A0E-21	?.0731E-18
HE++	0.	9.9309E-77	1.?17?E-67
H	4.02?1E-01	A.84A7E-01	7.?796E-01
H+	1.6676E-10	A.?76AE-08	8.9704E-07
H2	3.1793E-01	8.?8?3E-02	2.4680E-02

P1 = 1.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.27?AE+02	2.3408E+03	3.8452E+03
T	1.1404E+01	2.6397E+01	3.?708E+01
RHO	1.2?63E+01	?.4142E+01	4.3?89E+01
M	4.0366E+01	7.2196E+01	9.27A2E+01
A	3.6590E+00	6.?85?E+00	7.2999E+00
S	1.4456E+00	1.?423E+00	1.?899E+00
Z	1.4?06E+00	1.6?2?E+00	1.6935E+00
GAME	7.9803E-01	1.0559E+00	8.8124E-01
U	1.1975E+01	2.9987E+00	?.2470E+00

SPECIES	MOLE FRACTIONS		
E-	4.5817E-09	1.7373E-07	2.5708E-07
HE	2.3980E-01	2.1180E-01	2.0148E-01
HE+	1.A21?E-24	8.575?E-10	9.0029E-07
HE++	3.93?7E-89	9.2143E-38	9.1380E-27
H	A.2972E-01	7.84?1E-01	7.A284E-01
H+	A.5817E-09	1.7373E-07	2.5707E-07
H2	1.3?68E-01	2.1?2?E-?A	4.7609E-??

Table I. - Continued

p_1 = 10 N/m^2

P1 = 1.00E+01 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5601E+02	2.8647E+03	4.5302E+03
T	2.0542E+01	2.9542E+01	4.4485E+01
RHO	1.0496E+01	4.1033E+01	5.4529E+01
M	4.3929E+01	1.1251E+02	1.4070E+02
A	4.1543E+00	7.4487E+00	8.3059E+00
S	1.5223E+00	1.6735E+00	1.7223E+00
Z	1.6499E+00	1.7066E+00	1.8694E+00
GAME	1.1172E+00	8.3794E-01	8.3003E-01
U	1.4815E+01	3.7878E+00	3.5329E+00

SPECIES	MOLE FRACTIONS		
E-	1.9784E-04	6.5469E-02	1.1690E-01
HE	2.1213E-01	1.9823E-01	1.8728E-01
HE+	9.9079E-13	7.7469E-04	5.0484E-05
HE++	5.6784E-69	1.4204E-23	1.8427E-20
H	7.8722E-01	4.7082E-01	5.7891E-01
H+	1.9784E-04	4.5451E-02	1.1585E-01
H2	2.5048E-04	1.6987E-05	1.1468E-05

P1 = 1.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.921RE+02	2.9773E+03	4.9331E+03
T	1.3297E+01	3.512?E+01	4.1492E+01
RHO	1.3470E+01	5.0148E+01	6.4890E+01
H	?.1?48E+01	9.1999E+01	1.1771E+02
A	4.32??E+00	7.2344E+00	7.8754E+00
S	1.?419E+00	1.6043E+00	1.4512E+00
Z	1.6064E+00	1.4927E+00	1.7774E+00
GAME	8.77?6E-01	8.8118E-01	8.4098E-01
U	1.358CE+01	3.7031E+00	3.491?E+00

SPECIES	MOLE FRACTIONS		
E-	1.1940E-07	2.5892E-02	7.1711E-02
HE	2.1787E-01	2.0664E-01	1.9690E-01
HE+	7.9112E-21	6.977?E-07	1.4288E-05
HE++	3.8972E-78	6.2788E-28	2.1710E-22
H	7.55C1E-01	7.4153E-01	6.596AE-01
H+	1.1940E-07	2.5892E-02	7.1697E-02
H2	2.7117E-02	4.3769E-05	2.2278E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.89?4E+02	2.8574E+03	4.4138E+03
T	?.5022E+01	4.1190E+01	4.?75?E+01
RHO	9.4161E+00	2.8377E+01	5.0218E+01
H	?.0?74E+01	1.2340E+02	1.?268E+02
A	4.5208E+00	7.8442E+00	8.5215E+00
S	1.A?19E+00	1.70??E+00	1.7?65E+00
Z	1.4839E+00	1.8077E+00	1.9171E+00
GAME	1.0276E+00	8.3060E-01	8.2784E-01
U	1.?407E+01	3.7822E+00	3.?474E+00

SPECIES	MOLE FRACTIONS		
E-	2.3291E-02	8.7244E-02	1.3934E-01
HE	2.1164E-01	1.9360E-01	1.8248E-01
HE+	4.7443E-10	1.6540E-05	8.2251E-05
HE++	2.2993E-30	2.4260E-22	1.0427E-19
H	7.926?E-01	6.3190E-01	?.3883E-01
H+	2.3291E-03	8.722?E-02	1.3924E-01
H2	5.2964E-05	1.2317E-05	8.5442E-05

P1 = 1.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.24?4E+02	3.0051E+03	4.883?E+03
T	1.6048E+01	3.7717E+01	4.3256F+01
RHO	1.2292E+01	4.6120E+01	6.1914E+01
H	?.7620E+01	1.0231E+02	1.2955E+02
A	?.3208E+00	7.4492E+00	8.1113E+00
S	1.?853E+00	1.6382E+00	1.6841E+00
Z	1.64?2E+00	1.7274E+00	1.8233E+00
GAME	1.0764E+00	8.?163E-01	8.3423E-01
U	1.42?1E+01	3.795?E+00	3.?295E+00

SPECIES	MOLE FRACTIONS		
E-	4.2224E-06	4.492?E-02	9.5045E-02
HE	2.1274E-01	2.0259E-01	1.9193E-01
HE+	6.117?E-17	3.0603E-06	2.9995E-05
HE++	2.6412E-64	4.083?E-25	3.0630E-21
H	7.8430E-01	7.07?3E-01	6.1796E-01
H+	4.2324E-06	4.4922E-02	9.5015E-02
H2	2.9431E-03	2.?196E-05	1.5996E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2701E+02	3.0222E+03	4.?825E+03
T	2.8560E+01	4.2862E+01	4.7214E+01
RHO	8.97?4E+00	3.8016E+01	4.9235E+01
H	7.7618E+01	1.3547E+02	1.AA21E+02
A	6.A289E+00	8.1076E+00	8.77?2E+00
S	1.6778E+00	1.7374E+00	1.7890E+00
Z	1.A65AE+00	1.?548E+00	1.9713E+00
GAME	9.2365E-01	8.2A8?E-01	8.2732E-01
U	1.A086E+01	3.7991E+00	3.?852E+00

SPECIES	MOLE FRACTIONS		
E-	9.?04?E-02	1.1047E-01	1.6299E-01
HE	2.1011E-01	1.8867E-01	1.7741E-01
HE+	1.42?0E-08	3.273AE-05	1.3550E-04
HE++	8.6A09E-34	2.8928E-21	6.2013E-19
H	7.7086E-01	5.9046E-01	4.9660E-01
H+	9.506?E-03	1.1040E-01	1.6286E-01
H2	2.1004E-05	9.4298E-06	6.5782E-06

Table I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 2.29E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4812E+02	3.3202E+03	4.9641E+03
T	3.1159E+01	4.5572E+01	4.8830E+01
RHO	8.9102E+00	2.9758E+01	5.0048E+01
H	8.5074E+01	1.4870E+02	1.8127E+02
E	4.7583E+00	8.2705E+00	9.0628E+00
S	1.7021E+00	1.7872E+00	1.8209E+00
Z	1.6841E+00	1.9047E+00	2.0309E+00
GAMF	8.6936E-01	8.2532E-01	8.2908E-01
U	1.6835E+01	3.8423E+00	3.6446E+00

SPECIES	MOLE FRACTIONS		
E-	2.1435E-02	1.3443E-01	1.8756E-01
HE	2.0758E-01	1.8350E-01	1.7211E-01
HE+	1.2985E-07	6.1416E-05	2.2412E-04
HE++	1.4544E-20	2.9395E-20	4.0309E-18
H	7.4954E-01	5.4723E-01	4.5276E-01
H+	2.1635E-02	1.3457E-01	1.8732E-01
H2	1.2979E-05	7.4449E-06	5.1383E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0847E+02	4.4617E+03	6.7765E+03
T	3.4329E+01	4.9699E+01	5.4152E+01
RHO	9.4433E+00	4.5017E+01	5.6051E+01
H	1.0972E+02	1.9375E+02	2.3372E+02
E	7.2755E+00	9.2593E+00	1.0047E+01
S	1.7724E+00	1.8568E+00	1.9175E+00
Z	1.7748E+00	2.0834E+00	2.2226E+00
GAMF	8.2150E-01	8.2794E-01	8.3495E-01
U	1.9266E+01	4.0423E+00	3.9009E+00

SPECIES	MOLE FRACTIONS		
E-	8.0321E-02	2.0810E-01	2.6094E-01
HE	1.9720E-01	1.6767E-01	1.5584E-01
HE+	3.2059E-06	3.0642E-04	9.3420E-04
HE++	2.0559E-25	1.1627E-17	7.8332E-16
H	6.4215E-01	4.1513E-01	3.2228E-01
H+	7.0318E-02	2.0779E-01	2.4001E-01
H2	5.4642E-06	3.7935E-06	2.3581E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1230E+02	3.7060E+03	5.4787E+03
T	3.3171E+01	4.6296E+01	5.0548E+01
RHO	9.0213E+00	4.0799E+01	5.1744E+01
H	9.2917E+01	1.6289E+02	1.9753E+02
A	4.9197E+00	8.6587E+00	9.3730E+00
S	1.7254E+00	1.7949E+00	1.8527E+00
Z	1.7126E+00	1.9629E+00	2.0947E+00
GAMF	8.4315E-01	8.2529E-01	8.2974E-01
U	1.7625E+01	3.9008E+00	3.7176E+00

SPECIES	MOLE FRACTIONS		
F-	3.6209E-02	1.5922E-01	2.1228E-01
HF	2.0444E-01	1.7824E-01	1.4673E-01
HF+	5.1479E-07	1.0940E-04	3.6581E-04
HF++	2.5473E-28	2.5238E-19	2.4637E-17
H	7.2311E-01	5.0321E-01	4.0870E-01
H+	3.4209E-02	1.5911E-01	2.1192E-01
H2	9.0879E-06	5.9522E-04	4.0150E-04

P1 = 1.00E+01 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6094E+02	5.2130E+03	7.5321E+03
T	3.7419E+01	5.1408E+01	5.6044E+01
RHO	9.6939E+00	4.7210E+01	5.8296E+01
H	1.1866E+02	2.1028E+02	2.5245E+02
A	7.4580E+00	9.5745E+00	1.0407E+01
S	1.7942E+00	1.8873E+00	1.9505E+00
Z	1.8101E+00	2.1480E+00	2.3054E+00
GAMF	8.1691E-01	8.3018E-01	8.3822E-01
U	2.0097E+01	4.1277E+00	4.0065E+00

SPECIES	MOLE FRACTIONS		
F-	8.8461E-02	2.3184E-01	2.8428E-01
HF	1.9235E-01	1.6245E-01	1.5039E-01
HF+	4.2665E-06	4.9002E-04	1.4676E-03
HF++	2.4254E-24	4.6291E-17	4.1128E-15
H	6.2972E-01	3.7384E-01	2.8108E-01
H+	8.8455E-02	2.3139E-01	2.8281E-01
H2	4.4458E-06	2.9883E-06	1.7527E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5920E+02	4.1574E+03	6.0890E+03
T	3.4855E+01	4.7994E+01	5.2323E+01
RHO	9.2114E+00	4.2848E+01	5.3822E+01
H	1.0114E+02	1.7795E+02	2.1490E+02
A	7.0954E+00	8.9539E+00	9.7023E+00
S	1.7491E+00	1.8247E+00	1.8849E+00
Z	1.7415E+00	2.0215E+00	2.1422E+00
GAMF	8.2931E-01	8.2424E-01	8.3208E-01
U	1.8461E+01	3.9452E+00	3.8044E+00

SPECIES	MOLE FRACTIONS		
F-	5.2789E-02	1.8384E-01	2.3688E-01
HF	2.0992E-01	1.7294E-01	1.4128E-01
HF+	1.4713E-06	1.9655E-04	5.8876E-04
HF++	1.0506E-26	1.8208E-18	1.4284E-16
H	6.9249E-01	4.5938E-01	3.6494E-01
H+	5.2788E-02	1.8365E-01	2.3630E-01
H2	6.8884E-06	4.7548E-06	3.1024E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.1384E+02	5.8085E+03	8.3817E+03
T	3.8823E+01	5.3134E+01	5.8018E+01
RHO	9.9518E+00	4.9363E+01	6.0481E+01
H	1.2795E+02	2.2751E+02	2.7259E+02
A	7.6423E+00	9.8996E+00	1.0781E+01
S	1.8202E+00	1.9181E+00	1.9840E+00
Z	1.8476E+00	2.2146E+00	2.3801E+00
GAMF	8.1423E-01	8.3286E-01	8.4177E-01
U	2.0933E+01	4.2211E+00	4.1214E+00

SPECIES	MOLE FRACTIONS		
F-	1.0695E-01	2.5494E-01	3.0674E-01
HF	1.8942E-01	1.5728E-01	1.4476E-01
HF+	1.1158E-05	7.6715E-04	2.2931E-03
HF++	2.0489E-23	2.4796E-16	2.1001E-14
H	5.9467E-01	2.3228E-01	2.4172E-01
H+	1.0694E-01	2.5417E-01	3.0447E-01
H2	2.4712E-06	2.3188E-06	1.2668E-06

Table I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6972E+02	6.4428E+03	9.2293E+03
T	3.9957E+01	5.4889E+01	6.0086E+01
RHO	1.0229E+01	5.1417E+01	6.2540E+01
H	1.3746E+02	2.4539E+02	2.9259E+02
A	7.8283E+00	1.0234E+01	1.1169E+01
S	1.8444E+00	1.9492E+00	2.0177E+00
Z	1.8870E+00	2.2829E+00	2.4561E+00
GAME	8.1277E-01	8.2591E-01	8.4533E-01
U	2.1748E+01	4.3230E+00	4.2456E+00

SPECIES	MOLE FRACTIONS		
E-	1.2560E-01	2.7722E-01	3.2820E-01
HE	1.8546E-01	1.5213E-01	1.2893E-01
HE+	1.8573E-05	1.1826E-03	3.5714E-03
HE++	1.3392E-22	1.7125E-15	1.0529E-13
H	5.6233E-01	2.9342E-01	2.0468E-01
H+	1.2558E-01	2.7604E-01	3.2462E-01
H2	3.0568E-06	1.7657E-06	8.8434E-07

P1 = 1.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0143E+03	9.3412E+02	1.3296E+04
T	4.4047E+01	6.2542E+01	6.9549E+01
RHO	1.1169E+01	5.8225E+01	6.9369E+01
H	1.7969E+02	3.2349E+02	3.8629E+02
A	8.5944E+00	1.1649E+01	1.2767E+01
S	1.9443E+00	2.0759E+00	2.1547E+00
Z	2.0609E+00	2.5652E+00	2.7558E+00
GAME	8.1313E-01	8.4873E-01	8.5045E-01
U	2.5108E+01	4.8175E+00	4.8194E+00

SPECIES	MOLE FRACTIONS		
E-	1.9937E-01	3.5678E-01	4.0127E-01
HE	1.6074E-01	1.3018E-01	1.0783E-01
HE+	9.5560E-05	6.2695E-03	1.9474E-02
HE++	5.7422E-20	7.3401E-13	5.5195E-11
H	4.3153E-01	1.5624E-01	8.9938E-02
H+	1.9927E-01	3.5052E-01	3.8179E-01
H2	1.4888E-06	4.5529E-07	1.5203E-07

P1 = 1.00E+01 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.2776E+02	7.1155E+03	1.0165E+04
T	4.1036E+01	5.4692E+01	6.2271E+01
RHO	1.0461E+01	5.2350E+01	6.4455E+01
H	1.4759E+02	2.6394E+02	3.1548E+02
A	8.0144E+00	1.0580E+01	1.1568E+01
S	1.8695E+00	1.9876E+00	2.0518E+00
Z	1.9282E+00	2.3526E+00	2.5326E+00
GAME	8.1214E-01	8.3923E-01	8.4849E-01
U	2.2604E+01	4.4333E+00	4.3790E+00

SPECIES	MOLE FRACTIONS		
E-	1.4429E-01	2.9865E-01	3.4849E-01
HE	1.8149E-01	1.4697E-01	1.3264E-01
HE+	2.9412E-05	1.8057E-03	5.5547E-03
HE++	7.3291E-22	8.0617E-15	5.2308E-13
H	5.2994E-01	2.5573E-01	1.7037E-01
H+	1.4426E-01	2.9684E-01	3.4294E-01
H2	2.5550E-06	1.3138E-06	5.9800E-07

P1 = 1.00E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1488E+03	1.0952E+04	1.5596E+04
T	4.4023E+01	6.6922E+01	7.4804E+01
RHO	1.1547E+01	6.0415E+01	7.2049E+01
H	2.0284E+02	3.6436E+02	4.3749E+02
A	9.0018E+00	1.2403E+01	1.3560E+01
S	1.9949E+00	2.1399E+00	2.2231E+00
Z	2.1577E+00	2.7032E+00	2.8938E+00
GAME	8.1584E-01	8.5063E-01	8.6068E-01
U	2.6748E+01	5.1090E+00	5.1191E+00

SPECIES	MOLE FRACTIONS		
E-	2.3527E-01	3.8960E-01	4.2982E-01
HE	1.6202E-01	1.1545E-01	8.3327E-02
HE+	1.9131E-04	1.3930E-02	3.7621E-02
HE++	7.3803E-19	1.3422E-11	8.5283E-10
H	3.6743E-01	1.0515E-01	5.7039E-02
H+	2.3508E-01	3.7577E-01	3.9220E-01
H2	1.0071E-06	1.9373E-07	5.7436E-08

P1 = 1.00E+01 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8788E+02	7.8235E+03	1.1155E+04
T	4.2076E+01	5.8557E+01	6.6582E+01
RHO	1.0706E+01	5.5134E+01	6.6214E+01
H	1.9794E+02	2.8315E+02	3.3825E+02
A	8.2069E+00	1.0935E+01	1.1971E+01
S	1.8939E+00	2.0122E+00	2.0860E+00
Z	1.9711E+00	2.4233E+00	2.6087E+00
GAME	8.1211E-01	8.4267E-01	8.5064E-01
U	2.3440E+01	4.5524E+00	4.5204E+00

SPECIES	MOLE FRACTIONS		
E-	1.6291E-01	3.1911E-01	3.6749E-01
HE	1.7752E-01	1.4169E-01	1.2557E-01
HE+	4.4833E-05	2.7415E-03	8.5970E-03
HE++	3.4888E-21	3.6839E-14	2.5702E-12
H	4.9667E-01	2.2009E-01	1.3944E-01
H+	1.6286E-01	3.1627E-01	3.5889E-01
H2	2.1370E-06	9.5163E-07	3.8899E-07

P1 = 1.00E+01 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2915E+03	1.2496E+04	1.8047E+04
T	4.7998E+01	7.1561E+01	8.0524E+01
RHO	1.1912E+01	6.2409E+01	7.4170E+01
H	2.2738E+02	4.1177E+02	4.9188E+02
A	9.4254E+00	1.3116E+01	1.4466E+01
S	2.0502E+00	2.2037E+00	2.2916E+00
Z	2.2598E+00	2.8332E+00	3.0251E+00
GAME	8.1944E-01	8.4849E-01	8.5904E-01
U	2.8422E+01	5.4090E+00	5.4341E+00

SPECIES	MOLE FRACTIONS		
E-	2.6951E-01	4.1762E-01	4.5454E-01
HE	1.5459E-01	9.5955E-02	5.5242E-02
HE+	2.4640E-04	2.7480E-02	4.0358E-02
HE++	7.9260E-18	1.0777E-10	9.9026E-09
H	3.0639E-01	6.8808E-02	2.5545E-02
H+	2.6915E-01	3.9994E-01	3.9420E-01
H2	6.5820E-07	7.7444E-08	2.0927E-08

Table I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4419E+03	1.4504E+04	2.0698E+04
T	5.9031E+01	7.5415E+01	8.7790E+01
RHO	1.2190E+01	6.4227E+01	7.4870E+01
H	2.5332E+02	4.5965E+02	5.5055E+02
P	9.8732E+00	1.3858E+01	1.5723E+01
S	2.1045E+00	2.2470E+00	2.3599E+00
Z	2.3641E+00	2.5553E+00	3.1491E+00
GAME	8.2415E-01	8.5044E-01	8.9422E-01
U	3.0064E+01	5.7084E+00	5.8412E+00

SPECIES	MOLE FRACTIONS		
E-	3.0206E-01	4.4168E-01	4.7604E-01
HE	1.4735E-01	7.1732E-02	2.7918E-02
HE+	6.9283E-04	4.6701E-02	8.3225E-02
HE++	7.8797E-17	2.1138E-09	1.2290E-07
H	2.4852E-01	4.4915E-02	1.9999E-02
H+	3.0137E-01	3.9498E-01	3.9282E-01
H2	4.0726E-07	3.1139E-08	6.0071E-09

P1 = 1.00E+01 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9280E+03	1.9715E+04	2.8137E+04
T	5.7320E+01	9.5438E+01	1.4860E+02
RHO	1.2547E+01	4.0795E+01	4.1129E+01
H	2.3942E+02	4.1544E+02	7.7117E+02
P	1.1404E+01	1.8064E+01	2.1685E+01
S	2.2710E+00	2.4519E+00	2.5764E+00
Z	2.6904E+00	3.2547E+00	3.7181E+00
GAME	8.6340E-01	1.0062E+00	9.5374E-01
U	3.4904E+01	7.2091E+00	9.0241E+00

SPECIES	MOLE FRACTIONS		
E-	3.8470E-01	4.9304E-01	5.0273E-01
HE	1.2473E-01	4.8485E-03	3.6537E-04
HE+	5.7478E-03	1.0068E-01	9.8775E-02
HE++	1.0490E-13	3.5778E-06	6.4612E-03
H	1.0187E-01	7.0491E-03	7.1657E-04
H+	3.8133E-01	3.9235E-01	3.9107E-01
H2	5.4494E-08	5.2039E-10	3.5304E-12

P1 = 1.00E+01 N/SQ-M, US1= 4.09E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5999E+03	1.6346E 04	2.3599E+04
T	5.2201E+01	8.1834E+01	1.0057E+02
RHO	1.2396E+01	6.5019E+01	7.2190E+01
H	2.8064E+02	5.0987E+02	6.1720E+02
A	1.0381E+01	1.4749E+01	1.8103E+01
S	2.1597E+00	2.3303E+00	2.4394E+00
Z	2.4725E+00	3.0721E+00	3.2507E+00
GAMF	8.3009E-01	8.6523E-01	1.0029E+00
U	3.1693E+01	6.0433E+00	6.5736E+00

SPECIES	MOLE FRACTIONS		
E-	3.3267E-01	4.6291E-01	4.9241E-01
HE	1.4023E-01	4.5795E-02	7.3203E-03
HE+	1.3220E-03	4.8134E-02	1.0039E-01
HE++	7.8695E-16	1.9177E-08	3.7100E-06
H	1.9442E-01	2.8389E-02	7.8404E-03
H+	3.3135E-01	3.9477E-01	3.9204E-01
H2	2.3348E-07	1.1548E-08	7.5331E-10

P1 = 1.00E+01 N/SQ-M, US1= 4.69E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1179E+03	2.1017E+04	3.2987E+04
T	6.0410E+01	1.1563E+02	1.4215E+02
RHO	1.2562E+01	5.5299E+01	6.0449E+01
H	3.7098E+02	6.4989E+02	9.5151E+02
A	1.1939E+01	2.0389E+01	2.2005E+01
S	2.3245E+00	2.5040E+00	2.6024E+00
Z	2.7928E+00	3.2869E+00	3.3653E+00
GAMF	9.4482E-01	1.0938E+00	8.8738E-01
U	3.6487E+01	8.2908E+00	8.5470E+00

SPECIES	MOLE FRACTIONS		
E-	4.0920E-01	4.9801E-01	5.0970E-01
HE	1.1402E-01	1.5259E-03	1.4869E-04
HE+	1.1203E-02	1.0484E-01	8.3844E-02
HE++	1.4243E-12	9.3175E-05	2.0011E-02
H	4.7585E-02	2.5421E-03	4.4993E-14
H+	3.9759E-01	3.9294E-01	3.8582E-01
H2	2.1761E-08	5.1104E-11	1.4221E-12

P1 = 1.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7653E+03	1.8130E+04	2.6915E+04
T	5.4496E+01	8.8743E+01	1.2810E+02
RHO	1.2522E+01	6.4285E+01	6.5357E+01
H	3.0934E+02	5.6208E+02	6.9669E+02
A	1.0863E+01	1.5995E+01	2.1211E+01
S	2.2153E+00	2.3923E+00	2.4995E+00
Z	2.5823E+00	3.1773E+00	3.2918E+00
GAME	8.3699E-01	9.0718E-01	1.0926E+00
U	3.3307E+01	6.4939E+00	7.8997E+00

SPECIES	MOLE FRACTIONS		
E-	3.6103E-01	4.8069E-01	4.9876E-01
HE	1.3294E-01	2.2494E-02	9.3520E-04
HE+	2.6027E-03	8.7663E-02	1.0504E-01
HE++	8.4741E-15	1.9569E-07	3.5156E-04
H	1.4501E-01	1.6127E-02	1.9011E-03
H+	3.5843E-01	3.9303E-01	3.9302E-01
H2	1.2037E-07	3.3245E-09	3.1004E-11

P1 = 1.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3056E+03	2.2250E+04	3.5823E+04
T	6.3713E+01	1.3425E+02	1.7239E+02
RHO	1.2534E+01	5.0214E+01	6.0651E+01
H	4.0173E+02	7.2555E+02	9.2556E+02
A	1.2428E+01	2.1821E+01	2.2687E+01
S	2.3814E+00	2.5514E+00	2.6423E+00
Z	2.8873E+00	3.2005E+00	3.4218E+00
GAME	8.2957E-01	1.0452E+00	8.7259E-01
U	3.8068E+01	9.5044E+00	9.9056E+00

SPECIES	MOLE FRACTIONS		
E-	4.2853E-01	5.0008E-01	5.1779E-01
HE	9.8088E-02	4.2523E-04	9.4444E-05
HE+	2.2234E-02	1.0404E-01	4.6140E-02
HE++	1.7090E-11	1.5778E-03	3.6043E-02
H	4.3960E-02	9.9282E-04	3.6113E-04
H+	4.0629E-01	3.9288E-01	3.7956E-01
H2	8.3589E-09	6.0670E-12	8.2118E-13

Table I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5018E+03	2.3829E+04	3.8808E+04
T	6.7038E+01	1.4927E+02	1.8722E+02
RHO	1.2561E+01	4.7996E+01	6.1167E+01
H	4.3800E+02	7.8506E+02	1.0024E+03
A	1.2917E+01	2.1501E+01	2.3402E+01
S	2.6357E+00	2.5934E+00	2.4871E+00
Z	2.9758E+00	3.2240E+00	3.4818E+00
GAME	8.3572E-01	9.3113E-01	8.7800E-01
U	3.9457E+01	1.0253E+01	1.0228E+01

SPECIES	MOLE FRACTIONS		
E-	4.4552E-01	5.0390E-01	5.2610E-01
HF	7.9756E-02	1.9950E-04	5.8355E-05
HF+	9.7821E-02	9.4477E-02	4.7909E-02
HF++	1.5054E-10	8.5582E-03	5.2596E-02
H	2.9159E-02	5.5159E-04	2.8893E-04
H+	4.0770E-01	3.9031E-01	3.7308E-01
H2	3.3784E-04	1.6409E-12	5.2038E-13

P1 = 1.00E+01 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1315E+03	3.0247E+04	4.7821E+04
T	7.0855E+01	1.7755E+02	2.2985E+02
RHO	1.3743E+01	4.7409E+01	5.7322E+01
H	5.4890E+02	9.8322E+02	1.2653E+03
A	1.3518E+01	2.3207E+01	2.9537E+01
S	2.5044E+01	2.7129E+00	2.8156E+00
Z	3.2167E+00	3.4747E+00	3.6796E+00
GAME	9.0126E-01	8.7298E-01	1.0458E+00
U	4.4718E+01	1.1428E+01	1.1964E+01

SPECIES	MOLE FRACTIONS		
E-	4.3704E-01	5.2513E-01	5.4541E-01
HF	1.9461E-02	5.1588E-05	3.5492E-06
HF+	9.0248E-02	5.0108E-02	5.4953E-03
HF++	5.5266E-08	5.0570E-02	9.0930E-02
H	7.4513E-02	2.5045E-04	1.0934E-04
H+	3.9670E-01	3.7289E-01	3.5805E-01
H2	1.5531E-10	2.9772E-13	6.4601E-14

P1 = 1.00E+01 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7060E+03	2.5723E+04	4.1985E+04
T	7.0463E+01	1.6016E+02	1.9356E+02
RHO	1.2566E+01	4.7477E+01	6.1243E+01
H	4.7386E+02	8.4866E+02	1.0842E+03
A	1.3460E+01	2.1821E+02	2.4670E+02
S	2.4895E+00	2.6333E+00	2.7296E+00
Z	3.0611E+00	3.3687E+00	3.5422E+00
GAME	8.3901E-01	8.8258E-01	9.0223E-01
U	4.1244E+01	1.0847E+01	1.0830E+01

SPECIES	MOLE FRACTIONS		
E-	4.6957E-01	5.1019E-01	5.3419E-01
NE	5.8469E-02	1.2282E-04	3.1330E-05
NE+	5.5871E-02	8.2872E-02	3.0140E-02
NE++	1.0358E-09	2.0904E-02	6.8637E-02
N	1.9588E-02	3.9352E-04	2.2693E-04
N+	4.0510E-01	3.8551E-01	3.6678E-01
N2	1.6066E-09	7.9461E-13	3.1534E-13

P1 = 1.00E+01 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9167E+03	2.7654E+04	4.5125E+04
T	7.6356E+01	1.6915E+02	2.0822E+02
RHO	1.2491E+01	4.7803E+01	6.0290E+01
H	5.1048E+02	9.1518E+02	1.1712E+03
A	1.4159E+01	2.2429E+02	2.4753E+02
S	2.5476E+00	2.6727E+00	2.7719E+00
Z	3.1429E+00	3.4202E+00	3.5945E+00
GAME	8.5784E-01	8.6956E-01	9.5625E-01
U	4.2811E+01	1.1174E+01	1.1167E+01

SPECIES	MOLE FRACTIONS		
E-	4.7501E-01	5.1758E-01	5.4097E-01
NE	3.7213E-02	8.0766E-05	1.3032E-05
NE+	7.4148E-02	6.4710E-02	1.5236E-02
NE++	4.7555E-09	3.5542E-02	8.2121E-02
N	1.2767E-02	3.1007E-04	1.6754E-04
N+	4.0085E-01	3.7978E-01	3.6149E-01
N2	5.4800E-10	4.8278E-13	1.6525E-13

P1 = 1.00E+01 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2641E+03	2.9917E+04	4.9334E+04
T	8.7653E+01	1.8604E+02	2.6144E+02
RHO	1.4469E+01	4.5586E+01	5.1778E+01
H	5.8843E+02	1.0350E+03	1.3696E+03
A	1.6947E+01	2.4763E+02	3.2579E+01
S	2.6435E+00	2.7651E+00	2.8637E+00
Z	3.2608E+00	3.5276E+00	3.6444E+00
GAME	1.0331E+00	8.8042E-01	1.1139E+00
U	4.5760E+01	1.2446E+01	1.3238E+01

SPECIES	MOLE FRACTIONS		
E-	4.9628E-01	5.3225E-01	5.4726E-01
NE	5.8226E-02	2.0537E-05	6.3551E-07
NE+	1.0121E-01	3.4471E-02	1.4598E-03
NE++	8.6220E-07	6.4720E-02	9.4576E-03
N	3.6139E-02	1.0011E-04	6.2052E-05
N+	3.0414E-01	3.6822E-01	3.5464E-01
N2	2.8427E-11	1.8415E-13	1.8017E-14

P1 = 1.00E+01 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5501E+03	3.0295E+04	4.8944E+04
T	1.0011E+02	1.9513E+02	2.9503E+02
RHO	1.6773E+01	4.3959E+01	4.5475E+01
H	6.7883E+02	1.1160E+03	1.4717E+03
A	1.9032E+01	2.6253E+01	3.4915E+01
S	2.6480E+00	2.7986E+00	2.9097E+00
Z	3.2319E+00	3.5733E+00	3.6483E+00
GAME	1.2002E+00	9.2165E-01	1.1326E+00
U	4.6920E+01	1.3965E+01	1.4494E+01

SPECIES	MOLE FRACTIONS		
E-	4.9877E-01	5.3676E-01	5.4772E-01
NE	1.2332E-02	1.5112E-05	1.3182E-07
NE+	1.2697E-01	2.1303E-02	4.5859E-04
NE++	2.7820E-05	7.6643E-02	9.6479E-02
N	1.2440E-02	1.5210E-04	3.6237E-05
N+	2.9766E-01	3.6766E-01	3.5530E-01
N2	2.8786E-10	9.7051E-14	5.7279E-15

Table I. - Continued

p_1 = 10 N/m^2

P1 = 1.00E+01 N/SQ-M. US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7594E+02	3.9653E+04	4.8377E+04
T	1.1[illegible]E+02	2.3[illegible]E+02	3.3[illegible]E+02
RHO	6.[illegible]E-02	2.[illegible]E-01	4.0171E+01
H	4.[illegible]E+02	1.[illegible]E+02	1.5762E+03
A	2.[illegible]E+01	2.[illegible]E+01	2.7006E+01
S	2.[illegible]E+02	2.[illegible]E+00	2.9533E+00
Z	2.[illegible]	2.[illegible]E+00	2.6493E+00
GAMF	1.[illegible]E+00	9.[illegible]E-01	1.1371E+00
U	4.[illegible]E+01	1.[illegible]E+01	1.5743E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-02	5.[illegible]E-01	5.4731E-01
HE	2.[illegible]E-06	6.[illegible]E-06	3.3643E-08
HE+	1.[illegible]E-01	1.[illegible]E-02	1.7736E-04
HE++	4.[illegible]E-06	3.[illegible]E-02	9.5733E-02
H	4.[illegible]E-06	1.[illegible]E-06	2.7626E-06
H+	3.[illegible]E-01	3.[illegible]E-01	3.5631E-01
H2	2.[illegible]E-02	4.[illegible]E-14	1.7312E-16

P1 = 1.00E+01 N/SQ-M. US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.[illegible]E+02	3.[illegible]E+04	5.[illegible]E+04
T	1.[illegible]E+02	2.[illegible]E+02	4.[illegible]E+02
RHO	8.[illegible]E-02	2.[illegible]E-01	3.3507E+01
H	8.[illegible]E+02	1.[illegible]E+03	1.0447E+03
A	2.[illegible]E+01	2.[illegible]E+01	4.3432E+01
S	2.[illegible]E+02	2.[illegible]E+00	2.0468E+00
Z	2.[illegible]E+02	2.[illegible]E+00	2.6409E+00
GAMF	8.[illegible]E-01	1.[illegible]E+00	1.1388E+00
U	5.[illegible]E+01	1.[illegible]E+01	1.6003E+01

SPECIES	MOLE FRACTIONS		
E-	5.[illegible]E-01	5.4762E-01	5.4793E-01
HE	4.[illegible]E-06	1.[illegible]E-07	1.4935E-09
HE+	8.[illegible]E-02	6.[illegible]E-04	2.7938E-06
HE++	2.[illegible]E-02	9.[illegible]E-02	9.5866E-02
H	1.[illegible]E-04	2.[illegible]E-05	7.[illegible]E-06
H+	3.[illegible]E-01	3.[illegible]E-01	3.5617E-01
H2	1.[illegible]E-14	2.[illegible]E-15	1.5997E-16

P1 = 1.[illegible]E+01 N/SQ-M. US1= 6.[illegible]E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	4.9147E+04
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	1.6871E+03
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAMF	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	[illegible]	[illegible]
HF	[illegible]	[illegible]	[illegible]
HF+	[illegible]	[illegible]	[illegible]
HF++	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	[illegible]	[illegible]	[illegible]

P1 = 1.[illegible]E+01 N/SQ-M. US1= 7.[illegible]E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	5.9833E+04
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAME	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	[illegible]	[illegible]
HF	[illegible]	[illegible]	[illegible]
HF+	[illegible]	[illegible]	[illegible]
HF++	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	[illegible]	[illegible]	[illegible]

P1 = 1.[illegible]E+01 N/SQ-M. US1= 8.[illegible]E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	[illegible]
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAME	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	[illegible]	[illegible]
HF	[illegible]	[illegible]	[illegible]
HF+	[illegible]	[illegible]	[illegible]
HF++	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	[illegible]	[illegible]	[illegible]

Table I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, USI= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3907E+01	2.8749E+01	7.2306E+01
T	3.5541E+00	4.4739E+00	6.4205E+00
RHO	3.9293E+00	6.4265E+00	1.1241E+01
M	3.0323E+00	4.6132E+00	6.8703E+00
A	1.8730E+00	2.0898E+00	2.4241E+00
S	1.0504E+00	1.0578E+00	1.0727E+00
Z	1.0000E+00	1.0000E+00	1.0010E+00
GAME	9.8770E-01	9.7620E-01	9.1207E-01
U	2.5703E+00	1.5701E+00	1.3815E+00

SPECIES	MOLE FRACTIONS		
E-	0.3709E-49	2.0586E-30	4.3132E-18
HE	3.3000E-01	3.5000E-01	3.4994E-01
HE+	7.7397E-64	7.5768E-54	3.5044E-43
HE++	0.	0.	0.
H	9.9020E-08	1.0059E-05	3.2005E-03
H+	8.1343E-20	8.1343E-20	4.3965E-18
H2	0.5000E-01	6.4999E-01	6.4726E-01

P1 = 2.00E+01 N/SQ-M, USI= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5043E+01	1.9230E+02	3.1096E+02
T	7.0473E+00	9.2752E+00	1.6013E+01
RHO	5.7749E+00	1.9246E+01	2.7642E+01
M	9.3010E+00	1.4726E+01	1.8372E+01
A	2.5152E+00	2.8049E+00	2.9736E+00
S	1.1358E+00	1.1533E+00	1.1793E+00
Z	1.0198E+00	1.0774E+00	1.1232E+00
GAME	8.1109E-01	7.8720E-01	7.8601E-01
U	4.9688E+00	1.4958E+00	1.3194E+00

SPECIES	MOLE FRACTIONS		
E-	1.2431E-14	5.2934E-12	4.8704E-11
HE	3.4320E-01	3.2485E-01	3.1124E-01
HE+	1.5747E-30	3.1847E-30	3.9903E-28
HE++	0.	0.	0.
H	3.8843E-02	1.2773E-01	2.1977E-01
H+	1.2932E-14	5.2934E-12	4.8704E-11
H2	6.1795E-01	5.3142E-01	4.8009E-01

P1 = 2.00E+01 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2028E+01	5.7323E+01	1.2306E+02
T	4.9855E+00	6.5913E+00	8.0646E+00
RHO	4.4180E+00	8.6741E+00	1.5022E+01
M	5.1729E+00	7.1239E+00	9.9985E+00
A	2.1962E+00	2.4330E+00	2.5887E+00
S	1.0834E+00	1.0869E+00	1.1042E+00
Z	1.0001E+00	1.0026E+00	1.0223E+00
GAME	9.6738E-01	8.9570E-01	8.1289E-01
U	5.3345E+00	1.6974E+00	1.3806E+00

SPECIES	MOLE FRACTIONS		
E-	5.9887E-27	1.2069E-17	4.5227E-14
HE	3.4998E-01	3.4908E-01	3.4238E-01
HE+	7.4201E-52	8.3874E-43	2.5367E-35
HE++	0.	0.	0.
H	1.0410E-04	5.2309E-03	4.3504E-02
H+	8.1334E-20	1.2150E-17	4.5227E-14
H2	6.4991E-01	6.4568E-01	6.1406E-01

P1 = 2.00E+01 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2178E+01	1.0716E+02	1.9401E+02
T	6.5240E+00	8.1868E+00	9.0996E+00
RHO	4.9170E+00	1.2729E+01	2.0091E+01
M	7.0713E+00	1.0492E+01	1.3704E+01
A	2.4112E+00	2.6023E+00	2.7652E+00
S	1.1093E+00	1.1178E+00	1.1391E+00
Z	1.0038E+00	1.0282E+00	1.0636E+00
GAME	8.8847E-01	7.0447E-01	7.8987E-01
U	4.1200E+00	1.5907E+00	1.3384E+00

SPECIES	MOLE FRACTIONS		
E-	1.4692E-17	9.9574E-14	2.9111E-12
HE	3.4894E-01	3.4042E-01	3.2900E-01
HE+	1.4474E-42	3.9295E-34	5.5264E-31
HE++	0.	0.	0.
H	5.0356E-03	5.4766E-02	1.2002E-01
H+	1.4773E-17	9.9574E-14	2.9111E-12
H2	6.4500E-01	6.0482E-01	5.5099E-01

P1 = 2.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0429E+01	3.2215E+02	4.8883E+02
T	8.3980E+00	1.0159E+01	1.0897E+01
RHO	8.8553E+00	2.7656E+01	3.7279E+01
M	1.2702E+01	1.9730E+01	2.3931E+01
A	2.8632E+00	3.0259E+00	3.2006E+00
S	1.1648E+00	1.1944E+00	1.2296E+00
Z	1.0497E+00	1.1424E+00	1.1963E+00
GAME	7.8809E-01	7.8587E-01	7.8899E-01
U	5.8899E+00	1.4605E+00	1.3209E+00

SPECIES	MOLE FRACTIONS		
E-	3.6423E-13	7.9415E-11	4.4097E-10
HE	3.3394E-01	3.0639E-01	2.9200E-01
HE+	9.0281E-34	6.4612E-28	7.8000E-26
HE++	0.	0.	0.
H	9.4913E-02	2.4921E-01	3.3095E-01
H+	3.0423E-13	7.9415E-11	4.4097E-10
H2	5.7194E-01	4.4440E-01	3.7096E-01

P1 = 2.00E+01 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8009E+01	4.9936E+02	7.2273E+02
T	8.9907E+00	1.1010E+01	1.1773E+01
RHO	7.9733E+00	3.7024E+01	4.7790E+01
M	1.5020E+01	2.5420E+01	3.0297E+01
A	2.7090E+00	3.2637E+00	3.4700E+00
S	1.1970E+00	1.2405E+00	1.2752E+00
Z	1.0063E+00	1.2195E+00	1.2858E+00
GAME	7.8083E-01	7.8976E-01	7.9572E-01
U	6.7842E+00	1.4613E+00	1.3602E+00

SPECIES	MOLE FRACTIONS		
E-	3.6843E-12	6.5538E-10	2.7931E-09
HE	3.2162E-01	2.8700E-01	2.7422E-01
HE+	2.2839E-31	1.7297E-25	6.5618E-24
HE++	0.	0.	7.5258E-89
H	1.0619E-01	3.6001E-01	4.4935E-01
H+	3.6843E-12	6.5938E-10	2.7931E-09
H2	5.1019E-01	3.5259E-01	2.8322E-01

Table I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 1.COE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7724E+01	7.2624E+02	1.02[illegible]E+03
T	9.5043E+00	1.1919E+01	1.27[illegible]E+01
RHO	9.0670E+00	4.6607E+01	5.801[illegible]E+01
M	1.8378E+01	3.1779E+01	3.746[illegible]E+01
A	2.8980E+00	3.5245E+00	3.771[illegible]E+00
S	1.2322E+00	1.2906E+00	1.329[illegible]E+00
Z	1.1340E+00	1.3074E+00	1.384[illegible]E+00
GAME	7.7917E-01	7.9720E-01	8.07[illegible]E-01
U	7.6094E+00	1.4923E+00	1.4193[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.0363E-11	3.7592E-09	1.53[illegible]E-08
HE	3.0863E-01	2.6771E-01	2.52[illegible]E-01
HE+	1.1905E-29	1.0842E-23	4.094[illegible]E-22
HE++	0.	4.2401E-88	2.89[illegible]E-82
H	2.3038E-01	4.7022E-01	5.55[illegible]E-01
H+	2.0383E-11	3.7592E-09	1.53[illegible]E-08
H2	4.5498E-01	2.6207E-01	1.91[illegible]E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0923E+02	1.6667E+03	2.41[illegible]E+03
T	1.0099E+01	1.5887E+01	2.27[illegible]E+01
RHO	1.1870E+01	8.5561E+01	8.43[illegible]E+01
M	3.0519E+01	5.4033E+01	8.671[illegible]E+01
A	3.3409E+00	4.8043E+00	6.448[illegible]E+00
S	1.3338E+00	1.4535E+00	1.51[illegible]E+00
Z	1.3060E+00	1.6002E+00	1.640[illegible]E+00
GAME	7.8066E-01	9.0789E-01	1.169[illegible]E+00
U	1.0260E+01	1.8580E+00	2.318[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	6.0205E-10	1.0843E-06	2.6[illegible]E-06
HE	2.0732E-01	2.1872E-01	2.1730[illegible]E-01
HE+	6.3554E-26	1.3131E-17	7.5492[illegible]E-17
HE++	0.	8.7361E-06	6.0080[illegible]E-05
H	4.7098E-01	7.5017E-01	7.8586[illegible]E-01
H+	8.0304E-10	1.0843E-06	2.0[illegible]E-06
H2	2.0144E-01	3.1112E-02	1.4086[illegible]E-03

P1 = 2.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1949E+02	1.0010E+03	1.3860E+03
T	9.9785E+00	1.2849E+01	1.391[illegible]E+01
RHO	1.0095E+01	5.5493E+01	6.6882E+01
M	2.2077E+01	3.8780E+01	4.5453E+01
A	3.0387E+00	3.8209E+00	4.15[illegible]E+00
S	1.270[illegible]E+00	1.3438E+00	1.387[illegible]E+00
Z	1.1802E+00	1.4039E+00	1.49[illegible]E+00
GAMA	7.8006E-01	8.0933E-01	8.2971E-01
U	8.5406E+00	1.5541E+00	1.51[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	8.3853E-11	1.8994E-08	9.09[illegible]E-08
HE	2.9506E-01	2.4931E-01	2.3455E-01
HE+	2.5402E-28	5.2694E-22	2.8260[illegible]E-20
HE++	0.	1.2352E-80	4.8942E-75
H	3.1396E-01	5.7538E-01	6.5971E-01
H+	8.3853E-11	1.8994E-08	9.09[illegible]E-08
H2	3.9098E-01	1.7532E-01	1.05[illegible]E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9710E+02	1.9879E+03	3.0784E+03
T	1.1389E+01	2.0254E+01	3.127[illegible]E+01
RHO	1.2571E+01	5.9672E+01	5.9[illegible]E+01
M	3.5204E+01	6.3176E+01	8.01[illegible]E+01
A	3.5235E+00	6.0388E+00	7.1411E+00
S	1.3988E+00	1.5022E+00	1.55[illegible]E+00
Z	1.3767E+00	1.6448E+00	1.60[illegible]E+00
GAME	7.9271E-01	1.0946E+00	9.823[illegible]E-01
U	1.1100E+01	2.3411E+00	2.9807E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.0417E-09	4.7780E-05	6.2[illegible]E-03
HE	2.5422E-01	2.1279E-01	2.1[illegible]E-01
HE+	1.0950E-24	1.7560E-15	3.6[illegible]E-08
HE++	4.0361E-50	7.5007E-31	1.01[illegible]E-31
H	5.4729E-01	7.8393E-01	7.7[illegible]E-01
H+	2.0417E-09	4.7780E-05	6.2[illegible]E-03
H2	1.9849E-01	3.1904E-03	1.[illegible]E-04

P1 = 2.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4334E+02	1.3201E+03	1.8317E+03
T	1.0437E+01	1.4001E+01	1.598[illegible]E+01
RHO	1.1037E+01	6.2619E+01	7.1679E+01
M	2.6124E+01	4.6420E+01	5.4688E+01
A	3.1881E+00	4.1908E+00	4.81[illegible]E+00
S	1.3109E+00	1.3988E+00	1.447[illegible]E+00
Z	1.2444E+00	1.5057E+00	1.599[illegible]E+00
GAME	7.8260E-01	8.3312E-01	9.0773E-01
U	9.4046E+00	1.6580E+00	1.709[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.0558E-10	1.0633E-07	1.[illegible]E-06
HE	2.8127E-01	2.3246E-01	2.1[illegible]E-01
HE+	3.0462E-27	3.7543E-20	1.6[illegible]E-17
HE++	0.	2.3745E-74	1.71[illegible]E-65
H	5.9273E-01	6.7169E-01	7.49[illegible]E-01
H+	2.0558E-10	1.0633E-07	1.[illegible]E-06
H2	3.2000E-01	9.5860E-02	3.1[illegible]E-02

P1 = 2.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0672E+02	2.2768E+03	3.7224E+03
T	1.1942E+01	2.6373E+01	3.657[illegible]E+01
RHO	1.3108E+01	5.2278E+01	6.0291E+01
M	4.0351E+01	7.2002E+01	9.28[illegible]E+01
A	3.7200E+00	6.8402E+00	7.437[illegible]E+00
S	1.4453E+00	1.5407E+00	1.589[illegible]E+00
Z	1.4490E+00	1.6514E+00	1.68[illegible]E+00
GAME	8.0227E-01	1.0743E+00	8.96[illegible]E-01
U	1.1942E+01	2.9929E+00	3.317[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.9901E-09	1.2446E-03	2.27[illegible]E-02
HE	2.4144E-01	2.1195E-01	2.07[illegible]E-01
HE+	1.3573E-23	6.0961E-10	1.0[illegible]E-06
HE++	9.4778E-86	4.6061E-38	2.6640E-26
H	6.2052E-01	7.8514E-01	7.47[illegible]E-01
H+	7.9901E-09	1.2446E-03	2.27[illegible]E-02
H2	1.3824E-01	4.2118E-04	8.1001E-05

Table I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5852E+02	2.5762E+03	4.32[illegible]E+03
T	1.2042E+01	3.1785E+01	4.02[illegible]E+01
RHO	1.3412E+01	4.8739E+01	6.23[illegible]E+01
M	4.2784E+01	8.1439E+01	1.0540E+02
A	3.4772E+00	7.1347E+00	7.7452E+00
S	1.4929E+00	1.5730E+00	1.6203E+00
Z	1.3240E+00	1.6630E+00	1.7259E+00
GAME	8.2003E-01	9.6305E-01	8.6412E-01
U	1.2702E+01	3.5083E+00	3.4910E+00

SPECIES	MOLE FRACTIONS		
E-	2.8739E-08	1.9378E-03	4.4031E-02
NE	2.2934E-01	2.1047E-01	2.0270E-01
NE+	3.7490E-22	6.1800E-08	6.0383E-06
NE++	1.7001E-42	7.2792E-31	1.5407E-23
N	5.8833E-01	7.7352E-01	7.0906E-01
N+	2.8734E-08	7.9377E-03	4.4044E-02
N2	8.2130E-02	1.3479E-04	5.2875E-05

P1 = 2.00E+01 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5596E+02	2.8285E+03	4.5552E+03
T	2.0592E+01	4.0812E+01	4.6443E+01
RHO	1.0480E+01	3.9486E+01	5.2770E+01
M	5.3928E+01	1.1224E+02	1.4103E+02
A	3.1650E+00	7.7932E+00	8.5047E+00
S	1.6215E+00	1.6712E+00	1.7205E+00
Z	1.0499E+00	1.7552E+00	1.8587E+00
GAME	1.1190E+00	8.4784E-01	8.3792E-01
U	1.4813E+01	3.9288E+00	3.6715E+00

SPECIES	MOLE FRACTIONS		
E-	1.4277E-04	5.9980E-02	1.1220E-01
NE	2.1220E-01	1.9939E-01	1.8824E-01
NE+	7.3767E-13	9.8769E-06	7.2054E-05
NE++	3.4072E-49	6.4814E-23	1.1220E-19
N	7.8702E-01	6.8062E-01	5.8718E-01
N+	1.4277E-04	5.9910E-02	1.1221E-01
N2	4.9640E-04	2.9514E-05	1.9020E-05

P1 = 2.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.915xE+02	2.8600E+03	4.81xxE+03
T	1.374xE+01	3.5825E+01	4.29xxE+01
RHO	1.42x7E+01	4.7364E+01	6.32xxE+01
M	5.4x5xE+01	9.1609E+01	1.18xxE+02
A	4.37xxE+00	7.3566E+00	8.04xxE+00
S	1.54xxE+00	1.6033E+00	1.65xxE+00
Z	1.59xxE+00	1.6869E+00	1.76xxE+00
GAME	8.71xxE-01	8.9607E-01	8.50xxE-01
U	1.3x49E+01	3.7992E+00	3.6G3xE+00

SPECIES	MOLE FRACTIONS		
E-	1.0x39E-07	2.1960E-02	6.7x1xE-02
HE	2.1925E-01	2.0748E-01	1.97xxE-01
HE+	3.0249E-20	7.6727E-07	1.9xx7E-05
HE++	7.72xxE-7x	2.5661E-27	1.01xxE-21
H	7.4713E-01	7.4853E-01	6.6xxxE-01
H+	1.0539E-07	2.1959E-02	6.7x97E-02
H2	3.3x1xE-02	7.2852E-05	3.7x1xE-05

P1 = 2.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.89xxE+02	2.8109E+03	4.4177E+03
T	2.515xE+01	4.2629E+01	4.74xxE+01
RHO	9.3xx5E+00	3.6770E+01	4.84xxE+01
M	7.0565E+01	1.23C7E+02	1.53xxE+02
A	6.6x47E+00	8.0148E+00	8.72xxE+00
S	1.6518E+00	1.7041E+00	1.75xxE+00
Z	1.6x27E+00	1.7957E+00	1.90xxE+00
GAME	1.0493E+00	8.3916E-01	8.35x7E-01
U	1.5x98E+01	3.9241E+00	3.68x4E+00

SPECIES	MOLE FRACTIONS		
E-	1.7x55E-03	8.1156E-02	1.34xxE-01
HE	2.1177E-01	1.9489E-01	1.85xxE-01
HE+	3.9113E-1x	2.1620E-05	1.17xxE-04
HE++	2.2198E-39	1.0611E-21	6.2xxxE-19
H	7.8x0xE-01	6.4278E-01	5.47x9E-01
H+	1.7x55E-03	8.1134E-02	1.34x8E-01
H2	1.0x19xE-04	2.1317E-05	1.4x1xE-05

P1 = 2.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.29xxE+02	2.9383E+03	4.859xE+03
T	1.e236E+01	3.8732E+01	4.50xxE+01
RHO	1.21xxE+01	4.4138E+01	5.95x9E+01
M	5.7e12E+01	1.0197E+02	1.30x9E+02
A	5.2813E+00	7.5832E+00	8.295xE+00
S	1.5845E+00	1.6362E+00	1.68x7E+00
Z	1.6416E+00	1.7188E+00	1.81x9E+00
GAME	1.0465E+00	8.6380E-01	8.42x1E-01
U	1.4237E+01	3.9223E+00	3.658xE+00

SPECIES	MOLE FRACTIONS		
E-	3.0029E-06	4.0075E-02	9.03x7E-02
HE	2.1320E-01	2.0363E-01	1.92x7E-01
HE+	7.1407E-17	3.6484E-06	1.6x6xE-05
HE++	4.8044E-64	1.9021E-24	1.67x2E-20
H	7.8169E-01	7.1618E-01	6.2ox2E-01
H+	3.6629E-06	4.0071E-02	9.03x2E-02
H2	5.1026E-03	4.4066E-05	2.7x0xE-05

P1 = 2.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2627E+02	2.9443E+03	4.5411E+03
T	2.8957E+01	4.4429E+01	4.93xxE+01
RHO	8.852xE+00	3.6000E+01	4.69xxE+01
M	7.7591E+01	1.3495E+02	1.66x8E+02
A	6.7x87E+00	8.2617E+00	8.98xxE+00
S	1.6762E+00	1.7348E+00	1.78xxE+00
Z	1.6x29E+00	1.8408E+00	1.95xxE+00
GAME	9.4587E-01	8.3457E-01	8.34xxE-01
U	1.6056E+01	3.9511E+00	3.72xxE+00

SPECIES	MOLE FRACTIONS		
E-	1.77x4E-03	1.0367E-01	1.57xxE-01
HE	2.1x4xE-01	1.9009E-01	1.7xxxE-01
HE+	1.6294E-08	4.3142E-05	1.91xxE-04
HE++	1.x957E-33	1.2986E-20	3.677xE-18
H	7.1x93E-01	6.0255E-01	5.0x4xE-01
H+	1.7764E-03	1.0363E-01	1.57xxE-01
H2	4.0218E-05	1.6240E-05	1.1x4xE-05

Table I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6603E+02	3.2098E+03	4.8793E+03
T	3.1019E+01	4.6267E+01	5.1104E+01
RHO	8.7209E+00	3.6694E+01	4.7353E+01
M	8.5020E+01	1.4800E+02	1.0199E+02
A	2.0000E+00	8.5338E+00	9.2703E+00
S	1.7020E+00	1.7642E+00	1.8103E+00
Z	1.0812E+00	1.8906E+00	2.0103E+00
GAME	8.8502E-01	8.3255E-01	8.3510E-01
U	1.8700E+01	3.9942E+00	3.7931E+00

SPECIES	MOLE FRACTIONS		
E-	1.0009E-02	1.2729E-01	1.8100E-01
HE	2.0018E-01	1.8504E-01	1.7367E-01
HE+	1.4932E-07	8.1237E-05	3.1403E-04
HE++	4.7058E-30	1.3171E-19	2.2401E-17
H	7.9428E-01	5.6037E-01	4.6332E-01
H+	1.0009E-02	1.2720E-01	1.8133E-01
H2	2.3001E-05	1.2805E-05	8.7909E-06

P1 = 2.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0024E+02	4.4598E+03	6.5877E+03
T	3.7495E+01	5.1799E+01	5.6814E+01
RHO	9.1502E+00	4.1761E+01	5.2403E+01
M	1.0904E+02	1.9270E+02	2.3306E+02
A	2.4113E+00	9.4399E+00	1.0285E+01
S	1.7720E+00	1.8519E+00	1.9127E+00
Z	1.7050E+00	2.0617E+00	2.2172E+00
GAME	8.2938E-01	8.3444E-01	8.4144E-01
U	1.9193E+01	4.2124E+00	4.0611E+00

SPECIES	MOLE FRACTIONS		
E-	8.5611E-02	1.9969E-01	2.5429E-01
HE	1.9820E-01	1.6936E-01	1.5092E-01
HE+	4.3149E-06	4.0623E-04	1.2772E-03
HE++	1.0147E-24	5.1782E-17	3.9333E-15
H	8.7057E-01	4.3125E-01	3.3460E-01
H+	8.5006E-02	1.9929E-01	2.5290E-01
H2	9.4100E-06	8.6021E-06	4.1303E-06

P1 = 2.00E+01 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1004E+02	3.5652E+03	5.35[illegible]E+03
T	3.4049E+01	4.8115E+01	5.[illegible]E+01
RHO	8.7[illegible]E+00	3.8106E+01	4.8[illegible]E+01
M	9.2857E+01	1.6206E+02	1.9814E+02
A	7.0[illegible]E+00	8.8237E+00	9.593[illegible]E+00
S	1.7201E+00	1.7933E+00	1.84[illegible]E+00
2	1.7[illegible]E+00	1.9445E+00	2.07[illegible]E+00
GAME	8.5407E-01	8.3218E-01	8.360[illegible]E-01
U	1.7[illegible]E+01	4.0564E+00	3.867[illegible]E+00

SPECIES	MOLE FRACTIONS		
L-	3.[illegible]E-02	1.5145E-01	2.0[illegible]E-01
HE	2.0[illegible]E-01	1.7985E-01	1.6[illegible]E-01
HE+	6.[illegible]E-07	1.4514E-04	5.0[illegible]E-04
HE++	9.[illegible]E-28	1.1345E-18	1.[illegible]E-16
H	7.[illegible]E-01	5.1724E-01	4.1[illegible]E-01
H+	3.[illegible]E-02	1.5131E-01	2.0[illegible]E-01
H2	1.5[illegible]E-05	1.0251E-05	6.9[illegible]E-06

P1 = 2.00E+01 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.57[illegible]E+02	4.9784E+03	7.306[illegible]E+03
T	3.8[illegible]E+01	5.3639E+01	5.88[illegible]E+01
RHO	9.3825E+00	4.3696E+01	5.4387E+01
M	1.18[illegible]E+02	2.0912E+02	2.53[illegible]E+02
A	7.6003E+00	9.7625E+00	1.005[illegible]E+01
S	1.7900E+00	1.8815E+00	1.94[illegible]E+00
2	1.8001E+00	2.1241E+00	2.2834E+00
GAME	8.[illegible]E-01	8.3651E-01	8.4441E-01
U	2.0021E+01	4.3034E+00	4.1718E+00

SPECIES	MOLE FRACTIONS		
L-	8.3383E-02	2.2321E-01	2.7[illegible]E-01
HE	1.9443E-01	1.6413E-01	1.513[illegible]E-01
HE+	8.0022E-06	6.4623E-04	1.978[illegible]E-03
HE++	1.2807E-23	2.9005E-16	1.983[illegible]E-14
H	6.3688E-01	3.8945E-01	2.9393E-01
H+	8.3374E-02	2.2256E-01	2.7[illegible]E-01
H2	7.0432E-06	5.2473E-06	3.11[illegible]E-06

P1 = 2.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.[illegible]E+02	3.9869E+03	5.93[illegible]E+03
T	3.5[illegible]E+01	4.9962E+01	5.4841E+01
RHO	8.9[illegible]E+00	3.9866E+01	5.0404E+01
M	1.0107E+02	1.7700E+02	2.15[illegible]E+02
A	7.2[illegible]E+00	9.1269E+00	9.92[illegible]E+00
S	1.7494E+00	1.8225E+00	1.880[illegible]E+00
2	1.7342E+00	2.0017E+00	2.143[illegible]E+00
GAME	8.3860E-01	8.3293E-01	8.387[illegible]E-01
U	1.8370E+01	4.1298E+00	3.9594E+00

SPECIES	MOLE FRACTIONS		
L-	4.8543E-02	1.7572E-01	2.30[illegible]E-01
HE	2.0182E-01	1.7460E-01	1.624[illegible]E-01
HE+	1.8690E-06	2.4766E-04	8.111[illegible]E-04
HE++	4.[illegible]E-26	8.2280E-18	7.40[illegible]E-16
H	7.0108E-01	4.7396E-01	3.77[illegible]E-01
H+	4.8542E-02	1.7547E-01	2.2941E-01
H2	1.1424E-05	8.2390E-06	5.389[illegible]E-06

P1 = 2.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.1107E+02	5.5401E+03	8.09[illegible]E+03
T	4.0255E+01	5.5494E+01	6.0954E+01
RHO	9.6181E+00	4.5614E+01	5.6335E+01
M	1.2780E+02	2.2625E+02	2.7321E+02
A	7.7912E+00	1.0095E+01	1.103[illegible]E+01
S	1.8195E+00	1.9114E+00	1.977[illegible]E+00
2	1.8303E+00	2.1886E+00	2.350[illegible]E+00
GAME	8.2109E-01	8.3900E-01	8.4740E-01
U	2.0852E+01	4.3976E+00	4.2913E+00

SPECIES	MOLE FRACTIONS		
L-	1.0157E-01	2.4611E-01	2.990[illegible]E-01
HE	1.9056E-01	1.5891E-01	1.455[illegible]E-01
HE+	1.5525E-05	1.0042E-03	3.0340E-03
HE++	1.1344E-22	1.4849E-15	9.530[illegible]E-14
H	6.0[illegible]E-01	3.4886E-01	2.5514E-01
H+	1.0156E-01	2.4511E-01	2.9663E-01
H2	6.3069E-06	4.1201E-06	2.297[illegible]E-06

Table I. - Continued

p_1 = 20 N/ m^2

P1 = 2.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6075E+02	6.1393E+03	8.9298E+03
T	4.1495E+01	5.7373E+01	6.3144E+01
RHO	5.8553E+00	4.7455E+01	5.8200E+01
M	1.3750E+02	2.4405E+02	2.9424E+02
A	7.9840E+00	1.0436E+01	1.1423E+01
S	1.8434E+00	1.9416E+00	2.0104E+00
Z	1.8749E+00	2.2549E+00	2.4299E+00
GAME	8.1932E-01	8.4179E-01	8.5039E-01
U	2.1684E+01	4.5042E+00	4.4192E+00

SPECIES	MOLE FRACTIONS		
E-	1.1996E-01	2.6826E-01	3.2090E-01
HE	1.8609E-01	1.5369E-01	1.3943E-01
HE+	2.6088E-05	1.5320E-03	4.6146E-03
HE++	7.6684E-22	7.0672E-15	4.4381E-13
H	5.7339E-01	3.0979E-01	2.1860E-01
H+	1.1993E-01	2.6673E-01	3.1034E-01
H2	5.2540E-06	3.1849E-06	1.6910E-06

P1 = 2.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0104E+03	8.8746E+03	1.2800E+04
T	4.5989E+01	6.5391E+01	7.2850E+01
RHO	1.0741E+01	5.3681E+01	6.4573E+01
M	1.7958E+02	3.2178E+02	3.8667E+02
A	8.7797E+00	1.1871E+01	1.3015E+01
S	1.9417E+00	2.0641E+00	2.1431E+00
Z	2.0455E+00	2.5282E+00	2.7224E+00
GAME	8.1942E-01	8.5242E-01	8.5410E-01
U	2.5011E+01	5.0065E+00	4.9930E+00

SPECIES	MOLE FRACTIONS		
E-	1.9535E-01	3.4736E-01	3.9380E-01
HE	1.7097E-01	1.3105E-01	1.0717E-01
HE+	1.3600E-04	7.3834E-03	2.1490E-02
HE++	3.4049E-19	2.2653E-12	1.4187E-10
H	4.4293E-01	1.7422E-01	1.0508E-01
H+	1.9521E-01	3.3998E-01	3.7247E-01
H2	2.5760E-06	9.2743E-07	3.4672E-07

P1 = 2.00E+01 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.2449E+02	6.7729E+03	9.82[illegible]E+03
T	4.2674E+01	5.9289E+01	6.54[illegible]E+01
RHO	1.0088E+01	4.9187E+01	5.994[illegible]E+01
M	1.4749E+02	2.6249E+02	3.161[illegible]E+02
A	8.1768E+00	1.0785E+01	1.18[illegible]E+01
S	1.8675E+00	1.9721E+00	2.043[illegible]E+00
Z	1.9152E+00	2.3224E+00	2.564[illegible]E+00
GAME	8.1850E-01	8.4474E-01	8.527[illegible]E-01
U	2.2515E+01	4.6188E+00	4.554[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.3646E-01	2.8954E-01	3.411[illegible]E-01
HE	1.8271E-01	1.4840E-01	1.32[illegible]E-01
HE+	4.1503E-05	2.3041E-03	6.95[illegible]E-03
HE++	4.2821E-21	3.1680E-14	2.00[illegible]E-12
H	5.4037E-01	2.7252E-01	1.849[illegible]E-01
H+	1.3842E-01	2.8724E-01	3.341[illegible]E-01
H2	4.3979E-06	2.4170E-06	1.155[illegible]E-06

P1 = 2.00E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1445E+03	1.0415E+04	1.501[illegible]E+04
T	4.8113E+01	6.9855E+01	7.82[illegible]E+01
RHO	1.1118E+01	5.5961E+01	6.709[illegible]E+01
M	2.0271E+02	3.6446E+02	4.380[illegible]E+02
A	9.1978E+00	1.2606E+01	1.38[illegible]E+01
S	1.9926E+00	2.1267E+00	2.21[illegible]E+00
Z	2.1395E+00	2.6642E+00	2.86[illegible]E+00
GAME	8.2186E-01	8.5382E-01	8.540[illegible]E-01
U	2.6666E+01	5.2992E+00	5.29[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.2879E-01	3.8068E-01	4.23[illegible]E-01
HE	1.6332E-01	1.1617E-01	8.300[illegible]E-02
HE+	2.7147E-04	1.5197E-02	3.869[illegible]E-02
HE++	4.3589E-18	3.3444E-11	1.70[illegible]E-09
H	3.7910E-01	1.2246E-01	6.993[illegible]E-02
H+	2.2832E-01	3.6548E-01	3.845[illegible]E-01
H2	1.7082E-06	4.3560E-07	1.402[illegible]E-07

P1 = 2.00E+01 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8445E+02	7.4430E+03	1.077[illegible]E+04
T	4.3808E+01	6.1263E+01	6.782[illegible]E+01
RHO	1.0316E+01	5.0810E+01	6.159[illegible]E+01
M	1.5784E+02	2.8162E+02	3.389[illegible]E+02
A	8.3762E+00	1.1143E+01	1.22[illegible]E+01
S	1.8919E+00	2.0028E+00	2.07[illegible]E+00
Z	1.9571E+00	2.3911E+00	2.578[illegible]E+00
GAME	8.1834E-01	8.4768E-01	8.542[illegible]E-01
U	2.3349E+01	4.7423E+00	4.697[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.3690E-01	3.09[illegible]E-01	3.600[illegible]E-01
HE	1.7878E-01	1.4294E-01	1.253[illegible]E-01
HE+	6.3620E-05	3.4329E-03	1.035[illegible]E-02
HE++	2.0705E-20	1.3674E-13	8.759[illegible]E-12
H	5.0741E-01	2.3718E-01	1.545[illegible]E-01
H+	1.5684E-01	3.0650E-01	3.497[illegible]E-01
H2	3.6869E-06	1.7946E-06	7.808[illegible]E-07

P1 = 2.00E+01 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2805E+03	1.2054E+04	1.737[illegible]E+04
T	5.0263YL+01	7.4550E+01	8.402[illegible]E+01
RHO	1.1446E+01	5.7878E+01	6.960[illegible]E+01
M	2.2724E+02	4.0967E+02	4.924[illegible]E+02
A	9.0341E+00	1.3327E+01	1.47[illegible]E+01
S	2.0446E+00	2.1889E+00	2.27[illegible]E+00
Z	2.2384L+00	2.7935E+00	2.99[illegible]E+00
GAME	8.2537E-01	8.5283E-01	8.644[illegible]E-01
U	2.8513E+01	5.597EE+00	5.022[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.6287E-01	4.0935E-01	4.4[illegible]E-01
HE	1.5503E-01	9.7032E-02	5.71[illegible]E-02
HE+	5.1577E-04	2.8258E-02	5.98[illegible]E-02
HE++	4.3405E-17	3.9194E-10	1.74[illegible]E-08
H	3.1842E-01	8.4272E-02	4.52[illegible]E-02
H+	2.6235E-01	3.8109E-01	3.80[illegible]E-01
H2	1.1733E-06	1.9596E-07	5.85[illegible]E-08

Table I. – Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 3.86E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4364E+03	1.3771E+04	1.98dec+04
T	5.2425E+01	7.9457E+01	9.1325E+01
RHO	1.1702E+01	5.9436E+01	6.9827E+01
M	2.5317E+02	4.5735E+02	5.511UE+02
A	1.0093E+01	1.4079E+01	1.59U9E+01
S	2.0976E+00	2.2505E+00	2.3440E+00
Z	2.3414E+00	2.9160E+00	3.11U7E+00
GAME	8.2986E-01	8.5548E-01	8.9537E-01
U	2.9949E+01	5.8989E+00	6.0274E+00

SPECIES	MOLE FRACTIONS		
E-	2.9529E-01	4.3416E-01	4.7U93E-01
HE	1.4852E-01	7.4159E-02	3.1UU2E-02
HE+	9.5983E-04	4.5867E-02	8.1222E-02
HE++	4.2938E-16	3.5159E-09	1.7012E-07
H	2.6090E-01	5.7518E-02	2.7133E-02
H+	2.9433E-01	3.8829E-01	3.897IE-01
H2	7.4239E-07	8.6743E-08	1.9187E-06

P1 = 2.00E+01 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9314E+03	1.8833E+04	2.8963E+04
T	6.0026E+01	1.0153E+02	1.5U39E+02
RHO	1.2693E+01	5.7430E+01	5.8134E+01
M	3.3926E+02	6.1310E+02	7.7610E+02
A	1.1623E+01	1.7926E+01	2.22U7E+01
S	2.4294E+00	2.4325E+00	2.5395E+00
Z	2.8601E+00	3.2299E+00	3.3U09E+00
GAME	8.4590E-01	9.7988E-01	9.8979E-01
U	3.4700E+01	7.3301E+00	9.1255E+00

SPECIES	MOLE FRACTIONS		
E-	3.7905E-01	4.8914E-01	5.0127E-01
HE	1.2503E-01	1.0167E-02	4.7770E-04
HE+	6.5187E-03	9.8194E-02	1.0103E-01
HE++	3.0280E-13	2.8611E-06	4.2854E-03
H	1.1526E-01	1.1549F-02	1.2699E-03
H+	3.7334E-01	3.9094F-01	3.9107E-01
H2	1.1003E-07	2.5371E-09	2.0041E-11

P1 = 2.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5939E+03	1.5526E+04	2.2627E+04
T	5.4735E+01	8.4882E+01	1.0294E+02
RHO	1.1899E+01	6.0299E+01	6.8147E+01
M	2.8048E+02	5.0738E+02	6.1652E+02
A	1.0578E+01	1.4954E+01	1.8036E+01
S	2.1512E+00	2.3120E+00	2.4114E+00
Z	2.4473E+00	3.0335E+00	3.2201E+00
GAME	8.3524E-01	8.6847E-01	9.7994E-01
U	5.1574E+01	6.2330E+00	6.0824E+00

SPECIES	MOLE FRACTIONS		
E-	5.4298E-01	4.5607E-01	4.8853E-01
HE	1.4123E-01	4.9749E-02	1.0426E-02
HE+	1.7834E-03	6.5631E-02	9.8059E-02
HE++	5.9626E-15	2.7251E-08	3.2281E-06
H	2.0717E-01	3.8119E-02	1.2481E-02
H+	5.2402E-01	3.9044E-01	3.9048E-01
H2	4.4013E-07	3.5783E-08	3.4481E-09

P1 = 2.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1112E+03	2.0197E+04	3.1803E+04
T	6.3104E+01	1.1635E+02	1.6630E+02
RHO	1.2111E+01	5.2988E+01	5.7103E+01
M	3.7070E+02	6.6763E+02	8.5225E+02
A	1.2149E+01	2.0241E+01	2.2900E+01
S	2.3130E+00	2.4859E+00	2.5802E+00
Z	2.7023E+00	3.2760E+00	3.3507E+00
GAME	8.4076E-01	1.0749E+00	9.0547E-01
U	3.6372E+01	8.3169E+00	9.7829E+00

SPECIES	MOLE FRACTIONS		
E-	4.0260E-01	4.9634E-01	5.0730E-01
HE	1.1411E-01	2.7276E-03	2.6211E-04
HE+	1.2292E-02	1.0406E-01	8.8027E-02
HE++	3.9930E-12	5.4870E-05	1.6107E-02
H	8.0527E-02	4.6524E-03	7.8425E-04
H+	3.9000YE-01	3.9217F-01	3.8724E-01
H2	5.2992E-08	3.2460E-10	7.3210E-12

P1 = 2.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7591E+03	1.7249E+04	2.5762E+04
T	5.7245E+01	9.1662E+01	1.2543E+02
RHO	1.2029E+01	5.9875E+01	6.2500E+01
M	3.0917E+02	5.5949E+02	6.9427E+02
A	1.1091E+01	1.6126E+01	2.1176E+01
S	2.2054E+00	2.3735E+00	2.4812E+00
Z	2.5540E+00	3.1429E+00	3.2834E+00
GAME	8.4109E-01	9.0263E-01	1.0889E+00
U	5.3184E+01	6.6741E+00	7.9031E+00

SPECIES	MOLE FRACTIONS		
E-	5.5411E-01	4.7501E-01	4.9740E-01
HE	1.3363E-01	2.6904E-02	1.7391E-03
HE+	5.3743E-03	8.4457E-02	1.0467E-01
HE++	5.7665E-14	2.2998E-07	1.9292E-04
H	1.5814E-01	2.3078E-02	3.5020E-03
H+	5.2074E-01	3.9055E-01	3.9239E-01
H2	2.5975E-07	1.1926E-08	2.0727E-10

P1 = 2.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2988E+03	2.1445E+04	3.4701E+04
T	6.6317E+01	1.3458E+02	1.7792E+02
RHO	1.2118E+01	4.8375E+01	5.7270E+01
M	4.0355E+02	7.2331E+02	9.2784E+02
A	1.2048E+01	2.1808E+01	2.3142E+01
S	2.3077E+00	2.5333E+00	2.6297E+00
Z	2.8578E+00	3.2940E+00	3.4052E+00
GAME	8.4320E-01	1.0728E+00	8.8269E-01
U	3.7955E+01	9.5098E+00	1.0182E+01

SPECIES	MOLE FRACTIONS		
E-	4.2263E-01	4.9909E-01	5.1343E-01
HE	9.9537E-02	8.0688E-04	1.6854E-04
HE+	2.2935E-02	1.0459E-01	7.6931E-02
HE++	5.7422E-11	8.6139E-04	3.1883E-02
H	5.5195E-02	1.8802E-03	5.8833E-04
H+	3.9970E-01	3.9278E-01	3.8118E-01
H2	2.2959E-08	4.1746E-11	4.0122E-12

Table I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4944E+03	2.2890E+04	3.7601E+04
T	6.9716E+01	1.5120E+02	1.8829E+02
RHO	1.2137E-01	4.5675E-01	5.7757E-01
H	4.3781E+02	7.8199E+02	1.0053E+03
A	1.3140E+01	2.2017E+01	2.4005E+01
S	2.4211E+00	2.5759E+00	2.6700E+00
L	2.9477E+00	3.3144E+00	3.4633E+00
GAME	8.4088E-01	9.6727E-01	8.8373E-01
U	3.9542E+01	1.0503E+01	1.0536E+01

SPECIES	MOLE FRACTIONS		
E-	4.4025E-01	5.0218E-01	5.2309E-01
NE	8.1413E-02	3.6327E-04	1.0899E-04
NE+	5.7322E-02	9.9536E-02	5.3304E-02
NE++	2.7918E-10	5.6990E-03	4.7034E-02
H	3.8093E-02	9.8041E-04	4.7096E-04
H+	4.0279E-01	3.9124E-01	3.7496E-01
H2	1.0153E-08	9.7266E-12	2.5450E-14

P1 = 2.00E+01 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1234E+03	2.8093E+04	4.6601E+04
T	8.2122E+01	1.8253E+02	2.3405E+02
RHO	1.1909E+01	4.4588E+01	5.5022E+01
H	5.4878E+02	9.7866E+02	1.2676E+03
A	1.5325E+01	2.3527E+01	2.9396E+01
S	2.5773E+00	2.6943E+00	2.7904E+00
L	3.1930E+00	3.4517E+00	3.6107E+00
GAME	8.9549E-01	8.7857E-01	1.0204E+00
U	4.4208E+01	1.1798E+01	1.2229E+01

SPECIES	MOLE FRACTIONS		
E-	4.8335E-01	5.2198E-01	5.4404E-01
NE	2.2267E-02	9.8698E-05	9.9307E-06
NE+	8.7306E-02	5.6837E-02	8.4344E-03
NE++	8.8078E-08	4.4464E-02	8.8277E-02
H	1.1015E-02	4.1467E-04	1.9356E-04
H+	3.9604E-01	3.7621E-01	3.5905E-01
H2	8.5810E-10	1.5467E-12	3.9270E-13

P1 = 2.00E+01 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0983E+03	2.4627E+04	4.0730E+04
T	7.5217E+01	1.6374E+02	1.9987E+02
RHO	1.2143E-01	4.4873E-01	5.7805E-01
H	4.7346E+02	8.4471E+02	1.0876E+03
A	1.3701E+01	2.2244E+01	2.5206E+01
S	2.4736E+00	2.6163E+00	2.7131E+00
Z	3.0343E+00	3.3519E+00	3.5234E+00
GAME	8.4491E-01	9.0156E-01	9.0216E-01
U	4.1127E+01	1.1126E+01	1.0951E+01

SPECIES	MOLE FRACTIONS		
E-	4.3622E-01	5.0774E-01	5.3170E-01
NE	6.1260E-04	2.1986E-04	6.2737E-05
NE+	5.4169E-02	8.7830E-02	3.5443E-02
NE++	1.7208E-09	1.6369E-02	6.3834E-02
N	2.6309E-02	6.6358E-04	3.7310E-04
N+	4.0207E-01	3.8718E-01	3.6859E-01
N2	4.3324E-09	4.1634E-12	1.5740E-14

P1 = 2.00E+01 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3380E+03	2.9028E+04	4.8461E+04
T	8.9499E+01	1.9123E+02	2.6240E+02
RHO	1.1960E-01	4.3325E-01	5.0730E-01
H	5.8828E+02	1.0468E+03	1.3691E+03
A	1.6067E+01	2.4411E+01	3.2364E+01
S	2.6204E+00	2.7349E+00	2.8440E+00
Z	3.2535E+00	3.5036E+00	3.6396E+00
GAMC	9.7472E-01	8.8936E-01	1.0962E+00
U	4.5025E+01	1.2067E+01	1.3348E+01

SPECIES	MOLE FRACTIONS		
E-	4.9265E-01	5.2906E-01	5.4000E-01
NE	8.0090E-03	6.1732E-05	2.2943E-06
NE+	9.0967E-02	4.1317E-02	2.7204E-03
NE++	1.2582E-07	5.8517E-02	9.3441E-02
N	5.6958E-03	3.3434E-04	1.1980E-04
N+	3.9388E-01	3.7071E-01	3.5700E-01
N2	1.4948E-10	9.6461E-13	1.3140E-15

P1 = 2.00E+01 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9086E+03	2.6475E+04	4.3816E+04
T	7.7137E+01	1.7357E+02	2.1401E+02
RHO	1.2095E-01	4.4873E-01	5.7221E-01
H	5.1490E+02	9.1073E+02	1.1733E+03
A	1.4378E+01	2.2791E+01	2.6800E+01
S	2.5201E+00	2.6548E+00	2.7550E+00
Z	3.1174E+00	3.3793E+00	3.5776E+00
GAME	8.5972E-01	8.8038E-01	9.4427E-01
U	4.2684E+01	1.1498E+01	1.1445E+01

SPECIES	MOLE FRACTIONS		
E-	4.7071E-01	5.1460E-01	5.3879E-01
NE	4.0799E-04	1.4818E-04	2.9815E-05
NE+	7.1474E-02	7.2943E-02	1.9903E-02
NE++	1.0032E-08	2.9872E-02	7.7099E-02
N	1.7775E-02	5.1442E-04	2.8359E-04
N+	3.9924E-01	3.8192E-01	3.6309E-01
N2	1.9040E-09	2.4365E-12	8.8492E-15

P1 = 2.00E+01 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0490E+03	2.8996E+04	4.8857E+04
T	1.0062E+02	2.0053E+02	2.9578E+02
RHO	1.0734E-01	4.0707E-01	4.5299E-01
H	6.2680E+02	1.1134E+03	1.4735E+03
A	1.8851E+01	2.5514E+01	3.4806E+01
S	2.6716E+00	2.7780E+00	2.8899E+00
Z	3.2647E+00	3.5522E+00	3.6405E+00
GAMC	1.0751E+00	9.1389E-01	1.1271E+00
U	4.6893E+01	1.2365E+01	1.4565E+01

SPECIES	MOLE FRACTIONS		
E-	4.9766E-01	5.3550E-01	5.4731E-01
NE	2.2965E-03	3.4073E-05	5.0045E-07
NE+	1.0442E-01	2.7198E-02	8.9070E-04
NE++	1.2851E-05	7.1298E-02	9.5092E-02
N	2.3872E-03	2.6091E-04	7.1557E-05
N+	3.9339E-01	3.6571E-01	3.5044E-01
N2	2.0872E-11	5.4518E-13	4.0571E-14

Table I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M. US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7579E+03	2.8334E+04	4.8204E+04
T	1.1215E+02	2.1134E+02	3.2953E+02
RHO	9.9016E+00	3.7320E+01	4.0049E+01
M	6.7034E+02	1.1785E+03	1.5766E+03
A	2.0454E+01	2.6951E+01	3.6900E+01
S	2.7136E+00	2.8209E+00	2.9326E+00
Z	3.2958E+00	3.5924E+00	3.6485E+00
GAME	1.1024E+00	9.5675E-01	1.1333E+00
U	4.8049E+01	1.2742E+01	1.5801E+01

SPECIES	POLE FRACTIONS		
E-	4.9936E-01	5.4070E-01	5.4771E-01
NE	5.7281E-04	1.6068E-05	1.5333E-07
NE+	1.0538E-01	1.5798E-02	3.5349E-04
NE++	2.3960E-04	8.1613E-02	9.5575E-02
N	9.3954E-04	1.9537E-04	4.4734E-05
N+	3.9350E-01	3.6168E-01	3.5020E-01
N2	2.2188E-12	2.7602E-13	1.3730E-14

P1 = 2.00E+01 N/SQ-M. US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4099E+03	2.9640E+04	5.3917E+04
T	1.4770E+02	2.6799E+02	4.5249E+02
RHO	9.0105E+00	3.0344E+01	3.2672E+01
M	8.0444E+02	1.3906E+03	1.9379E+03
A	2.0873E+01	3.3026E+01	4.3364E+01
S	2.8150E+00	2.9262E+00	3.0329E+00
Z	3.3209E+00	3.6448E+00	3.6497E+00
GAME	8.7869E-01	1.1166E+00	1.1387E+00
U	5.2107E+01	1.5498E+01	1.9877E+01

SPECIES	POLE FRACTIONS		
E-	5.0841E-01	5.4730E-01	5.4791E-01
NE	7.3042E-05	6.5911E-07	5.8149E-09
NE+	8.7100E-02	1.3676E-03	5.5116E-05
NE++	1.7105E-02	9.4660E-02	9.5042E-02
N	2.2073E-04	6.6738E-05	1.4798E-05
N+	3.8710E-01	3.5661E-01	3.5017E-01
N2	1.0049E-13	2.4240E-14	1.1977E-15

P1 = 2.00E+01 N/SQ-M US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.97[illegible]E+03	2.8142E+04	4.85[illegible]E+04
T	1.28[illegible]E+02	2.2560E+02	3.67[illegible]E+02
RHO	9.3393E+00	3.444 [illegible]+01	3.62[illegible]E+01
H	7.13[illegible]E+02	1.2457E+03	1.68[illegible]E+03
A	2.[illegible]E+01	2.8854E+01	3.90[illegible]E+01
S	2.7[illegible]E+00	2.8598E+00	2.97[illegible]E+00
Z	3.3[illegible]E+00	3.6211E+00	3.64[illegible]E+00
GAME	1.02[illegible]E+00	1.0191E+00	1.13[illegible]E+00
U	4.9[illegible]E+01	1.3334E+01	1.70[illegible]E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	5.00[illegible]E-01	5.4434E-01	5.47[illegible]E-01
HE	2.1104E-04	6.3284E-06	4.05[illegible]E-08
HE+	1.03[illegible]E-01	7.8278E-03	1.64[illegible]E-04
HE++	2.07[illegible]E-03	8.8822E-02	9.5744E-02
H	4.02[illegible]E-04	1.4077E-04	2.5441E-05
H+	3.9[illegible]E-01	3.5887E-01	3.50[illegible]E-01
H2	5.09[illegible]E-13	1.2943E-13	5.31[illegible]E-13

P1 = 2.00E+01 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7390E+03	3.0982E+04	5.80[illegible]E+04
T	1.54[illegible]E+02	2.9337E+02	4.9891E+02
RHO	9.0546E+00	2.8952E+01	3.18[illegible]E+01
H	8.525[illegible]E+02	1.4681E+03	2.0765E+03
A	2.14[illegible]E+01	3.4782E+01	4.55[illegible]E+01
S	2.846[illegible]E+00	2.9542E+00	3.05[illegible]E+00
Z	3.3942E+00	3.6476E+00	3.649[illegible]E+00
GAME	6.615[illegible]E-01	1.1305E+00	1.13[illegible]E+00
U	5.36[illegible]E+01	1.6772E+01	2.131[illegible]E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	5.1388E-01	5.4765E-01	5.479[illegible]E-01
HE	5.1427E-05	2.2618E-07	2.6497[illegible]E-09
HE+	7.50[illegible]E-02	6.0963E-04	3.80[illegible]E-05
HE++	2.7983[illegible]E-02	9.5344E-02	9.5[illegible]E-02
H	1.[illegible]E-04	4.6988E-05	1.1199[illegible]E-05
H+	3.[illegible]E-01	3.5635E-01	3.5[illegible]E-01
H2	8.[illegible]E-14	1.1205E-14	8.7[illegible]E-16

P1 = 2.00E+01 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.21[illegible]E+03	2.8597E+04	5.05[illegible]E+04
T	1.39[illegible]E+02	2.4537E+02	4.07[illegible]E+02
RHO	9.07[illegible]E+00	3.2037E+01	3.46[illegible]E+01
H	7.58[illegible]E+02	1.3162E+03	1.80[illegible]E+03
A	2.07[illegible]E+01	3.1087E+01	4.11[illegible]E+01
S	2.7[illegible]E+00	2.8960E+00	3.00[illegible]E+00
Z	3.32[illegible]E+00	3.6378E+00	3.64[illegible]E+00
GAME	9.243[illegible]E-01	1.0826E+00	1.13[illegible]E+00
U	5.06[illegible]E+01	1.4323E+01	1.83[illegible]E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	5.0375E-01	5.4643E-01	5.47[illegible]E-01
HE	1.11[illegible]E-04	2.0149E-06	1.47[illegible]E-08
HE+	9.72[illegible]E-02	3.2408E-03	9.00[illegible]E-05
HE++	7.91[illegible]E-03	9.2968E-02	9.5811E-02
H	2.92[illegible]E-04	9.6127E-05	2.05[illegible]E-05
H+	3.9[illegible]E-01	3.5726E-01	3.5[illegible]E-01
H2	1.04[illegible]E-13	5.4561E-14	2.4[illegible]E-15

Table I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8747E+01	7.2502E+01
T	3.5241E+00	4.4739E+00	6.4632E+01
RHO	3.9293E+00	6.4262E+00	1.1204E+01
H	3.6325E+00	4.6131E+00	6.8896E+00
A	1.8730E+00	2.0900E+00	2.4401E+00
S	1.0585E+00	1.0600E+00	1.0730E+00
Z	1.0000E+00	1.0000E+00	1.0011E+00
GAME	9.8771E-01	9.7637E-01	9.2474E-01
U	2.5703E+00	1.5702E+00	1.3903E+00

SPECIES	MOLE FRACTIONS		
E-	1.6117E-49	5.2128E-31	2.8070E-18
HE	3.5000E-01	3.5000E-01	3.4970E-01
HE+	1.2238E-63	1.1991E-53	4.0788E-43
HE++	0.	0.	0.
H	6.2666E-08	6.3617E-06	2.2551E-03
H+	8.1343E-20	8.1343E-20	2.8908E-16
H2	6.5000E-01	6.4999E-01	6.4814E-01

P1 = 5.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4833E+01	1.8469E+02	3.0458E+02
T	7.0139E+00	9.5884E+00	1.0437E+01
RHO	5.0429E+00	1.8016E+01	2.8170E+01
H	9.3497E+00	1.4614E+01	1.8403E+01
A	2.5209E+00	2.8527E+00	3.0301E+00
S	1.1403E+00	1.1567E+00	1.1829E+00
Z	1.0163E+00	1.0692E+00	1.1152E+00
GAME	8.2328E-01	7.9380E-01	7.9199E-01
U	4.9048E+00	1.5554E+00	1.3674E+00

SPECIES	MOLE FRACTIONS		
E-	1.2883E-14	8.9219E-12	8.9237E-11
HE	3.4438E-01	3.2735E-01	3.1384E-01
HE+	1.8184E-35	1.0203E-29	1.3604E-27
HE++	0.	0.	0.
H	3.2088E-02	1.2941E-01	2.0605E-01
H+	1.2083E-14	8.9219E-12	8.9237E-11
H2	6.2353E-01	5.4324E-01	4.7931E-01

P1 = 5.00E+01 N/SQ-M. US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2027E+01	5.6916E+01	1.2455E+02
T	4.9864E+00	6.6218E+00	8.2866E+00
RHO	4.4170E+00	8.5801E+00	1.4702E+01
M	5.1726E+00	7.1088E+00	1.0032E+01
A	2.1977E+00	2.4587E+00	2.6359E+00
S	1.0866E+00	1.0902E+00	1.1066E+00
Z	1.0000E+00	1.0018E+00	1.0169E+00
GAME	9.6856E-01	9.1132E-01	8.2346E-01
U	3.3343E+00	1.7155E+00	1.4226E+00

SPECIES	MOLE FRACTIONS		
E-	1.5363E-27	8.3352E-18	6.7211E-14
HE	5.4999E-01	3.4938E-01	3.4332E-01
HE+	1.1876E-31	1.4341E-42	5.2937E-34
HE++	0.	0.	0.
H	6.6083E-05	3.5421E-03	3.7096E-02
H+	8.1341E-20	8.4164E-18	6.7211E-14
H2	6.4995E-01	6.4708E-01	6.1944E-01

P1 = 5.00E+01 N/SQ-M. US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0105E+01	3.0711E+02	4.7264E+02
T	8.6602E+00	1.0609E+01	1.1402E+01
RHO	6.0420E+00	2.5589E+01	3.4834E+01
M	1.2004E+01	1.9584E+01	2.3954E+01
A	2.0823E+00	3.0823E+00	3.2815E+00
S	1.1694E+00	1.1971E+00	1.2278E+00
Z	1.0444E+00	1.1314E+00	1.1879E+00
GAME	7.9513E-01	7.9154E-01	7.9482E-01
U	5.8579E+00	1.5200E+00	1.3794E+00

SPECIES	MOLE FRACTIONS		
E-	6.3607E-13	1.4480E-10	8.5912E-10
HE	3.3323E-01	3.0935E-01	2.9463E-01
HE+	2.3160E-32	5.8002E-27	8.8713E-23
HE++	0.	0.	0.
H	8.4304E-02	2.3230E-01	3.1638E-01
H+	6.3607E-13	1.4480E-10	8.5912E-10
H2	5.8045E-01	4.5835E-01	3.8896E-01

P1 = 5.00E+01 N/SQ-M. US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2116E+01	1.0458E+02	1.9342E+02
T	6.5680E+00	8.3772E+00	9.4300E+00
RHO	4.8791E+00	1.2198E+01	1.9372E+01
M	7.0673E+00	1.0432E+01	1.3760E+01
A	2.4401E+00	2.6439E+00	2.8203E+00
S	1.1135E+00	1.1214E+00	1.1431E+00
Z	1.0021E+00	1.0233E+00	1.0580E+00
GAME	9.0458E-01	8.1535F-01	7.9661E-01
U	4.1119E+00	1.6436E+00	1.3835E+00

SPECIES	MOLE FRACTIONS		
E-	1.0450E-17	1.2008E-13	5.2549E-12
HE	3.4920E-01	3.4202E-01	3.3080E-01
HE+	2.0352E-42	1.3692E-33	7.8398E-30
HE++	0.	0.	0.
H	4.2199E-03	4.5596E-02	1.0969E-01
H+	1.0532E-17	1.2008E-13	5.2549E-12
H2	6.4652E-01	6.1238E-01	5.5950E-01

P1 = 5.00E+01 N/SQ-M. US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7013E+01	4.7465E+02	8.5822E+02
T	9.3272E+00	1.1557E+01	1.2379E+01
RHO	7.6970E+00	3.4051E+01	4.4309E+01
M	1.5009E+01	2.5245E+01	3.0332E+01
A	2.8165E+00	3.3300E+00	3.5500E+00
S	1.2013E+00	1.2421E+00	1.2773E+00
Z	1.0811E+00	1.2062E+00	1.2732E+00
GAME	7.8666E-01	7.9547E-01	8.0206E-01
U	6.7494E+00	1.5269E+00	1.4194E+00

SPECIES	MOLE FRACTIONS		
E-	6.7165E-12	1.2116E-09	5.5042E-09
HE	3.2374E-01	2.5018E-01	2.7401E-01
HE+	1.8193E-30	1.6040E-24	7.7322E-23
HE++	0.	9.2170E-90	5.5981E-85
H	1.5007E-01	3.4185E-01	4.2903E-01
H+	6.7165E-12	1.2116E-09	5.5042E-09
H2	5.2619E-01	3.6798E-01	2.9555E-01

Table I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7249E+01	6.8866E+02	9.8575E+02
T	9.8993E+00	1.2502E+01	1.3431E+01
RHO	8.7280E+00	4.2660E+01	5.3552E+01
H	1.8361E+01	3.1575E+01	3.7518E+01
A	2.9567E+00	3.6014E+00	3.8711E+00
S	1.2361E+00	1.2910E+00	1.3305E+00
Z	1.1250E+00	1.2916E+00	1.3705E+00
GAME	7.8455E-01	8.0322E-01	8.1412E-01
U	7.6313E+00	1.5617E+00	1.4843E+00

SPECIES	MOLE FRACTIONS		
E-	3.9690E-11	7.0977E-09	3.0413E-08
HE	3.1094E-01	2.7098E-01	2.5534E-01
HE+	9.3405E-29	1.2111E-22	4.5405E-21
HE++	0.	2.9124E-84	2.0269E-78
H	2.2318E-01	4.5153E-01	5.4065E-01
H+	3.9690E-11	7.0977E-09	3.0413E-08
H2	4.6587E-01	2.7749E-01	2.0390E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6853E+02	1.5787E+03	2.2902E+03
T	1.1445E+01	1.6559E+01	2.2688E+01
RHO	1.1301E+01	6.0235E+01	6.1601E+01
H	3.0499E+01	5.4342E+01	6.6375E+01
A	3.4282E+00	4.8450E+00	6.3954E+00
S	1.3550E+00	1.4496E+00	1.5082E+00
Z	1.2901E+00	1.5808E+00	1.6446E+00
GAME	7.9231E-01	8.9680E-01	1.0973E+00
U	1.0217E+01	1.9274E+00	2.3087E+00

SPECIES	MOLE FRACTIONS		
E-	1.8450E-09	1.4304E-06	1.2790E-04
HE	2.7004E-01	2.2141E-01	2.1202E-01
HE+	9.9605E-43	5.2499E-17	4.4903E-14
HE++	9.4346E-90	2.0769E-83	2.0011E-43
H	4.5697E-01	7.3478E-01	7.8350E-01
H+	1.8452E-09	1.4304E-06	1.2790E-04
H2	2.7304E-01	4.3808E-02	3.4217E-03

P1 = 5.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1697E+02	9.4857E+02	1.3370E+03
T	1.0426E+01	1.3516E+01	1.4712E+01
RHO	9.6982E+00	5.0643E+01	6.1546E+01
H	2.2060E+01	3.8555E+01	4.5509E+01
A	3.1040E+00	3.9086E+00	4.2631E+00
S	1.2737E+00	1.3428E+00	1.3870E+00
Z	1.1760E+00	1.3858E+00	1.4704E+00
GAME	7.8535E-01	8.1561E-01	8.3652E-01
U	8.5032E+00	1.6288E+00	1.5904E+00

SPECIES	MOLE FRACTIONS		
E-	1.0944E-10	3.5394E-08	1.7297E-07
NE	2.9747E-01	2.5256E-01	2.3700E-01
NE+	3.2723E-27	5.5436E-21	2.9321E-19
NE++	0.	2.1333E-77	3.3351E-71
N	5.0019E-01	5.5681E-01	6.4230E-01
N+	1.6944E-10	3.5394E-08	1.7297E-07
N2	4.0234E-01	1.9063E-01	1.1750E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9032E+02	1.8918E+03	2.9348E+03
T	1.1981E+01	2.0361E+01	3.1594E+01
RHO	1.2010E+01	5.6712E+01	5.6061E+01
H	3.5241E+01	6.2918E+01	8.0027E+01
A	3.0122E+00	5.9483E+00	7.2833E+00
S	1.3999E+00	1.4986E+00	1.5507E+00
Z	1.3057E+00	1.6384E+00	1.6507E+00
GAME	7.9001E-01	1.0607E+00	1.0133E+00
U	1.1002E+01	2.3451E+00	3.0117E+00

SPECIES	MOLE FRACTIONS		
E-	5.4439E-09	3.3273E-05	4.4659E-05
NE	2.5066E-01	2.1363E-01	2.1120E-01
NE+	1.3242E-23	1.3808E-15	3.2033E-08
NE++	0.8041E-86	5.9585E-51	1.6362E-31
N	5.3336E-01	7.7916E-01	7.7941E-01
N+	5.4459E-09	3.3273E-05	4.4659E-05
N2	2.0997E-01	7.1417E-03	4.0374E-04

P1 = 5.00E+01 N/SQ-M, US1= 1.45E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4273E+02	1.2468E+03	1.7509E+03
T	1.0934E+01	1.4734E+01	1.6779E+01
RHO	1.0582E+01	5.7058E+01	6.6219E+01
H	2.6106E+01	4.6160E+01	5.4769E+01
A	3.2003E+00	4.2830E+00	4.8937E+00
S	1.3137E+00	1.3963E+00	1.4450E+00
Z	1.2330E+00	1.4854E+00	1.5830E+00
GAMC	7.8802E-01	9.3813E-01	9.0101E-01
U	9.3640E+00	1.7372E+00	1.7799E+00

SPECIES	MOLE FRACTIONS		
E-	5.9272E-10	1.8485E-07	1.6984E-06
NE	2.8313E-01	2.3562E-01	2.2110E-01
NE+	6.5771E-26	3.2416E-19	8.7952E-17
NE++	0.	9.0380E-72	1.6300E-62
N	5.7871E-01	6.5360E-01	7.3605E-01
N+	5.9271E-10	1.8485E-07	1.6984E-06
N2	3.3757E-01	1.1078E-01	4.2341E-02

P1 = 5.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2003E+02	2.1681E+03	3.5593E+03
T	1.2502E+01	2.6326E+01	3.7657E+01
RHO	1.2516E+01	4.9925E+01	5.6217E+01
H	4.0329E+01	7.1733E+01	9.3019E+01
A	3.8267E+00	6.8829E+00	7.6243E+00
S	1.4453E+00	1.5386E+00	1.5896E+00
Z	1.4334E+00	1.6496E+00	1.6813E+00
GAMC	8.0834E-01	1.0909E+00	9.1812E-01
U	1.1895E+01	2.9807E+00	3.4046E+00

SPECIES	MOLE FRACTIONS		
E-	1.6355E-08	7.9045E-04	1.8012E-02
NE	2.4384E-01	2.1217E-01	2.0017E-01
NE+	2.0326E-22	3.7547E-10	1.2152E-06
NE++	2.1204E-82	1.3953E-38	8.7200E-28
N	6.0665E-01	7.8523E-01	7.5400E-01
N+	1.6365E-08	7.9045E-04	1.8012E-02
N2	1.4951E-01	1.0163E-03	1.7689E-04

Table I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5754E+02	2.4423E+03	4.1491E+03
T	1.3922E+01	3.2056E+01	4.1837E+01
RHO	1.2807E+01	4.5932E+01	5.7777E+01
M	4.5706E+01	8.1063E+01	1.0583E+02
A	4.0752E+00	7.2795E+00	7.9504E+00
S	1.4919E+00	1.5716E+00	1.6200E+00
Z	1.2093E+00	1.6588E+00	1.7162E+00
GAME	8.2584E-01	9.9657E-01	8.8022E-01
U	1.2713E+01	3.5434E+00	3.6199E+00

SPECIES	MOLE FRACTIONS		
E-	5.5915E-08	5.6004E-03	3.8035E-02
HE	2.3180E-01	2.1100E-01	2.0390E-01
HE+	4.2943E-21	4.6806E-08	8.0091E-06
HE++	1.3065E-78	6.6167E-31	8.3317E-23
H	6.7509E-01	7.7749E-01	7.1033E-01
H+	5.5915E-08	5.6004E-03	3.8027E-02
H2	9.3052E-02	3.0654E-04	1.0724E-04

P1 = 5.00E+01 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5587E+02	2.7758E+03	4.5804E+03
T	2.0654E+01	4.2507E+01	4.9224E+01
RHO	1.0454E+01	3.7501E+01	5.0503E+01
M	6.3925E+01	1.1183E+02	1.4298E+02
A	6.1602E+00	7.9910E+00	8.7828E+00
S	1.6205E+00	1.6683E+00	1.7185E+00
Z	1.0482E+00	1.7414E+00	1.8449E+00
GAME	1.1147E+00	8.6269E-01	8.4939E-01
U	1.4809E+01	4.1265E+00	3.8659E+00

SPECIES	MOLE FRACTIONS		
E-	9.4155E-05	5.2532E-02	1.6209E-01
HE	2.1236E-01	2.0098E-01	1.8960E-01
HE+	5.1854E-13	1.2987E-05	1.1264E-04
HE++	1.9058E-49	3.4179E-22	1.1113E-18
H	7.8626E-01	6.9390E-01	5.9898E-01
H+	9.4155E-05	5.2519E-02	1.0556E-01
H2	1.1997E-03	6.2163E-05	4.0217E-05

P1 = 5.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9021E+02	2.7076E+03	4.6307E+03
T	1.4406E+01	3.6635E+01	4.5099E+01
RHO	1.2730E+01	4.4034E+01	5.0205E+01
M	5.1527E+01	9.1089E+01	1.1873E+02
A	4.4470E+00	7.5236E+00	8.2605E+00
S	1.5383E+00	1.6023E+00	1.6510E+00
Z	1.5813E+00	1.6786E+00	1.7514E+00
GAME	8.8793E-01	9.2048E-01	8.6347E-01
U	1.3302E+01	3.9077E+00	3.7509E+00

SPECIES	MOLE FRACTIONS		
E-	2.0002E-07	1.7216E-02	6.1603E-02
HE	2.2133E-01	2.0850E-01	1.9913E-01
HE+	2.1209E-19	8.0268E-07	2.7079E-05
HE++	1.3497E-72	1.2652E-26	8.9622E-21
H	7.3223E-01	7.5692E-01	6.7039E-01
H+	2.0004E-07	1.7215E-02	6.1177E-02
H2	4.3431E-02	1.5177E-04	7.6103E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8914E+02	2.7501E+03	4.4931E+03
T	2.0027E+01	4.6594E+01	5.8709E+01
RHO	9.3137E+00	3.4657E+01	4.6103E+01
M	7.0557E+01	1.2259E+02	1.5999E+02
A	5.0733E+00	8.2719E+00	9.0130E+00
S	1.6318E+00	1.7010E+00	1.7524E+00
Z	1.6531E+00	1.7794E+00	1.8900E+00
GAME	1.0752E+00	9.5140E-01	8.4627E-01
U	1.3307E+01	4.1327E+00	3.8900E+00

SPECIES	MOLE FRACTIONS		
E-	1.1831E-03	7.2777E-02	1.2739E-01
HE	2.1197E-01	1.9662E-01	1.8996E-01
HE+	2.0877E-16	2.9741E-05	1.3[illegible]E-04
HE++	1.6072E-39	4.5457E-21	[illegible]
H	7.0397E-01	6.5774E-01	[illegible]
H+	1.1831E-03	7.2748E-02	1.2716E-01
H2	2.4491E-04	4.4445E-05	[illegible]

P1 = 5.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2375E+02	2.8453E+03	4.8169E+03
T	1.8566E+01	4.0040E+01	4.7509E+01
RHO	1.1902E+01	4.1619E+01	5.6292E+01
M	5.7299E+01	1.0151E+02	1.3130E+02
A	5.2070E+00	7.7665E+00	8.5519E+00
S	1.5822E+00	1.6341E+00	1.6833E+00
Z	1.6331E+00	1.7075E+00	1.8011E+00
GAME	1.0002E+00	8.8223E-01	8.5470E-01
U	1.4218E+01	4.0839E+00	3.8365E+00

SPECIES	MOLE FRACTIONS		
E-	5.2681E-06	3.3742E-02	8.3966E-02
HE	2.1424E-01	2.0498E-01	1.9426E-01
HE+	1.1001E-16	4.3665F-06	5.2070E-05
HE++	8.1787E-63	7.0210E-24	1.4941E-19
H	7.7570E-01	7.2744E-01	6.3770E-01
H+	5.2681E-06	3.3738E-02	8.3899E-02
H2	9.9795E-03	9.3255E-05	5.5500E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2294E+02	2.8507E+03	4.5040E+03
T	2.9941E+01	4.6603E+01	5.2400E+01
RHO	8.7135E+00	3.3574E+01	4.4217E+01
M	7.7500E+01	1.3428E+02	1.6824E+02
A	5.9084E+00	8.4753E+00	9.2702E+00
S	1.6700E+00	1.7316E+00	1.7844E+00
Z	1.6595E+00	1.8219E+00	1.9403E+00
GAME	9.7710E-01	8.4600E-01	8.4459E-01
U	1.6025E+01	4.1592E+00	3.9344E+00

SPECIES	MOLE FRACTIONS		
E-	5.7912E-03	9.4382E-02	1.4992E-01
HE	2.1099E-01	1.9205E-01	1.8003E-01
HE+	1.2623E-08	6.0487E-05	2.9520E-04
HE++	2.2908E-33	8.4647E-20	3.5203E-17
H	7.7741E-01	6.1916E-01	5.2018E-01
H+	5.7912E-03	9.4321E-02	1.4990E-01
H2	9.1309E-05	3.3636E-05	2.3029E-05

Table I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.652dE+02	3.0742E+03	4.7839E+03
T	3.2e52E+01	4.8632E+01	5.437dE+01
RHO	8.5003E+00	3.3825E+01	4.40d2E+01
M	8.490dE+01	1.4708F+02	1.82y0E+02
A	7.049dE+00	8.7537E+00	9.5769E+00
S	1.7u35E+00	1.7607E+00	1.8153E+00
Z	1.e75zE+00	1.8688E+00	1.9500E+00
GAME	9.0804E-01	8.4312E-01	d.45itE-01
U	1.e732E+01	4.2069E+00	4.001zE+00

SPECIES	MOLE FRACTIONS		
E-	1.3u76E-02	1.1713E-01	1.7333E-01
NE	2.0d93E-01	1.8717F-01	1.7907E-01
NE+	1.e902E-07	1.1477E-04	4.e904E-04
NE++	1.5u7uE-29	8.7908F-19	2.04u0E-16
N	7.6u06E-01	5.7d55E-01	4.7841E-01
N+	1.3u7eE-02	1.1701E-01	1.72d0E-01
N2	3.0113E-03	2.6442E-05	1.8003E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0316E+02	4.701dE+03	6.347uE+03
T	3.912dE+01	5.4754E+01	6.0650E+01
RHO	8.7904E+00	3.8777E+01	4.7510E+01
M	1.0[illegible]E+02	1.9120F+02	2.3400E+02
A	7.5[illegible]E+00	9.6472F+00	1.0814E+01
S	1.7731E+00	1.8459F+00	1.9071E+00
Z	1.7537E+00	2.0414E+00	2.1894E+00
GAML	8.9[illegible]E-01	8.4370E-01	8.3044E-01
U	1.9[illegible]E+01	4.4456E+00	4.2873E+00

SPECIES	MOLE FRACTIONS		
E-	3.9[illegible]E-02	1.8777E-01	2.4433E-01
NE	1.7[illegible]E-01	1.7172E-01	1.5030E-01
NE+	6.1[illegible]E-06	7.7544F-04	1.8099E-03
NE++	7.4[illegible]E-24	3.4077F-16	3.0[illegible]E-14
N	8.0[illegible]E-01	4.5273E-01	3.5[illegible]E-01
N+	3.[illegible]E-02	1.8719E-01	2.4[illegible]E-01
N2	1.9[illegible]E-03	1.3838E-05	8.7[illegible]E-06

P1 = 5.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0084[illegible]E+02	3.3884E+03	5.2113E+03
T	5.0519[illegible]E+01	5.0675E+01	5.6396E+01
RHO	8.5142E+00	3.4829E+01	4.4904E+01
M	9.2776E+01	1.6092E+02	1.9942E+02
A	7.2104E+00	9.0517E+00	9.9043E+00
S	1.7471E+00	1.7891E+00	1.8453E+00
Z	1.6972E+00	1.9198E+00	2.0539E+00
GAME	8.7430E-01	8.4218E-01	8.4634E-01
U	1.7495E+01	4.2797E+00	4.0826E+00

SPECIES	MOLE FRACTIONS		
E-	2.7839E-06	1.4057E-01	1.9726E-01
NE	2.0002E-01	1.8210E-01	1.6952E-01
NE+	8.2190E-07	2.0583E-04	7.7201E-04
NE++	9.7135E-27	7.5694E-18	1.1600E-15
N	7.2001E-01	5.3673E-01	4.3597E-01
N+	2.7839E-06	1.4037E-01	1.9640E-01
N2	5.3501E-05	2.1198E-05	1.4259E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0241E+02	4.6797E+03	7.0232E+03
T	4.0725E+01	5.6792E+01	6.2892E+01
RHO	8.9842E+00	3.9406E+01	4.9500E+01
M	1.0345E+02	2.0750E+02	2.5395E+02
A	7.7972E+00	1.0020E+01	1.0991E+01
S	1.7961E+00	1.8745E+00	1.9383E+00
Z	1.8804E+00	2.0911E+00	2.2542E+00
GAME	8.3504E-01	8.4548E-01	8.5208E-01
U	1.9917E+01	4.5442E+00	4.4054E+00

SPECIES	MOLE FRACTIONS		
E-	7.0340E-02	2.1094E-01	2.6738E-01
NE	1.6292E-01	1.6647E-01	1.5259E-01
NE+	1.2719E-05	9.1113E-04	2.8726E-03
NE++	1.0515E-22	1.8784E-15	1.4041E-13
N	6.5137E-01	4.1164E-01	3.1276E-01
N+	7.0334E-02	2.1003E-01	2.6451E-01
N2	1.0767E-05	1.1121E-05	6.7284E-06

P1 = 5.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.0728E+02	5.1957E+03	7.7506E+03
T	4.4253E+01	5.8835E+01	6.5107E+01
RHO	9.1916E+00	4.1023E+01	5.1240E+01
M	1.0713E+02	2.2468E+02	2.7411E+02
A	7.9975E+00	1.0361E+01	1.1377E+01
S	1.8147E+00	1.9033E+00	1.9670E+00
Z	1.8613E+00	2.1527E+00	2.3214E+00
GAME	8.3110E-01	8.4762E-01	8.5524E-01
U	2.0074E+01	4.6503E+00	4.5340E+00

SPECIES	MOLE FRACTIONS		
E-	4.9002E-02	2.3352E-01	2.8931E-01
NE	1.9715E-01	1.6119E-01	1.4044E-01
NE+	2.3927E-05	1.4021E-03	4.2951E-03
NE++	9.9037E-22	9.2964E-15	6.4930E-13
N	6.1971E-01	3.7177E-01	2.7981E-01
N+	9.9039E-02	2.3212E-01	2.8501E-01
N2	1.2993E-05	8.8655E-06	5.0944E-06

P1 = 5.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0044E+02	3.7662E+03	5.7335E+03
T	3.8722E+01	5.2713E+01	5.8402E+01
RHO	8.6171E+00	3.6191E+01	4.6200E+01
M	1.0096E+02	1.7565E+02	2.1633E+02
A	7.4006E+00	9.3635E+00	1.0230E+01
S	1.7505E+00	1.8175E+00	1.8704E+00
Z	1.7491E+00	1.9742E+00	2.1102E+00
GAME	8.3253E-01	8.4250E-01	8.4817E-01
U	1.8203E+01	4.3555E+00	4.1704E+00

SPECIES	MOLE FRACTIONS		
E-	4.2799E-02	1.6423E-01	2.2106E-01
NE	2.0030E-01	1.7694E-01	1.6942E-01
NE+	2.5793E-06	3.5117E-04	1.2203E-03
NE++	3.1060E-25	5.4477E-17	8.1219E-15
N	7.1497E-01	4.9459E-01	3.9359E-01
N+	9.4996E-02	1.6388E-01	2.1968E-01
N2	2.4797E-05	1.7119E-05	1.1221E-05

Table I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.06E+01 N/SQ-M. USI= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.0201E+02	5.7481E+03	8.5431E+03
T	4.3053E+01	6.0896E+01	6.7552E+01
RHO	5.4013E+00	4.2597E+01	5.2800E+01
M	1.3736E+02	7.4214E+02	2.4513E+02
A	8.1999E+00	1.0710E+01	1.1771E+01
S	1.8425E+00	1.9323E+00	2.0012E+00
Z	1.8502E+00	2.2160E+00	2.3927E+00
GAME	8.2690E-01	8.4998E-01	8.5720E-01
U	2.1506E+01	4.7638E+00	4.0030E+00

SPECIES	MOLE FRACTIONS		
E-	1.1208E-01	2.5541E-01	3.1040E-01
HE	1.0031E-01	1.5584E-01	1.3995E-01
HE+	3.9931E-05	2.1098E-03	6.3290E-03
HE++	7.0326E-21	4.2295E-14	2.7905E-12
H	5.8753E-01	3.3335E-01	2.3924E-01
H+	1.1204E-01	2.5330E-01	3.6407E-01
H2	1.0829E-05	6.9879E-06	3.7900E-06

P1 = 5.00E+01 N/SQ-M. USI= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0094E+03	8.2769E+03	1.2103E+04
T	4.8712E+01	6.9516E+01	7.7306E+01
RHO	1.0190E+01	4.8042E+01	5.8500E+01
M	1.7941E+02	3.1933E+02	3.8772E+02
A	9.0338E+00	1.2157E+01	1.3372E+01
S	1.9381E+00	2.0503E+00	2.1294E+00
Z	2.0223E+00	2.4783E+00	2.6751E+00
GAME	8.2817E-01	8.5752E-01	8.5970E-01
U	2.4873E+01	5.2854E+00	5.2419E+00

SPECIES	MOLE FRACTIONS		
E-	1.8436E-01	3.3423E-01	3.8334E-01
HE	1.7208E-01	1.3207E-01	1.0035E-01
HE+	2.1351E-04	9.1564F-03	2.4454E-02
HE++	3.4190E-18	9.8515E-12	5.0495E-10
H	4.5846E-01	1.9948F-01	1.2697E-01
H+	1.0916E-01	3.2507E-01	3.5000E-01
H2	5.3905E-06	2.3313E-06	9.9350E-07

P1 = 5.00E+01 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.2008E+02	6.3347E+03	9.3830E+03
T	4.4983E+01	6.2986E+01	8.9990E+01
RHO	5.6102E+00	4.4100E+01	5.4419E+01
H	1.4735E+02	2.6046E+02	3.1705E+02
A	8.4044E+00	1.1065E+01	1.2170E+01
S	1.8660E+00	1.9615E+00	2.0330E+00
Z	1.8970E+00	2.2806E+00	2.4640E+00
GAME	8.2773E-01	8.5238E-01	8.5873E-01
U	2.2394E+01	4.8840E+00	4.8017E+00

SPECIES	POLE FRACTIONS		
E-	1.3023E-01	2.7650E-01	3.3057E-01
NE	1.8444E-01	1.5035E-01	1.3208E-01
NE+	8.4251E-05	3.1165E-03	9.1744E-03
NE++	4.0789E-20	1.7925E-13	1.0990E-11
N	5.5510E-01	2.9664E-01	2.0039E-01
N+	1.3016E-01	2.7338E-01	3.2120E-01
N2	9.0809E-06	5.4344E-06	2.7705E-06

P1 = 5.00E+01 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7909E+02	6.9527E+03	1.0273E+04
T	4.6261E+01	6.5114E+01	7.2499E+01
RHO	5.8142E+00	4.5513E+01	5.5890E+01
H	1.5708E+02	2.7944E+02	3.3705E+02
A	8.6113E+00	1.1426E+01	1.2506E+01
S	1.8659E+00	1.9916E+00	2.0649E+00
Z	1.9375E+00	2.3461E+00	2.5322E+00
GAME	8.2733E-01	8.5466E-01	8.5952E-01
U	2.3222E+01	5.0122E+00	4.9421E+00

SPECIES	POLE FRACTIONS		
E-	1.4039E-01	2.9671E-01	3.4916E-01
NE	1.8093E-01	1.4465E-01	1.2503E-01
NE+	9.8951E-05	4.5308E-03	1.3033E-02
NE++	1.9799E-19	7.1716E-13	4.1747E-11
N	5.4267E-01	2.6192E-01	1.7665E-01
N+	1.4964E-01	2.9218E-01	3.3613E-01
N2	7.2304E-06	4.1632E-06	1.9993E-06

P1 = 5.00E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1303E+03	9.7394E+03	1.4250E+04
T	5.1008E+01	7.4131E+01	8.3294E+01
RHO	6.0954E+00	5.0197E+01	6.0691E+01
H	2.0023E+02	3.6177E+02	4.3802E+02
A	9.4703E+00	1.2889E+01	1.4200E+01
S	1.9074E+00	2.1160E+00	2.1935E+00
Z	2.1139E+00	2.6092E+00	2.8126E+00
GAME	8.3049E-01	8.5881E-01	8.6199E-01
U	2.0522E+01	5.5730E+00	5.3492E+00

SPECIES	POLE FRACTIONS		
E-	2.1947E-01	3.6763E-01	4.1323E-01
NE	1.8514E-01	1.1687E-01	8.3022E-02
NE+	9.2209E-04	1.7766E-02	4.3099E-02
NE++	4.2249E-17	1.1133E-10	4.6791E-09
N	3.9791E-01	1.4786E-01	8.9762E-02
N+	2.1905E-01	3.5037E-01	3.8720E-01
N2	3.7304E-06	1.2354E-06	4.6013E-07

P1 = 5.00E+01 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2479E+03	1.1239E+04	1.6403E+04
T	5.3957E+01	7.8941E+01	8.9290E+01
RHO	1.0833E+01	5.1998E+01	6.2086E+01
H	2.2704E+02	4.0671E+02	4.9385E+02
A	9.9238E+00	1.3821E+01	1.5194E+01
S	1.9317E+00	2.1699E+00	2.2503E+00
Z	2.2059E+00	2.7365E+00	2.9441E+00
GAME	8.3313E-01	8.5891E-01	8.7223E-01
U	2.0816E+01	5.8685E+00	5.8941E+00

SPECIES	POLE FRACTIONS		
E-	2.2532E-01	3.9704E-01	4.3300E-01
NE	1.8716E-01	9.8246E-02	5.9421E-02
NE+	1.5941E-04	2.9655E-02	5.9033E-02
NE++	9.6742E-16	1.0160E-09	3.7501E-08
N	3.3504E-01	1.0768E-01	6.1021E-02
N+	2.2249E-01	3.6738E-01	3.7904E-01
N2	2.5403E-06	6.3146E-07	2.1162E-07

Table I. - Continued

p_1 = 50 N/ m^2

P1 = 5.00E+01 N/SQ-M. US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.428dE+05	1.282EE+04	1.8851E+04
T	5.9871E+01	8.4025E+01	9.6647E+01
RHO	1.1074E+01	5.3364E+01	6.3489E+01
H	2.5295E+02	4.5409E+02	5.5199E+02
A	1.0397E+01	1.4398E+01	1.6338E+01
S	2.0888E+00	2.2304E+00	2.3231E+00
Z	2.3692E+00	2.8605E+00	3.0721E+00
GAME	8.3781E-01	8.6250E-01	8.9897E-01
U	2.9792E+01	6.1843E+00	6.2929E+00

SPECIES	POLE FRACTIONS		
E-	2.8548E-01	4.2318E-01	4.6291E-01
NE	1.5012E-01	7.6517E-02	3.4779E-02
NE+	1.4404E-03	4.5839E-02	7.9134E-02
NE++	3.7677E-15	7.5237E-09	3.0199E-07
N	2.7892E-01	7.7116E-02	3.9603E-02
N+	2.8403E-01	3.7734E-01	3.8370E-01
N2	1.6558E-06	3.1104E-07	8.3419E-08

P1 = 5.00E+01 N/SQ-M. US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9219E+05	1.7679E+04	2.4799E+04
T	6.3937E+01	1.0469E+02	1.2222E+02
RHO	1.1477E+01	5.2953E+01	5.4819E+01
H	3.3899E+02	6.0936E+02	7.1352E+02
A	1.1930E+01	1.7877E+01	2.2803E+01
S	2.2450E+00	2.4059E+00	2.5152E+00
Z	2.6183E+00	4.1852E+00	5.2990E+00
GAME	8.4993E-01	9.5571E-01	1.0139E+00
U	3.4013E+01	7.5220E+00	9.2[illegible]E+00

SPECIES	POLE FRACTIONS		
E-	3.6903E-01	4.8199E-01	4.9[illegible]E-01
NE	1.2331E-01	1.5473E-02	1.0[illegible]E-03
NE+	8.3631E-03	9.4408E-02	1.0[illegible]E-01
NE++	2.0455E-12	2.5557E-06	2.7[illegible]E-05
N	1.3504E-01	2.0556E-02	2.8[illegible]E-03
N+	3.0196E-01	3.8758E-01	3.9[illegible]E-01
N2	3.2458E-07	1.7439E-08	2.4[illegible]E-10

P1 = 5.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.20[illegible]E+03	1.447[illegible]E+04	2.1413E+04
T	5.8384E+01	8.9526E+01	1.0744E+02
RHO	1.1261E+01	5.4272E+01	6.2543E+01
M	2.80[illegible]E+02	5.0385E+02	8.1[illegible]E+02
A	1.0891E+01	1.5267E+01	1.815[illegible]E+01
S	2.1405E+00	2.2896E+00	2.3869E+00
Z	2.4116E+00	2.9781E+00	3.1[illegible]E+00
GAME	8.9[illegible]E-01	8.7419E-01	9.627[illegible]E-01
U	3.1411E+01	6.5185E+00	6.8952E+00

SPECIES	---------- POLE FRACTIONS ----------		
E-	3.1382E-01	4.4596E-01	4.8[illegible]E-01
NE	1.9[illegible]E-01	5.3985E-02	1.[illegible]E-02
NE+	2.0[illegible]E-03	6.3538E-02	9.5177E-02
NE++	3.1[illegible]E-19	4.7896E-08	3.5[illegible]E-08
N	2.[illegible]E-01	5.4086E-02	2.6[illegible]E-02
N+	3.1321E-01	3.8243E-01	3.8[illegible]E-01
N2	1.0[illegible]E-06	1.4594E-07	2.[illegible]E-08

P1 = 5.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1014E+03	1.9094E+04	3.0365E+04
T	8.7061E+01	1.1793E+02	1.7246E+02
RHO	1.1578E+01	4.9817F+01	5.2973E+01
M	3.7044E+02	6.6422E+02	8.5359E+02
A	1.2435E+01	1.9965F+01	2.3136E+01
S	2.2974E+00	2.4556E+00	2.5[illegible]E+00
Z	2.7183E+00	3.2501F+00	3.3[illegible]E+00
GAME	8.5027E-01	1.0400E+00	9.33[illegible]E-01
U	3.6[illegible]E+01	8.3807E+00	1.0073E+01

SPECIES	---------- POLE FRACTIONS ----------		
E-	3.93[illegible]E-01	4.9233E-01	5.0[illegible]E-01
NE	1.1[illegible]E-01	5.5029E-03	5.[illegible]E-03
NE+	1.[illegible]E-02	1.0216F-01	9.[illegible]E-02
NE++	1.[illegible]E-11	3.0295E-05	1.1[illegible]E-02
N	9.[illegible]E-02	9.8754E-03	1.547[illegible]E-03
N+	3.7[illegible]E-01	3.9011F-01	3.8[illegible]E-01
N2	1.[illegible]E-07	3.3580E-09	6.41[illegible]E-11

P1 = 5.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7[illegible]E+03	1.6106E+04	2.[illegible]E+04
T	6.1[illegible]E+01	9.6135E+01	1.2[illegible]E+02
RHO	1.1393E+01	5.4222E+01	5.885[illegible]E+01
M	3.[illegible]E+02	5.5571E+02	8.91[illegible]E+02
A	1.1[illegible]E+01	1.6359E+01	2.0[illegible]E+01
S	2.1927E+00	2.3488E+00	2.[illegible]E+00
Z	2.5153E+00	3.0898E+00	3.2[illegible]E+00
GAME	8.[illegible]E-01	9.0098F-01	1.00[illegible]E+00
U	3.5[illegible]E+01	6.9367E+00	7.923[illegible]E+00

SPECIES	---------- POLE FRACTIONS ----------		
E-	3.[illegible]E-01	4.6599E-01	4.9[illegible]E-01
NE	1.3[illegible]E-01	3.2537E-02	3.7[illegible]E-03
NE+	4.0[illegible]E-03	8.0737E-02	1.0[illegible]E-01
NE++	2.[illegible]E-13	3.1478F-07	9.5[illegible]E-03
N	1.7[illegible]E-01	3.5484E-02	7.8[illegible]E-03
N+	3.3[illegible]E-01	3.8525E-01	3.9[illegible]E-01
N2	3.9[illegible]E-07	5.8418F-08	2.3[illegible]E-09

P1 = 5.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2[illegible]E+03	2.0393E+04	3.321[illegible]E+04
T	7.[illegible]E+01	1.3511E+02	1.85[illegible]E+02
RHO	1.1505E+01	4.5980E+01	5.2[illegible]E+01
M	4.0[illegible]E+02	7.2012E+02	9.3[illegible]E+02
A	1.2[illegible]E+01	2.1909E+01	2.3740E+01
S	2.3[illegible]E+00	2.5082E+00	2.6[illegible]E+00
Z	2.8[illegible]E+00	3.2810F+00	3.3[illegible]E+00
GAME	8.[illegible]E-01	1.0828E+00	9.99[illegible]E-01
U	3.7[illegible]E+01	9.4955E+00	1.0[illegible]E+01

SPECIES	---------- POLE FRACTIONS ----------		
E-	9.1[illegible]E-01	4.9711F-01	5.1[illegible]E-01
NE	9.9[illegible]E-02	1.3486E-03	3.[illegible]E-04
NE+	2.[illegible]E-02	1.0444E-01	7.7[illegible]E-02
NE++	1.[illegible]E-10	3.[illegible]F-06	2.5[illegible]E-02
N	7.[illegible]E-02	4.3289F-03	1.1[illegible]E-03
N+	3.0[illegible]E-01	3.9189E-01	3.[illegible]E-01
N2	8.[illegible]E-08	5.2174E-10	3.2[illegible]E-11

Table I. - Continued

$p_1 = 50$ N/m^2

P1 = 5.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4843E+03	2.1721E+04	3.6140E+04
T	7.2731E+01	1.5320E+02	1.9707E+02
RHO	1.1507E+01	4.2960E+01	5.3332E+01
H	4.2853E+02	7.2816E+02	1.0007E+03
A	1.3478E+03	2.2678E+03	2.4811E+03
S	2.6021E+03	2.5527E+00	2.6502E+00
Z	2.0054E+03	2.3004E+00	3.4287E+00
GAME	8.4777E-01	1.2117E+00	8.0381E-01
U	3.0376E+01	1.2586E+01	1.2092E+01

SPECIES	MOLE FRACTIONS		
E-	4.2210E-11	5.0026E-01	5.2017E-01
NE	8.1011E-02	8.1232E-04	2.4346E-04
NE+	2.7458E-02	1.2017E-01	6.0374E-02
NE++	6.7629E-10	2.0686E-02	4.1465E-02
N	5.7813E-02	2.1459E-03	8.9051E-04
N+	2.9649E-01	2.9175E-01	2.7716E-01
N2	6.0066E-08	1.0787E-10	2.0326E-11

P1 = 5.00E+01 N/SQ-M, US1= 5.63E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1119E+03	2.6555E+04	4.4790E+04
T	8.6096E+01	1.8027E+02	2.4031E+02
RHO	1.2448E+01	4.1020E+01	5.1810E+01
H	5.6946E+02	9.7221E+02	1.2674E+03
A	1.5577E+03	2.3055E+03	2.9252E+03
S	2.5540E+00	2.6603E+00	2.7735E+00
Z	2.1572E+03	1.6202E+00	3.5974E+00
GAME	8.0116E-01	9.8961E-01	9.8982E-01
U	4.6044E+01	1.2277E+01	1.2442E+01

SPECIES	MOLE FRACTIONS		
E-	4.7729E-11	5.1757E-01	5.4134E-01
NE	2.7279E-02	2.2006E-04	2.6513E-05
NE+	8.2478E-03	6.5914E-02	1.4126E-01
NE++	9.7108E-08	2.6189E-02	8.2179E-02
N	1.7846E-02	8.0879E-04	4.1513E-04
N+	2.9391E-01	2.7928E-01	2.6005E-01
N2	2.7859E-09	1.2126E-11	4.0997E-12

P1 = 5.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.68[illegible]E+01	2.33[illegible]E+04	2.9096E+04
T	7.7725E+01	1.5782E+02	2.0876E+02
RHO	1.1417E+01	4.1600E+01	5.3576E+01
H	4.7335E+02	8.3953E+02	1.0933E+03
A	1.6033E+01	2.2864E+01	2.5699E+01
S	2.4577E+00	2.5976E+00	2.6903E+00
Z	2.0931E+00	2.2200E+00	2.4955E+00
GAMF	8.[illegible]E-01	9.3657E-01	9.0505E-01
U	4.7065E+01	1.1414E+01	1.1331E+01

SPECIES	MOLE FRACTIONS		
E-	4.6873E-11	5.0659E-01	5.2797E-01
HE	6.4257E-02	4.6606E-04	1.5662E-04
HE+	5.3583E-02	9.3770E-02	4.3160E-02
HE++	3.5366E-08	1.0846E-07	5.6813E-07
H	3.8156E-02	1.2600E-03	7.1836E-04
H+	3.0434E-01	3.8033E-01	3.7118E-01
H2	2.0119E-01	3.0572E-11	1.2099E-11

P1 = 5.00E+01 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.22[illegible]E+01	2.7725E+04	4.6914E+04
T	5.2943E+01	1.9866E+02	2.6533E+02
RHO	3.1117E+01	4.0206E+01	4.8735E+01
H	5.8709E+02	1.0609E+03	1.3670E+03
A	1.6967E+01	2.4825E+01	3.2006E+01
S	2.4023E+00	2.7001E+00	2.8179E+00
Z	3.2261E+00	3.4712E+00	3.6282E+00
GAMF	9.5013E-01	9.3370E-01	1.0641E+00
U	4.5488E+01	1.2510E+01	1.3412E+01

SPECIES	MOLE FRACTIONS		
E-	4.9[illegible]E-11	5.2466E-01	5.4593E-01
HE	1.2857E-02	1.5276E-04	1.1222E-05
HE+	9.8444E-02	5.0556E-02	5.7136E-03
HE++	7.2504E-07	5.0121E-07	9.0742E-07
H	1.0340E-02	6.5884E-04	2.7621E-04
H+	3.9273E-01	3.7386E-01	3.5823E-01
H2	1.1264E-10	8.2317E-12	1.4640E-12

P1 = 5.00E+01 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4[illegible]E+01	2.4896E+04	4.2226E+04
T	4.1267E+01	1.7026E+02	2.2242E+02
RHO	2.1853E+01	4.1265E+01	5.2220E+01
H	5.2314E+02	9.0467E+02	1.1762E+03
A	1.6705E+01	2.3225E+01	2.7164E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.7212E+00
Z	2.[illegible]E+00	2.[illegible]E+00	3.[illegible]E+00
GAMF	9.[illegible]E-01	9.2055E-01	9.2436E-01
U	4.[illegible]E+01	1.[illegible]E+01	1.[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-11	5.[illegible]E-01	5.[illegible]E-01
HE	4.[illegible]E-02	3.[illegible]E-04	9.4995E-05
HE+	4.[illegible]E-02	6.[illegible]E-02	3.[illegible]E-02
HE++	1.[illegible]E-07	2.[illegible]E-07	3.[illegible]E-07
H	3.[illegible]E-02	1.[illegible]E-03	5.[illegible]E-04
H+	3.[illegible]E-01	3.[illegible]E-01	3.6557E-01
H2	8.[illegible]E-11	1.[illegible]E-11	2.[illegible]E-12

P1 = 5.00E+01 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5634E+01	3.8100E+04	4.7849E+04
T	1.[illegible]E+02	2.[illegible]E+02	2.9579E+02
RHO	1.0851E+01	3.4380E+01	4.4433E+01
H	6.2850E+02	1.1196E+03	1.4692E+03
A	1.8481E+01	2.5800E+01	3.4676E+01
S	2.6615E+00	2.7502E+00	2.8518E+00
Z	3.2689E+00	3.5209E+00	3.6495E+00
GAMF	1.0220E+00	9.6013E-01	1.1121E+00
U	4.6708E+01	1.2811E+01	1.4517E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-11	5.2[illegible]E-01	5.4668E-01
HE	4.4[illegible]E-02	8.5[illegible]E-05	2.9997E-06
HE+	1.[illegible]E-01	7.6956E-02	2.1563E-03
HE++	8.[illegible]E-06	6.[illegible]E-07	9.3956E-07
H	5.[illegible]E-02	5.[illegible]E-04	1.7533E-04
H+	3.[illegible]E-01	3.6891E-01	3.5683E-01
H2	2.[illegible]E-10	5.[illegible]E-12	5.9646E-13

Table I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7369E+03	3.7970E+04	4.8055E+04
T	1.1547E+03	2.1847E+03	3.3030E+03
RHO	9.8768E+00	3.5922E+01	3.9898E+01
H	6.7731E+03	1.1757E+04	1.5756E+04
A	3.0431E+01	3.7031E+01	3.6898E+01
S	3.6495E+00	3.7920E+00	3.9053E+00
Z	3.2886E+00	3.5641E+00	3.6466E+00
GAMF	1.0963E+00	9.3842E-01	1.1204E+00
U	4.8032E+01	1.2154E+01	1.5776E+01

SPECIES	MOLE FRACTIONS		
E-	4.0834E-01	5.3705E-01	5.4750E-01
HE	1.3606E-03	5.2259E-05	8.1245E-07
HE+	1.3607E-01	3.3561E-02	8.4850E-04
HE++	1.0514E-06	7.4558E-02	9.5115E-02
H	2.2677E-02	4.0566E-04	1.1006E-04
H+	3.8376E-01	3.6434E-01	3.5640E-01
H2	3.4312E-11	3.8512E-12	3.1025E-13

P1 = 5.00E+01 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4533E+03	2.8685E+04	5.1974E+04
T	1.5251E+03	2.6869E+03	4.4811E+03
RHO	8.7420E+00	2.9247E+01	3.1782E+01
H	8.0283E+03	1.3857E+04	1.9246E+04
A	2.1499E+01	3.2681E+01	4.3147E+01
S	2.7950E+00	2.9019E+00	3.0112E+00
Z	3.2394E+00	3.6379E+00	3.6494E+00
GAMF	9.0669E-01	1.0927E+00	1.1384E+00
U	5.1913E+01	1.5424E+01	1.9625E+01

SPECIES	MOLE FRACTIONS		
E-	5.3502E-01	5.4644E-01	5.4787E-01
HE	1.5673E-04	3.6534E-06	3.7029E-08
HE+	9.2336E-02	3.1681E-03	1.3035E-04
HE++	1.2414E-02	9.3041E-02	9.5768E-02
H	4.5353E-04	1.5044E-04	3.6916E-05
H+	3.8894E-01	3.5710E-01	3.5619E-01
H2	9.9668E-13	2.3475E-13	1.8122E-14

P1 = 5.00E+01 N/SQ-M. US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9744E+02	2.7702E+04	4.8113E+04
T	1.3033E+02	2.3117E+02	3.6564E+02
RHO	8.2553E+00	3.3288E+01	3.6069E+01
H	7.1332E+02	1.2433E+03	1.6829E+03
A	2.1305E+01	2.9428E+01	3.8025E+01
S	2.7275E+00	2.8324E+00	2.9447E+00
Z	2.2083E+00	2.5907E+00	2.6492E+00
GAMF	1.0663E+00	0.8484E-01	1.1359E+00
U	4.8225E+01	1.7627E+01	1.6978E+01

SPECIES	MOLE FRACTIONS		
E-	4.9937E-01	5.4163E-01	5.4772E-01
HE	4.9898E-04	2.4780E-05	2.6032E-07
HE+	1.0463E-03	1.3602E-02	4.1731E-04
HE++	1.0112E-03	8.3603E-02	9.5520E-02
H	1.0835E-03	2.0835E-04	7.1940E-05
H+	3.0334E-01	3.6083E-01	3.5627E-01
H2	4.8195E-12	1.4765E-12	8.2327E-14

P1 = 5.00E+01 N/SQ-M. US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7188E+02	2.0864E+04	5.5646E+04
T	1.6003E+02	2.0225E+02	4.9339E+02
RHO	8.7419E+00	2.8043E+01	3.0903E+01
H	8.5174E+02	1.4623E+03	2.0611E+03
A	2.1787E+01	2.6520E+01	4.8281E+01
S	2.8261E+00	2.9304E+00	3.0377E+00
Z	2.2730E+00	2.6461E+00	3.6495E+00
GAMF	8.7227E-01	1.1190E+00	1.1387E+00
U	5.3427E+01	1.6653E+01	2.1062E+01

SPECIES	MOLE FRACTIONS		
E-	5.1082E-01	5.4721E-01	5.4789E-01
HE	1.1147E-04	1.2645E-06	1.6864E-08
HE+	8.1527E-03	1.5072E-03	9.5486E-05
HE++	2.9117E-02	9.4878E-02	9.5807E-02
H	3.6263E-04	1.1513E-04	2.7913E-05
H+	3.8505E-01	3.5663E-01	3.5618E-01
H2	4.1975E-13	1.6284E-13	1.0394E-14

P1 = 5.00E+01 N/SQ-M. US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2934E+02	2.7894E+04	4.9353E+04
T	1.4265E+02	2.4756E+02	4.0474E+02
RHO	8.6248E+00	3.1051E+01	3.3416E+01
H	7.5762E+02	1.6311E+03	1.7969E+03
A	2.1435E+01	2.9588E+01	4.2992E+01
S	2.7613E+00	2.8685E+00	2.9800E+00
Z	2.2137E+00	2.6241E+00	3.6490E+00
GAMF	8.7231E-01	1.1420E+00	1.1378E+00
U	5.0496E+01	1.6474E+01	1.8222E+01

SPECIES	MOLE FRACTIONS		
E-	5.0191E-01	5.4471E-01	5.4782E-01
HE	2.4332E-04	1.0132E-05	9.2060E-08
HE+	1.2026E-03	6.8023E-03	2.2725E-04
HE++	4.2188E-03	8.8627E-02	9.5602E-02
H	5.4197E-04	2.2506E-04	5.1235E-05
H+	3.0175E-01	3.5845E-01	3.5621E-01
H2	3.1242E-12	1.2072E-12	3.6790E-14

Table I. - Continued

p_1 = 100 N/ m^2

P1 = 1.00E+02 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3947E+01	2.8767E+01	7.2558E+01
T	3.5561E+00	4.6730E+00	6.4839E+00
RHO	3.9263E+00	6.1741E+00	1.1183E+01
M	3.6339E+00	4.6131E+00	4.8943E+00
A	1.8734E+00	2.0931E+00	2.6593E+00
S	1.9693E+00	1.9618E+00	1.9779E+00
Z	1.0000E+00	1.0000E+00	1.0008E+00
GAME	9.8771E-01	9.7465E-01	9.3211E-01
U	3.5703E+00	1.5703E+00	1.3641E+00

SPECIES	MOLE FRACTIONS		
E-	5.4084E-20	1.8439E-21	1.8810E-18
N2	3.8000E-01	3.8000E-01	3.4571E-01
N2+	1.7227E-43	1.6945E-43	6.0876E-43
N2++	0.	0.	0.
N	2.4233E-28	6.4983E-04	1.8439E-03
N+	8.1343E-20	8.1343E-20	1.0422E-18
N2	6.2000E-01	6.2000E-01	6.4843E-01

P1 = 1.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4470E+01	1.7627E+02	3.0021E+02
T	7.0334E+00	9.8203E+00	1.0776E+01
RHO	5.2554E+00	1.7180E+01	2.5139E+01
M	9.7409E+00	1.6530E+01	1.8432E+01
A	2.7887E+00	3.8894E+00	3.9855E+00
S	1.1441E+00	1.1503E+00	1.1841E+00
Z	1.0128E+00	1.0439E+00	1.1087E+00
GAME	8.3334E-01	7.9023E-01	7.2588E-01
U	6.9876E+00	1.6012E+00	1.4058E+00

SPECIES	MOLE FRACTIONS		
E-	1.5020E-16	1.2724E-11	1.4222E-10
N2	3.4826E-01	3.2833E-01	3.1558E-01
N2+	6.4723E-35	1.0409E-28	1.2103E-26
N2++	0.	0.	0.
N	2.7181E-02	1.1828E-01	1.2613E-01
N+	1.5020E-16	1.2724E-11	1.4222E-10
N2	6.2758E-01	6.3263E-01	6.2910E-01

P1 = 1.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.202[illegible]E+01	5.[illegible]87E+01	1.2[illegible]07E+02
T	4.98[illegible]9E+00	6.[illegible]38[illegible]E+00	8.4238E+00
RHO	4.4164E+00	8.9279E+00	1.4[illegible]82E+01
H	[illegible].1728E+00	7.1003F+00	1.0092E+01
A	2.1985E+00	2.4745E+00	2.6720E+00
S	1.0892E+00	1.0928E+00	1.1112E+00
Z	1.0000E+00	1.0013E+00	1.0164E+00
GAME	9.6914E-01	9.2122E-01	8.3242E-01
U	3.2342E+00	1.7257E+00	1.447[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].4494E-28	[illegible].8401E-18	8.2077E-14
HE	[illegible].4999E-01	[illegible].49[illegible]E-01	[illegible].44[illegible]E-01
HE+	1.6898E-[illegible]1	2.492[illegible]E-02	1.8943E-33
HE++	0.	0.	0.
H	4.681[illegible]E-0[illegible]	2.6010E-[illegible]3	3.22[illegible]E-02
H+	8.1342E-20	[illegible].9212E-18	8.20[illegible]8E-14
H2	6.499[illegible]E-01	6.478[illegible]E-01	[illegible].23[illegible]E-01

P1 = 1.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible].08[illegible]E+01	2.[illegible]28E+02	4.4202E+02
T	8.[illegible]5[illegible]E+00	1.[illegible]33[illegible]E+01	1.1820E+01
RHO	[illegible].493[illegible]+00	2.[illegible]13[illegible]+01	3.3132E+01
H	1.1992E+01	1.9458E+01	2.3980E+01
A	2.[illegible]183E+00	3.1241E+00	3.3[illegible]96E+00
S	1.1[illegible]2E+00	1.1[illegible]8[illegible]E+00	1.2204E+00
Z	1.0[illegible]98[illegible]+00	1.1[illegible]28E+00	1.1798E+00
GAME	[illegible].01[illegible]E-01	7.96[illegible]9E-01	7.997[illegible]-01
U	[illegible].[illegible]22[illegible]+00	1.[illegible]57[illegible]+00	1.[illegible]22[illegible]+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].1948E-12	2.[illegible]221[illegible]-[illegible]0	1.[illegible]012E-[illegible]0
HE	2.[illegible]461E-01	2.[illegible]177E-01	2.[illegible]067E-01
HE+	2.[illegible]458E-[illegible]2	[illegible].17[illegible]7E-[illegible]4	[illegible].2721E-26
HE++	0.	0.	[illegible].[illegible]96[illegible]E-[illegible]0
H	7.[illegible]510E-02	2.187[illegible]-01	2.[illegible]47[illegible]E-01
H+	8.1048E-13	2.2210E-[illegible]0	1.[illegible]012E-[illegible]9
H2	[illegible].[illegible]87E-01	[illegible].[illegible]9[illegible]E-01	2.[illegible]86[illegible]E-01

P1 = 1.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2080F+01	1.028[illegible]E+02	1.[illegible]28E+02
T	[illegible].[illegible]24E+00	8.[illegible]32E+00	[illegible].6996E+00
RHO	[illegible].[illegible]7[illegible]E+00	1.1848E+01	1.[illegible]822E+01
H	7.[illegible]40[illegible]E+00	1.[illegible]389E+01	1.[illegible]818E+01
A	2.458[illegible]E+00	2.[illegible]7[illegible]E+00	2.[illegible]63[illegible]E+00
S	1.1148E+00	1.12[illegible]E+00	1.14[illegible]E+00
Z	1.0014E+00	1.0[illegible]0E+00	1.0[illegible]24E+00
GAME	[illegible].1[illegible]23E-01	[illegible].2471E-01	[illegible].[illegible]238E-01
U	[illegible].[illegible]07[illegible]E+00	1.[illegible]82[illegible]E+00	1.[illegible]17[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].[illegible]231E-18	1.[illegible]47[illegible]E-12	[illegible].[illegible]231E-12
HE	[illegible].[illegible]6[illegible]E-[illegible]	[illegible].[illegible]317E-01	[illegible].[illegible]221F-[illegible]
HE+	[illegible].[illegible]221E-[illegible]2	1.[illegible]02[illegible]E-[illegible]2	[illegible].[illegible]9[illegible]E-[illegible]9
HE++	0.	0.	0.
H	[illegible].[illegible]44E-[illegible]2	[illegible].[illegible]26E-[illegible]2	1.01476E-01
H+	[illegible].[illegible]63F-18	1.[illegible]47[illegible]E-12	[illegible].[illegible]231E-12
H2	[illegible].[illegible]78[illegible]E-[illegible]	[illegible].[illegible]80E-[illegible]	[illegible].[illegible]12E-[illegible]

P1 = 1.00E+02 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible].[illegible]20[illegible]E+01	[illegible].[illegible]5[illegible]E+02	[illegible].[illegible]09[illegible]E+[illegible]
T	[illegible].[illegible]13[illegible]E+00	1.[illegible]6[illegible]E+01	1.[illegible]87[illegible]E+01
RHO	[illegible].[illegible]92[illegible]E+00	[illegible].[illegible]04[illegible]E+01	[illegible].[illegible]8[illegible]E+[illegible]1
H	1.[illegible]8[illegible]E+01	[illegible].[illegible]10[illegible]E+01	[illegible].[illegible]0[illegible]E+[illegible]1
A	[illegible].[illegible]85[illegible]E+00	[illegible].[illegible]61[illegible]E+00	[illegible].[illegible]23[illegible]E+[illegible]
S	[illegible].[illegible]20[illegible]E+00	[illegible].[illegible]2[illegible]8E+00	1.[illegible]79[illegible]E+[illegible]
Z	1.[illegible]7[illegible]E+00	1.[illegible]65[illegible]E+00	1.[illegible]24[illegible]E+[illegible]
GAME	[illegible].[illegible]147E-[illegible]	[illegible].[illegible]013E-[illegible]	[illegible].[illegible]72[illegible]E-[illegible]
U	[illegible].[illegible]22[illegible]E+[illegible]	1.[illegible]77[illegible]E+00	1.[illegible]61[illegible]E+[illegible]

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]1E-[illegible]	1.[illegible]41E-[illegible]	[illegible].[illegible]24[illegible]E-[illegible]
HE	[illegible].[illegible]43E-[illegible]	[illegible].[illegible]7[illegible]E-[illegible]	[illegible].[illegible]4[illegible]E-[illegible]
HE+	[illegible].[illegible]8[illegible]E-[illegible]	[illegible].[illegible]47[illegible]E-[illegible]	[illegible].[illegible]08[illegible]E-[illegible]
HE++	[illegible].	[illegible].[illegible]7[illegible]E-[illegible]	[illegible].[illegible]28[illegible]E-[illegible]
H	1.[illegible]43E-[illegible]	[illegible].[illegible]70[illegible]E-[illegible]	[illegible].[illegible]77[illegible]E-[illegible]
H+	1.[illegible]E-[illegible]	1.[illegible]41E-[illegible]	[illegible].[illegible]41E-[illegible]
H2	[illegible].[illegible]1E-[illegible]	[illegible].[illegible]31E-[illegible]	[illegible].[illegible]7[illegible]E-[illegible]

Table I. - Continued

p_1 = 100 N/ m^2

P1 = 1.025+02 N/SQ-M, USI= 1.005+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6879E+01	9.4119E+02	9.5855E+02
T	1.0215E+01	1.2573E+01	1.4007E+01
RHO	8.4758E+00	2.5852E+01	5.0240E+01
H	1.8347E+01	3.1414E+01	3.7544E+01
A	3.0027E+00	3.4614E+00	3.9501E+00
S	1.2356E+00	1.2917E+00	1.3314E+00
Z	1.1189E+00	1.2789E+00	1.3589E+00
GAMF	7.8888E-01	8.0811E-01	8.1975E-01
U	7.6020E+00	1.4172E+00	1.5284E+00

SPECIES	MOLE FRACTIONS		
E-	6.6293E-11	1.1275E-08	5.0162E-08
HE	3.1282E-01	2.7347E-01	2.5735E-01
HE+	1.4186E-27	7.0938E-22	2.6972E-20
HE++	0.	2.2385E-81	1.3355E-75
H	2.1248E-01	4.3619E-01	5.2834E-01
H+	4.4293E-11	1.1275E-08	5.0162E-08
H2	4.7479E-01	2.9015E-01	2.1620E-01

P1 = 1.025+02 N/SQ-M, USI= 1.005+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6879E+01	9.4119E+02	9.5855E+02
T	1.0215E+01	1.2573E+01	1.4007E+01
RHO	8.4758E+00	2.5852E+01	5.0240E+01
H	1.8347E+01	3.1414E+01	3.7544E+01
A	3.0027E+00	3.4614E+00	3.9501E+00
S	1.2356E+00	1.2917E+00	1.3314E+00
Z	1.1189E+00	1.2789E+00	1.3589E+00
GAMF	7.8888E-01	8.0811E-01	8.1975E-01
U	7.6020E+00	1.4172E+00	1.5284E+00

SPECIES	MOLE FRACTIONS		
E-	6.6293E-11	1.1275E-08	5.0162E-08
HE	3.1282E-01	2.7347E-01	2.5735E-01
HE+	1.4186E-27	7.0938E-22	2.6972E-20
HE++	0.	2.2385E-81	1.3355E-75
H	2.1248E-01	4.3619E-01	5.2834E-01
H+	4.4293E-11	1.1275E-08	5.0162E-08
H2	4.7479E-01	2.9015E-01	2.1620E-01

P1 = 1.00E+02 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.18[illegible]E+02	9.0928E+02	1.2982E+03
T	1.0787E+01	1.4058E+01	1.5376E+01
RHO	9.4013E+00	4.7174E+01	5.7702E+01
H	2.2045E+01	3.8371E+01	4.[illegible]663E+01
A	3.1594E+00	3.9774E+00	4.3[illegible]31E+00
S	1.2767E+00	1.3424E+00	1.3870E+00
Z	1.1689E+00	1.2712E+00	1.4494E+00
GAME	7.8965E-01	8.2072E-01	8.4217E-01
U	8.4726E+00	1.4889E+00	1.4488E+00

SPECIES	MOLE FRACTIONS		
E-	2.9027E-10	[illegible].[illegible]97[illegible]E-08	2.7928E-07
HE	2.9944E-01	2.[illegible]824E-01	2.7918E-01
HE+	3.8698E-24	3.2122E-20	1.7930E-18
HE++	0.	7.7[illegible]1[illegible]E-74	1.6823E-69
H	2.8893E-01	[illegible].[illegible]1[illegible]E-01	6.3328E-01
H+	2.9027E-10	[illegible].[illegible]97[illegible]E-08	2.7938E-07
H2	4.1164E-01	2.0327E-01	1.2784E-01

P1 = 1.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9647E+02	1.8177E+02	2.82[illegible]E+02
T	1.2444E+01	2.0[illegible]72E+01	2.[illegible]94E+01
RHO	1.1401E+01	[illegible].[illegible]187E+01	[illegible].[illegible]88[illegible]E+01
H	2.[illegible]223E+01	[illegible].[illegible]48[illegible]E+01	7.57[illegible]E+01
A	3.4812E+00	[illegible].[illegible]772E+00	7.371[illegible]E+00
S	1.8012E+00	1.[illegible]5[illegible]0E+00	1.[illegible]233E+00
Z	1.3[illegible]2[illegible]E+00	1.[illegible]290E+00	1.4[illegible]42E+00
GAME	8.0234E-01	1.0300E+00	1.0244E+00
U	1.102[illegible]E+01	2.[illegible]418E+00	2.0228E+00

SPECIES	MOLE FRACTIONS		
E-	9.4171E-08	2.7443E-06	2.3144E-05
HE	2.[illegible]849E-01	2.1472E-01	2.[illegible]1[illegible]E-01
HE+	1.0226E-22	1.4472E-19	2.6794E-18
HE++	9.7387E-82	1.[illegible]1[illegible]8E-78	1.[illegible]91[illegible]E-71
H	[illegible].[illegible]179E-01	7.725[illegible]E-01	7.8102E-01
H+	9.4171E-08	2.7443E-06	2.3146E-05
H2	2.[illegible]8[illegible]E-01	1.[illegible]27E-02	7.[illegible]E-04

P1 = 1.00E+02 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4224E+02	1.1957E+02	1.7049E+02
T	1.1338E+01	1.[illegible]33[illegible]E+01	1.746[illegible]E+01
RHO	1.0243E+01	[illegible].[illegible]078E+01	[illegible].[illegible]206E+01
H	2.[illegible]001E+01	[illegible].[illegible]54[illegible]E+01	[illegible].[illegible]484[illegible]E+01
A	3.[illegible]173E+00	[illegible].[illegible]54[illegible]E+00	[illegible].[illegible]464E+00
S	1.[illegible]142E+00	1.[illegible]947E+00	1.4444E+00
Z	1.2249E+00	1.4489E+00	1.[illegible]493E+00
GAME	7.[illegible]244E-01	8.[illegible]76[illegible]E-01	8.[illegible]94E-01
U	[illegible].[illegible]324E+00	1.801[illegible]E+00	1.[illegible]387E+00

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]292E-08	2.7911E-07	2.[illegible]443E-06
HE	2.[illegible]7[illegible]E-01	2.[illegible]827E-01	2.[illegible]303E-01
HE+	4.[illegible]10E-25	1.[illegible]17AE-18	2.[illegible]77AE-16
HE++	0.	7.[illegible]78[illegible]E-69	[illegible].[illegible]93[illegible]E-60
H	[illegible].[illegible]17[illegible]E-01	[illegible].[illegible]948E-01	7.[illegible]E-01
H+	1.0293E-08	2.7911E-07	2.[illegible]443E-06
H2	[illegible].[illegible]708E-01	1.[illegible]26[illegible]E-01	[illegible].[illegible]427E-02

P1 = 1.00E+02 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible].[illegible]52[illegible]E+02	[illegible].[illegible]087[illegible]E+02	[illegible].[illegible]43[illegible]E+02
T	1.[illegible]107E+01	2.[illegible]29[illegible]E+01	[illegible].[illegible]86[illegible]E+01
RHO	1.[illegible]07E+01	[illegible].[illegible]182E+01	[illegible].[illegible]249E+01
H	[illegible].[illegible]21[illegible]E+01	[illegible].[illegible]1[illegible]E+01	[illegible].[illegible]087E+01
A	[illegible].[illegible]89[illegible]E+00	[illegible].[illegible]90[illegible]E+00	7.[illegible]7E+00
S	1.[illegible]48[illegible]E+00	1.[illegible]249E+00	1.[illegible]890E+00
Z	1.[illegible]82[illegible]E+00	1.[illegible]477E+00	1.[illegible]743E+00
GAME	[illegible].[illegible]13[illegible]E-01	1.[illegible]0641E+00	9.[illegible]70E-01
U	1.[illegible]8[illegible]E+01	2.[illegible]07[illegible]E+00	2.[illegible]48AE+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].[illegible]78[illegible]E-08	[illegible].[illegible]41[illegible]E-06	1.[illegible]03E-05
HE	[illegible].[illegible]5[illegible]E-01	[illegible].[illegible]12[illegible]E-01	[illegible].[illegible]0879E-01
HE+	1.[illegible]60[illegible]E-21	[illegible].[illegible]17[illegible]E-18	1.[illegible]E-06
HE++	[illegible].[illegible]93[illegible]E-79	[illegible].[illegible]31[illegible]E-78	1.[illegible]48[illegible]E-75
H	[illegible].[illegible]9[illegible]E-01	7.[illegible]AA0E-01	[illegible].[illegible]80[illegible]E-01
H+	[illegible].[illegible]78[illegible]E-08	[illegible].[illegible]41[illegible]E-06	1.[illegible]03E-05
H2	1.[illegible]80[illegible]E-01	1.[illegible]27[illegible]E-02	[illegible].[illegible]128E-04

Table I. - Continued

p_1 = 100 kN/ m^2

P1 = 1.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5A7EE+02	2.2A63E+02	4.0122E+03
T	1.3892E+01	2.2220E+01	4.3073E+01
PHO	1.23EEE+01	4.202EE+01	E.4490E+01
M	4.E7A0E+01	8.0772E+01	1.06C8E+02
A	4.153AE+00	7.3701E+00	8.1122E+00
S	1.4014E+00	1.E709E+00	1.6211E+00
Z	1.4070E+00	1.45A1E+00	1.7092E+00
GAME	8.3019E-01	1.020EE+00	8.9389E-01
U	1.2574E+01	2.E420E+00	2.71E7E+00

SPECIES	MOLE FRACTIONS		
E-	9.1144E-08	4.2447E-02	2.4823E-02
HE	2.3390E-01	2.1136E-01	2.0476E-01
HE+	2.7A09E-20	2.6EE8E-08	9.E760E-06
HE++	1.1307E-25	4.98C7E-21	2.A141E-22
H	6.6A20E-01	7.79E0E-01	7.2EA0E-01
H+	9.1144E-08	4.2447E-02	2.4814E-02
H2	1.0220E-01	E.7331E-06	1.8470E-04

P1 = 1.00E+02 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.EE78E+02	2.7349E+02	4.A10EE+03
T	2.0717E+01	4.2788E+01	E.1481E+01
PHO	1.0A21E+01	3.A08EE+01	4.8035E+01
M	6.3922E+01	1.11E0E+02	1.4403E+02
A	6.13A7E+00	8.1440E+00	9.0050E+00
S	1.4106E+00	1.4444E+00	1.7173E+00
Z	1.4543E+00	1.7200E+00	1.8239E+00
GAME	1.1063E+00	8.7EE1E-01	8.EE92E-01
U	1.480EE+01	4.2774E+00	4.0217E+00

SPECIES	MOLE FRACTIONS		
E-	4.9404E-05	4.6841E-02	1.0034E-01
HE	2.1240E-01	2.0219E-01	1.9070E-01
HE+	4.7711E-13	1.5412E-05	1.E485E-04
HE++	1.274EE-69	1.0612E-21	E.8340E-19
H	7.8A5AE-01	7.0401E-01	6.08E6E-01
H+	6.9404E-05	4.6824E-02	1.7018E-01
H2	2.32E4E-03	1.0997E-04	4.9632E-05

P1 = 1.00E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8949E+02	2.59A0E+03	4.6027E+03
T	1.4970E+02	2.7155E+01	4.6652F+01
RHO	1.2339E+01	4.1744E+01	7.7207E+01
H	8.1504E+01	9.0594E+01	1.1912E+02
A	4.5125E+00	7.6F1FE+00	8.4467E+00
S	1.5277E+00	1.5018E+00	1.5714E+00
Z	1.5487E+00	1.4730E+00	1.7483E+00
GAME	8.677EE-01	9.A18EE-01	8.7477E-01
U	1.2444E+01	2.0745E+00	2.8704E+00

SPECIES	MOLE FRACTIONS		
E-	3.8720E-07	1.4022E-02	8.6340E-02
HE	2.2212E-01	2.0020E-01	2.0014E-01
HE+	9.AF6AE-10	7.7106E-07	2.6248E-06
HE++	4.1222E-20	2.2444E-06	2.6710E-10
H	7.2FFAE-01	7.4248E-01	6.8703E-01
H+	2.8720E-07	1.4021E-02	8.6308E-02
H2	8.1884E-02	2.7229E-06	1.2024E-06

P1 = 1.00E+02 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8899E+02	3.7043E+03	4.4457E+03
T	2.5387E+01	4.411EE+01	5.3217E+01
RHO	9.282EE+00	3.3189E+01	4.0511E+01
H	7.05F1E+01	1.2220E+02	1.5611E+02
A	4.7484E+00	8.3846E+00	9.2467E+00
S	1.651DE+00	1.6990E+00	1.7810E+00
Z	1.4507E+00	1.7669E+00	1.878EE+00
GAME	1.0867E+00	8.6280E-01	8.5F28E-01
U	1.2281E+01	4.2004E+00	4.0524E+00

SPECIES	MOLE FRACTIONS		
E-	9.7270E-04	6.4250E-02	1.2149E-01
HE	2.1204E-01	1.980EE-01	1.8604E-01
HE+	2.276EE-10	2.6781E-06	2.5417E-04
HE++	1.1240E-20	2.2320E-10	3.2902E-17
H	7.8F7AE-01	6.6937E-01	5.70F0E-01
H+	8.7270E-04	6.6214E-02	1.2144E-01
H2	4.7649E-06	7.9074E-06	5.1873E-06

P1 = 1.00E+02 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2914E+02	3.7550E+03	4.7459E+03
T	1.6F6AE+01	4.0056E+01	4.9481F+01
RHO	1.1724E+01	3.6424E+01	5.2F93E+01
H	8.7582E+01	1.0100E+02	1.3198E+02
A	4.1872E+00	7.0056E+00	8.7F1AE+00
S	1.5910E+00	1.4330E+00	1.4821E+00
Z	1.6254E+00	1.5050E+00	1.7CCBE+00
GAME	8.7888E-01	8.9826E-01	8.6A00E-01
U	1.6109E+01	6.1CB6E+00	3.0745E+00

SPECIES	MOLE FRACTIONS		
E-	3.6078E-06	2.0028E-02	7.8698E-02
HE	2.1F33E-01	2.0F00E-01	1.9F36E-01
HE+	2.1F33E-14	4.7330E-06	8.2333E-05
HE++	2.1077E-21	1.2C98E-10	4.FF53E-10
H	7.6097E-01	7.3F78E-01	6.6715E-01
H+	2.6078E-06	2.0033E-02	7.8415E-02
H2	1.3135E-02	1.6FFAE-06	9.536AE-05

P1 = 1.00E+02 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2482E+02	3.7841E+03	4.6871E+03
T	2.9704E+01	4.891AE+01	5.F06EE+01
RHO	8.A26AE+00	3.1889E+01	4.3207E+01
H	7.7698E+01	1.337FE+02	1.4926E+02
A	7.0208E+00	8.6A33E+00	9.F18AE+00
S	1.6796E+00	1.7208E+00	1.7828E+00
Z	1.6F72E+00	1.8072E+00	1.9268E+00
GAME	1.0013E+00	8.FFABE-01	8.F2F8E-01
U	1.A005E+01	4.2944E+00	4.1007E+00

SPECIES	MOLE FRACTIONS		
E-	4.F227E-02	8.7053E-02	1.6269E-01
HE	2.1122E-01	1.C78EE-01	1.8126E-01
HE+	1.2228E-08	2.615EE-05	4.1283E-04
HE++	2.0A26E-22	2.1958E-10	1.8598E-16
H	7.79EEE-01	6.2226E-01	6.2136E-01
H+	4.F227E-02	8.6977E-02	1.4328E-01
H2	1.7215E-04	6.8801E-05	2.9897E-05

Table I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6419E+02	2.5788E+03	4.7250E+03
T	3.3231E+01	5.0508E+01	5.7063E+01
RHO	8.3600E-03	3.1846E-01	4.1825E-01
H	8.4974E+01	1.4439E+02	1.8290E+02
A	7.1815E+00	8.9271E+00	9.8187E+00
S	1.7046E+00	1.7583E+00	1.8124E+00
Z	1.4700E+00	1.8719E+00	1.9798E+00
GAMF	9.2988E-01	8.5190E-01	8.5337E-01
U	1.4693E+01	4.2790E+00	4.1705E+00

SPECIES	MOLE FRACTIONS		
E-	1.2584E-02	1.0909E-01	1.4669E-01
HF	2.0947E-01	1.8885E-01	1.7413E-01
HF+	1.7733E-07	1.4586E-06	6.6226E-06
HF++	2.1017E-20	2.2740E-18	1.0233E-16
H	7.6527E-01	5.9206E-01	4.9764E-01
H+	1.2583E-02	1.0896E-01	1.4596E-01
H2	9.1266E-05	6.4394E-05	3.1355E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.0072E+02	4.0152E+03	8.1758E+03
T	4.0388E+01	7.7131E+01	8.3822E+01
RHO	8.5248E-03	3.5005E-01	4.4774E-01
H	1.0944E+02	1.9003E+02	2.3539E+02
A	7.7474E+00	9.8812E+00	1.0876E+01
S	1.7738E+00	1.8418E+00	1.9033E+00
Z	1.7444E+00	2.0074E+00	2.1611E+00
GAMF	8.8201E-01	8.5127E-01	8.5755E-01
U	1.9020E+01	4.4369E+00	4.4704E+00

SPECIES	MOLE FRACTIONS		
E-	5.4123E-02	1.7815E-01	2.3653E-01
HF	2.0954E-01	1.7360E-01	1.5966E-01
HF+	7.0127E-06	7.3401E-04	2.4968E-03
HF++	3.0734E-22	1.3212E-18	1.2800E-17
H	5.9109E-01	4.7008E-01	3.6748E-01
H+	5.4117E-02	1.7741E-01	2.2403E-01
H2	2.4062E-05	2.4352E-05	1.8856E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0690E+02	3.2643E+03	5.1125E+03
T	3.4966E+01	5.2722E+01	5.9230E+01
RHO	8.2164E+00	2.2572E+01	4.2273E+01
H	9.2715E+01	1.6004E+02	1.9993E+02
B	7.9852E+00	9.2218E+00	1.0152E+01
S	1.7281E+00	1.7843E+00	1.8434E+00
Z	1.4916E+00	1.9007E+00	2.0376E+00
GAMF	8.8750E-01	8.5049E-01	8.5472E-01
U	1.7648E+01	4.6484E+00	4.2891E+00

SPECIES	MOLE FRACTIONS		
F-	2.4298E-02	1.2103E-01	1.9002F-01
HF	2.0569E-01	1.8388E-01	1.7077E-01
HF+	9.6047E-07	2.6256E-04	1.0507E-03
HF++	1.3710E-26	2.0803E-17	5.6163E-15
M	7.4437E-01	5.5222E-01	4.4916E-01
H+	2.4290E-02	1.3166E-01	1.8807E-01
H2	5.0803E-05	3.4971E-05	2.6869E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5132E+02	4.4897E+03	6.8142E+03
T	4.2988E+01	5.9229E+01	6.6218E+01
RHO	8.4944E+00	3.6404E+01	4.4212E+01
H	1.1837E+02	2.0417E+02	2.5463E+02
B	7.9529E+00	1.0221E+01	1.1248E+01
S	1.7948E+00	1.8696E+00	1.9336E+00
Z	1.7787E+00	2.0449E+00	2.2268E+00
GAMF	8.4431E-01	8.5272E-01	8.5948E-01
U	1.8821E+01	4.7382E+00	4.5928E+00

SPECIES	MOLE FRACTIONS		
F-	2.0791E-02	2.0093E-01	2.5904E-01
HF	1.9709E-01	1.6825E-01	1.5344E-01
HF+	1.6690E-06	1.1583E-03	3.7357E-03
HF++	4.6919E-22	7.1568E-15	6.1723E-13
M	5.4133E-01	4.2977E-01	3.2847E-01
H+	7.0774E-02	1.0977E-01	2.5230E-01
H2	2.7664E-05	1.9764E-05	1.2149E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0284E+02	4.6150E+03	6.4074E+03
T	3.8350E+01	5.4931E+01	6.1496E+01
RHO	8.2950E+00	3.3701E+01	4.3472E+01
H	1.0290E+02	1.7666E+02	2.1713E+02
B	7.8455E+00	9.5530E+00	1.0504E+01
S	1.7500E+00	1.8140E+00	1.8732E+00
Z	1.7157E+00	1.9527E+00	2.0977E+00
GAMF	8.6510E-01	8.5042E-01	8.5572E-01
U	1.8221E+01	4.5426E+00	4.3571E+00

SPECIES	MOLE FRACTIONS		
F-	2.0332E-02	1.5504E-01	2.1342E-01
HF	2.0600E-01	1.7870E-01	1.6422E-01
HF+	3.1957E-06	6.4372E-04	1.6236E-03
HF++	1.0671E-24	2.1300E-16	2.8850E-14
M	5.8031E-01	4.1107E-01	4.0790E-01
H+	2.8773E-02	1.6861E-01	2.1180E-01
H2	4.3300E-05	2.9071E-05	1.9737E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0418E+02	4.9629E+03	7.0110E+03
T	4.2928E+01	6.1532E+01	6.8670E+01
RHO	8.8781E+00	3.7819E+01	4.7479E+01
H	1.2765E+02	2.2305E+02	2.7479E+02
B	8.1408E+00	1.0568E+01	1.1648E+01
S	1.8192E+00	1.8574E+00	1.9640E+00
Z	1.8092E+00	2.1761E+00	2.2941E+00
GAMF	8.3964E-01	8.5484E-01	8.6126E-01
U	1.9649E+01	4.8499E+00	4.7228E+00

SPECIES	MOLE FRACTIONS		
F-	8.8077E-02	2.2222E-01	2.8077E-01
HF	1.9241E-01	1.4300E-01	1.4700E-01
HF+	3.1306E-06	1.2720E-03	5.4819E-03
HF++	4.7150E-21	3.4432E-14	2.5830E-12
M	4.2041E-01	3.0076E-01	2.5137E-01
H+	8.8066E-02	2.2166E-01	2.7529E-01
H2	2.2586E-05	1.5919E-05	9.2811E-06

Table I. - Continued

p_1 = 100 N/ m^2

P1 = 1.00E+02 N/SQ-M, US1= 7.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5923E+02	5.4428E+03	8.7636E+03
T	4.5780E+01	6.2750E+01	7.1186E+01
RHO	9.0485E+00	3.9214E+01	4.9136E+01
U	1.3775E+02	2.4040E+02	2.9588E+02
A	8.3710E+02	1.0923E+03	1.2048E+03
S	1.8427E+00	1.9285E+00	1.9947E+00
Z	1.8451E+00	2.1851E+00	2.3625E+00
GAME	8.3402E-01	8.5481E-01	8.6284E-01
U	2.1473E+01	4.9487E+00	4.8584E+00

SPECIES	MOLE FRACTIONS		
E-	1.0576E-01	2.4680E-01	3.0140E-01
HE	1.8286E-01	1.6756E-01	1.4026E-01
HE+	5.6031E-05	2.4604E-03	7.8904E-03
HE++	3.5055E-20	1.5339E-13	1.0148E-11
H	5.9884E-01	3.8264E-01	2.5453E-01
H+	1.0548E-01	2.4225E-01	2.9371E-01
H2	1.8824E-05	1.2722E-05	7.1535E-06

P1 = 1.00E+02 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0005E+03	7.8409E+03	1.1728E+04
T	5.0928E+01	7.2878E+01	8.1788E+01
RHO	9.7885E+00	4.4131E+01	5.4279E+01
U	1.7024E+02	3.1734E+02	3.8837E+02
A	9.2367E+00	1.2279E+01	1.3485E+01
S	1.9358E+00	2.0431E+00	2.1187E+00
Z	2.0050E+00	2.4279E+00	2.6279E+00
GAME	8.3524E-01	8.6780E-01	8.6452E-01
U	2.4754E+01	5.5031E+00	5.4426E+00

SPECIES	MOLE FRACTIONS		
E-	1.2770E-01	2.2220E-01	2.7428E-01
HE	1.7427E-01	1.2292E-01	1.0581E-01
HE+	2.9840E-04	1.0432E-02	2.6923E-02
HE++	1.8040E-17	2.8406E-11	1.2875E-09
H	6.7182E-01	2.2947E-01	1.6843E-01
H+	1.7475E-01	3.1256E-01	3.6774E-01
H2	9.6744E-04	6.6784E-04	2.1841E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.1691E+02	6.0134E+03	9.0627E+03
T	4.6842E+01	4.7984E+01	7.3754E+01
RHO	9.2790E+00	4.0833E+01	5.0837E+01
H	1.4722E+02	2.7881E+02	3.1776E+02
A	8.7833E+00	1.1783E+01	1.7644E+01
S	1.8872E+00	1.9741E+00	2.0255E+00
Z	1.8874E+00	2.2473E+00	2.4314E+00
GAME	8.3543E-01	8.7847E-01	8.4787E-01
U	2.2296E+01	5.0940E+00	4.9596E+00

SPECIES	MOLE FRACTIONS		
E-	1.2358E-01	2.6478E-01	3.2139E-01
HE	1.0787E-01	1.9190E-01	1.3283E-01
HE+	8.7480E-05	3.8489E-03	1.1120E-02
HE++	2.0794E-10	6.2264E-12	3.7518E-11
H	5.6700E-01	3.1653E-01	2.2439E-01
H+	1.2780E-01	2.4103E-01	3.1027E-01
H2	1.5808E-05	1.0071E-05	5.2923E-06

P1 = 1.00E+02 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1732E+03	8.1856E+03	1.3700E+04
T	5.3824E+01	7.7655E+01	8.7698E+01
RHO	1.9114E+01	4.4122E+01	5.4850E+01
H	2.0237E+02	3.5852E+02	4.3048E+02
A	9.8844E+00	1.3113E+01	1.4500E+01
S	1.9830E+00	2.0879E+00	2.1814E+00
Z	2.0934E+00	2.5449E+00	2.7714E+00
GAME	9.3781E-01	8.6319E-01	8.4780E-01
U	2.6403E+01	5.7948E+00	5.7558E+00

SPECIES	MOLE FRACTIONS		
E-	2.1181E-01	2.5470E-01	4.0448E-01
HE	1.4441E-01	1.1787E-01	8.7858E-02
HE+	5.8174E-04	1.9058E-02	4.2430E-02
HE++	2.2112E-14	2.7158E-10	1.0118AE-08
H	4.0974E-01	1.4212E-01	1.0688E-01
H+	2.1123E-01	2.2772E-01	2.6321E-01
H2	4.4457E-05	2.6409E-04	1.1866E-04

P1 = 1.00E+02 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7870E+02	6.7944E+03	9.9084E+03
T	4.8744E+01	4.8748E+01	7.6379E+01
RHO	9.4485E+00	4.1823E+01	5.1889E+01
H	1.5795E+02	2.7748E+02	3.4048E+02
A	8.7980E+00	1.1485E+01	1.2845E+01
S	1.8886E+00	1.9824E+00	2.0826E+00
Z	1.9210E+00	2.2104E+00	2.5004E+00
GAME	8.5482E-01	8.4018E-01	8.5491E-01
U	2.5120E+01	5.2253E+00	5.1648E+00

SPECIES	MOLE FRACTIONS		
E-	1.6148E-01	2.8583E-01	3.6911E-01
HE	1.8108E-01	1.6500E-01	1.2468E-01
HE+	1.3688E-06	5.5114E-03	1.8222E-02
HE++	1.9439E-18	2.3697E-12	1.2003E-10
H	6.8966E-01	2.8233E-01	1.9813E-01
H+	1.6138E-01	2.9033E-01	3.2478E-01
H2	1.2224E-05	7.8855E-06	4.0217E-06

P1 = 1.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3769E+02	5.4427E+03	8.8245E+03
T	4.4108E+01	4.2408E+01	6.3727E+01
RHO	8.7287E+00	3.7825E+01	4.8143E+01
H	2.9487E+02	4.0427E+02	4.9407E+02
A	1.0135E+01	1.3855E+01	1.5442E+01
S	2.0330E+00	2.2850E+00	2.2447E+00
Z	2.1844E+00	2.4898E+00	2.9034E+00
GAME	8.0944E-01	8.4284E-01	8.7845E-01
U	2.8979E+01	6.0554E+00	4.9988E+00

SPECIES	MOLE FRACTIONS		
E-	2.4526E-01	2.9458E-01	4.2171E-01
HE	1.5860E-01	6.5127E-02	4.0332E-02
HE+	1.7838E-02	3.0990E-02	6.0222E-02
HE++	2.1437E-15	2.0585E-09	4.0967E-08
H	2.5020E-01	1.2771E-01	7.5258E-02
H+	2.4427E-01	2.6558E-01	2.7148E-01
H2	4.5379E-04	1.4893E-05	5.6458E-07

Table I. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, US1= 7.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4227E+03	1.2137E+04	1.8090E+04
T	5.8709E+01	8.7790E+01	1.0122E+02
RHO	1.0614E+01	4.9147E+01	5.8951E+01
M	2.5277E+02	4.5143E+02	5.5266E+02
A	1.0637E+01	1.4437E+01	1.6646E+01
S	2.0826E+00	2.2142E+00	2.3077E+00
Z	2.2832E+00	2.8118E+00	3.0316E+00
GAME	8.4412E-01	8.6796E-01	9.0296E-01
U	7.9664E+01	6.4093E+00	6.5122E+00

SPECIES	MOLE FRACTIONS		
E-	2.7724E-01	4.1218E-01	4.5573E-01
HE	1.5137E-01	7.8498E-02	3.7436E-02
HE+	1.9448E-02	4.5979E-02	7.8015E-02
HE++	1.8255E-14	1.2260E-08	4.7336E-07
H	2.9397E-01	9.5142E-02	5.1104E-02
H+	2.7739E-01	3.4720E-01	3.7771E-01
H2	3.0590E-04	7.9723E-07	2.4026E-07

P1 = 1.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9144E+03	1.4798E+04	2.6242E+04
T	6.7220E+01	1.0843E+02	1.5371E+02
RHO	1.1022E+01	4.9283E+01	5.2026E+01
M	2.3877E+02	6.0432E+02	7.7142E+02
A	1.2174E+01	1.7982E+01	2.3098E+01
S	2.2363E+00	2.3841E+00	2.4969E+00
Z	2.5839E+00	3.1434E+00	3.2814E+00
GAME	8.5363E-01	9.4548E-01	1.0578E+00
U	3.4479E+01	7.7140E+00	9.2559E+00

SPECIES	MOLE FRACTIONS		
E-	3.6163E-01	6.7513E-01	6.9719E-01
HE	1.2543E-01	1.9749E-02	1.9344E-02
HE+	1.0021E-02	9.1588E-02	1.0334E-01
HE++	7.0488E-13	2.7140E-06	1.2631E-03
H	1.5171E-01	3.0003E-02	8.0488E-03
H+	3.5141E-01	2.8253E-01	3.9111E-01
H2	4.9248E-07	4.5594E-08	1.4333E-09

P1 = 1.00E+02 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.[illegible]E+02	1.36[illegible]E+04	2.0[illegible]E+04
T	6.1403E+01	9.3629E+01	1.1163E+02
RHO	1.0792E+01	[illegible].0019E+01	5.8400E+01
M	2.8005E+02	[illegible].0096E+02	6.1679E+02
A	1.1138E+01	1.[illegible]13E+01	1.8328E+01
S	2.1328E+00	2.2724E+00	2.3714E+00
Z	2.3827E+00	2.9702E+00	3.1455E+00
GAME	8.4800E-01	8.7900E-01	9.5541E-01
U	3.1270E+01	6.7[illegible]E+00	7.08[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].01[illegible]E-01	4.3491E-01	4.7611E-01
HE	1.4246E-01	[illegible].7040E-02	1.8071E-02
HE+	9.4113E-03	[illegible].2696E-02	9.3053E-02
HE++	1.4039E-13	7.[illegible]343E-08	4.2247E-06
H	2.41[illegible]E-01	[illegible].9148E-02	2.[illegible]713E-02
H+	3.0419E-01	3.7[illegible]E-01	3.8[illegible]E-01
H2	1.9[illegible]E-04	[illegible].9697E-07	7.3648E-08

P1 = 1.00E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.09[illegible]E+02	1.8[illegible]E+04	2.91[illegible]E+04
T	7.0380E+01	1.2017E+02	1.7[illegible]E+02
RHO	1.[illegible]00E+01	[illegible].7128E+01	[illegible].0[illegible]E+01
M	3.7021E+02	[illegible].[illegible]12E+02	8.[illegible]14E+02
A	1.7694E+01	1.9810E+01	2.[illegible]49E+01
S	2.28[illegible]E+00	2.4304E+00	2.5477E+00
Z	2.69[illegible]E+00	3.2271E+00	3.[illegible]64E+00
GAME	8.[illegible]36E-01	1.0[illegible]E+00	9.[illegible]54E-01
U	[illegible].[illegible]83E+01	[illegible].[illegible]4E+00	1.[illegible]23E+01

SPECIES	MOLE FRACTIONS		
E-	[illegible].84[illegible]E-01	[illegible].87[illegible]E-01	[illegible].0267E-01
HE	1.[illegible]3[illegible]E-01	[illegible].[illegible]37E-02	[illegible].[illegible]3E-04
HE+	1.[illegible]2E-02	1.0014E-01	[illegible].[illegible]8E-02
HE++	[illegible].[illegible]70E-11	[illegible].29[illegible]E-08	[illegible].[illegible]31E-02
H	1.[illegible]28E-01	1.[illegible]0E-02	[illegible].[illegible]4E-02
H+	[illegible].[illegible]29E-01	[illegible].8761E-01	3.8[illegible]6E-01
H2	[illegible].[illegible]2E-04	1.[illegible]E-08	[illegible].[illegible]1E-10

P1 = 1.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7[illegible]E+02	1.[illegible]3E+04	2.3238E+04
T	6.[illegible]2E+01	1.0[illegible]E+02	1.2863E+02
RHO	1.0924E+01	[illegible].[illegible]50E+01	[illegible].[illegible]97E+01
M	2.[illegible]87E+02	[illegible].[illegible]43E+02	6.8039E+02
A	1.1654E+01	1.[illegible]47E+01	2.08[illegible]E+01
S	2.18[illegible]E+00	2.3[illegible]E+00	2.4[illegible]8E+00
Z	2.48[illegible]E+00	3.0430E+00	3.2277E+00
GAME	8.[illegible]44E-01	9.[illegible]2E-01	1.0446E+00
U	[illegible].2883E+01	7.[illegible]90E+00	7.[illegible]8E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].3[illegible]1E-01	4.[illegible]77E-01	4.[illegible]38E-01
HE	1.[illegible]04E-01	[illegible].[illegible]60[illegible]E-02	[illegible].[illegible]1E-02
HE+	[illegible].[illegible]69E-02	[illegible].[illegible]23E-02	1.[illegible]98E-01
HE++	1.[illegible]98E-12	[illegible].[illegible]04E-07	[illegible].[illegible]34E-06
H	1.9274E-01	4.[illegible]7E-02	1.[illegible]E-02
H+	[illegible].[illegible]72E-01	[illegible].[illegible]64E-01	[illegible].[illegible]8E-01
H2	1.1[illegible]9E-04	1.[illegible]38E-07	[illegible].[illegible]99E-08

P1 = 1.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.[illegible]90E+02	1.[illegible]3E+04	3.[illegible]0E+04
T	7.[illegible]6E+01	1.[illegible]5E+02	1.[illegible]9E+02
RHO	1.[illegible]14E+01	[illegible].[illegible]17E+01	[illegible].[illegible]3E+01
M	[illegible].[illegible]0[illegible]E+02	[illegible].[illegible]7[illegible]E+02	[illegible].[illegible]8E+02
A	1.[illegible]1[illegible]E+01	[illegible].[illegible]80[illegible]E+01	[illegible].[illegible]3E+01
S	[illegible].[illegible]3[illegible]E+00	[illegible].[illegible]8[illegible]E+00	[illegible].[illegible]9E+00
Z	[illegible].[illegible]7[illegible]E+00	[illegible].[illegible]3[illegible]E+00	[illegible].[illegible]6E+00
GAME	8.[illegible]4E-01	1.[illegible]2E+00	9.[illegible]4E-01
U	[illegible].[illegible]6[illegible]E+01	[illegible].[illegible]2[illegible]E+00	[illegible].[illegible]1E+01

SPECIES	MOLE FRACTIONS		
E-	[illegible].[illegible]1E-01	[illegible].[illegible]4E-01	[illegible].[illegible]3E-01
HE	[illegible].[illegible]E-01	[illegible].[illegible]E-02	[illegible].[illegible]E-04
HE+	[illegible].[illegible]E-02	[illegible].[illegible]E-01	[illegible].[illegible]E-02
HE++	[illegible].[illegible]E-13	[illegible].[illegible]E-08	[illegible].[illegible]E-02
H	[illegible].[illegible]E-02	[illegible].[illegible]E-02	[illegible].[illegible]E-02
H+	[illegible].[illegible]E-01	[illegible].[illegible]E-01	[illegible].[illegible]E-01
H2	[illegible].[illegible]E-07	[illegible].[illegible]E-08	[illegible].[illegible]E-10

Table I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= *.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	*.47**E+02	2.083*E+04	3.4912E+04
T	*.71**E+01	1.*29*E+02	2.0370E+02
RHO	1.11*7E+01	4.114*E+01	*.01*1E+01
M	4.***7E+02	*.7*01E+02	1.0111E+03
A	1.37**E+01	*.30**E+01	2.*074E+01
S	2.**4*E+00	*.*224E+00	2.6234E+00
Z	2.*40*E+00	*.2877E+00	*.4174E+00
GAME	*.*300E-01	1.0487E+00	9.0326E-01
U	3.0***E+01	1.*4*7E+01	1.1256E+01

SPECIES	MOLE FRACTIONS		
E-	4.*40*E-01	4.*81*E-01	*.171*E-01
HE	*.38*9E-02	1.*221E-03	4.*092E-04
HE+	3.*124E-02	*.021*E-01	6.*70*E-02
HE++	1.*84*E-19	*.7*3*E-03	*.*241E-02
H	*.62**E-02	*.*8*8E-02	1.4*11E-03
H+	*.*4*0E-01	*.914*E-01	*.789*E-01
H2	*.1274E-07	7.0*4*E-10	9.9122E-11

P1 = 1.00E+02 N/SQ-M, US1= *.*0E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	*.102*E+02	*.*2*4E+04	*.*434E+04
T	8.9*8*E+01	1.*624E+02	*.4*47E+02
RHO	*.108*E+01	*.844*E+01	4.*218E+01
M	*.481*E+02	*.44*4E+02	1.2498E+03
A	1.*807E+01	*.47*1E+01	2.*927E+01
S	*.*24*E+00	2.6*02E+00	*.7**0E+00
Z	*.12*2E+00	*.*8**E+00	*.5776E+00
GAME	*.*269E-01	*.*131E-01	*.7*40E-01
U	4.*90*E+01	1.*647E+01	1.2747E+01

SPECIES	MOLE FRACTIONS		
E-	4.*203E-01	*.140*E-01	*.*80*E-01
HE	*.0981E-02	4.*31*E-04	8.*460E-0*
HE+	*.1013E-02	*.*740E-02	1.*33*E-02
HE++	1.*481E-07	2.0**8E-02	7.*407E-02
H	*.4**2E-02	1.*442E-03	*.*31*E-04
H+	3.*101E-01	3.*1*1E-01	3.*26*E-01
H2	1.*30*E-0*	6.66*9E-11	2.*642E-11

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

Table I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.75?5E+03	2.73?6E+04	4.7E97E+04
T	1.1402E+03	2.2430E+03	3.3084E+03
RHO	9.?897E+00	3.4470E+01	3.9491E+01
M	4.?017E+03	1.1713E+03	1.E?68E+03
A	2.0365E+01	2.?17?E+01	3.4789E+01
S	3.4???E+00	2.?400E+00	2.8842E+00
Z	3.2?84E+00	3.E282E+00	3.4430E+00
GAMF	1.07?8E+00	9.3?50E-01	1.1230E+00
U	4.?97?E+01	1.3420E+01	1.5?2?E+01

SPECIES	MOLE FRACTIONS		
E-	6.9473E-01	6.3347E-01	5.47?8E-01
HE	2.4204E-03	1.?962E-06	2.1?01E-06
HE+	1.0427E-01	3.0641E-03	1.A846E-03
HE++	6.E473E-05	6.815?E-03	9.63?6E-?2
H	6.1901E-03	?.?491E-06	?.1?77E-06
H+	3.9???E-01	?.4471E-01	?.E463E-01
H?	?.40?5E-10	1.E?07E-11	1.6?96E-12

P1 = 1.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6417E+03	2.?036E+04	E.?83?E+04
T	1.E?63E+03	?.4?41E+03	4.6?23E+03
RHO	8.E?3?E+00	?.?65EE+01	?.1?83E+01
M	?.03?5E+03	1.?816E+03	1.91?0E+03
A	?.?2?4E+01	?.??91E+01	4.?95?E+01
S	?.77?1E+00	?.?E?3E+00	?.997?E+00
Z	?.?263E+00	?.4???E+00	?.A487E+00
GAMF	0.?53?E-01	1.?4?4E+00	1.1??0E+00
U	5.177?E+01	1.E5?0E+01	1.?E40E+01

SPECIES	MOLE FRACTIONS		
E-	5.?2?4E-01	5.6?17E-01	5.4??8E-01
HE	?.?E?2E-??	1.???5E-?5	1.?A64E-?7
HE+	?.E?3?E-??	5.?1?4E-??	?.?03?E-?4
HE++	9.?0?7E-??	?.?E?6E-??	?.?644E-?2
H	?.?24?E-?4	?.?7??E-?4	7.?917E-?5
H+	?.?003E-01	?.E?05E-?1	?.E422E-01
H?	4.?01?E-??	?.4104E-?2	1.6?01E-??

P1 = 1.000E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.702[illegible]E+02	2.9001E+04	5.3942E+04
T	1.644[illegible]E+02	2.9260E+02	4.9039E+02
PHO	8.[illegible]43E+00	2.7238E+01	3.0144E+01
M	8.5112E+02	1.4571E+03	2.0[illegible]11E+03
A	2.2250E+01	3.4281E+01	4.5136E+01
S	2.81[illegible]5E+00	2.9122E+00	3.0217E+00
Z	3.3[illegible]7E+00	3.6788E+00	3.6491E+00
GAMF	8.9A[illegible]1E-01	1.1037E+00	1.[illegible]38E+00
U	[illegible].3248E+01	1.6532E+01	2.0952E+01

SPECIES	MOLE FRACTIONS		
E-	5.08[illegible]AE-01	[illegible].46[illegible]E-01	[illegible].4783E-01
HE	2.0142E-04	4.9923E-04	6.7052E-04
HE+	8.[illegible]1[illegible]E-02	2.[illegible]47E-01	1.8990E-04
HE++	1.79[illegible]6E-02	9.[illegible]327E-02	9.[illegible]724E-02
H	A.1811E-04	2.224[illegible]E-04	[illegible].[illegible]302E-05
H+	[illegible].8[illegible]8E-01	3.[illegible]704E-01	3.[illegible]620E-01
H2	3.42[illegible]E-12	1.1787E-12	7.72[illegible]E-14

P1 = 1.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1[illegible]4E+03	2.73[illegible]E+04	[illegible].8613[illegible]+04
T	1.44[illegible]E+02	[illegible].507[illegible]+02	4.0277E+02
PHO	8.[illegible]73[illegible]+00	[illegible].0237E+01	[illegible].2004E+01
M	7.[illegible]73[illegible]+02	1.[illegible]082[illegible]+03	1.7544E+03
A	2.19A0E+01	[illegible].0274E+01	4.[illegible]916F+01
S	[illegible].74[illegible]E+00	[illegible].8470E+00	2.9611E+00
Z	3.2069E+00	[illegible].4077E+00	[illegible].4480E+00
GAMF	1.[illegible]00[illegible]+00	1.0137E+00	1.1344E+00
U	[illegible].0401E+01	[illegible].4617E+01	1.8740E+01

SPECIES	MOLE FRACTIONS		
E-	[illegible].[illegible]77E-01	[illegible].4[illegible]4E-01	[illegible].47[illegible]E-01
HE	[illegible].[illegible]47[illegible]E-04	[illegible].[illegible]24E-[illegible]	[illegible].49[illegible]E-[illegible]
HE+	[illegible].[illegible]77E-01	[illegible].[illegible]13[illegible]E-02	[illegible].[illegible]293E-04
HE++	[illegible].[illegible]8[illegible]E-02	[illegible].[illegible]33E-02	[illegible].[illegible]69[illegible]E-02
H	[illegible].[illegible]68E-02	[illegible].[illegible]31E-04	1.[illegible]18[illegible]E-04
H+	[illegible].93[illegible]E-01	[illegible].[illegible]93E-01	[illegible].[illegible]434E-01
H2	[illegible].37[illegible]E-[illegible]	[illegible].7[illegible]3E-12	[illegible].87[illegible]E-[illegible]

Table I. - Continued

p_1 = 200 N/ m^2

P1 = 2.00E+02 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.39475+01	2.8746E+01	7.2601E+01
T	3.9561E+00	4.6739E+00	5.4972E+00
RHO	2.9203E+00	4.62*9E+00	1.1147E+01
H	3.532*E+00	4.6131E+00	6.8*78E+00
A	1.8726E+00	2.0002E+00	2.4*95E+00
S	1.7621E+00	1.0638E+00	1.7806E+00
Z	1.0000E+00	1.0000E+00	1.0004E+00
GAME	9.8771E-01	9.7651E-01	9.7802E-01
U	2.*702E+00	1.*702E+00	1.*970E+00

SPECIES	MOLE FRACTIONS		
E-	2.01*7E-*0	6.*21AE-*2	1.209*E-18
HE	2.*000E-01	2.*000E-01	2.*579E-01
HE+	2.*47*E-*2	2.*7**E-*2	2.8*49E-*2
HE++	0.	0.	0.
H	3.1367E-08	2.180*E-*6	1.7147E-02
H+	8.1367E-20	8.1363E-20	1.7908E-18
H2	5.****E-01	5.****E-01	5.*900E-01

P1 = 2.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.*52*E+01	1.7631E+02	2.*6*2E+02
T	8.*6*7E+00	1.*C21E+01	1.1130E+01
RHO	5.*72*E+00	1.*72*E+01	2.*1***E+01
M	0.*22*E+00	1.*448E+01	1.8458E+01
A	2.*207E+00	2.*272E+00	3.1766E+00
S	1.1482E+00	1.1430E+00	1.1857E+00
Z	1.0114E+00	1.0*65E+00	1.1020E+00
GAME	8.**6*E-01	8.*522E-01	8.0212E-01
U	4.9312E+00	1.*67*E+00	1.**7*E+00

SPECIES	MOLE FRACTIONS		
E-	1.*C90E-1*	1.7228E-11	2.28*9E-10
HE	2.**0*E-01	2.2127E-01	2.*761E-01
HE+	*.*2**E-2*	*.*881E-28	1.2***E-2*
HE++	0.	0.	0.
H	2.2*0*E-02	1.0702E-01	1.8*12E-01
H+	1.*09*E-1*	1.7728E-11	2.2*50E-10
H2	*.*12*E-01	*.*17*E-01	*.*728E-01

P1 = 2.00E+02 N/SQ-M,   US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2026E+01	5.6517E+01	1.2556E+02
T	4.9872E+00	6.6513E+00	8.7895E+00
RHO	4.4161E+00	8.4884E+00	1.4419E+01
H	5.1727E+00	7.0937E+00	1.0129E+01
A	2.1990E+00	2.4874E+00	2.7081E+00
S	1.0920E+00	1.0957E+00	1.1146E+00
Z	1.0000E+00	1.0009E+00	1.0140E+00
GAMF	9.6959E-01	9.2935E-01	8.4211E-01
U	3.3341E+00	1.7335E+00	1.4713E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	1.9434E-28	2.9979E-18	8.9221E-14
HE	3.6959E-01	3.4947E-01	3.4517E-01
HE+	2.4000E-51	2.0389E-42	7.4840E-34
HE++	0.	0.	0.
H	3.3148E-05	1.8920E-03	2.7524E-02
H+	8.1362E-20	2.9822E-18	8.9221E-14
H2	6.4957E-01	6.4844E-01	6.2721E-01

P1 = 2.00E+02 N/SQ-M,   US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2953E+01	1.0131E+02	1.9356E+02
T	6.6121E+00	8.6414E+00	9.9478E+00
RHO	4.8499E+00	1.1532E+01	1.8517E+01
H	7.0620E+00	1.0740E+01	1.3874E+01
A	2.4738E+00	2.7090E+00	2.9080E+00
S	1.1206E+00	1.1278E+00	1.1502E+00
Z	1.0013E+00	1.0167E+00	1.0459E+00
GAMF	9.2429E-01	8.3477E-01	8.0872E-01
U	4.1035E+00	1.7211E+00	1.6535E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	5.0081E-18	1.2337E-12	1.0675E-11
HE	3.4959E-01	3.4637E-01	3.3346E-01
HE+	2.2355E-42	1.6724E-32	6.8197E-29
HE++	0.	0.	0.
H	2.2774E-03	2.2568E-02	5.2695E-02
H+	5.0834E-18	1.2337E-12	1.0575E-11
H2	6.4808E-01	6.2267E-01	5.7297E-01

P1 = 2.00E+02 N/SQ-M,   US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0412E+01	2.0774E+02	4.5233E+02
T	9.0681E+00	1.1244E+01	1.3257E+01
RHO	6.36[illegible]E+00	2.2772E+01	3.1514E+01
H	1.1070E+01	1.5729E+01	2.4055E+01
A	2.7551E+00	3.1790E+00	3.3087E+00
S	1.1774E+00	1.2026E+00	1.2227E+00
Z	1.0355E+00	1.1150E+00	1.1700E+00
GAMF	8.0874E-01	8.0176E-01	8.0690E-01
U	5.9000E+00	1.6188E+00	1.4662E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	1.1420E-10	7.2640E-10	2.2332E-09
HE	3.3803E-01	3.1410E-01	2.6803E-01
HE+	4.0551E-21	2.2301E-25	1.2053E-22
HE++	0.	0.	2.6482E-37
H	4.9577E-02	2.0460E-01	2.5184E-01
H+	1.1420E-10	2.2642E-10	2.2322E-09
H2	8.9264E-01	4.8120E-01	6.0932E-01

P1 = 2.00E+02 N/SQ-M,   US1= [illegible] M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4061E+01	4.3033E+02	8.4402E+02
T	9.8400E+00	1.3373E+01	1.3300E+01
RHO	7.2994E+00	2.5541E+01	3.9549E+01
H	1.4200E+01	2.5666E+01	3.3601E+01
A	2.8057E+00	3.4346E+00	3.6642E+00
S	1.2051E+00	1.3459E+00	1.2817E+00
Z	1.0459E+00	1.1064E+00	1.2631E+00
GAMF	7.9600E-01	9.0000E-01	8.1280E-01
U	4.6964E+00	1.4312E+00	1.1164E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	1.5530E-09	2.0168E-08	1.5037E-08
HE	2.3313E-01	2.6306E-01	2.7031E-01
HE+	4.6098E-20	5.7822E-22	2.4580E-21
HE++	0.	1.4821E-08	2.2704E-24
H	1.3047E-01	3.1141E-01	4.0204E-01
H+	1.5530E-09	2.0148E-05	1.5037E-08
H2	6.4337E-01	2.0300E-01	2.1475E-01

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

Table I. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.65C2E+01	6.3434E+02	9.3276E+C2
T	1.0541E+01	1.3470E+01	1.4628E+C1
RHO	8.2335E+00	3.72?0E+01	4.?3?2E+01
M	1.8332E+01	3.124?E+01	3.7628E+01
A	3.0500E+00	3.7236E+00	4.0323E+00
S	1.2434E+00	1.2930E+00	1.3332E+C0
Z	1.1119E+00	1.2?96E+00	1.3467E+00
GAMF	7.9369E-01	8.1332E-01	8.2?82E-C1
U	7.5721E+01	1.4770E+00	1.?92?E+00

SPECIES	MOLE FRACTIONS		
E-	1.0261E-10	1.7599E-08	8.?617E-08
HE	3.1478E-01	2.76??E-01	2.?990E-01
HE+	6.9163E-27	3.8160E-21	1.4310E-19
HE++	0.	1.0664E-78	6.933?E-72
H	2.0126E-01	4.1971E-01	?.1486E-01
H+	1.0361E-10	1.7?99E-08	8.261?E-08
H2	4.8396E-01	3.0374E-01	2.2?24E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4??8E+02	1.4627E+02	?.1730E+02
T	1.2252E+01	1.?799E+01	?.29?8E+01
RHO	1.0410E+01	?.?434E+01	?.48?2E+01
M	.0444E+11	?.?855E+01	?.?042E+01
A	?.?567E+00	?.9?14E+00	?.?877E+00
S	1.?402E+00	1.?448E+00	1.?013E+00
Z	1.?741E+00	1.?65?E+00	1.?321E+00
GAMF	?.91?8E-01	?.91?4E-01	1.0?37E+00
U	1.01?8E+01	?.?537E+00	2.?77?E+01

SPECIES	MOLE FRACTIONS		
E-	?.6910E-00	2.?0?7E-??	7.?922E-??
HE	?.7427E-01	2.?642E-01	2.1445E-01
HE+	?.7?4?E-??	?.?929E-??	3.?31?E-12
HE++	1.?7?9E-??	?.?89?E-??	2.1?09E-??
H	?.?27?E-01	?.?417E-01	?.7?3?E-01
H+	?.?91?E-??	?.?09?E-??	?.?92?E-??
H2	2.92?9E-01	?.?607E-??	1.1?0?E-??

P1 = 2.00E+02 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1811E+02	8.7104E+02	1.2609E+03
T	1.1146E+01	1.4634E+01	1.6091E+01
RHO	9.1130E+00	4.3904E+01	5.4067E+01
H	2.2934E+01	3.8177E+01	4.5745E+01
A	3.2085E+00	4.0488E+00	4.4478E+00
S	1.2802E+00	1.3436E+00	1.3875E+00
Z	1.1607E+00	1.3556E+00	1.4493E+00
GAME	7.9432E-01	8.2618E-01	8.4829E-01
U	8.4411E+00	1.7824E+00	1.7108E+00

SPECIES	MOLE FRACTIONS		
E-	4.7473E-10	8.7371E-08	4.4795E-07
HE	9.0158E-01	9.5818E-01	2.4150E-01
HE+	2.5174E-2E	1.7762E-10	1.0041E-17
HE++	0.	3.2886E-72	9.8352E-46
H	2.7693E-01	8.2466E-01	6.2002E-01
H+	4.7673E-10	9.7371E-08	4.4794E-07
H2	4.2153E-01	2.1714E-01	1.3848E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9521E+02	1.7429E+03	2.7187E+03
T	1.2985E+01	2.0933E+01	3.1829E+01
RHO	1.1194E+01	8.1438E+01	8.1713E+01
H	2.8204E+01	4.2442E+01	7.9586E+01
A	3.7533E+00	5.8289E+00	7.4467E+00
S	1.4028E+00	1.4933E+00	1.5823E+00
Z	1.3416E+00	1.4182E+00	1.4617E+00
GAME	8.0844E-01	1.0019E+00	1.0548E+00
U	1.0987E+01	2.3895E+00	2.0343E+00

SPECIES	MOLE FRACTIONS		
E-	1.6072E-08	2.5234E-05	2.4886E-03
HE	9.6089E-01	9.1428E-01	2.1190E-01
HE+	7.4487E-22	1.0038E-13	1.0492E-08
HE++	1.0119E-76	1.3408E-50	8.0851E-37
H	5.0922E-01	7.4401E-01	7.8148E-01
H+	1.6072E-08	2.5234E-05	2.4886E-03
H2	2.2883E-01	1.0453E-02	1.6400E-03

P1 = 2.00E+02 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4175E+02	1.1440E+03	1.6528E+03
T	1.1764E+01	1.5082E+01	1.8226E+01
RHO	9.9114E+00	6.9314E+01	6.8342E+01
H	2.4077E+01	4.0729E+01	6.4037E+01
A	3.3764E+00	4.6235E+00	6.0502E+00
S	1.3192E+00	1.4037E+00	1.4437E+00
Z	1.2154E+00	1.4514E+00	1.5549E+00
GAME	7.9718E-01	8.4734E-01	9.0033E-01
U	9.2997E+00	1.9494E+00	1.9024E+00

SPECIES	MOLE FRACTIONS		
E-	1.7354E-09	6.1843E-07	3.2945E-06
HE	9.0762E-01	2.4115E-01	2.2518E-01
HE+	6.8432E-24	7.8794E-18	1.3526E-15
HE++	1.7131E-89	6.9140E-66	8.2183E-58
H	9.2477E-01	7.5890E-01	7.1324E-01
H+	1.7354E-09	6.1963E-07	3.2945E-06
H2	9.6732E-01	1.3485E-01	4.1548E-02

P1 = 2.00E+02 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SH
P	2.2465E+02	2.0064E+03	3.2117E+03
T	1.3471E+01	2.6280E+01	3.9112E+01
RHO	1.1630E+01	6.6415E+01	5.0441E+01
H	4.0289E+01	7.1278E+01	9.3077E+01
A	3.8741E+00	4.8740E+00	7.8090E+00
S	1.4448E+00	1.5351E+00	1.5900E+00
Z	1.4112E+00	1.6445E+00	1.4794E+00
GAME	8.1841E-01	1.0038E+00	9.5688E-01
U	1.1814E+01	2.0415E+00	2.5237E+00

SPECIES	MOLE FRACTIONS		
E-	4.7084E-08	4.9377E-04	1.2222E-02
HE	9.6801E-01	9.1286E-01	2.0941E-01
HE+	1.0137E-20	1.8015E-10	1.2222E-04
HE++	5.9114E-77	3.0178E-39	3.1455E-25
H	5.8270E-01	7.8256E-01	7.6361E-01
H+	4.7084E-08	4.9377E-04	1.2222E-02
H2	1.4013E-01	3.7266E-02	5.3720E-04

Table I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.[illegible]E+02	2.[illegible]E+02	2.8713E+03
T	1.[illegible]E+01	2.[illegible]E+01	4.6283E+01
RHO	1.[illegible]E+01	6.[illegible]E+01	5.1248E+01
H	6.[illegible]E+01	8.[illegible]E+01	1.0629E+02
A	6.[illegible]E+00	7.[illegible]E+00	8.2767E+00
S	1.[illegible]E+00	1.[illegible]E+00	1.6210E+00
Z	1.[illegible]E+00	1.[illegible]E+00	1.7019E+00
GAME	9.[illegible]E-01	1.[illegible]E+00	9.0800E-01
U	1.[illegible]E+01	2.[illegible]E+00	2.8082E+00

SPECIES	MOLE FRACTIONS		
E-	1.68E[illegible]E-02	2.1403E-02	3.0788E-02
NE	2.[illegible]E-01	2.1[illegible]E-01	2.0[illegible]E-01
NE+	1.[illegible]E-10	3.0[illegible]E-08	1.1044E-05
NE++	7.[illegible]E-22	2.[illegible]E-21	7.2025E-20
H	4.[illegible]E-01	2.[illegible]E-01	2.[illegible]E-01
N+	1.68[illegible]E-07	2.1[illegible]E-07	2.[illegible]E-07
N2	1.[illegible]E-01	1.[illegible]E-03	2.[illegible]E-04

P1 = 2.00E+02 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.[illegible]E+02	2.6809E+02	4.5113E+03
T	2.[illegible]E+01	4.[illegible]E+01	5.3960E+01
RHO	1.[illegible]E+01	3.6405E+01	4.4978E+01
H	6.[illegible]E+01	1.1111E+02	1.4504E+02
A	6.[illegible]E+00	8.2021E+00	9.2346E+00
S	1.[illegible]E+00	1.6669E+00	1.7168E+00
Z	1.[illegible]E+00	1.7205E+00	1.8725E+00
GAME	1.0[illegible]E+00	9.8988E-01	8.6911E-01
U	1.[illegible]E+01	4.4253E+00	4.1874E+00

SPECIES	MOLE FRACTIONS		
E-	5.4019E-05	4.1146E-02	9.4796E-02
NE	2.1302E-01	2.0342E-01	1.9184E-01
NE+	3.820[illegible]E-12	1.7579E-05	2.0878E-04
NE++	1.[illegible]E-60	2.8346E-21	2.8317E-17
H	7.[illegible]E-01	7.1405E-01	6.1835E-01
N+	5.40[illegible]E-05	4.1129E-02	9.4548E-02
N2	4.[illegible]E-03	1.9[illegible]E-04	1.2068E-04

P1 = 2.095E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.887[illegible]+02	2.485E+03	4.[illegible]+03
T	1.[illegible]+01	[illegible]+01	4.82[illegible]+01
RHO	1.191[illegible]+01	[illegible]+01	[illegible]+01
H	[illegible]+01	[illegible]+01	1.[illegible]+03
A	[illegible]+00	7.[illegible]+00	8.[illegible]+03
S	1.[illegible]+00	1.[illegible]+00	1.[illegible]+00
Z	1.[illegible]+00	1.[illegible]+00	1.[illegible]+00
GAMF	8.[illegible]-01	[illegible]-01	8.[illegible]-01
U	1.[illegible]+01	[illegible]+00	[illegible]+00

SPECIES	MOLE FRACTIONS		
E-	[illegible]-07	1.[illegible]-02	[illegible]-02
NE	[illegible]-01	[illegible]-01	[illegible]-01
NE+	[illegible]-18	[illegible]-07	[illegible]-07
NE++	[illegible]-45	[illegible]-24	[illegible]-20
N	[illegible]-01	[illegible]-01	[illegible]-01
N+	[illegible]-07	[illegible]-02	[illegible]-02
N2	[illegible]-02	[illegible]-06	[illegible]-06

P1 = [illegible]+02 N/SQ-M, US1= [illegible]+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]+02	[illegible]+03	[illegible]+03
T	[illegible]+01	[illegible]+01	[illegible]+01
RHO	[illegible]+01	[illegible]+01	[illegible]+01
H	[illegible]+01	[illegible]+03	[illegible]+07
A	[illegible]+00	[illegible]+00	[illegible]+03
S	[illegible]+00	[illegible]+00	[illegible]+00
Z	[illegible]+00	[illegible]+00	[illegible]+00
GAMF	[illegible]+00	[illegible]-01	[illegible]-01
U	[illegible]+01	[illegible]+00	[illegible]+03

SPECIES	MOLE FRACTIONS		
E-	[illegible]-04	[illegible]-02	[illegible]-01
NE	[illegible]-01	[illegible]-01	[illegible]-01
NE+	[illegible]-08	[illegible]-05	[illegible]-04
NE++	[illegible]-20	[illegible]-20	[illegible]-15
N	[illegible]-01	[illegible]-01	[illegible]-01
N+	[illegible]-05	[illegible]-03	[illegible]-01
N2	[illegible]-04	[illegible]-06	[illegible]-05

P1 = [illegible]+02 N/SQ-M, US1= [illegible]+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]+02	[illegible]+03	[illegible]+03
T	[illegible]+01	[illegible]+01	[illegible]+01
RHO	[illegible]+00	[illegible]+01	[illegible]+01
H	[illegible]+01	[illegible]+03	[illegible]+03
A	[illegible]+00	[illegible]+00	[illegible]+03
S	[illegible]+00	[illegible]+00	[illegible]+00
Z	[illegible]+00	[illegible]+00	[illegible]+00
GAMF	[illegible]+00	[illegible]-01	[illegible]-01
U	[illegible]+01	[illegible]+00	[illegible]+03

SPECIES	MOLE FRACTIONS		
E-	[illegible]-03	[illegible]-02	[illegible]-01
NE	[illegible]-01	[illegible]-01	[illegible]-01
NE+	[illegible]-08	[illegible]-05	[illegible]-04
NE++	[illegible]-20	[illegible]-20	[illegible]-15
N	[illegible]-01	[illegible]-01	[illegible]-01
N+	[illegible]-05	[illegible]-03	[illegible]-01
N2	[illegible]-04	[illegible]-06	[illegible]-05

Table I. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4319E+02	2.9849E+03	4.6774E+03
T	3.3765E+01	6.2453E+01	5.9962E+01
RHO	8.2754E-06	2.0915E-05	3.5742E-05
H	8.6887E+01	1.4564E+02	1.8492E+02
P	7.3170E-06	6.1046E-06	1.0073E-05
S	1.7095E+00	1.7563E+00	1.8118E+00
Z	1.6669E+00	1.8347E+00	1.9628E+00
GAMF	6.5070E-01	8.6172E-01	8.6213E-01
U	1.6597E+01	4.2554E+03	4.3505E+00

SPECIES	MOLE FRACTIONS		
E-	1.0318E-02	1.0074E-01	1.5943E-01
HF	2.0597E-01	1.9058E-01	1.7742E-01
HF+	1.7772E-07	1.8146E-04	8.9206E-04
HF++	5.3819E-29	1.2124E-17	4.9464E-15
H	7.4923E-01	6.0787E-01	5.0284E-01
H+	1.0318E-02	1.0058E-01	1.5854E-01
H2	1.4787E-04	8.0870E-05	6.4794E-05

P1 = 2.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9935E+02	3.8245E+03	6.0139E+03
T	4.1477E+01	6.9430E+01	6.7231E+01
RHO	8.2754E-06	2.7443E-05	4.1859E-05
H	1.0934E+02	1.8881E+02	2.3417E+02
P	7.9017E-06	1.0091E-05	1.1147E-05
S	1.7745E+00	1.8282E+00	1.8999E+00
Z	1.7240E+00	1.9831E+00	2.1370E+00
GAMF	8.4350E-01	8.5937E-01	8.6489E-01
U	1.8043E+01	4.2389E+00	4.4634E+00

SPECIES	MOLE FRACTIONS		
E-	4.9014E-02	1.4901E-01	2.2790E-01
HF	2.0173E-01	1.7557E-01	1.6076E-01
HF+	9.8547E-06	9.2203E-04	3.2457E-03
HF++	1.1795E-22	4.7[illegible]	5.7929E-[illegible]
H	7.0010E-01	4.[illegible]	3.8367E-01
H+	4.9004E-02	1.67[illegible]	2.2466E-01
H2	5.9907E-05	4.3049E-[illegible]	2.7845E-05

P1 = 2.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.48[illegible]E+02	4.25[illegible]E+02	6.6162E+03
T	4.34[illegible]E+01	4.2[illegible]E+01	6.9802E+01
RHO	8.41[illegible]E+00	3.36[illegible]E+01	4.3083E+01
U	1.18[illegible]E+02	2.C481E+02	2.5529E+02
A	8.11[illegible]E+00	1.04[illegible]E+01	1.1[illegible]E+01
S	1.7972E+00	1.86[illegible]E+00	1.9294E+00
Z	1.7649E+00	2.0279E+00	2.2001E+00
GAMF	8.[illegible]E-01	8.4042E-01	8.[illegible]E-01
U	1.97[illegible]E+01	4.93[illegible]E+00	4.7906E+00

SPECIES	MOLE FRACTIONS		
E-	4.50[illegible]E-02	1.9[illegible]E-01	2.50[illegible]E-01
NE	1.98[illegible]E-01	1.7[illegible]E-01	1.[illegible]E-01
NE+	2.1A1[illegible]E-05	1.[illegible]E-02	4.7780E-03
NE++	1.93[illegible]E-21	2.[illegible]E-14	2.[illegible]E-12
N	4.71[illegible]E-01	4.[illegible]E-01	3.[illegible]E-01
N+	4.[illegible]E-02	1.8892E-01	2.4527E-01
N2	4.80[illegible]E-05	3.[illegible]E-05	2.7087E-05

P1 = 2.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.010[illegible]E+02	4.6[illegible]E+03	7.2[illegible]E+03
T	4.[illegible]E+01	6.[illegible]E+01	7.2424E+01
RHO	8.[illegible]E+00	3.[illegible]E+01	4.[illegible]E+01
U	1.27[illegible]E+02	2.21[illegible]E+02	2.[illegible]E+02
A	8.33[illegible]E+00	1.[illegible]E+01	1.[illegible]E+01
S	1.[illegible]E+00	1.[illegible]E+00	1.[illegible]E+00
Z	1.79[illegible]E+00	2.[illegible]E+00	2.2647E+00
GAMF	8.[illegible]E-01	8.[illegible]E-01	8.[illegible]E-01
U	2.[illegible]E+01	5.[illegible]E+00	4.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	8.[illegible]E-02	2.12[illegible]E-01	2.7[illegible]E-01
NE	1.96[illegible]E-01	1.6[illegible]E-01	1.[illegible]E-01
NE+	4.[illegible]E-05	2.[illegible]E-03	8.[illegible]E-03
NE++	2.08[illegible]E-20	1.21[illegible]E-13	9.672[illegible]E-12
N	4.[illegible]E-01	4.[illegible]E-01	3.0940E-01
N+	8.[illegible]E-02	2.1[illegible]E-01	2.[illegible]E-01
N2	9.[illegible]E-05	2.[illegible]E-05	1.[illegible]E-05

P1 = 2.00E+02 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.[illegible]E+02	4.[illegible]E+03	7.[illegible]E+03
T	4.[illegible]E+01	6.[illegible]E+01	7.[illegible]E+01
RHO	8.[illegible]E+00	3.[illegible]E+01	4.[illegible]E+01
U	1.[illegible]E+02	2.[illegible]E+02	2.[illegible]E+02
A	8.[illegible]E+00	1.[illegible]E+01	1.[illegible]E+01
S	1.[illegible]E+00	1.[illegible]E+00	1.[illegible]E+00
Z	1.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
GAMF	8.[illegible]E-01	8.[illegible]E-01	8.[illegible]E-01
U	2.[illegible]E+01	5.[illegible]E+00	4.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	9.[illegible]E-02	2.[illegible]E-01	2.[illegible]E-01
NE	1.[illegible]E-01	1.[illegible]E-01	1.[illegible]E-01
NE+	4.[illegible]E-05	2.[illegible]E-03	8.[illegible]E-03
NE++	2.[illegible]E-20	1.[illegible]E-13	9.[illegible]E-12
N	4.[illegible]E-01	4.[illegible]E-01	3.[illegible]E-01
N+	8.[illegible]E-02	2.[illegible]E-01	2.[illegible]E-01
N2	9.[illegible]E-05	2.[illegible]E-05	1.[illegible]E-05

Table I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.[illegible]E+02	5.[illegible]E+03	7.9898E+02
T	4.7188E+01	4.6748E+01	7.5056E+01
RHO	8.7479E+00	3.6076E+01	4.[illegible]E+01
M	1.3712E+02	2.3889E+02	2.0[illegible]E+02
B	8.[illegible]E+00	1.1[illegible]E+01	1.2327E+01
S	1.8622E+00	1.9198E+00	1.9887E+00
Z	1.8[illegible]E+00	2.1[illegible]E+00	2.3[illegible]E+00
GAME	8.[illegible]E-01	8.[illegible]E-01	8.[illegible]E-01
U	2.[illegible]E+01	5.[illegible]E+00	5.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	9.[illegible]E-02	2.3343E-01	2.0200E-01
HE	1.9105E-01	1.5[illegible]E-01	1.[illegible]E-01
HE+	7.1[illegible]E-05	3.7[illegible]E-02	0.[illegible]E-02
HE++	1.[illegible]E-19	5.[illegible]E-13	3.[illegible]E-11
H	6.1087E-01	3.7330E-01	2.7566E-01
H+	5.[illegible]E-02	2.[illegible]E-01	2.[illegible]E-01
H2	3.[illegible]E-05	2.[illegible]E-05	1.[illegible]E-05

P1 = 2.00E+02 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.[illegible]E+02	7.[illegible]E+03	1.1283E+04
T	5.[illegible]E+01	7.[illegible]E+01	8.[illegible]E+01
RHO	9.[illegible]E+00	4.[illegible]E+01	5.[illegible]E+01
M	1.[illegible]E+02	3.[illegible]E+02	3.8906E+02
B	9.[illegible]E+00	1.[illegible]E+01	1.[illegible]E+01
S	1.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	1.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
GAME	8.[illegible]E-01	8.[illegible]E-01	8.[illegible]E-01
U	2.[illegible]E+01	5.[illegible]E+00	5.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
HE	1.[illegible]E-01	1.[illegible]E-01	1.[illegible]E-01
HE+	3.[illegible]E-04	1.2220E-02	2.[illegible]E-02
HE++	0.[illegible]E-17	7.[illegible]E-11	2.[illegible]E-09
H	4.[illegible]E-01	2.[illegible]E-01	1.[illegible]E-01
H+	1.[illegible]E-01	2.[illegible]E-01	2.[illegible]E-01
H2	1.[illegible]E-05	9.[illegible]E-06	4.7240E-06

P1 = 2.00E+02 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.1257E+02	5.7001E+03	8.7469E+03
T	4.8796E+01	6.9161E+01	7.7807E+01
RHO	8.9173E+00	3.7290E+01	4.6904E+01
H	1.4709E+02	2.5703E+02	3.1845E+02
A	8.7693E+00	1.1503E+01	1.2728E+01
S	1.8655E+00	1.9473E+00	2.0184E+00
Z	1.8677E+00	2.2125E+00	2.3968E+00
GAME	8.4382E-01	8.6475E-01	8.8865E-01
U	2.2191E+01	5.2142E+00	5.2073E+00

SPECIES	MOLE FRACTIONS		
E-	1.1458E-01	2.5427E-01	3.1158E-01
HE	1.8728E-01	1.5352E-01	1.3276E-01
HE+	1.1752E-04	4.4740E-03	1.3272E-02
HE++	9.9384E-10	2.0284E-12	1.2091E-10
H	5.7954E-01	3.3793E-01	2.4407E-01
H+	1.1446E-01	2.4959E-01	2.9831E-01
H2	2.7667E-05	1.9729E-05	1.0531E-05

P1 = 2.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1281E+02	8.4852E+02	1.3144E+04
T	9.4130E+01	8.1455E+01	9.2159E+01
RHO	9.7007E+00	4.2225E+01	5.7265E+01
H	2.0225E+02	3.5720E+02	4.4019E+02
A	9.9118E+00	1.2344E+01	1.4823E+01
S	1.9809E+00	2.0855E+00	2.1698E+00
Z	2.0718E+00	2.5184E+00	2.7278E+00
GAME	8.4483E-01	8.6783E-01	8.7296E-01
U	2.4283E+01	6.0262E+00	6.4795E+00

SPECIES	MOLE FRACTIONS		
E-	2.0295E-01	3.4488E-01	3.9513E-01
HE	1.6815E-01	1.1814E-01	8.2882E-02
HE+	7.8820E-04	2.0928E-02	4.4429E-02
HE++	1.0942E-15	6.5247E-10	2.1896E-08
H	4.2445E-01	1.9709E-01	1.2586E-01
H+	2.0290E-01	3.2405E-01	3.5079E-01
H2	1.1914E-05	5.4910E-04	2.6702E-06

P1 = 2.00E+02 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7174E+02	6.2467E+03	9.5532E+03
T	5.0236E+01	7.1574E+01	8.0870E+01
RHO	9.4875E+00	3.8394E+01	4.8133E+01
H	1.5741E+02	2.7780E+02	3.4120E+02
A	8.9932E+00	1.1870E+01	1.3132E+01
S	1.8878E+00	1.9749E+00	2.0487E+00
Z	1.9056E+00	2.2731E+00	2.4624E+00
GAME	8.4293E-01	8.6975E-01	8.8887E-01
U	2.3013E+01	5.4509E+00	5.3542E+00

SPECIES	MOLE FRACTIONS		
E-	1.2417E-01	2.7413E-01	3.3020E-01
HE	1.8348E-01	1.4740E-01	1.2429E-01
HE+	1.8323E-04	5.5792E-03	1.7789E-02
HE++	5.0929E-18	7.3500E-12	2.8427E-10
H	5.6815E-01	3.0432E-01	2.1530E-01
H+	1.3259E-01	2.6754E-01	3.1241E-01
H2	2.3377E-05	1.4968E-05	8.1088E-06

P1 = 2.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2628E+02	1.1064E+04	1.5188E+04
T	9.8937E+01	8.6404E+01	9.8613E+01
RHO	9.8528E+00	4.2926E+01	5.2805E+01
H	2.2565E+02	3.9172E+02	4.9684E+02
A	1.0262E+01	1.2697E+01	1.5793E+01
S	2.0228E+00	2.1628E+00	2.2704E+00
Z	2.1498E+00	2.4404E+00	2.8572E+00
GAME	8.4732E-01	8.6907E-01	8.8488E-01
U	2.7911E+01	6.2184E+00	6.2272E+00

SPECIES	MOLE FRACTIONS		
E-	2.2681E-01	2.7810E-01	4.2225E-01
HE	1.6066E-01	9.0002E-02	6.1698E-02
HE+	1.6552E-03	2.2552E-02	6.0797E-02
HE++	1.0731E-14	6.2704E-09	1.2802E-07
H	5.4954E-01	1.4974E-01	9.2257E-02
H+	2.2587E-01	3.4258E-01	2.6172E-01
H2	9.2257E-06	2.2807E-04	1.4290E-06

Table I. - Continued

p_1 = 200 N/ m^2

P1 = 2.00E+02 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4162E+03	1.1467E+04	1.7349E+04
T	6.1761E+01	9.1950E+01	1.0632E+02
RHO	1.0166E+01	4.5179E+01	5.4649E+01
M	2.5257E+02	4.4869E+02	4.5337E+02
A	1.0886E+01	1.4890E+01	1.6976E+01
S	2.0768E+00	2.1993E+00	2.2925E+00
Z	2.2557E+00	2.7602E+00	2.9860E+00
GAME	8.5068E-01	8.7360E-01	9.0775E-01
U	2.9529E+01	6.6489E+00	6.7424E+00

SPECIES	MOLE FRACTIONS		
E-	2.68?2E-01	4.0223E-01	4.4741E-01
HE	1.52?9E-01	8.0227E-02	4.00?8E-02
HE+	2.?7C7E-03	4.6544E-02	7.7157E-02
HE++	8.358?E-??	2.4397E-08	7.6162E-07
H	3.103?E-01	1.1?30E-01	4.5116E-02
H+	2.659?E-01	3.?567E-01	3.7025E-01
H2	?.686?E-06	1.9633E-06	6.6740E-07

P1 = 2.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9066E+03	1.?934E+04	2.?119E+04
T	7.0?5?E+01	1.1252E+02	1.?23?E+02
PHO	1.0?77E+01	4.?758E+01	4.9547E+01
M	?.38?3E+02	4.0280E+02	?.6942E+02
A	1.2422E+01	1.8091E+01	2.?730E+01
S	2.2241E+00	2.366?E+00	?.4774E+00
Z	2.?473E+00	?.0947E+00	?.2422E+00
GAME	?.?741E-01	9.?99?E-01	1.0447E+00
U	?.42??E+01	7.9402E+00	9.?27?E+00

SPECIES	MOLE FRACTIONS		
E-	?.?224E-01	4.4682E-01	4.9421E-01
HE	1.??49E-01	2.4204E-02	?.4402E-02
HE+	1.190?E-??	8.?889E-??	1.0??0E-?1
HE++	?.?474E-11	?.1402E-04	?.4787E-04
H	1.4959E-01	4.2148E-02	8.9779E-??
H+	?.40??E-01	?.???2E-01	3.??2?E-01
H2	1.4744E-04	?.2402E-07	8.?217E-??

P1 = 2.00E+02 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5719E+03	1.2943E+04	1.9480E+04
T	6.4651E+01	9.7738E+01	1.1652E+02
RHO	1.0338E+01	4.4017E+01	5.4277E+01
M	2.7983E+02	4.9786E+02	6.1715E+02
A	1.1394E+01	1.5770E+01	1.8760E+01
S	2.1255E+00	2.2557E+00	2.3545E+00
Z	2.3520E+00	2.8777E+00	3.1060E+00
GAME	8.7380E-01	8.8421E-01	9.0181E-01
U	3.1139E+01	7.0002E+00	7.3012E+00

SPECIES	MOLE FRACTIONS		
E-	2.9848E-01	4.2463E-01	4.6877E-01
HE	1.4441E-01	5.992?E-02	2.1844E-02
HE+	4.3987E-03	6.1498E-02	9.1039E-02
HE++	5.9631E-13	1.2198E-07	5.3773E-06
H	2.9864E-01	8.6809E-02	4.0818E-02
H+	2.9608E-01	3.6493E-01	3.7773E-01
H2	3.7583E-06	1.0794E-06	2.4268E-07

P1 = 2.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0852E+03	1.7942E+04	2.8033E+04
T	7.4006E+01	1.2344E+02	1.7892E+02
RHO	1.0698E+01	4.6218E+01	6.7720E+01
M	3.4996E+02	6.5704E+02	8.5228E+02
A	1.2973E+01	1.9777E+01	2.4174E+01
S	2.2736E+00	2.4109E+00	2.5296E+00
Z	2.6436E+00	3.3809E+00	3.2989E+00
GAME	8.5765E-01	8.0410E-01	8.9062E-01
U	3.5926E+01	8.6406E+00	1.0389E+01

SPECIES	MOLE FRACTIONS		
E-	3.7?8?E-01	4.8127E-01	4.9983E-01
HE	1.1?7?E-01	1.?21?E-02	1.7871E-02
HE+	1.8447E-02	8.779?E-02	9.8289E-02
HE++	1.2952E-10	2.0?7?E-05	4.0212E-04
H	1.?6?5E-01	2.52?8E-02	4.?826E-02
H+	3.572?E-01	3.8?44E-01	?.8949E-01
H2	8.8?26E-07	7.?280E-08	1.9489E-09

P1 = 2.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7383E+03	1.4443E+04	2.2247E+04
T	6.7842E+01	1.0436E+02	1.5210E+02
RHO	1.0477E+01	4.6276E+01	6.2761E+01
M	3.0849E+02	5.4934E+02	6.9857E+02
A	1.1912E+01	1.6801E+01	2.0830E+01
S	2.1747E+00	2.3117E+00	2.4170E+00
Z	2.4497E+00	2.9908E+00	2.?042E+00
GAME	8.?630E-01	8.044?E-01	1.0251E+00
U	3.2741E+01	7.4161E+00	8.1284E+00

SPECIES	MOLE FRACTIONS		
E-	3.254?E-01	4.4831E-01	4.8?05E-01
HE	1.3??4E-01	4.0644E-02	9.0239E-03
HE+	7.3342E-03	7.43?0E-02	1.0014E-01
HE++	3.893?E-13	?.9421E-07	?.8227E-05
H	2.11?6E-01	4.2718E-02	2.0928E-02
H+	2.1011E-01	3.719?E-01	3.8479E-01
H2	2.3973E-06	?.3903E-07	?.?656E-08

P1 = 2.00E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2719E+03	1.8709E+04	?.?849E+04
T	?.?777E+01	1.?749E+02	1.9630E+02
RHO	1.0?2?E+01	4.1976E+01	4.?06?E+01
M	4.0279E+02	?.1423E+02	9.?763E+02
A	1.?477E+01	2.1?7?E+01	2.47?8E+01
S	?.32?1E+00	?.447?E+00	2.5?47E+00
Z	2.?777E+00	3.?27?E+00	3.?427E+00
GAME	?.?734E-01	1.0?41E+00	9.3338E-01
U	3.?512E+01	9.?896E+00	1.1047E+01

SPECIES	MOLE FRACTIONS		
E-	?.?720E-01	4.?0?5E-01	?.?438E-01
HE	1.0002E-01	?.47?7E-02	1.1?4?E-02
HE+	?.782?E-03	1.0229E-01	?.?477E-02
HE++	?.?9?6E-10	1.47?2E-04	1.?068E-02
H	1.?538E-01	1.3771E-02	?.?518E-02
H+	?.?647E-01	?.?777E-01	?.?5?3E-01
H2	?.1011E-07	1.?402E-08	?.?722E-10

Table I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0914E+03	2.4210F+04	4.2036E+04
T	9.3488E+01	1.9921E+02	2.53[illegible]E+02
RHO	1.0708E+01	3.6059E+01	4.6608E+01
M	5.4786E+02	9.6153E+02	1.27[illegible]E+03
A	1.0069E+01	2.4806E+01	2.9491E+01
S	2.5189E+00	2.6310E+00	2.7359E+00
Z	3.0881E+00	3.3703E+00	3.5537E+00
GAMA	8.9940E-01	9.1649E-01	9.64[illegible]E-01
U	4.3755E+01	1.2954E+01	1.3065E+01

SPECIES	MOLE FRACTIONS		
E-	4.6566E-01	5.1043E-01	5.3569E-01
HE	3.4437E-02	8.0904E-04	2.8620E-04
HE+	7.8903E-02	7.9116E-02	2.5490E-02
HE++	2.0113E-07	2.3923E-02	7.2792E-02
H	3.4196E-02	2.2520E-03	1.2105E-03
H+	3.8678E-01	3.8347E-01	3.6661E-01
H2	4.4043E-08	3.4256E-10	1.2134E-10

P1 = 2.000E+02 N/SQ-M, US1= 5.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.A481E+03	2.1277E+04	3.[illegible]E+04
T	8.4[illegible]E+01	1.7236E+02	2.2366E+02
RHO	1.0804E+01	3.7483E+01	4.7783E+01
M	4.7740E+02	8.3173E+02	1.0[illegible]E+03
A	1.4504E+01	1.3863E+01	2.6584E+01
S	2.4218E+00	2.[illegible]E+00	2.[illegible]E+00
Z	2.9198E+00	3.2943E+00	3.6486E+00
GAME	9.[illegible]E-01	1.0077E+00	9.1A22E-01
U	4.0444E+01	1.1723E+01	1.2024E+01

SPECIES	MOLE FRACTIONS		
E-	4.7A40E-01	4.[illegible]E-01	5.21[illegible]E-01
NE	4.7718E-02	1.[illegible]E-02	5.7[illegible]E-04
NE+	5.2104E-02	9.9817E-02	5.[illegible]E-02
NE++	1.3134E-08	4.7314E-08	4.[illegible]E-07
N	4.7[illegible]E-03	6.2507E-03	1.0087E-03
N+	3.8[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
N2	1.A[illegible]E-07	1.[illegible]E-09	3.1248E-10

P1 = 2.000E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3087E+03	2.5448E+04	4.42[illegible]E+04
T	9.9587E+01	2.0987E+02	2.73[illegible]E+02
RHO	1.0501E+01	3.5500E+01	4.49[illegible]E+01
M	5.[illegible]E+02	1.0294E+03	1.36[illegible]E+03
A	1.[illegible]E+01	2.5524E+01	3.15[illegible]E+01
S	2.5[illegible]E+00	2.6685E+00	2.[illegible]E+00
Z	3.[illegible]E+00	3.4155E+00	3.594[illegible]E+00
GAME	9.[illegible]E-01	9.0883E-01	1.01[illegible]E+00
U	4.5[illegible]E+01	1.3354E+01	1.37[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-01	5.1691E-01	5.4[illegible]E-01
NE	2.[illegible]E-02	5.8800E-04	9.4[illegible]E-05
NE+	9.[illegible]E-02	6.5E52E-02	1.4[illegible]E-02
NE++	9.[illegible]E-07	3.6233E-02	8.2[illegible]E-04
N	2.[illegible]E-02	1.8189E-03	9.[illegible]E-04
N+	3.[illegible]E-01	3.7880E-01	3.[illegible]E-01
N2	1.[illegible]E-08	2.1710E-10	6.[illegible]E-11

P1 = 2.000E+02 N/SQ-M, US1= 5.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+03	2.[illegible]E+04	3.[illegible]E+04
T	9.[illegible]E+01	2.[illegible]E+02	2.[illegible]E+02
RHO	1.[illegible]E+01	3.[illegible]E+01	4.[illegible]E+01
M	5.[illegible]E+02	1.[illegible]E+03	1.[illegible]E+03
A	1.[illegible]E+01	2.[illegible]E+01	3.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	3.[illegible]E+00	3.[illegible]E+00	3.[illegible]E+00
GAME	9.[illegible]E-01	9.[illegible]E-01	1.[illegible]E+00
U	4.[illegible]E+01	1.[illegible]E+01	1.[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-01	5.[illegible]E-01	5.[illegible]E-01
NE	2.[illegible]E-02	5.[illegible]E-04	9.[illegible]E-05
NE+	9.[illegible]E-02	6.[illegible]E-02	1.[illegible]E-02
NE++	9.[illegible]E-07	3.[illegible]E-02	8.[illegible]E-04
N	2.[illegible]E-02	1.[illegible]E-03	9.[illegible]E-04
N+	3.[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
N2	1.[illegible]E-08	2.[illegible]E-10	6.[illegible]E-11

P1 = 2.000E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+03	2.[illegible]E+04	4.[illegible]E+04
T	1.[illegible]E+02	2.[illegible]E+02	2.[illegible]E+02
RHO	1.[illegible]E+01	3.[illegible]E+01	4.[illegible]E+01
M	6.[illegible]E+02	1.[illegible]E+03	1.[illegible]E+03
A	1.[illegible]E+01	2.[illegible]E+01	3.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	3.[illegible]E+00	3.[illegible]E+00	3.[illegible]E+00
GAME	9.[illegible]E-01	9.[illegible]E-01	1.[illegible]E+00
U	4.[illegible]E+01	1.[illegible]E+01	1.[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-01	5.[illegible]E-01	5.[illegible]E-01
NE	9.[illegible]E-03	4.[illegible]E-04	9.[illegible]E-05
NE+	9.[illegible]E-02	6.[illegible]E-02	1.[illegible]E-02
NE++	9.[illegible]E-07	3.[illegible]E-02	8.[illegible]E-04
N	2.[illegible]E-02	1.[illegible]E-03	9.[illegible]E-04
N+	3.[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
N2	1.[illegible]E-08	2.[illegible]E-10	6.[illegible]E-11

P1 = 2.000E+02 N/SQ-M, US1= 6.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+03	2.[illegible]E+04	4.[illegible]E+04
T	1.[illegible]E+02	2.[illegible]E+02	2.[illegible]E+02
RHO	1.[illegible]E+01	3.[illegible]E+01	4.[illegible]E+01
M	6.[illegible]E+02	1.[illegible]E+03	1.[illegible]E+03
A	1.[illegible]E+01	2.[illegible]E+01	3.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	3.[illegible]E+00	3.[illegible]E+00	3.[illegible]E+00
GAME	9.[illegible]E-01	9.[illegible]E-01	1.[illegible]E+00
U	4.[illegible]E+01	1.[illegible]E+01	1.[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-01	5.[illegible]E-01	5.[illegible]E-01
NE	9.[illegible]E-03	4.[illegible]E-04	9.[illegible]E-05
NE+	9.[illegible]E-02	6.[illegible]E-02	1.[illegible]E-02
NE++	9.[illegible]E-07	3.[illegible]E-02	8.[illegible]E-04
N	2.[illegible]E-02	1.[illegible]E-03	9.[illegible]E-04
N+	3.[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
N2	1.[illegible]E-08	2.[illegible]E-10	6.[illegible]E-11

Table I. - Continued

$P_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.749UE+03	2.6757E+04	4.7U16E+04
T	1.1879E+02	2.3084E+02	3.3197E+02
RHO	9.0735E+00	3.3027E+01	3.8943E+01
H	6.7005E+02	1.1675E+03	1.5737E+03
A	2.0242E+01	2.7414E+01	3.0617E+01
S	2.6340E+00	2.7474E+00	2.8822E+00
Z	3.2020E+00	3.5097F+00	3.6300E+00
GAMA	1.0572E+00	9.2763E-01	1.11U7E+00
U	4.7933E+01	1.4020E+01	1.5830E+01

SPECIES	MOLE FRACTIONS		
E-	9.9427E-01	5.2987E-01	5.4030E-01
HE	4.0800E-03	2.6473E-04	1.1931E-03
HE+	1.0314E-01	3.8259F-02	3.1900E-03
HE++	4.4918E-05	6.1202F-02	9.8030E-02
H	7.4241E-03	1.2007E-03	4.2523E-04
H+	3.9103E-01	3.6921E-01	3.5703E-01
H2	1.4077E-09	8.6673E-11	1.2014E-11

P1 = 2.00E+02 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4317E+03	2.7364E+04	4.9729E+04
T	1.5074E+02	2.7268E+02	4.4350E+02
RHO	8.4223E+00	2.7779E+01	3.0730E+01
H	8.0302E+02	1.3771E+03	1.9116E+03
A	2.2530E+01	3.1970F+01	4.2849E+01
S	2.7020E+00	2.8599E+00	2.9744E+00
Z	3.3147E+00	3.6125E+00	3.8447E+00
GAME	9.6097E-01	1.0376F+00	1.1316E+00
U	5.1001E+01	1.5647E+01	1.9476E+01

SPECIES	MOLE FRACTIONS		
E-	9.9224E-01	5.4326E-01	5.4706E-01
HE	5.2100E-04	4.0517F-05	5.9655E-07
HE+	9.8667E-02	9.7203E-03	5.5735E-04
HE++	6.3815E-03	8.7124F-02	9.5400E-02
H	1.4249E-03	5.7059E-04	1.4002E-04
H+	3.9077E-01	3.5929F-01	3.5027E-01
H2	3.0441E-11	1.6001F-11	1.1033E-12

P1 = 2.00E+02 N/SQ-M, US1= 8.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.96E+03	2.67E+04	4.73E+04
T	1.32E+02	2.42E+02	3.66E+02
RHO	9.13E-01	3.11E+01	3.54E+01
H	6.12E+02	1.23E+03	1.67E+03
A	2.17E+01	2.86E+01	3.87E+01
S	2.69E+00	2.78E+00	2.90E+00
Z	3.28E+00	3.55E+00	3.64E+00
GAME	1.06E+00	9.53E-01	1.12E+00
U	4.91E+01	1.43E+01	1.09E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	9.97E-01	5.35E-01	5.47E-01
NE	1.00E-03	1.36E-04	3.89E-06
NE+	1.04E-01	2.63E-02	1.60E-03
NE++	3.40E-04	7.20E-02	9.40E-02
H	3.86E-03	9.54E-04	2.88E-04
H+	3.92E-01	3.65E-01	3.56E-01
H2	3.37E-10	5.12E-11	4.99E-12

P1 = 2.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.08E+03	2.82E+04	5.24E+04
T	1.68E+02	2.93E+02	4.87E+02
RHO	8.32E+00	2.65E+01	2.95E+01
H	8.50E+02	1.45E+03	2.04E+03
A	2.27E+01	3.39E+01	4.49E+01
S	2.79E+00	2.89E+00	3.00E+00
Z	3.34E+00	3.62E+00	3.64E+00
GAME	9.18E-01	1.08E+00	1.13E+00
U	5.30E+01	1.66E+01	2.08E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	9.06E-01	5.45E-01	5.47E-01
NE	3.69E-04	1.77E-05	2.69E-07
NE+	9.05E-02	5.26E-03	3.79E-04
NE++	1.38E-02	9.11E-02	9.55E-02
H	1.06E-03	4.27E-04	1.10E-04
H+	3.87E-01	3.57E-01	3.56E-01
H2	1.95E-11	8.46E-12	6.00E-13

P1 = 2.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.17E+03	2.68E+04	4.80E+04
T	1.46E+02	2.56E+02	4.02E+02
RHO	8.85E+00	2.92E+01	3.27E+01
H	7.57E+02	1.30E+03	1.79E+03
A	2.42E+01	3.01E+01	4.08E+01
S	2.72E+00	2.82E+00	2.99E+00
Z	3.27E+00	3.58E+00	3.64E+00
GAME	1.04E+00	9.91E-01	1.13E+00
U	5.03E+01	1.49E+01	1.81E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	9.97E-01	5.40E-01	5.47E-01
NE	8.21E-04	8.37E-05	1.47E-06
NE+	1.03E-01	1.66E-02	9.02E-04
NE++	1.87E-03	8.82E-02	9.50E-02
H	2.10E-03	7.44E-04	2.03E-04
H+	3.92E-01	3.61E-01	3.50E-01
H2	9.39E-11	2.90E-11	2.20E-12

Table I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+C2 N/SQ-M, USL= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3567E+01	2.8746E+01	7.2641E+01
T	3.5541E+00	4.4740E+00	6.5110E+00
RHO	3.9203E+00	6.4258E+00	1.1152E+01
H	3.6325E+00	4.6130E+00	6.9011E+00
A	1.8736E+00	2.0962E+00	2.4755E+00
S	1.0649E+00	1.0665E+00	1.0838E+ 0
Z	1.0000E+00	1.0000E+00	1.0004E+00
GAME	9.8771E-01	9.7656E-01	9.4389E-01
U	2.5703E+00	1.5703E+00	1.3997E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.0958E-51	1.6503E-32	6.4197E-15
HF	3.5000E-01	3.5000E-01	3.4586E-01
HE+	3.8699E-63	3.7958E-53	3.4586E-43
HE++	0.	0.	0.
H	1.5827E-09	2.0115E-06	7.9137E-04
H+	8.1343E-20	8.1343E-20	7.2328E-19
H2	6.5000E-01	6.5000E-01	6.4535E-01

P1 = 5.00E+C2 N/SQ-M, USL= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4368E+01	1.6821E+02	2.9241E+02
T	8.1744E+00	1.0389E+01	1.1625E+ 1
RHO	5.3EC7E+00	1.5443E+01	2.3017E+01
H	9.3224E+00	1.4344E+01	1.8528E+01
A	2.6622E+00	2.9780E+00	3.2072E+00
S	1.1541E+00	1.1680E+00	1.1552E+ 0
Z	1.0087E+00	1.0483E+00	1.0929E+00
GAME	8.5943E-01	8.1422E-01	8.0968E-01
U	4.9122E+00	1.7104E+00	1.5006E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.6385E-14	2.3502E-11	3.5891E-10
HF	3.4699E-01	3.3387E-01	3.2028E-01
HE+	1.6143E-34	2.5876E-27	1.6873E-24
HE++	0.	0.	2.1C68E-9C
H	1.7213E-02	9.2174E-02	1.6582E-01
H+	1.6385E-14	2.3502E-11	3.5851E-10
H2	6.3580E-01	5.7396E-01	5.0990E-01

P1 = 5.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2025E+01	9.6349E+01	1.2618E+02
T	4.9875E+00	6.6628E+00	8.7737E+00
RHO	4.4158E+00	8.4520E+00	1.4224E+01
H	5.1727E+00	7.0875E+00	1.0175E+01
A	2.1955E+00	2.5001E+00	2.7991E+00
S	1.0556E+00	1.0997E+00	1.1194E+00
Z	1.0000E+00	1.0006E+00	1.0111E+00
GAME	5.6557E-01	9.3755E-01	8.5570E-01
U	3.3341E+00	1.7409E+00	1.5004E+00

SPECIES	MOLE FRACTIONS		
E-	4.9380E-29	2.1674E-18	1.0295E-13
HE	3.5000E-01	3.4979E-01	3.4617E-01
HE+	3.8094E-51	3.2058E-42	2.4625E-32
HE++	0.	0.	0.
H	2.0989E-05	1.2285E-03	2.1899E-02
H+	8.1343E-20	2.2487E-18	1.0295E-13
H2	6.4998E-01	6.4899E-01	6.3193E-01

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2026E+01	9.9506E+01	1.9414E+02
T	6.6321E+00	8.7946E+00	1.0332E+01
RHO	4.8251E+00	1.1172E+01	1.8015E+01
H	7.0613E+00	1.0301E+01	1.3954E+01
A	2.4855E+00	2.7503E+00	2.9684E+00
S	1.1255E+00	1.1327E+00	1.1556E+00
Z	1.0006E+00	1.0128E+00	1.0430E+00
GAME	9.3376E-01	8.4924E-01	8.1776E-01
U	4.1000E+00	1.7690E+00	1.4992E+00

SPECIES	MOLE FRACTIONS		
E-	2.8113E-18	1.3130E-13	1.7384E-11
HE	3.4573E-01	3.4553E-01	3.3558E-01
HE+	2.0841E-42	2.3671E-32	1.3123E-27
HE++	0.	0.	0.
H	1.5327E-03	2.5235E-02	8.2385E-02
H+	2.8526E-18	1.3130E-13	1.7384E-11
H2	6.4874E-01	6.2918E-01	5.8203E-01

P1 = 5.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9259E+01	2.7277E+02	4.4052E+02
T	9.3289E+00	1.1718E+01	1.2879E+01
RHO	6.1717E+00	2.1123E+01	2.9531E+01
H	1.1963E+01	1.9155E+01	2.4050E+01
A	2.8044E+00	3.2312E+00	3.4812E+00
S	1.1836E+00	1.2069E+00	1.2386E+00
Z	1.0300E+00	1.1020E+00	1.1587E+00
GAME	8.1855E-01	8.0853E-01	8.1236E-01
U	5.7779E+00	1.6873E+00	1.5274E+00

SPECIES	MOLE FRACTIONS		
E-	1.8148E-12	5.1842E-10	4.1024E-09
HE	3.3992E-01	3.1761E-01	3.0207E-01
HE+	1.0083E-30	2.4866E-24	2.5264E-22
HE++	0.	5.3424E-91	4.1665E-80
H	5.8174E-02	1.8508E-01	2.7388E-01
H+	1.5149E-12	5.1842E-10	4.1024E-09
H2	6.0201E-01	4.9731E-01	4.2405E-01

P1 = 5.00E+02 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6563E+01	4.1654E+02	6.4291E+02
T	1.0227E+01	1.2951E+01	1.4153E+01
RHO	7.0496E+00	2.7517E+01	3.6675E+01
H	1.4563E+01	2.4770E+01	3.0454E+01
A	2.9559E+00	3.5067E+00	3.7619E+00
S	1.2153E+00	1.2496E+00	1.2858E+00
Z	1.0620E+00	1.1690E+00	1.2381E+00
GAME	8.0445E-01	8.1218E-01	8.2074E-01
U	6.6571E+00	1.7049E+00	1.5843E+00

SPECIES	MOLE FRACTIONS		
E-	2.5[illegible]E-11	4.5831E-09	2.6565E-08
HE	3.2518E-01	2.9939E-01	2.8269E-01
HE+	1.0994E-27	4.8487E-22	3.0525E-20
HE++	0.	9.3643E-92	3.6032E-79
H	1.1671E-01	2.8520E-01	3.6464E-01
H+	2.8556E-11	4.9851E-09	2.8565E-08
H2	5.5371E-01	4.1141E-01	3.3267E-01

Table I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.000E+02 N/SQ-M, USI= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2583E+01	5.9998E+02	8.9538E+.2
T	1.0994E+01	1.4170E+01	1.5819E+01
RHO	7.9214E+00	3.3957E+01	4.3607E+01
H	1.8312E+01	3.1012E+01	3.7707E+01
A	3.1146E+00	3.8081E+00	4.1466E+00
S	1.2469E+00	1.2954E+00	1.3361E+00
Z	1.1022E+00	1.2469E+00	1.3250E+00
GAME	8.0058E-01	3.2073E-01	8.3448E-01
U	7.5310E+00	1.7578E+00	1.6718E+00

SPECIES	POLE FRACTIONS		
E-	1.8396E-17	3.0795E-08	1.5713E-07
HE	3.1754E-01	2.8069E-01	2.6335E-01
HE+	6.5313E-25	3.2577E-20	1.7657E-18
HE++	0.	6.5916E-74	6.7608E-59
H	1.8547E-01	3.9605E-01	4.5512E-01
H+	1.8396E-17	3.0795E-08	1.5713E-07
H2	4.9699E-01	3.2326E-01	2.4153E-01

P1 = 5.00E+02 N/SQ-M, USI= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6657E+02	1.3561E+03	2.0331E+03
T	1.3035E+01	1.8766E+01	2.3613E+01
RHO	1.0130E+01	4.7573E+01	5.3252E+01
H	3.0440E+01	5.3493E+01	6.5927E+01
A	3.6471E+00	5.0426E+00	6.2461E+ 0
S	1.3641E+00	1.4426E+00	1.4989E+00
Z	1.2614E+00	1.5190E+00	1.6169E+00
GAME	8.0855E-01	8.9205E-01	1.0225E+00
U	1.0058E+01	2.1522E+00	2.3703E+00

SPECIES	POLE FRACTIONS		
E-	1.0769E-08	3.5215E-06	7.0501E-05
HE	2.7746E-01	2.3041E-01	2.1647E-01
HE+	7.4628E-22	2.5734E-15	5.4683E-12
HE++	8.2636E-80	3.5948E-57	1.8176E-44
H	4.1453E-01	6.8335E-01	7.6283E-01
H+	1.0769E-08	3.5215E-06	7.0501E-05
H2	3.0804E-01	8.6230E-02	2.0561E-02

P1 = 5.CUE+C2 N/SC-M, US1= 1.10E+C4 M/SEC

	MCVING SHCCK	STANDING SHOCK	REFLECTED SHCCK
P	1.1743E+02	8.2115E+C2	1.2122E+C3
T	1.1655E+01	1.5452E+01	1.7126E+C1
RHO	8.7460E+0C	3.9850E+01	4.5536E+C1
H	2.2CC7E+01	3.7897E+01	4.5893E+C1
A	3.2812E+00	4.1453E+0C	4.5757E+.C
S	1.2E5eE+C0	1.3435E+00	1.3869E+CC
Z	1.1493E+0C	1.3336E+00	1.4285E+CC
GAMF	8.0C59E-01	8.3391E-01	8.5710E-C1
U	8.3559E+0C	1.8431E+0C	1.7983E+CC

SPECIES	MOLE FRACTIONS		
E-	8.5649E-10	1.5310E-C7	8.2C91E-C7
HE	3.C455E-C1	2.6245E-C1	2.4494E-C1
HE+	2.8693E-24	1.5545E-18	9.6405E-17
HE++	4.1462E-5C	1.2237E-68	6.6590E-62
H	2.5592E-C1	5.0028E-01	6.CC33E-C1
H+	8.5649E-1C	1.5310E-C7	8.2091E-07
H2	4.3565E-C1	2.3727E-01	1.5473E-C1

P1 = 5.0CE+02 N/SC-M, US1= 1.40E+04 M/SEC

	MCVING SHCCK	STANDING SHOCK	REFLECTED SHCCK
P	1.9407E+02	1.6411E+03	2.5751E+03
T	1.3729E+01	2.1629E+01	3.19C3E+C1
RHO	1.0667E+01	4.7508E+01	4.9078E+C1
H	3.5176E+01	6.2C63E+01	7.9232E+ 1
A	3.8532E+00	5.8014E+00	7.5054E+C0
S	1.4C58E+CC	1.49C3E+00	1.5505E+CC
Z	1.3253E+C0	1.5971E+00	1.6472E+CC
GAME	8.16C6E-01	9.7430E-01	1.0719E+C0
U	1.0934E+01	2.4563E+00	3.0362E+CC

SPECIES	MOLE FRACTIONS		
E-	3.2103E-C8	2.5333E-05	1.4514E-C3
HE	2.6410E-01	2.1915E-C1	2.1248E-C1
HE+	1.C27CE-20	3.6072E-13	1.3542E-C8
HE++	4.5588E-77	3.2212E-49	4.2811E-32
H	4.5C87E-C1	7.4763E-01	7.8085E-01
H+	3.2103E-C8	2.C333E-C5	1.4514E-C3
H2	2.4513E-01	3.3172E-02	3.3998E-C3

P1 = 5.CCE+C2 N/SC-M, US1= 1.20E+04 M/SEC

	MCVING SHCCK	STANDING SHOCK	REFLECTED SHCCK
P	1.41C3E+02	1.0763E+03	1.585CE+C3
T	1.2367E+01	1.6907E+01	1.9352E+C1
RHO	9.4629E+0C	4.4636E+01	5.3460E+C1
H	2.6C51E+01	4.5407E+01	5.5065E+C1
A	3.4578E+0C	4.5353E+00	5.1750E+CC
S	1.3239E+00	1.3930E+00	1.4434E+CC
Z	1.2C26E+CC	1.4263E+00	1.5321E+CC
GAME	8.0359E-01	8.3451E-01	9.0326E-C1
U	9.2522E+0C	1.9675E+00	1.9947E+CC

SPECIES	MOLE FRACTIONS		
E-	3.3643E-09	7.0241E-07	5.2130E-C6
HE	2.5134E-C1	2.4540E-01	2.2844E-C1
HE+	5.6962E-23	6.0360E-17	9.6835E-15
HE++	1.2527E-65	1.1792E-62	1.1526E-54
H	3.3651E-C1	5.5772E-01	6.5461E-C1
H+	3.3643E-C9	7.0241E-07	5.2130E-C6
H2	3.7256E-C1	1.5688E-C1	7.6540E-C2

P1 = 5.0CE+C2 N/SC-M, US1= 1.50E+04 M/SEC

	MCVING SHCCK	STANDING SHOCK	REFLECTED SHCCK
P	2.2349E+02	1.9001E+03	3.1480E+C3
T	1.4483E+01	2.6421E+01	3.9859E+C1
RHO	1.1C75E+01	4.3944E+01	4.7354E+C1
H	4.0258E+01	7.0931E+01	9.2576E+C1
A	4.0832E+CC	6.9247E+00	8.0887E+CC
S	1.4483E+00	1.5329E+00	1.59C3E+CC
Z	1.3533E+CC	1.6365E+00	1.6649E+CC
GAME	8.2625E-01	1.0772E+00	9.85C2E-C1
U	1.1760E+01	2.9631E+00	3.5845E+CC

SPECIES	MOLE FRACTIONS		
E-	5.4511E-C8	2.7659E-04	1.0134E-C2
HE	2.5120E-01	2.1387E-01	2.1C22E-C1
HE+	1.2354E-1S	1.4219E-1C	1.2250E-06
HE++	4.0459E-73	2.6941E-39	4.9173E-25
H	5.6456E-C1	7.77C8E-01	7.6834E-01
H+	9.2511E-C8	2.7659E-04	1.0133E-C2
H2	1.8425E-C1	8.4575E-C3	1.1717E-03

Table L - Continued

$P_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, USI= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5469E+02	2.1302E+03	3.6915E+03
T	1.5360E+01	3.2491E+01	4.5827E+01
RHO	1.1329E+01	3.5875E+01	4.7605E+01
H	4.5683E+01	4.0073E+01	1.0647E+02
A	4.3515E+00	7.0461E+00	8.4576E+00
S	1.4526E+00	1.5591E+00	1.6231E+00
Z	1.4641E+00	1.5453E+00	1.6521E+00
GAMS	8.4209E-01	1.3642E+00	9.3122E-01
U	1.4571E+01	3.5458E+00	3.9236E+00

SPECIES	MOLE FRACTIONS		
E-	2.7723E-07	2.0934E-03	2.5552E-02
NE	2.2506E-01	2.1221E-01	2.0883E-01
NE+	1.7229E-03	2.1031E-03	1.2609E-03
NE++	1.2620E-09	1.8142E-31	2.2385E-21
N	6.3353E-01	7.8106E-01	7.4139E-01
N+	2.7759E-07	2.0554E-03	2.5540E-02
N2	1.2791E-01	2.5355E-03	6.7183E-04

P1 = 5.00E+02 N/SQ-M, USI= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5502E+02	2.5984E+03	4.5934E+ 3
T	2.1236E+01	4.6583E+01	5.7129E+01
RHO	1.0224E+01	3.2679E+01	4.4531E+01
H	6.3859E+01	1.1052E+02	1.4639E+02
A	6.0477E+00	8.5133E+00	9.5463E+00
S	1.6180E+00	1.6634E+00	1.7162E+00
Z	1.6352E+00	1.7069E+00	1.8056E+ 0
GAMS	1.0532E+00	9.1151E-01	8.8404E-01
U	1.4773E+01	4.6232E+00	4.4027E+00

SPECIES	MOLE FRACTIONS		
E-	4.3403E-05	3.3772E-02	8.6413E-02
NE	2.1404E-01	2.0503E-01	1.9355E-01
NE+	4.2893E-13	1.9601E-05	2.9512E-04
NE++	5.4867E-45	8.2292E-21	1.9124E-16
N	7.7677E-01	7.2700E-01	6.3337E-01
N+	4.3403E-05	3.3753E-02	8.6118E-02
N2	9.1014E-03	4.2352E-04	2.9291E-04

P1 = 5.00E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8747E+02	2.3484E+03	4.1765E+ 3
T	1.6491E+01	3.8033E+01	5.0489E+01
RHO	1.1360E+01	3.7159E+01	4.7907E+01
H	5.1443E+01	8.9777E+01	1.1958E+02
A	4.6545E+00	7.4344E+00	8.8832E+00
S	1.5361E+00	1.6911E+00	1.6539E+00
Z	1.5346E+00	1.6615E+00	1.7267E+00
GAME	8.7066E-01	9.9613E-01	9.0519E-01
U	1.3361E+01	4.2819E+00	4.1485E+00

SPECIES	MOLE FRACTIONS		
E-	9.6297E-07	8.0495E-03	4.4879E-02
NE	2.2858E-01	2.1365E-01	2.0265E-01
NE+	3.4844E-17	5.7464E-07	3.3819E-05
NE++	7.1477E-64	2.6673E-26	4.2615E-15
N	6.5659E-01	7.7213E-01	7.6714E-01
N+	9.6247E-07	8.0447E-03	4.4825E-02
N2	7.9230E-02	1.1224E-03	4.6631E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8863E+02	2.5559E+03	4.6979E+03
T	2.5603E+01	4.9673E+01	5.5488E+01
RHO	9.2139E+00	3.0112E+01	4.0930E+01
H	7.0539E+01	1.2124E+02	1.5856E+02
A	6.0079E+00	8.7805E+00	9.8282E+00
S	1.6921E+00	1.6954E+00	1.7465E+00
Z	1.6472E+00	1.7378E+00	1.8413E+00
GAME	1.0568E+00	8.9316E-01	8.7857E-01
U	1.5367E+01	4.6982E+00	4.4647E+00

SPECIES	MOLE FRACTIONS		
E-	4.3162E-04	5.0810E-02	1.0700E-01
NE	2.1259E-01	2.0133E-01	1.8896E-01
NE+	1.3035E-13	5.3471E-05	5.0572E-04
NE++	5.3165E-40	2.9045E-19	1.2935E-15
N	7.8441E-01	6.9673E-01	6.9666E-01
N+	4.3165E-04	5.0757E-02	1.0649E-01
N2	2.2249E-03	2.9713E-04	1.9023E-04

P1 = 5.00E+02 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2129E+02	2.5493E+03	4.5155E+ 3
T	1.8214E+01	4.2750E+01	5.4152E+01
RHO	1.1045E+01	3.5163E+01	4.7254E+01
H	5.7533E+01	1.0003E+02	1.3341E+02
A	5.2152E+00	8.2356E+00	9.2362E+00
S	1.5787E+00	1.6313E+00	1.5845E+00
Z	1.5571E+00	1.6809E+00	1.7649E+00
GAME	9.2508E-01	9.9256E-01	8.9154E-01
U	1.4183E+01	4.4283E+00	4.3004E+00

SPECIES	MOLE FRACTIONS		
E-	4.7750E-06	1.9044E-02	6.5433E-02
NE	2.1591E-01	2.0321E-01	1.9817E-01
NE+	1.7416E-15	4.4032E-06	1.4415E-04
NE++	4.8236E-56	5.4815E-23	1.4884E-17
N	7.4771E-01	7.5335E-01	7.0652E-01
N+	4.7716E-06	1.9037E-02	6.5299E-02
N2	3.5133E-02	1.4673E-04	3.3756E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1[illegible]E+02	2.6457E+03	4.6853E+03
T	[illegible]E+01	5.2435E+01	6.1745E+01
RHO	[illegible]E+01	2.3454E+01	3.8405E+01
H	5.7502E+01	1.3252E+02	1.7210E+02
A	5.2471E+00	9.0562E+00	1.0114E+ 1
S	1.6811E+00	1.7257E+00	1.7804E+00
Z	1.6554E+00	1.7727E+00	1.9915E+00
GAME	1.3811E+00	8.3235E-01	8.7556E-01
U	1.5566E+01	4.7550E+00	4.5265E+00

SPECIES	MOLE FRACTIONS		
E-	2.4246E-03	6.9429E-04	1.2780E-01
NE	2.1117E-01	1.9732E-01	1.8422E-01
NE+	9.4227E-04	1.1825E-04	8.1974E-04
NE++	2.7503E-33	4.9238E-13	7.0C90E-15
N	7.8251E-01	6.6360E-01	5.6CC2E-01
N+	2.4240E-03	6.9311E-04	1.2658E-01
N2	7.7349E-04	2.2100E-04	1.4673E-04

Table I. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.62C4E+02	2.78C2E+03	4.6316E+03
T	3.4388E+01	5.5114E+01	6.4113E+C1
RHO	8.0832E+0C	2.7844E+01	3.7260E+C1
H	8.4841E+01	1.4472E+02	1.8641E+C2
A	7.4E5CE+C0	9.3529F+00	1.0426E+C1
S	1.7073E+C0	1.7542E+00	1.8100E+1C
Z	1.6E22E+0C	1.8117E+00	1.9388E+CC
GAME	9.8120E-01	8.7609F-01	8.7451E-C1
U	1.6E16E+01	4.8213E+00	4.5984E+C0

SPECIES	MOLE FRACTIONS		
E-	7.7141E-C3	8.9412E-02	1.49C7E-C1
HE	2.1057E-01	1.9256E-C1	1.7924E-01
HE+	1.E667E-C7	2.3369E-C4	1.2E48E-C3
HE++	8.E113E-25	5.7516E-17	3.5281E-14
H	7.7362E-01	6.2805E-C1	5.2250E-C1
H+	7.7140E-C3	8.9178E-02	1.4779E-C1
H2	3.8156E-C4	1.7188E-04	1.1E16E-C4

P1 = 5.00E+02 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9513E+02	3.6107E+03	5.8161E+03
T	4.3381E+01	6.3107E+01	7.2134E+C1
RHO	7.9639E+00	2.9346E+01	3.9340E+C1
H	1.0522E+02	1.9711E+02	2.3733E+C2
A	8.1139E+00	1.0352E+01	1.1520E+C1
S	1.7769E+CC	1.8343E+00	1.8962E+CC
Z	1.7225E+00	1.9456E+0C	2.1030E+CC
GAME	8.8102E-01	8.7093E-01	8.7485E-C1
U	1.8E42E+01	5.1C89E+00	4.9350E+CC

SPECIES	MOLE FRACTIONS		
E-	4.2214E-02	1.5378E-01	2.1548E-01
HE	2.0318E-01	1.7821E-01	1.6156E-C1
HE+	1.2593E-05	1.2360E-03	4.4642E-03
HE++	5.5136E-22	2.3460E-14	3.4899E-12
H	7.1226E-C1	5.1403E-01	4.C702E-C1
H+	4.2232E-02	1.5257E-01	2.1101E-C1
H2	1.2779E-04	9.2409E-05	6.C868E-05

P1 = 5.00E+02 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0346E+02	2.9569E+03	4.9264E+03
T	3.7842E+01	5.7784E+01	6.6693E+01
RHO	7.9226E+00	2.7967E+01	3.7103E+01
H	9.2578E+01	1.5794E+02	2.0222E+02
A	7.6685E+00	9.6708E+00	1.0773E+01
S	1.7314E+00	1.7814E+00	1.8353E+ 0
Z	1.6775E+00	1.8545E+00	1.9505E+00
GAME	9.3022E-01	8.7274E-01	8.7413E-01
U	1.7321E+01	4.9050E+00	4.7031E+00

SPECIES	MOLE FRACTIONS		
E-	1.6649E-02	1.1041E-01	1.7131E-01
HE	2.0864E-01	1.8830E-01	1.7381E-01
HE+	1.1456E-06	4.2796E-04	1.9562E-03
HE++	5.3019E-26	5.1921E-16	1.7622E-13
H	7.5783E-01	5.9074E-01	4.8349E-01
H+	1.6648E-02	1.0598E-01	1.6931E-01
H2	2.3675E-04	1.3773E-04	9.2573E-05

P1 = 5.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4752E+02	3.2786E+03	5.3290E+03
T	4.0827E+01	6.0443E+01	6.9369E+01
RHO	7.9036E+00	2.8541E+01	3.7556E+01
H	1.0071E+02	1.7210E+02	2.1919E+02
A	7.8562E+00	1.0304E+01	1.1139E+01
S	1.7544E+00	1.8079E+00	1.8678E+00
Z	1.6980E+00	1.9305E+00	2.0456E+00
GAME	8.9938E-01	8.7126E-01	8.7436E-01
U	1.8068E+01	5.0013E+00	4.8104E+00

SPECIES	MOLE FRACTIONS		
E-	2.6441E-02	1.3192E-01	1.9345E-01
HE	2.0612E-01	1.8343E-01	1.6808E-01
HE+	4.4900E-06	7.3613E-04	3.6206E-03
HE++	1.3113E-23	3.7953E-15	8.1295E-13
H	7.3683E-01	5.5261E-01	4.4494E-01
H+	2.6437E-02	1.3119E-01	1.9043E-01
H2	1.6755E-04	1.1241E-04	7.5179E-05

P1 = 5.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4477E+02	3.9835E+03	6.3659E+03
T	4.5661E+01	6.5750E+01	7.4957E+01
RHO	8.0684E+00	3.0279E+01	3.9258E+01
H	1.1859E+02	2.0290E+02	2.5649E+02
A	8.3374E+00	1.0706E+01	1.1511E+01
S	1.7990E+00	1.8605E+00	1.9246E+00
Z	1.7501E+00	2.0006E+00	2.1625E+00
GAME	8.6985E-01	8.7128E-01	8.7532E-01
U	1.9832E+01	5.2279E+00	5.0675E+00

SPECIES	MOLE FRACTIONS		
E-	5.7319E-02	1.7565E-01	2.3703E-01
HE	1.9999E-01	1.7303E-01	1.5542E-01
HE+	2.8597E-05	1.8876E-03	6.4269E-03
HE++	1.0874E-20	1.2348E-13	1.3769E-11
H	6.8531E-01	4.7599E-01	3.7046E-01
H+	5.7289E-02	1.7355E-01	2.3061E-01
H2	1.0187E-04	7.6313E-05	4.9233E-05

P1 = 5.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9678E+02	4.3923E+03	6.9805E+03
T	4.7743E+01	6.9369E+01	7.7824E+01
RHO	8.1572E+00	3.1269E+01	4.0342E+01
H	1.2734E+02	2.1942E+02	2.7659E+02
A	8.5646E+00	1.1067E+01	1.2309E+01
S	1.8211E+00	1.8667E+00	1.9531E+00
Z	1.7804E+00	2.0541E+00	2.2234E+00
GAME	8.6293E-01	8.7197E-01	8.7561E-01
U	2.0432E+01	5.3537E+00	5.2064E+00

SPECIES	MOLE FRACTIONS		
E-	7.3303E-02	1.9373E-01	2.5793E-01
HE	1.9653E-01	1.6755E-01	1.4641E-01
HE+	5.6414E-05	2.8457E-03	9.0113E-03
HE++	1.2990E-19	5.6993E-13	5.0031E-11
H	6.5677E-01	4.3892E-01	3.3570E-01
H+	7.3249E-02	1.9364E-01	2.4892E-01
H2	1.3427E-04	8.3043E-05	3.9722E-05

Table I. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.51C3E+02	4.8334E+03	7.6411E+03
T	4.9683E+01	7.1015E+01	8.C725E+C1
RHO	8.3390E+CC	3.2275E+C1	4.1420E+01
M	1.3694E+02	2.3664E+02	2.9758E+C2
A	8.7544E+C0	1.1436E+01	1.2710E+C1
S	1.8432E+C0	1.9130E+00	1.9817E+ C
Z	1.8120E+00	2.1088E+C0	2.2853E+C0
GAME	8.5865E-01	8.7275E-01	8.757CE-11
U	2.1233E+C1	5.4852E+00	5.3454E+C0

SPECIES	MOLE FRACTIONS		
E-	8.5865E-02	2.1753E-01	2.7803E-C1
HE	1.5257E-01	1.6182E-01	1.4C85E-C1
HE+	1.CC93E-04	4.1527E-03	1.2305E-C2
HE++	1.C899E-18	2.3485E-12	1.6767E-10
H	6.2723E-01	4.0288E-01	3.0306E-C1
H+	8.5764E-02	2.1347E-01	2.6572E-C1
H2	6.5451E-C5	5.1583E-05	3.1553E-C5

P1 = 5.00E+02 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8926E+02	6.8785E+03	1.0715E+04
T	5.6631E+C1	8.1580E+C1	9.2683E+C1
RHO	8.9145E+00	3.6073E+01	4.5553E+ 1
M	1.7888E+02	3.1222E+02	3.8999E+C2
A	9.7364E+00	1.2912E+01	1.4363E+11
S	1.9323E+CC	2.0190E+0C	2.0972E+CC
Z	1.9593E+00	2.3374E+00	2.5377E+CC
GAME	8.5416E-01	8.7431E-01	8.7714E- 1
U	2.4489E+01	6.0545E+00	5.6559E+CC

SPECIES	MOLE FRACTIONS		
E-	1.5813E-C1	2.9411E-01	3.4582E-C1
HE	1.7801E-01	1.3582E-01	1.0482E-C1
HE+	5.8210E-04	1.4415E-C2	3.3102E-C2
HE++	6.7615E-16	2.7831E-10	1.0435E-C8
H	8.5576E-C1	2.7643E-01	1.9552E-C1
H+	1.5752E-01	2.7969E-C1	3.1672E-C1
H2	3.5865E-C5	2.3241E-05	1.2526E-C5

P1 = 5.CCE+C2 N/SC-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.C744E+02	5.3055E+03	8.3478E+03
T	5.1524E+01	7.3649E+01	8.3658E+01
RHO	8.4842E+00	3.3276E+01	4.2499E+ 1
M	1.4689E+02	2.5455E+02	3.1943E+02
A	5.0284E+00	1.1801E+01	1.3115E+01
S	1.8653E+00	1.9353E+00	2.01C4E+0C
Z	1.8471E+00	2.1648E+00	2.3479E+CC
GAME	8.5810E-01	8.7345E-01	8.7567E-01
U	2.2C49E+01	5.6171E+00	5.4966E+CC

SPECIES	POLE FRACTIONS		
E-	1.C677E-01	2.3786E-01	2.9728E-01
HE	1.8932E-01	1.5579E-01	1.3270E-01
HE+	1.6789E-04	5.8890E-03	1.6369E-02
HE++	7.0214E-19	8.7739E-12	5.2C75E-1C
H	5.57C8E-01	3.6845E-01	2.7272E-01
H+	1.0661E-01	2.3197E-01	2.8C91E-01
H2	5.85C2E-05	4.2740E-05	2.5621E-05

P1 = 5.CCE+C2 N/SC-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.12C7E+03	8.C465E+03	1.2475E+04
T	5.9846E+01	8.6927E+01	9.8581E+01
RHC	5.172[E+00	3.7721E+01	4.7318E+ 1
M	2.0155E+02	3.5386E+02	4.4114E+02
A	1.0223E+01	1.3656E+01	1.5252E+ 1
S	1.9776E+00	2.0172E+00	2.1549E+CC
Z	2.0419E+CC	2.4540E+CC	2.6636E+CC
GAME	8.5534E-01	8.7450E-01	8.8222E- 1
U	2.6111 +01	6.3509E+00	6.2849E+CC

SPECIES	POLE FRACTIONS		
E-	1.51b3E-01	2.2764E-01	3.8C55E-01
HE	1.7238E-01	1.1931E-01	8.4401E-02
HE+	1.1465E-03	2.3314E-02	4.6559E-02
HE++	3.1921E-15	1.5792E-09	5.8474E-08
H	4.4439E-01	2.2540E-01	1.5449E-01
H+	1.9063E-01	3.0432E-01	3.3255E-01
H2	2.5922E-05	1.5223E-05	7.9894E-06

P1 = 5.00E+02 N/SC-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6557E+02	5.8034E+03	9.0567E+03
T	5.3281F+01	7.5282E+01	8.6622E+01
RHO	8.6307E+00	3.4243E+01	4.3558E+ 1
M	1.5726E+02	2.7311E+02	3.4211E+02
A	5.2606E+00	1.2170E+01	1.3524E+01
S	1.8875E+CC	1.9657E+00	2.0352E+CC
Z	1.8832E+0C	2.2217E+0C	2.4110E+ C
GAME	8.5471E-01	8.7395E-01	8.7571E-01
U	2.2860E+01	5.7601E+00	5.6464E+CC

SPECIES	POLE FRACTIONS		
E-	1.2386E-01	2.5737E-01	3.1565E-01
HE	1.8559E-01	1.4954C-01	1.2395E-01
HE+	2.6438E-04	6.1302E-03	2.1218E-02
HE++	3.7209E-17	2.9967E-11	1.5C55E-C9
H	5.6664E-01	3.3582E-01	2.4474E-01
H+	1.2386E-04	2.4952E-01	2.9443E-01
H2	4.5553E-05	3.5014E-05	2.0479E-05

P1 = 5.CCE+C2 N/SC-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2800E+03	9.2959E+03	1.4370E+04
T	6.3301E+01	9.2578E+01	1.0554E+02
RHC	5.4032E+CC	3.9148E+01	4.3584E+ 1
M	2.2641E+02	3.9799E+02	4.9575E+02
A	1.0720E+01	1.4424E+01	1.6261E+01
S	2.0023E+00	2.1257E+00	2.2144E+ C
Z	2.1274E+CC	2.5705E+CC	2.7919E+CC
GAME	8.5737E-01	8.7619E-01	8.9352E- 1
U	2.7721E+01	6.5601E+00	6.6439E+CC

SPECIES	POLE FRACTIONS		
E-	2.2447E-01	3.9812E-01	4.C591E-01
HE	1.6524E-01	1.3106E-01	5.3383E-02
HE+	2.0937E-03	3.4623E-02	6.2CC6E-02
HE++	7.5255E-14	1.1322E-08	2.9865E-07
H	3.8852E-01	1.8222E-01	1.1862E-01
H+	2.2234E-01	3.2345E-01	3.4731E-01
H2	1.8539E-05	9.8222E-06	4.6235E-06

Table I. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4671E+03	1.0615E+04	1.6410E+04
T	6.6149E+01	9.8035E+01	1.1404E+02
RHO	9.5551E+00	4.0304E+01	4.9300E+01
H	2.5227E+02	4.4456E+02	5.5452E+02
A	1.122[illegible]E+01	1.5234E+01	1.7456E+01
S	2.0700E+00	2.1806F+00	2.2741E+00
Z	2.2169E+00	2.6865E+00	2.9188E+00
GAME	8.5970E-0[illegible]	8.8123E-01	9.1536E-01
U	2.9339E+01	6.9872E+00	7.0815E+00

SPECIES	MOLE FRACTIONS		
F-	2.5574E-01	3.8582E-01	4.3471E-01
HE	1.5425E-01	8.2677E-02	4.3506E-02
HE+	3.62C4E-03	4.7605E-02	7.6403E-02
HE++	5.6645E-13	5.4583E-08	1.4541E-06
H	3.3424E-01	1.4567E-01	8.7074E-02
H+	2.5212E-01	3.3822E-01	3.5830E-01
H2	1.3033E-05	6.1861E-06	2.4123E-06

P1 = 5.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8950E+03	1.4814E+04	2.3657E+04
T	7.5858E+01	1.1892E+02	1.5802E+02
RHO	1.0005E+01	4.1265E+01	4.6246E+01
H	3.3817E+02	5.9781E+02	7.6634E+02
A	1.2790E+01	1.8345E+01	2.3242E+01
S	2.2114E+00	2.3412E+00	2.4505E+00
Z	2.4956E+00	3.0187E+00	3.2209E+00
GAME	8.6372E-01	9.3750E-01	[illegible]E+00
U	3.4130E+01	8.2769E+00	9.4216E+00

SPECIES	MOLE FRACTIONS		
F-	3.3883E-01	4.5341E-01	4.8772E-01
HE	1.2552E-01	3.0387E-02	6.9143E-03
HE+	1.4732E-02	8.5552E-02	1.0124E-01
HE++	1.0846E-10	4.2065E-06	5.0936E-04
H	1.9692E-01	6.2795E-02	1.8155E-02
H+	3.2410E-01	3.6795E-01	3.8546E-01
H2	3.9859E-06	1.0348E-06	7.8523E-08

P1 = 5.000E+02 N/SQ-M, US1= 4.000E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.562CE+03	1.1988E+04	1.86C4E+04
T	6.9331E+01	1.0410E+02	1.24C8E+02
RHO	9.7584E+00	4.1110E+01	4.9359E+01
M	2.7551E+02	4.9347E+02	6.18C4E+02
A	1.1745E+01	1.6123E+01	1.8934E+ 1
S	2.1168E+00	2.2347E+00	2.3324E+00
Z	2.3C88E+00	2.8012E+00	3.0376E+ 0
GAME	8.6177E-01	8.9148E-01	9.5115E-01
U	3.0942E+01	7.3477E+01	7.6268E+01

SPECIES	MOLE FRACTIONS		
E-	2.6835E-01	4.1057E-01	4.5681E-01
HE	1.4550E-01	6.3750E-02	2.68C0E-02
HE+	5.9556E-03	6.1196E-02	8.8413E-02
HE++	3.6770E-12	2.3667E-07	7.98C0E-06
H	2.6370E-01	1.1430E-01	5.9578E-02
H+	2.7935E-01	3.4978E-01	3.6838E-01
H2	8.5742E-06	3.7298E-06	1.0702E-06

P1 = 5.000E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.724DE+03	1.3390E+04	2.1013E+04
T	7.4575E+01	1.1CH5E+02	1.3849E+02
RHO	9.M633E+00	4.1534E+01	4.M232E+01
M	3.0815E+02	5.4468E+02	6.8827E+02
A	1.2267E+01	1.7130E+01	2.0594E+01
S	2.1640E+00	2.2879E+00	2.3928E+00
Z	2.4020E+00	2.9122E+00	3.1482E+00
GAMF	8.8316E-01	9.0904E-01	1.0079E+00
U	3.2941E+01	7.7618E+01	8.3913E+ 0

SPECIES	MOLE FRACTIONS		
E-	3.1302E-01	4.3343E-01	4.7543E-01
HE	1.3811E-01	4.6033E-02	1.4648E-02
HE+	5.5755E-03	7.4143E-02	9.7174E-02
HE++	2.1023E-11	9.7459E-07	5.1356E-05
H	2.3772E-01	8.7104E-02	3.5213E-02
H+	3.0C35JE-01	3.5928E-01	3.7811E-01
H2	6.0F435E-05	2.3782E-06	3.3922E-07

P1 = 5.000E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0732E+03	1.6211E+04	2.6491E+04
T	7.9311E+01	1.2904E+02	1.8252E+ 2
RHO	1.0C58E+01	4.3363E+01	4.4312E+01
M	3.0558E+02	6.5282E+02	8.5C14E+02
A	1.3317E+01	1.9835E+01	2.4741E+01
S	2.2956E+00	2.3927E+00	2.5041E+00
Z	2.5889E+00	3.1126E+00	3.2683E+00
GAMG	8.6279E-01	9.7556E-01	1.0239E+00
U	3.5716E+01	8.3291E+00	1.0548E+01

SPECIES	MOLE FRACTIONS		
E-	3.6259E-01	4.6990E-01	4.9515E-01
HE	1.1346E-01	1.8209E-02	3.8348E-03
HE+	2.1745E-02	9.4215E-02	9.9665E-02
HE++	5.0C36E-10	2.0059E-03	3.5509E-03
H	1.6135E-01	4.2003E-02	9.4636E-03
H+	3.4084E-01	3.7505E-01	3.8930E-01
H2	2.3825E-05	4.2798E-07	1.8926E-0

P1 = 5.000E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2563E+03	1.7549E+04	2.9313E+04
T	8.2624E+01	1.4188E+02	2.0342E+ 2
RHO	1.0717E+01	3.8837E+01	4.3510E+01
M	4.0240E+02	7.3930E+02	9.3325E+02
A	1.3353E+01	2.1564E+01	2.5652E+01
S	2.3C44E+00	2.4408E+00	2.5512E+00
Z	2.8C3CE+00	3.1851E+00	3.3116E+00
GAMF	8.6E 5E-01	1.0259E+00	9.6164E-01
U	3.7[4E+01	9.7819E+00	1.1353E+01

SPECIES	MOLE FRACTIONS		
E-	3.8643E-01	4.3109E-01	5.0175E-01
HE	9.5[5E-02	1.0234E-02	4.5569E-03
HE+	3.2[9E-02	1.[5E-02	9.1C14E-02
HE++	2.8111E-10	1.[0E-04	1.2113E-02
H	1.3123E-01	2.[5E-02	6.3E91E-03
H+	3.5837E-01	3.[2E-01	3.8649E-01
H2	1.6492E-05	1.[2E-07	7.2543E-09

Table I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4922E+03	1.8803E+04	3.2028E+04
T	8.6401E+01	1.5768E+02	2.1903E+02
RHO	1.0239E+01	3.6872E+01	4.3433E+01
H	4.3059E+02	7.6691E+02	1.0149E+03
A	1.4411E+01	2.3246E+01	2.6246E+01
S	2.3293E+00	2.4859F+00	2.5929E+00
Z	2.7715E+00	3.2341E+00	3.3600E+00
GAMC	8.6653E-01	1.0597E+00	9.3340E-01
U	3.8875E+01	1.0790F+01	1.1970E+01

SPECIES	MOLE FRACTIONS		
E-	4.0455E-01	4.8981E-01	5.0893E-01
HE	8.5072E-02	5.7864F-03	1.8430E-03
HE+	4.1235E-02	1.0186F-01	7.0060E-02
HE++	8.1054E-09	5.7302E-04	2.4243E-02
H	1.0582E-01	1.5163E-02	4.5462E-03
H+	3.0332E-01	3.8680F-01	3.8236E-01
H2	1.0366E-06	4.4319F-08	3.9949E-09

P1 = 5.00E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0754E+03	2.2695E+04	4.0091E+04
T	9.9400E+01	2.0541E+02	2.6423E+02
RHO	1.0207E+01	3.3132E+01	4.3171E+01
H	5.4737E+02	9.5385E+02	1.2724E+03
A	1.6458E+01	2.5410E+01	2.9817E+01
S	2.4955E+00	2.6053E+00	2.7094E+00
Z	3.0309E+00	3.3347E+00	3.5146E+00
GAMC	8.9879E-01	9.4263E-01	9.5734E-01
U	4.3524E+01	1.3355E+01	1.3400E+01

SPECIES	MOLE FRACTIONS		
E-	4.5561E-01	5.0520F-01	5.3053E-01
HE	9.8693E-02	1.8253F-03	5.7894E-04
HE+	7.6784E-02	8.6425E-02	3.4904E-02
HE++	3.5841E-07	1.6708F-02	6.4043E-02
H	5.0093E-02	4.4911F-03	2.4012E-03
H+	3.7882E-01	3.8535E-01	3.6748E-01
H2	2.0492E-07	3.0475E-09	1.0813E-09

P1 = 5.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.653[illegible]E+03	2.0048E+04	3.480[illegible]E+04
T	9.0352E+01	1.7506E+02	2.340[illegible]E+02
RHO	1.02[illegible]E+01	3.5054E+01	4.35[illegible]E+01
M	4.7215E+02	8.2642E+02	1.098[illegible]E+03
A	1.5[illegible]E+01	2.4349E+01	2.722[illegible]E+01
S	2.4018E+00	2.5278E+00	2.632[illegible]E+00
Z	2.86[illegible]E+00	3.2670E+00	3.411[illegible]E+00
GAME	8.719[illegible]E-01	1.0367E+00	9.278[illegible]E-01
U	4.0445[illegible]E+01	1.1821E+01	1.246[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.230[illegible]E-01	4.9494E-01	5.10[illegible]E-01
NE	8.945[illegible]E-02	3.5863E-03	1.33[illegible]E-03
NE+	5.4924E-02	1.0097E-01	6.3[illegible]E-02
NE++	2.90[illegible]E-08	2.5724E-03	3.7[illegible]E-02
N	8.4374E-02	9.0973E-03	3.6[illegible]E-03
N+	3.7[illegible]E-01	3.8883E-01	3.77[illegible]E-01
N2	8.30[illegible]E-07	1.4221E-08	2.5[illegible]E-09

P1 = 5.00E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+03	2.3957E+04	4.2513E+04
T	1.0[illegible]E+02	2.1758E+02	2.8345E+02
RHO	1.00[illegible]E+01	3.2610E+01	4.21[illegible]E+01
M	5.[illegible]E+02	1.0216E+03	1.366[illegible]E+03
A	1.7[illegible]E+01	2.6078E+01	3.16[illegible]E+01
S	2.[illegible]E+00	2.6422E+00	2.750[illegible]E+00
Z	3.10[illegible]E+00	3.3764E+00	3.561[illegible]E+00
GAME	9.[illegible]E-01	9.2569E-01	9.934[illegible]E-01
U	4.5[illegible]E+01	1.3648E+01	1.414[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-01	5.1132E-01	5.30[illegible]E-01
NE	2.[illegible]E-02	1.3694E-03	3.133[illegible]E-04
NE+	8.[illegible]E-02	7.4718E-02	2.23[illegible]E-02
NE++	1.3[illegible]E-08	2.7573E-02	7.5[illegible]E-02
N	3.5[illegible]E-02	3.5670E-03	1.80[illegible]E-03
N+	3.62[illegible]E-01	3.8146E-01	3.63[illegible]E-01
N2	9.80[illegible]E-08	1.8635E-09	6.3[illegible]E-10

P1 = 5.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.86[illegible]E+03	2.1330E+04	3.751[illegible]E+04
T	9.45[illegible]E+01	1.9101E+02	2.480[illegible]E+02
RHO	1.62[illegible]E+01	3.3869E+01	4.351[illegible]E+01
M	5.0909E+02	8.8846E+02	1.184[illegible]E+03
A	1.5[illegible]E+01	2.4878E+01	2.84[illegible]E+01
S	2.449[illegible]E+00	2.5663E+00	2.671[illegible]E+00
Z	2.947[illegible]E+00	3.2970E+00	3.465[illegible]E+00
GAME	8.8[illegible]E-01	9.8275E-01	9.3[illegible]E-01
U	4.1998[illegible]E+01	1.2724E+01	1.293[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.90[illegible]E-01	4.9955E-01	5.2304[illegible]E-01
NE	3.3[illegible]E-02	2.4985E-03	9.0[illegible]E-04
NE+	6.[illegible]E-02	6.5947E-02	1.8[illegible]E-02
NE++	1.01[illegible]E-07	7.7104E-03	5.1[illegible]E-02
N	6.[illegible]E-02	5.1102E-03	2.[illegible]E-03
N+	3.[illegible]E-01	3.[illegible]E-01	3.72[illegible]E-01
N2	3.[illegible]E-07	5.9293E-09	1.[illegible]E-09

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5[illegible]E+03	2.5047E+04	4.43[illegible]E+04
T	1.12[illegible]E+02	2.29C2E+02	3.0[illegible]E+02
RHO	1.8[illegible]E+00	3.1962E+01	4.03[illegible]E+01
M	6.27[illegible]E+02	1.0907E+03	1.46[illegible]E+03
A	1.8[illegible]E+01	2.6891E+01	3.39[illegible]E+01
S	2.5[illegible]E+00	2.6798E+00	2.79[illegible]E+00
Z	3.17[illegible]E+00	3.4217E+00	3.59[illegible]E+00
GAME	9.[illegible]E-01	9.2276E-01	1.04[illegible]E+00
U	4.64[illegible]E+01	1.4260E+01	1.49[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.[illegible]E-01	5.1778E-01	5.4[illegible]E-01
NE	1.[illegible]E-02	1.0046E-03	1.6[illegible]E-04
NE+	9.[illegible]E-02	8.1810E-02	1.29[illegible]E-02
NE++	5.[illegible]E-06	3.9475E-02	8.4[illegible]E-02
N	2.[illegible]E-02	2.9119E-03	1.39[illegible]E-03
N+	3.[illegible]E-01	3.7702E-01	3.59[illegible]E-01
N2	4.[illegible]E-08	1.2062E-09	3.3[illegible]E-10

Table I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.JUE+U2 N/Su-M, US1= 6.20[+04 M/SEC

	MUVING SHUCK	STANDING SHUCK	REFLECTED SHUCK
P	3.7391E+03	2.5722E+04	4.597[E+04
T	1.2[49[+02	2.4005E+02	3.36[0[+02
RHU	9.40[2[+00	3.0907E+01	3.11[0[+01
M	6.09[3[+02	1.1606E+03	1.5[7[+03
A	2.0131[+01	2.7817F+01	3.64U3[+01
S	2.6[85[+00	2.7179E+00	2.83[1[+00
[	3.2[09[+00	3.46[9[+00	3.62[3[+00
GAMA	1.02[1[+00	9.2973[-01	1.08[7[+00
U	4.[811[+01	1.4608E+01	1.59[1[+01

SPECIES	MOLE FRACTIONS		
E-	4.8[9U[-01	5.2408[-01	5.4[3U[-01
NE	[.[4U[L-03	7.0E63E-04	5.6[[4[-03
NE+	1.UU[4E-01	4.8996F-02	6.[[1U[-03
NE++	3.2503[-03	[.1251E-02	8.9[U[L-02
H	1.[[3U[-02	2.3943[-03	9.8[0UL-04
H+	3.[[9U[-01	3.7258[-01	3.5[[[L-01
H2	1.3U[4[-08	7.8430[-10	1.5[U0[-10

P1 = 5.UUL+U[N/Su-M, US1= 6.80E+04 M/SEC

	MUVING SHUCK	STANDING SHUCK	REFLECTED SHUCK
P	4.[2U/E+03	2.6619E+04	4.87[[E+04
T	1.01[5[+0[	2.7897E+02	4.42[0[+02
RHU	8.28[2[+00	2.6636E+01	3.02[[+01
M	6.02[[E+02	1.3709E+03	1.90[2[+03
A	2.[[[U[+01	3.1705E+01	4.27[0[+01
S	2.[[[8[+00	2.8298[+00	2.94[7[+00
[	3.2[[4[+00	3.5823E+00	3.64[0[+00
GAME	1.01[0[+00	1.00[8E+00	1.13[1[+00
U	3.1[[4[+01	1.5998E+01	1.94[0[+01

SPECIES	MOLE FRACTIONS		
E-	4.[[U1[-01	5.3940F-01	5.4[10[-01
NE	1.1[[0L-03	1.6153E-04	3.6[2UL-06
NE+	1.U13[[-01	1.7327E-02	1.3[[0L-03
NE++	3.5[[UE-03	8.0214E-02	9.[00[E-04
H	3.1[[[E-03	1.2546F-03	3.[[[2E-04
H+	3.[1U0E-01	3.6164F-01	3.5[[2E-01
H2	4.32[1[-10	1.8267E-10	1.0U[1E-11

P1 = 5.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.00E+02	2.5964E+04	4.66[illegible]E+04
T	1.34[illegible]E+02	2.5141E+02	3.67[illegible]E+02
RHO	9.00[illegible]E+00	2.9420E+01	3.49[illegible]E+01
M	7.12[illegible]E+02	1.2291E+03	1.67[illegible]E+03
A	2.1[illegible]E+01	2.8888E+01	3.85[illegible]E+01
S	2.00[illegible]E+00	2.7569E+00	2.87[illegible]E+00
Z	5.28[illegible]E+00	5.5104E+00	3.63[illegible]E+00
GAMA	1.0[illegible]E+00	9.4555E-01	1.11[illegible]E+00
U	4.90[illegible]E+01	1.4967E+01	1.70[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.9[illegible]E-01	5.2997E-01	5.4[illegible]E-01
NE	5.5[illegible]E-03	4.6569E-04	2.21[illegible]E-05
NE+	1.0[illegible]E-01	3.6874E-02	3.75[illegible]E-03
NE++	1.9[illegible]E-04	6.2363E-02	9.[illegible]E-04
N	8.[illegible]E-03	1.9510E-03	7.00[illegible]E-04
N+	3.7[illegible]E-01	3.6837E-01	3.5[illegible]E-01
N2	3.[illegible]E-09	4.9368E-10	7.1[illegible]E-11

P1 = 5.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.00[illegible]E+02	2.6230E+04	4.75[illegible]E+04
T	1.40[illegible]E+02	2.6398E+02	4.04[illegible]E+02
RHO	8.57[illegible]E+00	2.7996E+01	3.22[illegible]E+01
M	7.26[illegible]E+02	1.2990E+03	1.78[illegible]E+03
A	2.0[illegible]E+01	3.0158E+01	4.0[illegible]E+01
S	2.0[illegible]E+00	2.7904E+00	2.91[illegible]E+00
Z	3.68[illegible]E+00	3.5491E+00	3.84[illegible]E+00
GAMA	1.0[illegible]E+00	9.7069E-01	1.12[illegible]E+00
U	5.0[illegible]E+01	1.5414E+01	1.82[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.97[illegible]E-01	5.3512E-01	5.4[illegible]E-01
NE	1.9[illegible]E-03	2.8743E-04	8.40[illegible]E-06
NE+	1.0[illegible]E-01	2.5222E-02	2.1[illegible]E-03
NE++	3.[illegible]E-04	7.2102E-02	9.3[illegible]E-04
N	9.7[illegible]E-03	1.5794E-03	4.93[illegible]E-04
N+	3.9[illegible]E-01	3.6469E-01	3.38[illegible]E-01
N2	1.1[illegible]E-09	3.0838E-10	3.29[illegible]E-11

P1 = 5.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8[illegible]E+03	2.7291E+04	5.07[illegible]E+04
T	1.73[illegible]E+02	2.9700E+02	4.84[illegible]E+02
RHO	8.09[illegible]E+00	2.5475E+01	2.87[illegible]E+01
M	8.49[illegible]E+02	1.4457E+03	2.03[illegible]E+03
A	2.34[illegible]E+01	3.3479E+01	4.48[illegible]E+01
S	2.77[illegible]E+00	2.8627E+00	2.97[illegible]E+00
Z	3.32[illegible]E+00	3.6070E+00	3.84[illegible]E+00
GAMA	9.543[illegible]E-01	1.0463E+00	1.13[illegible]E+00
U	5.2[illegible]E+01	1.6794E+01	2.07[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	5.03[illegible]E-01	5.4256E-01	5.4[illegible]E-01
NE	8.30[illegible]E-04	8.3501E-05	1.65[illegible]E-06
NE+	9.53[illegible]E-02	1.0767E-02	9.3[illegible]E-04
NE++	9.4[illegible]E-03	8.6182E-02	9.5[illegible]E-04
N	2.49[illegible]E-03	9.8110E-04	2.71[illegible]E-04
N+	3.69[illegible]E-01	3.5943E-01	3.5[illegible]E-01
N2	2.09[illegible]E-10	1.0597E-10	8.9[illegible]E-12

Table I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8746E+01	7.2662E+01
T	3.5541E+00	4.4743E+00	6.5183E+00
RHO	3.9293E+00	6.4258E+00	1.1144E+01
M	3.6325E+00	4.6130E+00	6.9028E+00
A	1.8736E+00	2.0903E+00	2.4850E+00
S	1.0671E+00	1.0687E+00	1.0866E+00
Z	1.0000E+00	1.0000E+00	1.0003E+00
GAME	9.8771E-01	9.7659E-01	9.4708E-01
U	2.5703E+00	1.5703E+00	1.4011E+00

SPECIES	MOLE FRACTIONS		
E-	1.8620E-51	5.9355E-33	3.9444E-19
ME	3.5000E-01	3.5000E-01	3.4990E-01
ME+	5.4729E-63	5.3699E-53	3.1454E-43
ME++	0.	0.	0.
M	1.3979E-09	1.4224E-06	5.6833E-04
M+	8.1343E-20	8.1343E-20	4.6576E-19
M2	6.5000E-01	6.5000E-01	6.4953E-01

P1 = 1.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4253E+01	1.6413E+02	2.9008E+02
T	8.2583E+00	1.0624E+01	1.2016E+01
RHO	5.3220E+00	1.4923E+01	2.2236E+01
M	9.3155E+00	1.4268E+01	1.8582E+01
A	2.6919E+00	3.0169E+00	3.2624E+00
S	1.1590E+00	1.1723E+00	1.1998E+00
Z	1.0069E+00	1.0423E+00	1.0856E+00
GAME	8.7136E-01	8.2194E-01	8.1593E-01
U	4.9992E+00	1.7575E+00	1.5435E+00

SPECIES	MOLE FRACTIONS		
E-	1.3921E-14	2.6961E-11	5.9428E-10
ME	3.4760E-01	3.3591E-01	3.2240E-01
ME+	2.3247E-34	3.3812E-28	9.3311E-24
ME++	0.	0.	6.9822E-89
M	1.3696E-02	8.1099E-02	1.5770E-01
M+	1.3921E-14	2.6961E-11	5.9429E-10
M2	6.3870E-01	5.8309E-01	5.1990E-01

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2025E+01	5.6263E+01	1.2660E+02
T	4.9877E+03	6.6689E+00	8.8997E+00
RHO	4.4156E+00	8.4328E+00	1.4097E+01
H	9.1727E+00	7.0842E+00	1.0206E+01
A	2.1998E+00	2.5071E+00	2.7894E+00
S	1.0991E+00	1.1030E+00	1.1235E+00
Z	1.0000E+00	1.0004E+00	1.0091E+00
GAME	9.7317E-01	9.4209E-01	9.6642E-01
U	3.3340E+00	1.7448E+00	1.5231E+00

SPECIES	MOLE FRACTIONS		
E-	1.7497E-29	1.3465E-13	1.0294E-13
HE	3.5000E-01	3.4985E-01	3.4685E-01
HE+	5.3977E-51	3.3929E-42	5.9591E-32
HE++	0.	0.	0.
H	1.4851E-05	8.8069E-04	1.7973E-02
H+	8.1343E-20	1.4278E-18	1.0284E-13
H2	6.4999E-01	6.4927E-01	6.3517E-01

P1 = 1.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9604E+01	2.6357E+02	4.3251E+02
T	9.5139E+03	1.2275E+01	1.3374E+01
RHO	6.3485E+00	1.9753E+01	2.9149E+01
H	1.1951E+01	1.9078E+01	2.4091E+01
A	2.9621E+00	3.2774E+00	3.5463E+00
S	1.1888E+00	1.2143E+00	1.2429E+00
Z	1.3259E+00	1.0527E+00	1.1496E+00
GAME	9.2711E-01	9.1435E-01	9.1946E-01
U	5.7553E+00	1.7467E+00	1.5760E+00

SPECIES	MOLE FRACTIONS		
E-	1.8123E-12	7.1263E-10	6.4206E-09
HE	3.4117E-01	3.2033E-01	3.0463E-01
HE+	6.3276E-30	1.1329E-23	1.7578E-21
HE++	0.	7.7366E-99	3.7310E-79
H	5.6443E-02	1.6973E-01	2.5928E-01
H+	1.8123E-12	7.1263E-10	6.4206E-09
H2	6.0835E-01	5.0957E-01	4.7609E-01

P1 = 1.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2015E+01	9.9299E+01	1.9471E+02
T	6.6422E+03	8.8935E+00	1.0609E+01
RHO	4.8166E+00	1.0993E+01	1.7675E+01
H	7.0603E+00	1.0267E+01	1.4016E+01
A	2.4991E+00	2.7912E+00	3.0151E+00
S	1.1296E+00	1.1368E+00	1.1632E+00
Z	1.0066E+00	1.0132E+00	1.0383E+00
GAME	9.5991E-01	9.6092E-01	9.2522E-01
U	4.0981E+00	1.9036E+00	1.5346E+00

SPECIES	MOLE FRACTIONS		
E-	1.7584E-18	1.2380E-13	2.3751E-11
HE	3.4961E-01	3.4644E-01	3.3707E-01
HE+	1.0953E-42	7.6333E-32	7.5923E-27
HE++	0.	0.	0.
H	1.1472E-03	2.0227E-02	7.3485E-02
H+	1.8347E-18	1.2390E-13	2.3751E-11
H2	6.4996E-01	6.3331E-01	5.8907E-01

P1 = 1.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6245E+01	4.0301E+02	6.2741E+02
T	1.0537E+04	1.3410E+01	1.4762E+01
RHO	6.8715E+00	2.5821E+01	3.4666E+01
H	1.4944E+01	2.4619E+01	3.0532E+01
A	2.9937E+00	3.5824E+00	3.9693E+00
S	1.2201E+00	1.2332E+00	1.2995E+00
Z	1.0568E+00	1.1503E+00	1.2263E+00
GAME	9.1397E-01	9.1797E-01	9.2723E-01
U	7.6628E+00	1.7630E+00	1.6303E+00

SPECIES	MOLE FRACTIONS		
E-	3.4591E-11	7.2624E-09	4.5536E-08
HE	3.3144E-01	3.0252E-01	2.8548E-01
HE+	3.5670E-27	2.3179EE-21	1.9563E-19
HE++	0.	2.7967E-79	4.8946E-72
H	1.0668E-01	2.7130E-01	3.6969E-01
H+	3.4591E-11	7.2624E-09	4.5536E-08
H2	5.6224E-01	4.2419E-01	3.4563E-01

Table I. - Continued

p_1 = 1 kN/ m^2

P1 = 1.00E+03 N/SQ-M. US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5577E+01	5.7402E+02	9.7505E+02
T	1.1354E+01	1.4732E+01	1.6252E+01
RHO	7.6932E+00	3.1671E+01	4.0959E+01
M	1.8295E+01	3.8826E+01	3.7772E+01
A	3.1649E+00	3.8737E+00	4.2402E+00
S	1.2543E+00	1.2979E+00	1.3390E+00
Z	1.0946E+00	1.2320E+00	1.3145E+00
GAME	8.0621E-01	8.2674E-01	8.4156E-01
U	7.4909E+00	1.8220E+03	1.7343E+03

SPECIES	MOLE FRACTIONS		
E-	2.7938E-10	4.6125E-09	2.5131E-07
HE	3.1976E-01	2.9409E-01	2.6625E-01
HE+	4.5598E-25	1.6814E-19	1.0502E-17
HE++	0.	6.1273E-72	2.1416E-65
H	1.7280E-01	3.7662E-01	4.7855E-01
H+	2.7938E-10	4.6125E-09	2.5131E-07
H2	5.0744E-01	3.3928E-01	2.5520E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6592E+02	1.2921E+03	1.9618E+03
T	1.3599E+01	1.9579E+01	2.4328E+01
RHO	9.7762E+00	4.4093E+01	5.0354E+01
M	3.0414E+01	5.3205E+01	6.5918E+01
A	3.7180E+00	5.1203E+00	6.2567E+00
S	1.3677E+00	1.4917E+00	1.4979E+00
Z	1.2495E+00	1.4369E+00	1.6015E+00
GAME	8.1474E-01	8.9463E-01	1.0046E+00
U	1.0054E+01	2.2317E+00	2.4221E+00

SPECIES	MOLE FRACTIONS		
E-	1.7746E-08	6.7520E-06	7.2870E-05
HE	2.9011E-01	2.3393E-01	1.1955E-01
HE+	4.9809E-21	1.0904E-14	9.8604E-12
HE++	5.6576E-77	1.8690E-56	2.0982E-43
H	3.9935E-01	6.6379E-01	7.9092E-01
H+	1.7746E-08	6.7520E-06	7.2920E-05
H2	3.2033E-01	1.0237E-01	3.0384E-02

P1 = 1.06E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.170[illegible]E+02	7.8459E+02	1.1769E+03
T	1.2118E+01	1.6116E+01	1.7985E+01
RHO	8.4678E+00	3.7J17E+01	4.6341E+01
H	2.1989E+01	3.7678E+01	4.5947E+01
A	3.3381E+00	4.2211E+00	4.6853E+00
S	1.2933E+00	1.3450E+00	1.3907E+00
Z	1.1432E+00	1.3159E+00	1.4121E+00
GAME	8.664[illegible]E-01	8.4022E-01	8.6437E-01
U	8.3611E+00	1.9139E+00	1.8689E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.40J8E-09	2.2915E-07	1.2792E-06
ME	3.0696E-01	2.6598E-01	2.4786E-01
ME+	1.6011E-23	7.4920E-19	5.0699E-16
ME++	5.8150E-87	1.4730E-65	1.4868E-59
M	2.4593E-01	4.9309E-01	5.8367E-01
M+	4.40J8E-09	2.2915E-07	1.2792E-06
M2	4.4711E-01	3.5392E-01	1.6847E-01

P1 = 1.06E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9332E+02	1.5649E+03	2.4754E+03
T	1.4337E+01	2.2321E+01	3.2026E+01
RHO	1.0279E+01	4.4453E+01	4.7693E+01
H	3.5153E+01	6.1745E+01	7.8935E+01
A	3.9324E+00	5.91[illegible]E+00	7.5221E+00
S	1.4088E+00	1.4886E+00	1.5493E+00
Z	1.3119E+00	1.5771E+00	1.6419E+00
GAME	8.22[illegible]E-01	9.6115E-01	1.0761E+00
U	1.3992E+01	2.5193E+00	3.0403E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.3162E-08	2.7494E-05	1.2337E-03
ME	2.6678E-01	2.2193E-01	2.1319E-01
ME+	6.7546E-20	7.9966E-13	1.0731E-08
ME++	9.4657E-74	2.9944E-47	3.1650E-32
M	4.7553E-01	7.3175E-01	7.7809E-01
M+	5.3162E-09	2.7494E-05	1.2337E-03
M2	2.5726E-01	4.6263E-02	5.2577E-09

P1 = 1.06E+03 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9447E+02	1.J27JE+03	1.5357E+03
T	1.2859E+01	1.7673E+01	2.0306E+01
RHO	9.1678E+00	4.1316E+01	4.9968E+01
H	2.6631E+01	4.9152E+01	5.9179E+01
A	3.5214E+00	4.6252E+00	5.2830E+00
S	1.3292E+00	1.3937E+00	1.4443E+00
Z	1.1892E+00	1.4064E+00	1.5135E+00
GAME	9.J954E-01	9.6J64E-01	9.0711E-01
U	7.2151E+00	2.0447E+00	2.0734E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.4496E-09	1.0323E-06	7.4119E-06
ME	2.9361E-01	2.4886E-01	2.3129E-01
ME+	3.62J1E-22	2.7490E-16	3.5791E-14
ME++	2.1247E-92	3.3955E-60	5.8153E-53
M	3.2221E-01	5.7796E-01	6.7957E-01
M+	5.4496E-09	1.0323E-06	7.4118E-06
M2	3.9419E-01	1.7319E-01	9.3171E-02

P1 = 1.06E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2262E+02	1.8149E+03	3.0247E+03
T	1.5151E+01	2.0691E+01	4.0387E+01
RHO	1.0859E+01	4.1[illegible]5E+01	4.5121E+01
H	4.0233E+01	7.0632E+01	9.2823E+01
A	4.1695E+00	6.7744E+00	8.2136E+00
S	1.4550E+00	1.5314E+00	1.5905E+00
Z	1.3795E+00	1.6262E+00	1.6559E+00
GAME	8.3251E-01	1.0573E+00	1.0302E+00
U	1.1715E+01	2.9781E+00	3.6209E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.3133E-07	2.2266E-04	8.0547E-03
ME	2.5349E-01	2.1532E-01	2.1096E-01
ME+	7.4957E-19	1.3653E-13	1.1[illegible]2E-06
ME++	2.1[illegible]7E-69	2.[illegible]39E-39	5.7204E-25
M	5.44[illegible]E-01	7.[illegible]CE-01	7.7289E-01
M+	1.3133E-07	2.2266E-04	9.0536E-03
M2	1.9[illegible]2E-01	1.[illegible]933E-02	2.1743E-03

Table I. - Continued

p_1 = 1 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.537[illegible]E+02	2.6418E+03	3.5531E+03
T	1.6[illegible]E+01	3.7470E+03	4.6917E+01
RHO	1.2894E+01	3.9233E+01	4.4954E+01
H	4.565[illegible]E+01	7.9783E+01	1.0654E+02
A	4.4441E+00	7.57[illegible]E+00	8.6636E+00
S	1.4536E+00	1.5[illegible]E+00	1.6242E+00
Z	1.449[illegible]E+00	1.6447E+[illegible]	1.8946E+00
GAME	8.49[illegible]E-01	1.3731E+00	5.4964E-01
U	1.252[illegible]E+01	3.5677E+00	4.0026E+00

SPECIES	MOLE FRACTIONS		
E-	4.41[illegible]E-07	1.5465E-03	2.1748E-02
HE	2.417[illegible]E-01	2.1290E-01	2.3775E-01
HE+	4.[illegible]6E-18	1.[illegible]89E-09	1.3278E-05
HE++	2.[illegible]9E-65	1.1[illegible]E-31	4.43[illegible]E-21
H	6.1877E-01	7.7933E-01	7.4757E-01
H+	4.[illegible]E-07	1.5464E-03	2.1735E-02
H2	1.39[illegible]E-01	4.7691E-03	1.1876E-03

P1 = 1.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5440E+02	2.5[illegible]E+03	4.5486E+03
T	2.1664E+01	4.7661E+01	5.9695E+01
RHO	1.066[illegible]E+01	3.1217E+01	4.2518E+01
H	6.3878E+01	1.1034E+02	1.4729E+02
A	6.013[illegible]E+00	9.6724F+00	9.7919E+00
S	1.6176E+00	1.6629E+00	1.7166E+00
Z	1.6257E+00	1.6970E+03	1.7921E+00
GAME	1.0266E+00	9.2987E-01	8.9624E-01
U	1.4747E+01	4.7518E+00	4.5[illegible]74E+00

SPECIES	MOLE FRACTIONS		
E-	4.0000E-05	2.8484E-02	7.9759E-02
HE	2.1529E-01	2.0622E-01	1.9493E-01
HE+	5.9932E-13	2.0214E-05	3.7109E-04
HE++	3.4166E-49	1.5207E-20	7.1409E-16
H	7.6966E-01	7.3605E-01	6.4511E-01
H+	4.0[illegible]E-05	2.9464E-02	7.9399E-02
H2	1.4972E-02	7.650[illegible]E-04	4.4402E-04

P1 = 1.00E+03 N/SQ-M, US1= 1.70E+0. M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8642E+02	2.2489E+03	4.0312E+03
T	1.725CE+01	3.9273E+01	5.2059E+01
RHO	1.0941E+01	3.5467E+01	4.5116E+01
H	5.1415E+01	9.9393E+01	1.2023E+02
A	4.7843E+00	9.0376E+00	9.0700E+00
S	1.5365E+00	1.6013E+00	1.6549E+00
Z	1.517EE+00	1.6567E+00	1.7164E+00
GAME	8.7435E-01	1.0189E+00	9.206RE-01
U	1.3312E+01	4.1040E+00	4.258SE+00

SPECIES	MOLE FRACTIONS		
E-	1.43C8E-06	6.1212E-03	3.9494E-02
ME	2.3362E-01	2.1127E-01	2.0385E-01
ME+	1.6268E-16	4.6849E-07	6.0693E-05
ME++	1.1680E-61	2.1370E-26	1.0726E-18
M	6.8214E-01	7.7443E-01	7.1635E-01
M+	1.4338E-06	6.1208E-03	3.9434E-02
M2	8.7253E-02	2.0547E-03	8.0731E-04

P1 = 1.00E+03 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2629E+02	2.4255E+03	4.3985E+03
T	1.891CE+01	4.3417E+01	5.6298E+01
RHO	1.0736E+01	3.3378E+01	4.4567E+01
H	3.753CE+01	9.9526E+01	1.3395E+02
A	5.2664E+00	8.3731E+00	9.4522E+00
S	1.5788E+00	1.6319E+00	1.6853E+00
Z	1.5913E+00	1.6737E+00	1.7531E+00
GAME	9.2711E-01	9.6479E-01	9.0524E-01
U	1.4C64E+01	4.5097E+00	4.4447E+00

SPECIES	MOLE FRACTIONS		
E-	0.3176E-06	1.5354E-02	5.9406E-02
ME	2.2134E-01	2.0911E-01	1.9947E-01
ME+	3.522.8E-16	4.4593E-06	1.7416E-04
ME++	1.2229E-55	0.0417E-23	4.7843E-17
M	7.3527E-01	7.5900E-01	6.8113E-01
M+	0.3176E-06	1.5349E-02	5.9231E-02
M2	4.3479E-02	1.1713E-03	5.9109E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8839E+02	2.5490E+03	4.5110E+03
T	2.5774E+01	5.1156E+01	6.2446E+01
RHO	9.1003E+00	2.8869E+01	3.9419E+01
H	7.0536E+01	1.2076E+02	1.6025E+02
A	6.8051E+00	8.9558E+00	1.0094E+01
S	1.6523E+00	1.6944E+00	1.7488E+00
Z	1.6436E+00	1.7254E+00	1.9326E+00
GAME	1.0936E+00	9.0873E-01	8.9037E-01
U	1.5357E+01	4.8736E+00	4.6554E+00

SPECIES	MOLE FRACTIONS		
E-	3.2891E-06	4.4263E-02	9.9984E-02
ME	2.1294E-01	2.0279E-01	1.9033E-01
ME+	1.1140E-10	5.9157E-05	6.5798E-04
ME++	5.6181E-40	6.9321E-19	5.3894E-15
M	7.9219E-01	7.0823E-01	6.0937E-01
M+	3.2891E-06	4.4164E-02	9.9326E-02
M2	4.2[illegible]3E-03	9.3452E-04	3.3626E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2354E+02	2.5973E+03	4.4955E+03
T	3.0424E+01	5.4236E+01	6.4965E+01
RHO	8.4342E+00	2.7175E+01	3.6906E+01
H	7.7491E+01	1.3197E+02	1.7348E+02
A	7.3184E+00	9.2420E+00	1.0392E+01
S	1.6823E+00	1.7246E+00	1.7803E+00
Z	1.6956E+00	1.7578E+00	1.8750E+00
GAME	1.0967E+00	8.9593E-01	8.9661E-01
U	1.5995E+01	4.9473E+00	4.7262E+00

SPECIES	MOLE FRACTIONS		
E-	1.9249E-03	6.1716E-02	1.2025E-01
ME	2.1225E-01	1.9399E-01	1.8560E-01
ME+	7.7032E-05	1.3611E-04	1.0667E-03
ME++	2.4594E-32	1.3449E-17	2.9734E-14
M	7.8281E-01	6.7715E-01	5.7363E-01
M+	1.9249E-03	6.1583E-02	1.1919E-01
M2	1.4852E-03	3.9572E-04	2.6018E-04

Table I. - Cont'nued

p_1 = 1 kN/ m^2

P1 = 1.00E+03 N/SQ-M, US1= 2.23E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6124E+02	2.7047E+03	4.6125E+03
T	3.4799E+01	5.7175E+01	6.7561E+01
RHO	7.9912E+00	2.6367E+01	3.5549E+01
H	8.4811E+01	1.4400E+02	1.8778E+02
A	7.6139E+00	9.5434E+00	1.0712E+01
S	1.7088E+00	1.7530E+00	1.8397E+00
Z	1.6599E+00	1.7941E+00	1.9205E+00
GAME	1.0843E+00	8.8824E-01	8.8442E-01
U	1.6599E+01	5.0241E+00	4.9106E+00

SPECIES	MOLE FRACTIONS		
E-	6.3688E-03	8.0646E-02	1.4105E-01
HE	2.1099E-01	1.9481E-01	1.8058E-01
HE+	1.5137E-07	2.7445E-04	1.6688E-03
HE++	1.0757E-28	1.6673E-16	1.4803E-13
H	7.7616E-01	6.4360E-01	5.3713E-01
H+	6.0687E-03	8.0372E-02	1.3938E-01
H2	7.1771E-04	3.0664E-04	2.0615E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9270E+02	3.4491E+03	5.6803E+03
T	4.4664E+01	6.5939E+01	7.6162E+01
RHO	7.7459E+00	2.7224E+01	3.5929E+01
H	1.0912E+02	1.9577E+02	2.3931E+02
A	8.2801E+00	1.0561E+01	1.1812E+01
S	1.7738E+00	1.8321E+00	1.8941E+00
Z	1.7132E+00	1.9237E+00	2.0758E+00
GAME	8.9606E-01	8.8037E-01	8.8246E-01
U	1.8760E+01	5.3372E+00	5.1922E+00

SPECIES	MOLE FRACTIONS		
E-	3.7118E-02	1.4245E-01	2.0525E-01
HE	2.0429E-01	1.9050E-01	1.6306E-01
HE+	1.4586E-05	1.4401E-03	5.5513E-03
HE++	1.5736E-21	7.3918E-14	1.2494E-11
H	7.2125E-01	5.3444E-01	4.2633E-01
H+	3.7134E-02	1.4101E-01	1.9970E-01
H2	2.2876E-04	1.6570E-04	1.1098E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.021[illegible]E+02	2.8944E+03	4.8672E+03
T	3.859[illegible]E+01	6.0391E+01	7.0314E+01
RHO	7.7814E+00	2.6265E+01	3.5147E+01
H	9.2524E+01	1.5701E+02	2.0341E+02
A	7.8355E+00	9.8693E+00	1.1060E+01
S	1.7332E+00	1.7901E+00	1.8393E+00
Z	1.6722E+00	1.8342E+00	1.9694E+00
GAME	9.513[illegible]E-01	8.9395E-01	9.9329E-01
U	1.727[illegible]E+01	5.1154E+00	4.9126E+00

SPECIES	MOLE FRACTIONS		
E-	1.3739E-02	1.0069E-01	1.6236E-01
ME	2.0[illegible]5E-01	1.9331E-01	1.7516E-01
ME+	1.15[illegible]E-06	5.0785E-04	2.5540E-03
ME++	1.66[illegible]E-23	1.5519E-15	6.9791E-13
M	7.6[illegible]79E-01	6.3809E-01	4.9995E-01
M+	1.3[illegible]9E-02	4.0317E-01	1.5991E-01
M2	4.3[illegible]5E-04	2.4942E-04	1.0623E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4194E+02	3.7935E+03	6.2007E+03
T	4.718[illegible]E+01	6.8743E+01	7.9202E+01
RHO	7.8246E+00	2.7977E+01	3.6715E+01
H	1.1798E+02	2.0138E+02	2.5745E+02
A	8.5114E+00	1.0924E+01	1.2206E+01
S	1.8007E+00	1.8579E+00	1.9218E+00
Z	1.7389E+00	1.9725E+00	2.1324E+00
GAME	9.9302E-01	9.9033E-01	8.8218E-01
U	1.9545E+01	5.4035E+00	5.2920E+00

SPECIES	MOLE FRACTIONS		
E-	5.1289E-02	1.6364E-01	2.2631E-01
ME	2.0125E-01	1.7518E-01	1.5627E-01
ME+	3.4281E-05	2.2566E-03	7.8623E-03
ME++	3.507[illegible]E-20	3.7432E-13	4.6836E-11
M	6.9599E-01	4.9741E-01	3.9161E-[illegible]
M+	5.1255E-02	1.6138E-01	2.18[illegible]
M2	1.8158E-04	1.3762E-04	9.13[illegible]

P1 = 1.03E+03 N/SQ-M, US1= 2.43E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.460[illegible]E+02	3.1469E+03	5.2309E+03
T	4.183[illegible]E+01	6.2[illegible]76E+01	7.3199E+01
RHO	7.720[illegible]E+00	2.6[illegible]14E+01	3.5359E+01
H	1.00[illegible]E+02	1.7[illegible]96E+02	2.2[illegible]2E+02
A	9.[illegible]53E+00	1.0[illegible]39E+01	1.1429E+01
S	1.7564E+00	1.8[illegible]3F+00	1.8663E+00
Z	1.69[illegible]E+00	1.8[illegible]7E+00	2.0219E+00
GAME	9.17[illegible]E-01	9.8144E-01	8.8276E-01
U	1.8[illegible]6E+01	5.22[illegible]E+00	5.0236E+00

SPECIES	MOLE FRACTIONS		
E-	2.4[illegible]3E-02	1.2141E-01	1.9384E-01
ME	2.07[illegible]E-01	1.[illegible]53E-01	1.6934E-01
ME+	4.42[illegible]E-06	4.7926E-04	3.8134E-03
ME++	3.[illegible]7E-23	1.1534E-14	3.0671E-12
M	7.43[illegible]E-01	5.7145E-01	4.6295E-01
M+	2.434[illegible]E-02	1.2[illegible]3E-01	1.[illegible]02E-01
M2	3.32[illegible]E-04	2.0[illegible]7E-04	1.3551E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9347E+02	4.1715E+03	6.7699E+03
T	4.95[illegible]E+01	7.1580E+01	8.2260E+01
RHO	7.[illegible]53E+00	2.8815E+01	3.7578E+01
H	1.2720E+02	2.1774E+02	2.7744E+02
A	8.748[illegible]E+00	1.1289E+01	1.2604E+01
S	1.8227E+00	1.[illegible]31F+00	1.9495E+00
Z	1.767[illegible]E+00	2.0225F+00	2.1901E+00
GAME	8.747[illegible]E-01	8.8007E-01	8.[illegible]80E-01
U	2.033[illegible]E+01	5.5874E+00	5.4305E+00

SPECIES	MOLE FRACTIONS		
E-	6.6[illegible]6E-02	1.8429E-01	2.4669E-01
ME	1.979[illegible]E-01	1.6969F-01	1.4901E-01
ME+	6.[illegible]77[illegible]E-05	3.3772E-03	1.0803E-02
ME++	4.65[illegible]5E-19	1.6939E-12	1.5961E-10
M	6.68[illegible]1E-01	4.[illegible]163E-01	3.5754E-01
M+	6.[illegible]57EE-02	1.9[illegible]91E-01	2.3599E-01
M2	1.48[illegible]5F-04	1.[illegible]98E-04	7.48[illegible]1E-05

Table I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4731E+02	4.5907E+03	7.3923E+03
T	5.1657E+01	7.4420E+01	8.5350E+01
RHO	9.0446E+00	2.9674E+01	3.9514E+01
H	1.3679E+02	2.348uE+02	2.9838E+02
A	8.9978E+00	1.1657E+01	1.3006E+01
S	1.8444E+00	1.9086E+00	1.9772E+00
Z	1.7983E+00	2.0743E+00	2.2488E+00
GAME	8.6959E-01	8.8020E-01	8.8138E-01
U	2.1133E+01	5.7246E+00	5.5765E+00

SPECIES	MOLE FRACTIONS		
E-	9.2595E-02	2.0466E-01	2.6634E-01
HE	1.9450E-01	1.6384E-01	1.4120E-01
HE+	1.2713E-04	4.8999E-03	1.4438E-02
HE++	4.1555E-18	6.7662E-12	5.0110E-10
H	6.40c9E-01	4.2674E-01	3.2606E-01
H+	8.2468E-02	1.9977E-01	2.5190E-01
H2	1.2323E-04	9.5991E-05	6.1453E-05

P1 = 1.00E+03 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8399E+02	6.4858E+03	1.0297E+04
T	5.9331E+01	9.5717E+01	9.9045E+01
RHO	8.5537E+00	3.3024E+01	4.2180E+01
H	1.786RE+02	3.0974E+02	3.9061E+02
A	9.9652E+00	1.3144E+01	1.468CE+01
S	1.9317E+00	2.0113E+00	2.0990E+00
Z	1.9389E+00	2.2912E+00	2.4900E+00
GAME	8.6324E-01	8.7979E-01	8.9279E-01
U	2.4356E+01	6.3095E+00	5.1932E+00

SPECIES	MOLE FRACTIONS		
E-	1.4916E-01	2.7991E-01	3.3739E-01
HE	1.7976E-01	1.3669E-01	1.0491E-01
HE+	7.5606E-04	1.6066E-02	3.5649E-02
HE++	2.8558E-15	6.7942E-10	2.4153E-08
H	5.2205E-01	3.0343E-01	2.2031E-01
H+	1.4831E-01	2.6384E-01	3.0173E-01
H2	6.4272E-05	4.6166E-05	2.7445E-05

P1 = 1.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.0333E+02	5.0197E+03	9.0592E+03
T	5.3690E+01	7.7250E+01	8.8477E+01
RHO	8.1714E+00	3.0539E+01	3.9457E+01
H	1.4673E+02	2.5254E+02	3.2018E+02
A	9.2290E+00	1.2028E+01	1.3415E+01
S	1.8662E+00	1.9342E+00	2.0051E+00
Z	1.8310E+00	2.1274E+00	2.3086E+00
GAME	8.6639E-01	8.8026E-01	8.8103E-01
U	2.1936E+01	5.8657E+00	5.7259E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	9.8976E-02	2.2448E-01	2.8532E-01
HE	1.9093E-01	1.5766E-01	1.3281E-01
HE+	2.1427E-04	6.8598E-03	1.8800E-02
HE++	2.8007E-17	2.4439E-11	1.4612E-09
H	6.1101E-01	3.9330E-01	2.9651E-01
H+	9.8762E-02	2.1762E-01	2.6652E-01
H2	1.6392E-04	9.0084E-05	5.0377E-05

P1 = 1.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6147E+02	5.4834E+03	8.7674E+03
T	5.5634E+01	9.0075E+01	9.1625E+01
RHO	8.3006E+00	3.1392E+01	4.0397E+01
H	1.5730E+02	2.7096E+02	3.4283E+02
A	9.4723E+00	1.2399E+01	1.3827E+01
S	1.8879E+00	1.9599E+00	2.0329E+00
Z	1.8655E+00	2.1916E+00	2.3687E+00
GAME	8.6452E-01	8.5017E-01	8.4099E-01
U	2.2742E+01	6.0100E+00	5.8780E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.1566E-01	2.4366E-01	3.0344E-01
HE	1.8728E-01	1.5110E-01	1.2393E-01
HE+	3.4045E-04	9.3539E-03	2.3937E-02
HE++	1.5260E-16	8.0369E-11	3.9570E-09
H	5.8143E-01	3.6451E-01	2.6914E-01
H+	1.1526E-01	2.3431E-01	2.7961E-01
H2	9.8181E-05	6.6746E-05	4.1265E-05

P1 = 1.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1146E+03	7.5822E+03	1.1965E+04
T	6.2805E+01	9.1393E+01	1.0491E+02
RHO	9.7881E+00	3.4532E+01	4.3694E+01
H	2.0173E+02	3.5112E+02	4.4179E+02
A	1.0467E+01	1.3893E+01	1.5603E+01
S	1.9750E+00	2.0021E+00	2.1461E+00
Z	2.0174E+00	2.4324E+00	2.6136E+00
GAME	8.6382E-01	8.7967E-01	8.8877E-01
U	2.5960E+01	6.8044E+00	6.5239E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.9215E-01	3.1320E-01	3.6870E-01
HE	1.7201E-01	1.2594E-01	9.4439E-02
HE+	1.4886E-03	2.9134E-02	4.9077E-02
HE++	3.4551E-14	4.8770E-09	1.2369E-07
H	4.6635E-01	2.9250E-01	1.7775E-01
H+	1.9356E-01	2.8913E-01	3.1962E-01
H2	4.7014E-05	3.1714E-05	1.7708E-05

P1 = 1.00E+03 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2534E+03	8.7561E+03	1.3784E+04
T	6.9324E+01	9.7153E+01	1.1212E+02
RHO	8.9968E+00	3.5485E+01	4.4528E+01
H	2.2618E+02	3.9502E+02	4.9673E+02
A	1.0975E+01	1.4075E+01	1.6623E+01
S	2.0620E+00	2.1152E+00	2.2527E+00
Z	2.1806E+00	2.5145E+00	2.7364E+00
GAME	8.6522E-01	8.9161E-01	9.0074E-01
U	2.7541E+01	6.9174E+00	6.9158E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.1431E-01	3.4384E-01	3.9703E-01
HE	1.6457E-01	1.0302E-01	6.5196E-02
HE+	2.6032E-03	3.6174E-02	6.2769E-02
HE++	3.3781E-13	2.2679E-09	5.5795E-07
H	4.7787E-01	2.0529E-01	1.4374E-01
H+	2.1122E-01	3.0706E-01	3.3432E-01
H2	3.4451E-05	2.1542E-05	1.0550E-05

Table I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3998E+03	9.9956E+03	1.5727E+04
T	6.9751E+01	1.0339E+02	1.2052E+02
RHO	9.1813E+00	3.6915E+01	4.5636E+01
H	2.5202E+02	4.4125E+02	5.5536E+02
A	1.1496E+01	1.5497E+01	1.7818E+01
S	2.0065E+00	2.1675E+00	2.2600E+00
Z	2.1858E+00	2.6265E+00	2.8595E+00
GAME	8.6677E-01	8.8693E-01	9.2121E-01
U	2.9186E+01	7.2657E+00	7.3502E+00

SPECIES	MOLE FRACTIONS		
E-	2.4516E-01	3.7179E-01	4.2298E-01
HE	1.5553E-01	8.4863E-02	4.6947E-02
HE+	4.5850E-03	4.8397E-02	7.5550E-02
HE++	2.2219E-12	9.9449E-08	2.4517E-06
H	3.5412E-01	1.7154E-01	1.0719E-01
H+	2.4057E-01	3.2339E-01	3.4743E-01
H2	2.4592E-05	1.4330E-05	6.2235E-06

P1 = 1.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9960E+03	1.3739E+04	2.2637E+04
T	8.0164E+01	1.2455E+02	1.4356E+02
RHO	9.5387E+00	3.8659E+01	4.8575E+01
H	3.3787E+02	5.9390E+02	7.6516E+02
A	1.3077E+01	1.8577E+01	2.1299E+01
S	2.2626E+00	2.3229E+00	2.4316E+00
Z	2.4538E+00	2.9533E+00	3.1762E+00
GAME	8.6884E-01	9.3824E-01	1.0448E+00
U	3.2961E+01	8.5547E+00	8.8755E+00

SPECIES	MOLE FRACTIONS		
E-	3.2759E-01	4.4124E-01	4.8651E-01
HE	1.6559E-01	9.5464E-02	1.6956E-02
HE+	1.7081E-02	4.3136E-02	9.8942E-02
HE++	3.2795E-10	5.5482E-06	4.1691E-04
H	2.1926E-01	8.2109E-02	2.8559E-02
H+	3.1091E-01	3.5812E-01	3.8073E-01
H2	9.4134E-06	4.0350E-06	3.5559E-07

P1 = 1.00E+03 N/SQ-M, US1= 4.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5541E+03	1.1296E+04	1.7831E+04
T	7.3184E+01	1.0944E+02	1.3090E+02
RHO	9.3383E+00	3.7697E+01	4.5717E+01
H	2.7924E+02	4.8993E+02	6.1899E+02
A	1.2019E+01	1.6395E+01	1.9286E+01
S	2.1113E+00	2.2198E+00	2.3176E+00
Z	2.2746E+00	2.7383E+00	2.9797E+00
GAME	8.6831E-01	8.9706E-01	9.5363E-01
U	3.0795E+01	7.6286E+00	7.9074E+00

SPECIES	MOLE FRACTIONS		
E-	2.7442E-01	3.9738E-01	4.4625E-01
HE	1.4648E-01	6.6911E-02	3.0983E-02
HE+	7.4297E-03	6.0920E-02	8.6469E-02
HE++	1.3441E-11	3.9302E-07	1.1523E-05
H	3.0465E-01	1.3933E-01	7.6529E-02
H+	2.6699E-01	3.3645E-01	3.5976E-01
H2	1.7446E-05	9.1920E-06	3.0370E-06

P1 = 1.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2637E+03	1.5355E+04	2.5351E+04
T	8.3749E+01	1.3429E+02	1.8652E+02
RHO	9.6962E+00	3.7499E+01	4.2020E+01
H	3.6928E+02	6.4869E+02	8.4837E+02
A	1.3607E+01	1.9558E+01	2.5026E+01
S	2.2487E+00	2.3726E+00	2.4841E+00
Z	2.5446E+00	3.0492E+00	3.2346E+00
GAME	8.6901E-01	9.7273E-01	1.0392E+00
U	3.5554E+01	9.1794E+00	1.0655E+01

SPECIES	MOLE FRACTIONS		
E-	3.5142E-01	4.5888E-01	4.8989E-01
HE	1.1336E-01	2.3552E-02	6.6406E-03
HE+	2.4276E-02	9.1211E-02	9.9095E-02
HE++	1.3618E-09	2.1963E-05	2.4732E-03
H	1.8386E-01	5.8717E-02	1.6051E-02
H+	3.2714E-01	3.6762E-01	3.8585E-01
H2	5.7409E-06	1.4636E-06	1.0103E-07

P1 = 1.00E+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7161E+03	1.2631E+04	2.0119E+04
T	7.6650E+01	1.1644E+02	1.4453E+02
RHO	9.4726E+00	3.8093E+01	4.5672E+01
H	3.0378E+02	5.4076E+02	6.8835E+02
A	1.2545E+01	1.7404E+01	2.1119E+01
S	2.1567E+00	2.2718E+00	2.3744E+00
Z	2.3630E+00	2.8470E+00	3.0982E+00
GAME	8.6867E-01	9.1352E-01	9.9928E-01
U	3.2376E+01	8.0591E+00	8.6203E+00

SPECIES	MOLE FRACTIONS		
E-	3.0193E-01	4.2058E-01	4.6570E-01
HE	1.3657E-01	5.0137E-02	1.9974E-02
HE+	1.1538E-02	7.2773E-02	9.4399E-02
HE++	7.0636E-11	1.4729E-06	5.2339E-05
H	2.5916E-01	1.0870E-01	4.9778E-02
H+	2.9042E-01	3.4743E-01	3.7119E-01
H2	1.2200E-05	5.5326E-06	1.1973E-06

P1 = 1.00E+03 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2491E+03	1.6577E+04	2.9139E+04
T	9.7422E+01	1.4033E+02	2.0863E+02
RHO	9.7687E+00	3.6[illegible]E+01	4.1059E+01
H	4.0207E+02	7.0518E+02	9.3231E+02
A	1.4152E+01	2.1552E+01	2.5958E+01
S	2.2946E+00	2.4202E+00	2.5372E+00
Z	2.6337E+00	3.1332E+00	3.2814E+00
GAME	8.7062E-01	1.0141E+00	9.8427E-01
U	3.7132E+01	9.9378E+00	1.1578E+01

SPECIES	MOLE FRACTIONS		
E-	3.7[illegible]E-01	4.7239E-01	4.9714E-01
HE	9.[illegible]E-02	1.4974E-02	4.5291E-03
HE+	3.[illegible]E-02	9.4746E-02	9.8147E-02
HE++	5.11[illegible]	7.3619E-05	8.[illegible]E-03
H	1.5513E-01	3.[illegible]E-02	1.0142E-02
H+	3.[illegible]	3.[illegible]	3.[illegible]
H2	9.[illegible]	[illegible]	3.76[illegible]E-08

Table I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.GGE+03 N/SQ-M, USI= 5.05E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4424E+03	1.7932E+04	3.0929E+04
T	9.1233E+01	1.6106E+02	2.2633E+02
RHO	9.8324E+00	3.4997E+01	4.0933E+01
H	4.3623E+02	7.6303E+02	1.0157E+03
A	1.4725E+01	2.3209E+01	2.6756E+01
S	2.3413E+00	2.4653E+00	2.5735E+00
Z	2.7226E+00	3.1915E+00	3.3277E+00
GAME	9.72[illegible]E-01	1.04[illegible]E+00	9.5352E-01
U	3.8714E+01	1.0904E+01	1.2245E+01

SPECIES	MOLE FRACTIONS		
E-	3.93[illegible]E-01	4.9306E-01	5.0416E-01
HE	8.5503E-02	9.4626E-03	3.3523E-03
HE+	4.3[illegible]E-02	9.9797E-02	9.2637E-02
HE++	1.77[illegible]E-08	4.1805E-04	1.9188E-02
H	1.26[illegible]E-01	2.4946E-02	7.5079E-03
H+	3.50[illegible]E-01	3.8238E-01	3.8315E-01
H2	2.56[illegible]E-06	2.2045E-07	2.0076E-09

P1 = 1.00E+03 N/SQ-M, USI= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0631E+03	2.1572E+04	3.8744E+04
T	1.0453E+02	2.0959E+02	2.7433E+02
RHO	9.8294E+00	3.1159E+01	4.0546E+01
H	5.4697E+02	9.4793E+02	1.2767E+03
A	1.6781E+01	2.5872E+01	3.0263E+01
S	2.4788E+00	2.5947E+00	2.6924E+00
Z	2.9811E+00	3.3032E+00	3.4832E+00
GAME	9.0369E-01	9.6687E-01	9.5845E-01
U	4.3355E+01	1.3675E+01	1.3861E+01

SPECIES	MOLE FRACTIONS		
E-	4.4652E-01	5.0049E-01	5.2630E-01
HE	4.1756E-02	3.3475E-03	1.1662E-03
HE+	7.5650E-02	9.0626E-02	4.1623E-02
HE++	5.7919E-07	1.1993E-02	5.7691E-02
H	6.5213E-02	7.6559E-03	3.9169E-03
H+	3.7096E-01	3.8590E-01	3.6930E-01
H2	6.1447E-07	1.6336E-08	5.2969E-09

P1 = 1.00E+03 N/SQ-M, US1= 5.23E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6425E+03	1.9122E+04	3.3521E+04
T	9.5255E+01	1.7796E+02	2.4241E+02
RHO	9.97JBE+00	3.3237E+01	4.0924E+01
H	4.7180E+02	8.2217E+02	1.1002E+03
A	1.5336E+01	2.4549E+01	2.7733E+01
S	2.3874E+00	2.5080E+00	2.6140E+00
Z	2.81cEE+00	3.2347E+00	3.3790E+00
GAME	8.7854E-01	1.0474E+00	9.3895E-01
U	4.0277E+01	1.1950E+01	1.2901E+01

SPECIES	MOLE FRACTIONS		
E-	4.1234E-01	4.8990E-01	5.1169E-01
HE	7.0652E-02	6.2458E-03	2.4642E-03
HE+	5.3877E-02	1.0026E-01	6.9363E-02
HE++	5.7E7JE-09	1.7CJ5E-03	3.1755E-02
H	1.0348L-01	1.5645E-02	5.9166E-03
H+	3.5906E-01	3.8625E-01	3.7861E-01
H2	1.5675E-06	7.8166E-09	1.2325E-08

P1 = 1.00E+03 N/SQ-M, US1= 5.49E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.281cE+03	2.2796E+04	4.1122E+04
T	1.103JE+02	2.231JE+02	2.9247E+02
RHO	9.720BE+00	3.0567E+01	3.9927E+01
H	5.9653E+02	1.0147E+03	1.3702E+03
A	1.7693E+01	2.6513E+01	3.1899E+01
S	2.5236E+00	2.6217E+00	2.7308E+00
Z	3.06JCE+00	3.3429E+00	3.5333E+00
GAME	9.2731E-01	9.4254E-01	9.9553E-01
U	4.4847E+01	1.4258E+01	1.4469E+01

SPECIES	MOLE FRACTIONS		
E-	4.6C99E-01	5.0642E-01	5.3262E-01
HE	2.9J58E-02	2.5579E-03	7.0684E-04
HE+	8.5296E-02	9.3805E-02	2.9329E-02
HE++	1.6349E-05	2.1339E-02	6.9103E-02
H	4.9107E-02	5.0733E-03	3.1495E-03
H+	3.75C9E-01	3.8292E-01	3.65C9E-01
H2	3.31JCE-07	9.5913E-09	3.3516E-09

P1 = 1.00E+03 N/SQ-M, US1= 5.43E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8502E+03	2.0344E+04	3.6210E+04
T	9.9587E+01	1.9446E+02	2.5803E+02
RHO	9.8812E+00	3.2021E+01	4.0992E+01
H	5.3872E+02	9.9367E+02	1.1973E+03
A	1.6CJ5E+01	2.5315E+01	2.8993E+01
S	2.4432E+00	2.5968E+00	2.6534E+00
Z	2.8561E+00	3.2092E+00	3.4317E+00
GAME	8.6816E-01	1.0397E+00	9.4276E-01
U	4.1932E+01	1.2512E+01	1.3318E+01

SPECIES	MOLE FRACTIONS		
E-	4.3JJCE-01	4.9513E-01	5.1919E-01
HE	5.59JCE-02	4.4JC7E-03	1.7509E-03
HE+	6.4C1JE-02	9.7389E-02	5.5252E-02
HE++	1.8J45E-07	5.2394E-03	4.4947E-02
H	9.3J1 1L-02	1.0J51JE-02	4.PURJE-03
H+	3.J5J5E-01	3.8726E-01	3.7401E-01
H2	1.C444E-05	3.2J63E-04	8.0777E-09

P1 = 1.00E+03 N/SQ-M, US1= 5.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5037E+03	2.3884E+04	4.3219E+04
T	1.1733E+02	2.3546E+02	3.1447E+02
RHO	9.5295E+00	2.9959E+01	3.8484E+01
H	6.273JE+02	1.0935E+03	1.4699E+03
A	1.8837E+01	2.7c81E+01	3.3918E+01
S	2.5C72E+00	2.6599E+00	2.7709E+00
Z	3.1322E+00	3.3859E+00	3.5712E+00
GAME	9.6203E-01	9.3356E-01	1.0244E+00
U	4.6287E+01	1.4714E+01	1.5241E+01

SPECIES	MOLE FRACTIONS		
E-	4.7522E-01	5.1269E-01	5.3797E-01
HE	1.0527E-02	1.0365E-03	3.7530E-04
HE+	9.32 9L-02	6.9285E-02	1.8892E-02
HE++	7.1278E-06	3.2149E-02	7.8749E-02
H	3.5045E-02	4.0465E-03	2.4365E-03
H+	3.8JCCE-01	3.7919E-01	3.6159E-01
H2	1.5567JE-07	6.1299E-09	1.9318E-09

Table I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7277E+03	2.4716E+04	4.4936E+04
T	1.2036E+02	2.4725E+02	3.4036E+02
RHO	9.2462E+00	2.9141E+01	3.6583E+01
H	5.6932E+02	1.1532E+03	1.5707E+03
A	2.0156E+01	2.8165E+01	3.6148E+01
S	2.6050E+00	2.6961E+00	2.8135E+00
Z	3.1912E+00	3.4303E+00	3.6008E+00
GAME	1.0075E+00	9.3526E-01	1.0662E+00
U	4.7659E+01	1.5103E+01	1.6103E+01

SPECIES	MOLE FRACTIONS		
E-	4.8256E-01	5.1900E-01	5.4177E-01
HE	1.0956E-02	1.4230E-03	1.7643E-04
HE+	9.8859E-02	5.7193E-02	1.1470E-02
HE++	2.9514E-05	4.3415E-02	9.5553E-02
H	2.3366E-02	3.9975E-03	1.8282E-03
H+	3.8406E-01	3.7497E-01	3.5920E-01
H2	6.3223E-06	4.0355E-09	1.0289E-09

P1 = 1.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4124E+03	2.5991E+04	4.8059E+04
T	1.6446E+02	2.9537E+02	4.4317E+02
RHO	8.1772E+00	2.5647E+01	2.9812E+01
H	9.0222E+02	1.3654E+03	1.9332E+03
A	2.3679E+01	3.1665E+01	4.2679E+01
S	2.7198E+00	2.8037E+00	2.9259E+00
Z	3.2881E+00	3.5511E+00	3.8377E+00
GAME	1.0296E+00	9.8961E-01	1.1299E+00
U	5.1442E+01	1.6388E+01	1.9463E+01

SPECIES	MOLE FRACTIONS		
E-	4.9720E-01	5.3536E-01	5.4641E-01
HE	2.1921E-03	4.1475E-04	1.3726E-05
HE+	1.0214E-01	2.4791E-02	2.0477E-03
HE++	2.3196E-03	7.3354E-02	9.3554E-02
H	5.7277E-03	2.2161E-03	7.1015E-04
H+	3.9042E-01	3.6396E-01	3.5666E-01
H2	2.7583E-09	1.0820E-09	1.2541E-10

P1 = 1.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6585E+03	2.6584E+04	4.9795E+04
T	1.7716E+02	3.3172E+02	4.9340E+02
RHO	7.9623E+00	2.4603E+01	2.8289E+01
H	8.4946E+02	1.4394E+03	2.0251E+03
A	2.4016E+01	3.3240E+01	4.4687E+01
S	2.7522E+00	2.8396E+00	2.9587E+00
Z	3.3025E+00	3.5812E+00	3.6413E+00
GAME	9.8586E-01	1.0225E+00	1.1345E+00
U	5.2754E+01	1.7085E+01	2.0676E+01

SPECIES	MOLE FRACTIONS		
E-	5.0038E-01	5.3926E-01	5.4687E-01
HE	1.5487E-03	2.4081E-04	6.4203E-06
HE+	9.8112E-02	1.6950E-02	1.8357E-03
HE++	6.3197E-03	9.0542E-02	9.4277E-02
H	4.0125E-03	1.7855E-03	5.3685E-04
H+	3.9962E-01	3.6122E-01	3.5645E-01
H2	1.2607E-09	6.7069E-10	6.8160E-11

P1 = 1.00E+03 N/SQ-M, US1= 6.66E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1781E+03	2.5556E+04	4.6795E+04
T	1.5[illegible]E+02	2.7123E+02	4.0454E+02
RHO	9.[illegible]E+00	2.[illegible]E+01	3.1955E+01
H	7.5664E+02	1.2934E+03	1.7860E+03
A	2.293[illegible]E+01	3.[illegible]E+01	4.0556E+01
S	2.68[illegible]E+00	2.77[illegible]E+00	2.8899E+00
Z	3.2621E+00	3.5145E+00	3.6312E+00
GAME	1.0082E+00	9.63[illegible]E-01	1.1197E+00
U	5.[illegible]E+01	1.5970E+01	1.8719E+01

SPECIES	MOLE FRACTIONS		
E-	4.9[illegible]E-01	5.3[illegible]E-01	5.4563E-01
HE	3.4[illegible]E-03	[illegible].6751E-04	3.[illegible]154E-05
HE+	1.[illegible]E-01	3.4[illegible]E-02	4.1476E-03
HE++	[illegible]	[illegible]E-02	9.2208E-02
H	[illegible]	[illegible]E-03	[illegible].7171E-04
H+	3.65[illegible]E-01	[illegible].7[illegible]E-01	3.[illegible]046E-01
H2	[illegible]	[illegible].7[illegible]E-10	2.3[illegible]9E-11

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8746E+01	7.2678E+01
T	3.5541E+00	4.4740E+00	6.5236E+00
RHO	3.9293E+00	6.4257E+00	1.1138E+01
H	3.6325E+00	4.6130E+00	6.9041E+00
A	1.8736E+00	2.0903E+00	2.4890E+00
S	1.0693E+00	1.0711E+00	1.0996E+00
Z	1.0000E+00	1.0000E+00	1.0002E+00
GAME	9.9771E-01	9.7661E-01	9.4946E-01
U	2.5703E+00	1.5703E+00	1.4922E+00

SPECIES	MOLE FRACTIONS		
E-	6.3710E-52	2.0634E-33	2.2342E-19
HE	3.5000E-01	3.5000E-01	3.4993E-01
HE+	7.7396E-63	7.5934E-53	2.9729E-43
HE++	0.	0.	0.
H	9.8971E-09	1.0058E-06	4.0639E-04
H+	8.1343E-20	8.1343E-20	3.0475E-19
H2	6.5000E-01	6.5000E-01	6.4966E-01

P1 = 2.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4169E+01	1.0059E+02	2.9857E+02
T	8.3302E+00	1.0854E+01	1.2421E+01
RHO	5.2741E+00	1.4276E+01	2.1544E+01
H	9.3103E+00	1.4201E+01	1.8648E+01
A	2.7195E+00	3.0560E+00	3.3196E+00
S	1.1642E+00	1.1771E+00	1.2050E+00
Z	1.0054E+00	1.0364E+00	1.0793E+00
GAME	8.8304E-01	9.3023E-01	8.2271E-01
U	4.8895E+00	1.8047E+00	1.5870E+00

SPECIES	MOLE FRACTIONS		
E-	1.0336E-14	3.0143E-11	8.5209E-10
HE	3.4813E-01	3.3773E-01	3.2459E-01
HE+	7.0173E-34	3.4719E-27	4.3312E-23
HE++	0.	0.	8.6277E-96
H	1.0692E-02	7.0297E-02	1.4527E-01
H+	1.0336E-14	3.0543E-11	8.5209E-10
H2	6.4118E-01	5.9201E-01	5.3015E-01

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2025E+01	5.6200E+01	1.2697E+02
T	4.9878E+00	6.6733E+00	9.0116E+00
RHO	4.4155E+00	8.4189E+00	1.3988E+01
H	5.1727E+03	7.0818E+00	1.0233E+01
A	2.1999E+00	2.5123E+00	2.8218E+00
S	1.1025E+00	1.1066E+00	1.1278E+00
Z	1.0000E+00	1.0003E+00	1.0073E+00
GAME	9.7030E-01	9.4550E-01	8.7718E-01
U	3.3346E+00	1.7476E+00	1.5375E+00

SPECIES	MOLE FRACTIONS		
E-	6.1959E-30	8.1742E-19	9.0991E-14
HE	3.5000E-01	3.4999E-01	3.4747E-01
HE+	7.6440E-51	2.8562E-42	4.1831E-32
HE++	0.	0.	0.
H	1.0505E-05	6.2895E-04	1.4462E-02
H+	8.1343E-20	8.9873E-19	9.0991E-14
H2	6.4999E-01	6.4948E-01	6.3837E-01

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2031E+01	9.7295E+01	1.9541E+02
T	6.6496E+00	8.9797E+00	1.0898E+01
RHO	4.8134E+00	1.0749E+01	1.7359E+01
H	7.0596E+00	1.0239E+01	1.4360E+01
A	2.5056E+00	2.8137E+00	3.0627E+00
S	1.1341E+00	1.1412E+00	1.1654E+00
Z	1.0004E+00	1.0090E+00	1.0339E+00
GAME	9.4332E-01	8.7275E-01	8.3324E-01
U	4.0957E+00	1.9320E+00	1.5699E+00

SPECIES	MOLE FRACTIONS		
E-	1.3752E-18	1.0028E-13	3.0314E-11
HE	3.4998E-01	3.4722E-01	3.3953E-01
HE+	1.7136E-42	1.3317E-31	2.7335E-26
HE++	0.	0.	0.
H	7.9519E-04	1.5912E-02	6.5563E-02
H+	1.1565E-18	1.0629E-13	3.0314E-11
H2	6.4994E-01	6.3697E-01	5.9591E-01

P1 = 2.00E+03 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8845E+01	2.5494E+02	4.2534E+02
T	9.7322E+00	1.2426E+01	1.3999E+01
RHO	5.9347E+00	1.9936E+01	2.6873E+01
H	1.1995E+01	1.4901E+01	2.4144E+01
A	2.8794E+00	3.3249E+00	3.6130E+00
S	1.1946E+00	1.2155E+00	1.2479E+00
Z	1.0226E+00	1.0836E+00	1.1388E+00
GAME	9.3638E-01	8.6139E-01	8.2409E-01
U	5.7334E+00	1.7453E+00	1.6262E+00

SPECIES	MOLE FRACTIONS		
E-	2.0911E-12	9.3998E-10	9.8221E-09
HE	3.4246E-01	3.2305E-01	3.0734E-01
HE+	2.7377E-24	4.4603E-23	1.1113E-20
HE++	0.	7.6957E-06	5.3247E-04
H	4.3065E-02	1.5400E-01	2.4579E-01
H+	2.0911E-12	9.3983E-10	9.8221E-09
H2	6.1457E-01	5.2295E-01	4.4997E-01

P1 = 2.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5921E+01	3.9305E+02	6.1306E+02
T	1.0078E+01	1.3884E+01	1.5414E+01
RHO	6.7019E+00	2.4233E+01	3.2793E+01
H	1.4533E+01	2.4481E+01	3.0554E+01
A	3.0440E+00	3.6197E+00	3.9495E+00
S	1.2203E+00	1.2371E+00	1.2939E+00
Z	1.0506E+00	1.1444E+00	1.2132E+00
GAME	9.1795E-01	8.2415E-01	8.3416E-01
U	6.6033E+00	1.8248E+00	1.6965E+00

SPECIES	MOLE FRACTIONS		
E-	9.6731E-11	1.0234E-08	7.0956E-08
HE	3.3334E-01	3.0589E-01	2.8850E-01
HE+	6.1130E-26	1.0600E-20	1.0453E-18
HE++	0.	1.2128E-05	3.6161E-04
H	6.5229E-02	2.3242E-01	3.5194E-01
H+	4.6741E-11	1.0234E-08	7.0956E-08
H2	5.7144E-01	4.4175E-01	3.6065E-01

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5165E+01	5.5070E+02	8.5185E+02
T	1.1716E+01	1.5323E+01	1.7040E+01
RHO	7.4744E+00	2.9546E+01	3.8482E+01
H	1.8277E+01	3.0634E+01	3.7843E+01
A	3.216[illegible]E+00	3.9436E+00	4.3355E+00
S	1.2630E+00	1.3011E+00	1.3425E+00
Z	1.0867E+00	1.2164E+00	1.2991E+00
GAME	8.1235E-01	8.3313E-01	8.4911E-01
U	7.4661E+00	1.8878E+00	1.7998E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.0702E-10	6.7581E-08	3.9461E-07
HE	3.2207E-01	2.9773E-01	2.6943E-01
HE+	2.4047E-24	3.3098E-19	5.8349E-17
HE++	3.1949E-90	1.8455E-69	1.3696E-62
H	1.5962E-01	3.5585E-01	4.6042E-01
H+	4.0702E-10	6.7581E-08	3.9461E-07
H2	5.1832E-01	3.5643E-01	2.7015E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6524E+02	1.2297E+03	1.8537E+03
T	1.4166E+01	2.0465E+01	2.3234E+01
RHO	9.4334E+00	4.0795E+01	4.7437E+01
H	3.3390E+01	5.2487E+01	6.5957E+01
A	3.7924E+00	5.2044E+00	6.2966E+00
S	1.3721E+00	1.4415E+00	1.4977E+00
Z	1.2366E+00	1.4723E+00	1.5828E+00
GAME	9.2064E-01	9.2[illegible]9E-01	9.[illegible]3E-01
U	1.0317E+01	2.3106E+00	2.4[illegible]8E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.8781E-09	6.3613E-06	3.0072E-05
HE	2.9[illegible]9E-01	2.8736E-01	2.2113E-01
HE+	3.2151E-20	3.9[illegible]1E-14	2.1076E-11
HE++	1.6615E-74	5.1341E-52	7.6549E-42
H	3.6[illegible]4E-01	6.4204E-01	7.4614E-01
H+	2.9735E-09	6.3613E-06	3.0072E-05
H2	3.3[illegible]8E-01	1.0[illegible]3E-01	4.2[illegible]8E-02

P1 = 2.60E+03 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1653E+02	7.4986E+02	1.1428E+03
T	1.2560E+01	1.6920E+01	1.8910E+01
RHO	8.2037E+00	3.4368E+01	4.3338E+01
H	2.1976E+01	3.7449E+01	4.6047E+01
A	3.3966E+00	4.2987E+00	4.7957E+00
S	1.2956E+00	1.3471E+00	1.3932E+00
Z	1.1337E+00	1.2972E+00	1.3940E+00
GAME	8.1237E-01	8.4691E-01	9.7219E-01
U	6.3251E+00	1.9879E+00	1.9434E+00

SPECIES	MOLE FRACTIONS		
E-	2.1503E-09	3.3686E-07	1.9696E-06
HE	3.0955E-01	2.6981E-01	2.5168E-01
HE+	8.7137E-23	3.5139E-17	2.6336E-15
HE++	2.6790E-93	6.0937E-63	5.5924E-57
H	2.3116E-01	4.5822E-01	5.6525E-01
H+	2.1503E-09	3.3696E-07	1.9696E-06
H2	4.5929E-01	2.7197E-01	1.8366E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9255E+02	1.4897E+03	2.3771E+03
T	1.4999E+01	2.3149E+01	3.2302E+01
RHO	9.8990E+00	4.1415E+01	4.5360E+01
H	3.5129E+01	6.1406E+01	7.8688E+01
A	4.0147E+00	5.8565E+00	7.5209E+00
S	1.4124E+00	1.4875E+00	1.5484E+00
Z	1.2977E+00	1.5540E+00	1.6332E+00
GAME	9.2963E-01	9.5350E-01	1.0722E+00
U	1.0848E+01	2.5937E+00	3.0583E+00

SPECIES	MOLE FRACTIONS		
E-	9.6376E-09	3.1267E-05	9.6133E-04
HE	2.6971E-01	2.2523E-01	2.1430E-01
HE+	4.1440E-19	1.9748E-12	9.4946E-09
HE++	6.6135E-71	1.0096E-45	3.2963E-32
H	4.5979E-01	7.1289E-01	7.7252E-01
H+	8.6376E-09	3.1267E-05	9.6132E-04
H2	2.7150E-01	6.1920E-02	1.1254E-02

P1 = 2.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3987E+02	9.7954E+02	1.4874E+03
T	1.3367E+01	1.8476E+01	2.1357E+01
RHO	8.8606E+00	3.8264E+01	4.6651E+01
H	2.6016E+01	4.4877E+01	5.5295E+01
A	3.5879E+00	4.7087E+00	5.3927E+00
S	1.3331E+00	1.3943E+00	1.4452E+00
Z	1.1809E+00	1.3841E+00	1.4931E+00
GAME	8.1550E-01	8.6698E-01	9.1214E-01
U	9.1753E+00	2.1258E+00	2.1511E+00

SPECIES	MOLE FRACTIONS		
E-	8.6377E-09	1.4716E-06	1.0522E-05
HE	2.9638E-01	2.3286E-01	2.2441E-01
HE+	2.1759E-21	1.1699E-15	1.4943E-13
HE++	2.3067E-79	2.3192E-57	3.0829E-50
H	3.0641E-01	5.9706E-01	6.6051E-01
H+	8.6377E-09	1.4716E-06	1.0522E-05
H2	3.9721E-01	1.9207E-01	1.0507E-01

P1 = 2.60E+03 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2172E+02	1.7363E+03	2.9023E+03
T	1.5871E+01	2.7155E+01	4.0816E+01
RHO	1.0625E+01	3.9697E+01	4.2992E+01
H	4.0205E+01	7.0289E+01	9.2607E+01
A	4.2604E+00	6.7327E+00	8.3212E+00
S	1.4637E+00	1.5301E+00	1.5908E+00
Z	1.3627E+00	1.6111E+00	1.6542E+00
GAME	8.3926E-01	1.0301E+00	1.0757E+00
U	1.1667E+01	3.0130E+00	3.6496E+00

SPECIES	MOLE FRACTIONS		
E-	2.4337E-07	1.9319E-04	6.3108E-03
HE	2.3694E-01	2.1724E-01	2.1141E-01
HE+	4.7522E-13	1.3953E-10	9.7357E-07
HE++	9.4965E-67	7.5379E-39	9.9550E-25
H	5.3234E-01	7.6604E-01	7.7187E-01
H+	2.4576E-07	1.9319E-04	6.3108E-03
H2	2.1062E-01	2.4332E-02	3.6099E-03

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5269E+02	1.9542E+03	3.4161E+03
T	1.6969E+01	3.2628E+01	4.7946E+01
RHO	1.0471E+01	3.6576E+01	4.2485E+01
H	4.5624E+01	7.9449E+01	1.0656E+02
A	4.5411E+00	7.5748E+00	8.9267E+00
S	1.4955E+00	1.5679E+00	1.6256E+00
Z	1.4307E+00	1.6375E+00	1.6770E+00
GAME	9.5455E-01	1.0739E+00	9.6894E-01
U	1.2472E+01	3.5697E+00	4.3793E+00

SPECIES	MOLE FRACTIONS		
E-	6.9938E-07	1.1662E-03	1.8228E-02
HE	2.4464E-01	2.1374E-01	2.0869E-01
HE+	5.5625E-17	1.3057E-09	1.3502E-05
HE++	8.1279E-63	8.9413E-32	7.7614E-21
H	6.0223E-01	7.7516E-01	7.9274E-01
H+	6.9938E-07	1.1662E-03	1.8215E-02
H2	1.5332E-01	9.7756E-03	2.1114E-03

P1 = 2.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5354E+02	2.4387E+03	4.4736E+03
T	2.2274E+01	4.8626E+01	6.2313E+01
RHO	9.8399E+00	2.9721E+01	4.0375E+01
H	6.3851E+01	1.0949E+02	1.4812E+02
A	6.0072E+00	8.8278E+00	1.0037E+01
S	1.6179E+00	1.6631E+00	1.7178E+00
Z	1.6130E+00	1.6874E+00	1.7782E+00
GAME	1.0044E+00	9.4978E-01	9.0924E-01
U	1.4712E+01	4.8686E+00	4.7376E+00

SPECIES	MOLE FRACTIONS		
E-	4.0534E-05	2.3560E-02	7.2860E-02
HE	2.1698E-01	2.0740E-01	1.9638E-01
HE+	1.0697E-12	1.9870E-05	4.5230E-04
HE++	4.1592E-47	2.3643E-20	2.3702E-15
H	7.5998E-01	7.4439E-01	6.5712E-01
H+	4.0534E-05	2.3540E-02	7.2407E-02
H2	2.2954E-02	1.3806E-03	7.8121E-04

P1 = 2.03E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8529E+02	2.1507E+03	3.8864E+03
T	1.8381E+01	3.8522E+01	5.3660E+01
RHO	1.0525E+01	3.3810E+01	4.2442E+01
H	5.1381E+01	8.9987E+01	1.2049E+02
A	4.8809E+00	8.1252E+00	9.2634E+00
S	1.5375E+00	1.6014E+00	1.6567E+00
Z	1.4992E+00	1.6513E+00	1.7065E+00
GAME	8.7889E-01	1.0379E+00	9.3710E-01
U	1.3259E+01	4.1251E+00	4.3743E+00

SPECIES	MOLE FRACTIONS		
E-	2.1362E-06	4.6646E-03	3.4525E-02
HE	2.3346E-01	2.1195E-01	2.0503E-01
HE+	8.0297E-16	3.8471E-07	6.7397E-05
HE++	1.4978E-58	1.7152E-26	2.3498E-19
H	6.6591E-01	7.7484E-01	7.2450E-01
H+	2.1362E-06	4.6642E-03	3.4457E-02
H2	1.0062E-01	3.8808E-03	1.4155E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9961E+02	2.4912E+03	4.5092E+03
T	2.6953E+01	5.2567E+01	6.5525E+01
RHO	9.6934E+00	2.7663E+01	3.7879E+01
H	7.0517E+01	1.2025E+02	1.6146E+02
A	6.7971E+00	9.1314E+00	1.0366E+01
S	1.6527E+00	1.6943E+00	1.7491E+00
Z	1.6379E+00	1.7131E+00	1.9171E+00
GAME	1.0796E+00	9.2591E-01	9.0264E-01
U	1.5343E+01	5.0414E+00	4.9427E+00

SPECIES	MOLE FRACTIONS		
E-	2.6158E-04	3.7826E-02	9.2533E-02
HE	2.1370E-01	2.0424E-01	1.9179E-01
HE+	1.0655E-10	6.2808E-05	8.2663E-04
HE++	7.2015E-43	1.4292E-19	2.0113E-14
H	7.7837E-01	7.1914E-01	6.2254E-01
H+	2.6158E-04	3.7765E-02	9.1737E-02
H2	7.7633E-03	4.6799E-04	5.9770E-04

P1 = 2.00E+03 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1516E+02	2.3234E+03	4.2676E+03
T	1.9725E+01	4.3954E+01	5.8413E+01
RHO	1.0350E+01	3.1716E+01	4.1965E+01
H	5.7465E+01	9.8028E+01	1.3443E+02
A	5.3351E+00	8.5038E+00	9.6704E+00
S	1.5796E+00	1.6324E+00	1.6873E+00
Z	1.5633E+00	1.6667E+00	1.7409E+00
GAME	9.2301E-01	9.9714E-01	9.1960E-01
U	1.4014E+01	4.5719E+00	4.5873E+00

SPECIES	MOLE FRACTIONS		
E-	7.9236E-06	1.2103E-02	5.3276E-02
HE	2.2398E-01	2.1003E-01	2.0094E-01
HE+	1.9557E-14	3.3767E-06	2.0371E-04
HE++	3.2742E-54	7.5394E-23	1.3554F-16
H	7.2200E-01	7.6332E-01	6.9159E-01
H+	7.9263E-06	1.2159E-02	5.3036E-02
H2	9.5491E-02	2.1701E-03	1.0342E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2322E+02	2.5351E+03	4.5073E+03
T	3.0622E+01	5.6010E+01	6.8372E+01
RHO	9.3964E+00	2.5968E+01	3.5490E+01
H	7.7477E+01	1.3139E+02	1.7492E+02
A	7.3714E+00	9.4302F+00	1.0678E+01
S	1.6834E+00	1.7243E+00	1.7800E+00
Z	1.6476E+00	1.7433E+00	1.8579E+00
GAME	1.0767E+00	9.1094E-01	8.9779E-01
U	1.5941E+01	5.1464E+00	4.9345E+00

SPECIES	MOLE FRACTIONS		
E-	1.3782E-03	5.4064E-02	1.1220E-01
HE	2.1243E-01	2.0366F-01	1.9707E-01
HE+	6.4577E-09	1.5123E-04	1.3535E-03
HE++	2.3999E-33	3.2292E-17	1.1510E-13
H	7.8147E-01	6.9033E-01	5.8807E-01
H+	1.3792E-03	5.3997E-02	1.1094E-01
H2	2.9413E-03	7.1367E-04	4.6499E-04

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6063E+02	2.6343E+03	4.6007E+03
T	3.5164E+01	5.9254E+01	7.1212E+01
RHO	7.9126E+00	2.5024E+01	3.3991E+01
H	8.4785E+01	1.4329E+02	1.8915E+02
A	7.7277E+00	9.7423E+00	1.1004E+01
S	1.7136E+00	1.7524E+00	1.8095E+00
Z	1.6555E+00	1.7766E+00	1.9007E+00
GAME	1.3256E+00	9.3159E-01	8.9469E-01
U	1.6565E+01	5.2328E+00	5.0195E+00

SPECIES	MOLE FRACTIONS		
E-	4.7104E-03	7.1824E-02	1.3226E-01
HE	2.1141E-01	1.9669E-01	1.8204E-01
HE+	1.3373E-07	3.1298E-04	2.1095E-03
HE++	1.2017E-28	4.3538E-16	5.6339E-13
H	7.7781E-01	6.5911E-01	5.5308E-01
H+	4.7103E-03	7.1511E-02	1.3015E-01
H2	1.3582E-03	5.5109E-04	3.6985E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9636E+02	3.2979E+03	5.5892E+03
T	4.5926E+01	6.8705E+01	8.0487E+01
RHO	7.5449E+00	2.5299E+01	3.3734E+01
H	1.0932E+02	1.8441E+02	2.3945E+02
A	8.4507E+00	1.0774E+01	1.2111E+01
S	1.7812E+00	1.8305E+00	1.9528E+00
Z	1.7041E+00	1.9075E+00	2.0475E+00
GAME	9.1264E-01	8.9045E-01	8.8997E-01
U	1.9652E+01	5.5710E+00	5.1907E+00

SPECIES	MOLE FRACTIONS		
E-	3.2150E-02	1.3071E-01	1.9435E-01
HE	2.0557E-01	1.9279E-01	1.6419E-01
HE+	1.6306E-05	1.6798E-03	6.7603E-03
HE++	3.9757E-21	1.9692E-13	4.1612E-11
H	7.2941E-01	5.5550E-01	4.4692E-01
H+	3.2154E-02	1.2903E-01	1.8759E-01
H2	4.1299E-04	2.9896E-04	2.0390E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0097E+02	2.7994E+03	4.8196E+03
T	3.923?E+01	6.2422E+01	7.4155E+01
RHO	7.6576E+00	2.4723E+01	3.3392E+01
H	3.2476E+01	1.5638E+02	2.0467E+02
A	7.9807E+00	1.0372E+01	1.1351E+01
S	1.7354E+00	1.7793E+00	1.8375E+00
Z	1.6672E+00	1.8139E+00	1.9464E+00
GAME	9.7300E-01	8.9790E-01	9.0267E-01
U	1.7235E+01	5.3338E+00	5.1261E+00

SPECIES	MOLE FRACTIONS		
E-	1.1139E-02	9.0772E-02	1.9257E-01
HE	2.0336E-01	1.9237E-01	1.7664E-01
HE+	1.1259E-06	5.8585E-04	3.1925E-03
HE++	2.5799E-25	4.2161E-15	2.5149E-12
H	7.6699E-01	6.2564E-01	5.1792E-01
H+	1.1138E-02	9.0185E-02	1.4939E-01
H2	8.0?7?E-04	4.4042E-04	3.0056E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3903E+02	3.6105E+03	6.0343E+03
T	4.9737E+01	7.1812E+01	9.3720E+01
RHO	7.5873E+00	2.5877E+01	3.4314E+01
H	1.1736E+02	1.9991E+02	2.5836E+02
A	8.6940E+00	1.1139E+01	1.2502E+01
S	1.8033E+00	1.8556E+00	1.9197E+00
Z	1.7281E+00	1.9429E+00	2.1005E+00
GAME	9.9745E-01	8.8927E-01	8.8884E-01
U	1.9457E+01	5.7020E+00	5.5178E+00

SPECIES	MOLE FRACTIONS		
E-	4.5522E-02	1.5100E-01	2.1465E-01
HE	2.0249E-01	1.7752E-01	1.5724E-01
HE+	4.0306E-05	2.0216E-03	9.3871E-03
HE++	1.0518E-19	1.0219E-12	1.4602E-10
H	7.0614E-01	5.2022E-01	4.1330E-01
H+	4.5482E-02	1.4839E-01	2.0526E-01
H2	3.2460E-04	2.5028E-04	1.6981E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4426E+02	3.0244E+03	5.1462E+03
T	4.2793E+01	6.5575E+01	7.7293E+01
RHO	7.5544E+00	2.4973E+01	3.3362E+01
H	1.0056E+02	1.6981E+02	2.2144E+02
A	9.2144E+00	1.0417E+01	1.1725E+01
S	1.7599E+00	1.8052E+00	1.8655E+00
Z	1.6896E+00	1.9543E+00	1.9959E+00
GAME	9.3648E-01	8.9245E-01	8.9118E-01
U	1.7947E+01	5.4472E+00	5.2471E+00

SPECIES	MOLE FRACTIONS		
E-	2.0302E-02	1.1053E-01	1.7357E-01
HE	2.0749E-01	1.9773E-01	1.7064E-01
HE+	5.1852E-06	1.0230E-03	4.7119E-03
HE++	6.3371E-23	3.1994E-14	1.0723E-11
H	7.0?06E-01	5.0385E-01	4.0159E-01
H+	2.0479E-02	1.0951E-01	1.6895E-01
H2	5.5243E-04	3.6622E-04	2.4035E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9013E+02	3.9596E+03	6.5718E+03
T	5.1290E+01	7.4903E+01	8.7009E+01
RHO	7.6685E+00	2.6562E+01	3.5048E+01
H	1.2706E+02	2.1597E+02	2.7833E+02
A	8.9387E+00	1.1509E+01	1.2902E+01
S	1.8249E+00	1.8804E+00	1.9466E+00
Z	1.7546E+00	1.9902E+00	2.1551E+00
GAME	8.8783E-01	8.8848E-01	8.9777E-01
U	2.0237E+01	5.8400E+00	5.6627E+00

SPECIES	MOLE FRACTIONS		
E-	5.9891E-02	1.7114E-01	2.3450E-01
HE	1.9939E-01	1.7195E-01	1.4974E-01
HE+	6.3793E-05	3.9176E-03	1.2671E-02
HE++	1.9029E-18	4.5736E-12	4.7170E-10
H	6.8056E-01	4.8556E-01	3.8112E-01
H+	5.9807E-02	1.6722E-01	2.2183E-01
H2	2.6459E-04	2.1075E-04	1.4184E-04

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4351E+02	4.3381E+03	7.1559E+03
T	5.3679E+01	7.7972E+01	9.0317E+01
RHO	7.7658E+00	2.7296E+01	3.5941E+01
H	1.3663E+02	2.3286E+02	2.9920E+02
A	9.1874E+00	1.1991E+01	1.3306E+01
S	1.8463E+00	1.9352E+00	1.9736E+00
Z	1.7836E+00	2.0390E+00	2.2106E+00
GAME	8.8163E-01	8.9782E-01	8.9683E-01
U	2.1026E+01	5.9817E+00	5.9109E+00

SPECIES	MOLE FRACTIONS		
E-	7.5129E-02	1.9095E-01	2.5372E-01
HE	1.9608E-01	1.6602E-01	1.4172E-01
HE+	1.5592E-03	5.6335E-03	1.6611E-02
HE++	1.4374E-17	1.7980E-11	1.3975E-09
H	6.5345E-01	4.5191E-01	3.5073E-01
H+	7.4973E-02	1.8531E-01	2.3711E-01
H2	2.1999E-04	1.7797E-04	1.1867E-04

P1 = 2.00E+03 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7851E+02	6.1139E+03	9.8977E+03
T	6.2179E+01	9.0133E+01	1.0395E+02
RHO	8.2092E+00	3.0243E+01	3.9074E+01
H	1.7947E+02	3.6719E+02	3.9125E+02
A	1.0201E+01	1.3376E+01	1.5000E+01
S	1.9318E+00	2.0046E+00	2.0919E+00
Z	1.9173E+00	2.2437E+00	2.4392E+00
GAME	8.7298E-01	8.9505E-01	8.9922E-01
U	2.4220E+01	6.5681E+00	6.4380E+00

SPECIES	MOLE FRACTIONS		
E-	1.3952E-01	2.6468E-01	3.2363E-01
HE	1.8159E-01	1.3835E-01	1.0556E-01
HE+	9.6083E-04	1.7645E-02	3.7930E-02
HE++	1.1125E-14	1.5604E-09	5.3418E-08
H	5.3926E-01	3.5219E-01	2.4719E-01
H+	1.3955E-01	2.4704E-01	2.8567E-01
H2	1.1503E-04	9.1514E-05	5.7929E-05

P1 = 2.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.9909E+02	4.7444E+03	7.7835E+03
T	5.5934E+01	8.1024E+01	9.3647E+01
RHO	7.8730E+00	2.8031E+01	3.6644E+01
H	1.4656E+02	2.5043E+02	3.2094E+02
A	9.4382E+00	1.2254E+01	1.3716E+01
S	1.9677E+00	1.9300E+00	2.0005E+00
Z	1.8146E+00	2.0889E+00	2.2669E+00
GAME	9.7765E-01	9.8715E-01	9.9619E-01
U	2.1820E+01	6.1266E+00	5.9622E+00

SPECIES	MOLE FRACTIONS		
E-	9.0890E-02	2.1028E-01	2.7224E-01
HE	1.9261E-01	1.5972E-01	1.3321E-01
HE+	2.6674E-04	7.9291E-03	2.1193E-02
HE++	1.0191E-16	6.3095E-11	3.8282E-09
H	6.2542E-01	4.1957E-01	3.2241E-01
H+	9.0623E-02	2.0245E-01	2.5105E-01
H2	1.9546E-04	1.5055E-04	9.9379E-05

P1 = 2.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1088E+03	7.1370E+03	1.1436E+04
T	6.6078E+01	9.6[illegible]E+01	1.8105E+02
RHO	8.4196E+00	3.1601E+01	4.3445E+01
H	2.0149E+02	3.4923E+02	4.4291E+02
A	1.0745E+01	1.4135E+01	1.5940E+01
S	1.9749E+00	2.0547E+00	2.1369E+00
Z	1.9922E+00	2.3491E+00	2.5[illegible]9E+00
GAME	9.7278E-01	8.9473E-01	9.2494E-01
U	2.5824E+01	6.8759E+00	6.7865E+00

SPECIES	MOLE FRACTIONS		
E-	1.7186E-01	2.4769E-01	3.5471E-01
HE	1.7375E-01	1.2220E-01	8.6360E-02
HE+	1.9[illegible]E-03	2.0795E-02	5.0529E-02
HE++	1.3476E-15	9.2379E-09	2.4618E-07
H	4.9[illegible]E-01	2.9239E-01	2.0619E-01
H+	1.6956E-01	2.7088E-01	3.0[illegible]E-01
H2	8.5936E-05	[illegible].5572E-05	3.9371E-05

P1 = 2.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5697E+02	5.1786E+03	9.4553E+03
T	5.8077E+01	8.4064E+01	9.7010E+01
RHO	7.9876E+00	2.9789E+01	3.7505E+01
H	1.5685E+02	2.6870E+02	3.4356E+02
A	9.6895E+00	1.2629E+01	1.4133E+01
S	1.8889E+00	1.9548E+00	2.0276E+00
Z	1.8471E+00	2.1399E+00	2.3239E+00
GAME	8.7519E-01	8.8642E-01	8.8607E-01
U	2.2625E+01	6.2744E+00	6.1171E+00

SPECIES	MOLE FRACTIONS		
E-	1.0668E-01	2.2905E-01	2.9006E-01
HE	1.8906E-01	1.5301E-01	1.2429E-01
HE+	4.2708E-04	1.0553E-02	2.6332E-02
HE++	5.6942E-16	2.0067E-10	9.7491E-09
H	5.9705E-01	3.9876E-01	2.9552E-01
H+	1.3644E-01	2.1952E-01	2.6373E-01
H2	1.5809E-04	1.2751E-04	8.3215E-05

P1 = 2.00E+03 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2466E+03	8.2377E+03	1.3206E+04
T	6.9865E+01	1.0225E+02	1.1985E+02
RHO	9.0111E+00	3.2954E+01	4.1532E+01
H	2.0259E+02	3.5[illegible]74E+02	4.4730E+02
A	1.1243E+01	1.4922E+01	1.6695E+01
S	2.0183E+00	2.1751E+00	2.1919E+00
Z	2.0711E+00	2.4556E+00	2.6754E+00
GAME	8.7334E-01	8.5677E-01	8.0734E-01
U	2.7427E+01	7.1956E+00	7.1794E+00

SPECIES	MOLE FRACTIONS		
E-	2.0336E-01	3.2912E-01	3.9330E-01
HE	1.6[illegible]E-01	1.0563E-01	6.7934E-02
HE+	3.6396E-03	8.7[illegible]E-02	6.2995E-02
HE++	1.1794E-14	4.3[illegible]E-09	1.[illegible]47E-06
H	4.2756E-01	2.3[illegible]67E-01	1.6553E-01
H+	2.6[illegible]E-01	2.9[illegible]E-01	3.2032E-01
H2	6.3493E-05	4.6614E-05	2.5675E-05

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3921E+03	9.4126E+03	1.5066E+04
T	7.3606E+01	1.0854E+02	1.2774E+02
RHO	8.7835E+00	3.3847E+01	4.2198E+01
H	2.5174E+02	4.3783E+02	5.5612E+02
A	1.1769E+01	1.5753E+01	1.8197E+01
S	2.0626E+00	2.1551E+00	2.2474E+00
Z	2.1532E+00	2.5621E+00	2.7950E+00
GAME	9.7402E-01	9.9232E-01	9.2746E-01
U	2.9024E+01	7.5256E+00	7.6290E+00

SPECIES	MOLE FRACTIONS		
E-	2.3373E-01	3.5603E-01	4.0969E-01
HE	1.5685E-01	8.7664E-02	5.0797E-02
HE+	5.6979E-03	4.8942E-02	7.4422E-02
HE++	8.0829E-12	1.7661E-07	4.0396E-06
H	3.7564E-01	2.0024E-01	1.2983E-01
H+	2.2803E-01	3.0709E-01	3.3525E-01
H2	4.6765E-05	3.2669E-05	1.5514E-05

P1 = 2.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8766E+03	1.3205E+04	2.1668E+04
T	8.4795E+01	1.3095E+02	1.6992E+02
RHO	9.1842E+00	3.5940E+01	4.3894E+01
H	3.3754E+02	5.8948E+02	7.6458E+02
A	1.3365E+01	1.9826E+01	2.3418E+01
S	2.1947E+00	2.3057E+00	2.4136E+00
Z	2.4059E+00	2.8430E+00	3.1183E+00
GAME	8.7427E-01	9.4046E-01	1.0349E+00
U	3.3750E+01	8.8556E+00	9.7783E+00

SPECIES	MOLE FRACTIONS		
E-	3.1591E-01	4.2717E-01	4.7097E-01
HE	1.2572E-01	4.1322E-02	1.6148E-02
HE+	1.9541E-02	9.0439E-02	9.5729E-02
HE++	9.4149E-10	7.5993E-06	3.8276E-04
H	2.4017E-01	1.0478E-01	4.2484E-02
H+	2.9597E-01	3.4458E-01	3.7440E-01
H2	1.7777E-05	8.4292E-06	1.4054E-06

P1 = 2.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5457E+03	1.0636E+04	1.7080E+04
T	7.7321E+01	1.152oE+02	1.3844E+02
RHO	9.9349E+00	3.4557E+01	4.2353E+01
H	2.7895E+02	4.8616E+02	6.1964E+02
A	1.229?E+01	1.6666E+01	1.9645E+01
S	2.106JE+00	2.2061E+00	2.3030E+00
Z	2.2374E+00	2.6702E+00	2.9129E+00
GAME	8.744UE-01	9.0249F-01	9.5699E-01
U	3.0s2uE+01	7.9144E+00	9.189-C+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.6259E-01	3.8210E-01	4.3357E-01
HE	1.4741E-01	7.0569E-02	8.6121E-02
HE+	9.02.7E-03	6.0506E-02	8.4017E-02
HE++	4.5847E-11	6.4911E-07	1.6611E-05
H	3.2739F-01	1.6521F-01	9.6757F-02
H+	2.5356E-01	3.2159E-01	3.4952E-01
H2	3.40?3E-05	2.1998F-05	8.3343E-06

P1 = 2.00E+03 N/SQ-M, US1= 4.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0536E+03	1.4514E+04	2.4254F+04
T	8.8578E+01	1.4048E+02	1.9165E+02
RHO	9.2857E+00	3.4716E+01	3.9694E+01
H	3.6853E+02	6.4417E+02	8.4636E+02
A	1.3967E+01	2.0137E+01	2.5232F+01
S	2.2354E+00	2.3537E+00	2.4649E+00
Z	2.4967E+00	2.9767E+00	3.1993F+00
GAME	8.7457E-01	9.6967E-01	1.0419E+00
U	3.537?E+01	9.4588E+00	1.0?01F+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.3914E-01	4.4573E-01	4.8249F-01
HE	1.1330E-01	2.9657E-02	1.0943E-02
HE+	2.6881E-02	8.7899E-02	9.6976E-02
HE++	3.5547E-09	2.5723E-05	1.9560F-03
H	2.0941E-01	7.8966E-02	2.5941E-02
H+	3.1226E-01	3.5775E-01	3.8180E-01
H2	1.2648E-05	4.5974F-06	4.8356E-07

P1 = 2.00E+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7372E+03	1.1906E+04	1.9279E+04
T	9.1041E+01	1.2257E+02	1.5214E+02
RHO	9.3e75E+00	3.4983E+01	4.1903F+01
H	3.0755E+02	5.3675E+02	7.4909E+02
A	1.2831E+01	1.7677E+01	2.1410F+01
S	2.1526E+00	2.2502E+00	2.3599E+00
Z	2.3232E+00	2.7766E+00	3.0243E+00
GAME	8.744?E-01	9.1819E-01	9.9622E-01
U	3.22.3E+01	8.3459E+00	8.9034E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.9996E-01	4.0577E-01	4.5442E-01
HE	1.3706F-01	5.4840E-02	2.4418E-02
HE+	1.3596E-02	7.1211E-02	9.1237E-02
HE++	2.2224E-10	2.2244E-06	7.5854E-05
H	2.8332F-01	1.3362E-01	4.8824E-02
H+	2.7621F-01	3.3459E-01	3.6303E-01
H2	2.4696E-05	1.4134E-05	3.7633E-06

P1 = 2.00E+03 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2383E+03	1.5795E+04	2.6?36F+04
T	9.2452E+01	1.5234E+02	2.1429E+02
RHO	9.3710E+00	3.3915E+01	3.9780E+01
H	4.017.E+02	7.9049E+02	9.3141E+02
A	1.4402E+01	2.1625E+01	2.6407E+01
S	2.2941E+00	2.4305E+00	2.5131E+00
Z	2.5836E+00	3.0632E+00	3.2915E+00
GAME	9.7602E-01	1.0041E+00	1.0039E+00
U	3.6957E+01	1.0203E+01	1.1782E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.6137E-01	4.6134E-01	4.9104F-01
HE	1.0001E-01	2.0858E-02	7.8152E-03
HE+	3.5435E-02	9.3311E-02	9.3512E-02
HE++	1.2116E-08	5.2205E-05	6.6336E-03
H	1.7724E-01	5.6?44E-02	1.6735E-02
H+	3.25?1E-01	3.6735E-01	3.8426E-01
H2	9.9?45E-06	2.2.03E-05	1.9956E-07

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.43[illegible]E+03	1.7028E+04	2.9581E+04
T	9.6474E+01	1.6577E+02	2.3363E+02
RHO	9.4326E+00	3.2778E+01	3.8485E+01
H	4.358[illegible]E+02	7.5931E+02	1.0159E+03
A	1.5053E+01	2.3194E+01	2.7290E+01
S	2.3292E+00	2.4449E+00	2.5553E+00
Z	2.e73[illegible]E+00	3.1339E+00	3.2899E+00
GAME	9.7937E-01	1.0355E+00	9.6822E-01
U	3.8529E+01	1.1093E+01	1.2519E+01

SPECIES	MOLE FRACTIONS		
E-	3.822[illegible]E-01	4.7348E-01	4.9847E-01
HE	9.[illegible]E-02	1.4526E-02	5.9024E-03
HE+	4.5[illegible]E-02	9.6722E-02	8.5416E-02
HE++	3.96[illegible]E-09	3.3753E-04	1.5309E-02
H	1.4[illegible]E-01	3.8748E-02	1.2233E-02
H+	3.[illegible]E-[illegible]	3.7[illegible]E-01	3.9292E-01
H2	e.2[illegible]E-[illegible]	9.[illegible]E-07	9.7790E-08

P1 = 2.00E+03 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0494E+0[illegible]	2.0526E+04	3.7323E+04
T	1.1028E+02	2.1404E+02	2.8454E+02
RHO	9.4527E+00	2.9364E+01	3.8090E+01
H	5.4651E+02	9.4199E+02	1.2789E+03
A	1.7126E+01	2.6316E+01	3.0693E+01
S	2.4625E+00	2.5644E+00	2.6734E+00
Z	2.9253E+00	3.2658E+00	3.4436E+00
GAME	9.0915E-01	9.9072E-01	9.6141E-01
U	4.3160E+01	1.3889E+01	1.4246E+01

SPECIES	MOLE FRACTIONS		
E-	4.3595E-01	4.9477E-01	5.2085E-01
HE	4.4873E-02	5.9743E-03	2.3095E-03
HE+	7.4773E-02	9.2744E-02	4.8918E-02
HE++	9.6076E-07	8.4529E-03	5.0410E-02
H	8.3217E-02	1.2947E-02	6.3959E-03
H+	3.6110E-01	3.8512E-01	3.7111E-01
H2	1.7637E-06	8.6187E-08	2.5980E-08

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6303E+03	1.8220E+04	3.2218E+04
T	1.0066E+02	1.9150E+02	2.5103E+02
RHO	9.4776E+00	3.1494E+01	3.8425E+01
H	4.7139E+02	8.1762E+02	1.1012E+03
A	1.5675E+01	2.4615E+01	2.8252E+01
S	2.3737E+00	2.4969E+00	2.5956E+00
Z	2.7566E+00	3.1875E+00	3.3431E+00
GAME	9.8536E-01	1.0473E+00	9.5195E-01
U	4.0090E+01	1.2053E+01	1.3123E+01

SPECIES	MOLE FRACTIONS		
E-	4.0143E-01	4.8235E-01	5.2601E-01
HE	7.1973E-02	1.0474E-02	4.4660E-03
HE+	5.4956E-02	9.8148E-02	7.4247E-02
HE++	1.1493E-07	1.1826E-03	2.6074E-02
H	1.2515E-01	2.6009E-02	9.5943E-03
H+	3.4644E-01	3.9194E-01	3.7961E-01
H2	4.2455E-06	3.9926E-07	5.5378E-08

P1 = 2.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8307E+03	1.9361E+04	3.4803E+04
T	1.0523E+02	1.9905E+02	2.6751E+02
RHO	9.4861E+00	3.0278E+01	3.9264E+01
H	5.0928E+02	9.7953E+02	1.1896E+03
A	1.6359E+01	2.5629E+01	2.9373E+01
S	2.4195E+00	2.5265E+00	2.6344E+00
Z	2.8614E+00	3.2298E+00	3.3918E+00
GAME	9.9491E-01	1.0271E+00	9.5094E-01
U	4.1637E+01	1.3047E+01	1.3677E+01

SPECIES	MOLE FRACTIONS		
E-	4.1949E-01	4.8897E-01	5.1351E-01
HE	5.8[illegible]E-02	7.7792E-03	3.0[illegible]E-03
HE+	4.5[illegible]E-02	9.7072E-02	4.1777E-02
HE++	3.3[illegible]E-07	3.5516E-03	3.9118E-02
H	1.0314E-01	1.7934E-02	7.8[illegible]E-03
H+	3.[illegible]E-01	3.[illegible]E-01	3.7349E-01
H2	2.9[illegible]E-06	1.7343E-07	3.[illegible]E-08

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2675E+03	2.1681E+04	3.9683E+04
T	1.1600E+02	2.2065E+02	3.0256E+02
RHO	9.3666E+00	2.8695E+01	3.7561E+01
H	5.8605E+02	1.0080E+03	1.3722E+03
A	1.8009E+01	2.6962E+01	3.2203E+01
S	2.5060E+00	2.6013E+00	2.7111E+00
Z	3.0053E+00	3.3043E+00	3.4919E+00
GAME	9.2970E-01	9.6215E-01	9.9157E-01
U	4.4654E+01	1.4571E+01	1.4843E+01

SPECIES	MOLE FRACTIONS		
E-	4.5097E-01	5.0065E-01	5.2747E-01
HE	3.2931E-02	4.6660E-03	1.5204E-03
HE+	8.3527E-02	8.5289E-02	3.7010E-02
HE++	2.8561E-06	1.3967E-02	6.1702E-02
H	6.5129E-02	9.9919E-03	5.2364E-03
H+	3.6744E-01	3.8343E-01	3.6708E-01
H2	1.0343E-06	4.9291E-08	1.7164E-08

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4901E+03	2.2773E+04	4.1843E+04
T	1.2294E+02	2.4206E+02	3.2329E+02
RHO	9.2208E+00	2.8120E+01	3.6407E+01
H	6.2686E+02	1.0762E+03	1.4697E+03
A	1.9043E+01	2.7701E+01	3.4030E+01
S	2.9483E+00	2.8377E+00	2.7495E+00
Z	3.0789E+00	3.3456E+00	3.5356E+00
GAME	9.5804E-01	9.6790E-01	1.0114E+00
U	4.6108E+01	1.5113E+01	1.5538E+01

SPECIES	MOLE FRACTIONS		
E-	4.6409E-01	5.0682E-01	5.3332E-01
HE	2.2830E-02	3.6342E-03	9.0667E-04
HE+	9.0838E-02	7.5648E-02	2.6342E-02
HE++	8.9695E-06	2.5332E-02	7.1744E-02
H	4.8990E-02	8.0548E-03	4.1929E-03
H+	3.7324E-01	3.8051E-01	3.6349E-01
H2	5.9354E-07	3.1077E-09	1.0722E-08

Table I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, USI= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7152E+03	2.3688E+04	4.3612E+04
T	1.3141E+02	2.5461E+02	3.4735E+02
RHO	8.9926E+00	2.7457E+01	3.5157E+01
H	6.6888E+02	1.1459E+03	1.5706E+03
A	2.0273E+01	2.8538E+01	3.6043E+01
S	2.5897E+00	2.6739E+00	2.7882E+00
Z	3.1439E+00	3.3885E+00	3.5714E+00
GAME	9.9402E-01	9.4402E-01	1.0472E+00
U	4.7498E+01	1.9544E+01	1.6332E+01

SPECIES	MOLE FRACTIONS		
E-	4.7517E-01	5.1305E-01	5.3799E-01
HE	1.4851E-02	2.7798E-03	4.8731E-04
HE+	9.6446E-02	6.4968E-02	1.7775E-02
HE++	3.1131E-05	3.9544E-02	7.9739E-02
H	3.4048E-02	6.6576E-03	3.2684E-03
H+	3.7866E-01	3.7700E-01	3.6074E-01
H2	2.6037E-07	2.0626E-08	6.2515E-09

P1 = 2.00E+03 N/SQ-M, USI= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4043E+03	2.5309E+04	4.7303E+04
T	1.6756E+02	2.9323E+02	4.4454E+02
RHO	8.0651E+00	2.4569E+01	2.9342E+01
H	8.0195E+02	1.3590F+03	1.8993E+03
A	2.3969E+01	3.1776E+01	4.2563E+01
S	2.7014E+00	2.7828E+00	2.9032E+00
Z	3.2591E+00	3.5129E+00	3.6265E+00
GAME	1.0520E+00	9.8007E-01	1.1227E+00
U	5.1343E+01	1.6845E+01	1.9442E+01

SPECIES	MOLE FRACTIONS		
E-	4.9373E-01	5.3031E-01	5.4501E-01
HE	3.9323E-03	9.7699E-04	5.0172E-05
HE+	1.0191E-01	3.3235E-02	5.0038E-03
HE++	1.5511E-03	6.5420E-02	9.1658E-02
H	1.0167E-02	3.8279E-03	1.3802E-03
H+	3.8872E-01	3.6623E-01	3.5709E-01
H2	1.6800E-08	6.0784E-09	9.2966E-10

P1 = 2.00E+03 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9423E+03	2.4403E+04	4.5105E+04
T	1.4162E+02	2.6691E+02	3.7619E+02
RHO	8.7139E+00	2.6643E+01	3.3324E+01
H	7.1204E+02	1.2163E+03	1.6764E+03
A	2.1620E+01	2.9481E+01	3.8275E+01
S	2.6284E+00	2.7101E+00	2.8276E+00
Z	3.1946E+00	3.4316E+00	3.5981E+00
GAME	1.0332E+00	9.4889E-01	1.0823E+00
U	4.0827E+01	1.5965E+01	1.7284E+01

SPECIES	MOLE FRACTIONS		
E-	4.8351E-01	5.1917E-01	5.4143E-01
NE	9.3068E-03	2.0595E-03	2.3526E-04
NE+	1.0006E-01	5.3985E-02	1.1483E-02
NE++	1.1435E-04	4.5950E-02	8.5555E-02
N	2.3707E-02	5.5551E-03	2.4700E-03
N+	3.8322E-01	3.7328E-01	3.5883E-01
N2	1.1060E-07	1.3904E-08	3.3801E-09

P1 = 2.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6487E+03	2.5928E+04	4.8948E+04
T	1.8053E+02	3.0853E+02	4.8292E+02
RHO	7.8482E+00	2.3694E+01	2.7899E+01
H	8.4900E+02	1.4332E+03	2.0196E+03
A	2.4511E+01	3.3171E+01	4.4534E+01
S	2.7332E+00	2.8159E+00	2.9362E+00
Z	3.2810E+00	3.5469E+00	3.6338E+00
GAME	1.0143E+00	1.0055E+00	1.1304E+00
U	5.2643E+01	1.7447E+01	2.0626E+01

SPECIES	MOLE FRACTIONS		
E-	4.9710E-01	5.3481E-01	5.4584E-01
NE	2.8612E-03	6.2571E-04	2.4552E-05
NE+	9.9581E-02	2.4650E-02	3.5598E-03
NE++	4.2331E-03	7.3402E-02	9.2754E-02
N	7.1709E-03	3.1628E-03	1.0581E-03
N+	3.8905E-01	3.6339E-01	3.5477E-01
N2	7.7916E-09	3.9940E-09	9.2109E-10

P1 = 2.00E+03 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1707E+03	2.4872E+04	4.6180E+04
T	1.5467E+02	2.7955E+02	4.0890E+02
RHO	8.3741E+00	2.5612E+01	3.1235E+01
H	7.5637E+02	1.2872E+03	1.7859E+03
A	2.2978E+01	3.0540E+01	4.0472E+01
S	2.6604E+00	2.7469E+00	2.8667E+00
Z	3.2326E+00	3.4737E+00	3.6157E+00
GAME	1.0993E+00	9.6095E-01	1.1079E+00
U	5.0092E+01	1.6369E+01	1.8344E+01

SPECIES	MOLE FRACTIONS		
E-	4.8950E-01	5.2501E-01	5.4366E-01
NE	5.8875E-03	1.4552E-03	1.0780E-04
NE+	1.0194E-01	4.3213E-02	7.4268E-03
NE++	4.4621E-04	5.6084E-02	8.9265E-02
N	1.5401E-02	4.6217E-03	1.8385E-03
N+	3.8675E-01	3.6962E-01	3.5770E-01
N2	4.2273E-08	9.2436E-09	1.7543E-09

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 4.03E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.9746E+01	7.2692E+01
T	3.5541E+03	4.4746E+03	6.5284E+03
RHO	3.9293E+03	6.4257E+00	1.1133E+01
M	3.6325E+00	4.6153E+00	6.9053E+00
A	1.8736E+03	2.0923E+03	2.4927E+03
S	1.0726E+00	1.0744E+00	1.0939E+00
Z	1.0004E+00	1.0003E+00	1.0001E+00
GAME	9.8771E-01	9.7662E-01	9.5165E-01
U	2.5703E+03	1.5703E+03	1.4031E+03

SPECIES	MOLE FRACTIONS		
E-	1.6118E-52	5.2205E-34	1.6286E-19
HE	3.5030E-01	3.5030E-01	3.4995E-01
HE+	1.2228E-62	1.2078E-52	2.6407E-43
HE++	0.	0.	0.
H	6.2625E-09	6.3599E-07	2.5963E-04
H+	8.1343E-20	8.1343E-20	1.8420E-19
H2	6.5006E-01	6.5000E-01	6.4979E-01

P1 = 5.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4305E+01	1.5831E+02	2.9731E+02
T	8.4362E+03	1.1141E+01	1.2973E+01
RHO	5.2233E+00	1.3634E+01	2.0729E+01
M	9.3642E+00	1.4114E+01	1.8742E+01
A	2.7519E+03	3.1074E+03	3.3968E+00
S	1.1719E+00	1.1841E+00	1.2129E+00
Z	1.0034E+00	1.0291E+00	1.0685E+00
GAME	8.8755E-01	8.4214E-01	8.3742E-01
U	4.8734E+03	1.8581E+03	1.6452E+00

SPECIES	MOLE FRACTIONS		
E-	7.4292E-15	3.5185E-11	1.2946E-09
HE	3.4869E-01	3.4910E-01	3.2756E-01
HE+	5.1732E-34	8.3125E-26	2.5857E-22
HE++	0.	0.	3.8346E-80
H	7.4903E-03	5.6574E-02	1.2927E-01
H+	7.4292E-15	3.5185E-11	1.2946E-09
H2	6.4392E-01	6.0332E-01	5.4422E-01

P1 = 5.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2025E+01	5.6144E+01	1.2743E+02
T	4.9879E+00	6.6773E+00	9.1386E+00
RHO	4.4154E+00	8.4063E+00	1.3870E+01
H	5.1726E+00	7.0797E+00	1.0267E+01
A	2.2001E+00	2.5171E+00	2.8607E+00
S	1.1074E+00	1.1116E+00	1.1340E+00
Z	1.0000E+00	1.0002E+00	1.0053E+00
GAME	9.7042E-01	9.4867E-01	8.9077E-01
U	3.3340E+00	1.7501E+00	1.5589E+00

SPECIES	MOLE FRACTIONS		
E-	1.5696E-30	4.0738E-19	7.5599E-14
HE	3.5000E-01	3.4993E-01	3.4815E-01
HE+	1.2101E-50	2.5101E-42	1.8337E-31
HE++	0.	0.	0.
H	6.6467E-06	4.0136E-04	1.0545E-02
H+	8.1343E-20	4.8870E-19	7.5599E-14
H2	6.4999E-01	6.4967E-01	6.4130E-01

P1 = 5.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1992E+01	9.6237E+01	1.9639E+02
T	6.6564E+00	9.0714E+00	1.1239E+01
RHO	4.8048E+00	1.0349E+01	1.7000E+01
H	7.0590E+00	1.0209E+01	1.4160E+01
A	2.5113E+00	2.8460E+00	3.1241E+00
S	1.1405E+00	1.1477E+00	1.1726E+00
Z	1.0033E+00	1.0057E+00	1.0279E+00
GAME	9.4724E-01	9.8732E-01	9.4492E-01
U	4.0954E+00	1.8644E+00	1.6131E+00

SPECIES	MOLE FRACTIONS		
E-	5.4312E-19	7.6371E-14	3.7990E-11
HE	3.4991E-01	3.4813E-01	3.4052E-01
HE+	1.4676E-42	1.9262E-31	1.2598E-2
HE++	0.	0.	0.
H	5.1537E-04	1.1259E-02	5.4343E-02
H+	6.2444E-19	7.6371E-14	3.7990E-11
H2	6.4958E-01	6.4371E-01	6.0522E-01

P1 = 5.00E+03 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.858E+01	2.4454E+02	4.1739E+02
T	9.9233E+00	1.2499E+01	1.6632E+01
RHO	5.8035E+00	1.7601E+01	2.5457E+01
H	1.1921E+01	1.8811E+01	2.6222E+01
A	2.9294E+00	3.3874E+00	3.7258E+00
S	1.2026E+00	1.2226E+00	1.2556E+00
Z	1.0173E+00	1.0712E+00	1.1249E+00
GAME	8.4976E-01	9.3031E-01	8.3385E-01
U	5.7071E+00	1.9705E+00	1.6946E+00

SPECIES	MOLE FRACTIONS		
E-	2.1149E-12	1.6742E-09	1.6350E-09
HE	3.4452E-01	3.2675E-01	3.1114E-01
HE+	3.8820E-29	2.6447E-22	9.3241E-20
HE++	0.	1.3320E-02	5.6679E-03
H	3.3975E-02	1.3247E-01	2.2203E-01
H+	2.1149E-12	1.6742E-09	1.6350E-09
H2	6.2197E-01	5.9039E-01	4.6595E-01

P1 = 5.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.550?E+01	3.0359E+02	5.9572E+02
T	1.1155E+01	1.4532E+01	1.6339E+01
RHO	6.4966E+00	2.2334E+01	3.0536E+01
H	1.4512E+01	2.4253E+01	3.0635E+01
A	3.1031E+00	3.6942E+00	4.0599E+00
S	1.2349E+00	1.2763E+00	1.3039E+00
Z	1.0421E+00	1.1275E+00	1.1952E+00
GAML	9.2823E-01	9.3265E-01	8.4402E-01
U	6.5635E+00	1.9377E+00	1.7757E+00

SPECIES	MOLE FRACTIONS		
E-	6.2973E-11	1.5442E-08	1.6326E-07
HE	3.3595E-01	3.1342E-01	2.9264E-01
HE+	1.2135E-25	6.9759E-20	9.3387E-18
HE++	0.	4.2279E-02	4.3334E-06
H	5.0027E-02	2.2618E-01	3.2560E-01
H+	6.2973E-11	1.5442E-08	1.2326E-07
H2	5.9119E-01	4.6342E-01	3.9055E-01

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4613E+01	5.2023E+02	8.2333E+02
T	1.2200E+01	1.6144E+01	1.8173E+01
RHO	7.2006E+00	2.6969E+01	3.5464E+01
M	1.8253E+01	3.0371E+01	3.7944E+01
A	3.2849E+00	4.0305E+00	4.4671E+00
S	1.2686E+00	1.3066E+00	1.3495E+00
Z	1.0761E+00	1.1949E+00	1.2770E+00
GAME	9.2122E-01	8.4215E-01	9.5994E-01
U	7.4224E+00	1.9804E+00	1.8911E+00

SPECIES	MOLE FRACTIONS		
E-	6.3139E-10	1.0713E-07	6.9496E-07
HE	3.2524E-01	2.9291E-01	2.7404E 01
HE+	1.8331E-23	6.0687E-18	5.2541E-16
HE++	8.4675E-87	3.8149E-66	2.5905E-59
H	1.4146E-01	3.2623E-01	4.3382E-01
H+	6.3139E-10	1.0713E-07	6.9496E-07
H2	5.3329E-01	3.8016E-01	2.9210E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0424E+02	1.1496E+03	1.9394E+03
T	1.4997E+01	2.1752E+01	2.6732E+01
RHO	9.9906E+00	3.6742E+01	4.8557E+01
M	3.0363E+01	5.2464E+01	6.6068E+01
A	3.9941E+00	5.4223E+00	6.3926E+00
S	1.3796E+00	1.4426E+00	1.4934E+00
Z	1.2195E+00	1.4394E+00	1.5532E+00
GAME	8.2473E-01	9.0522E-01	9.9426E-01
U	9.9591E+00	2.6436E+00	2.5997E+00

SPECIES	MOLE FRACTIONS		
E-	5.2568E-09	3.4280E-06	9.7643E-05
HE	2.9715E-01	2.6432E-01	2.2335E-01
HE+	3.6211E-19	2.1617E-13	6.9648E-11
HE++	4.3396E-71	6.3351E-49	5.7327E-40
H	3.5913E-01	3.6957E-01	7.1203E-01
H+	5.2568E-09	3.4280E-06	9.7643E-05
H2	3.5372E-01	1.4709E-01	6.2452E-02

P1 = 5.00E+03 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1582E+02	7.0541E+02	1.0997E+03
T	1.3170E+01	1.7813E+01	2.0269E+01
RHO	7.8696E+00	3.1154E+01	3.9664E+01
H	2.1942E+01	3.7130E+01	4.6191E+01
A	3.4759E+00	4.4035E+00	4.9489E+00
S	1.3039E+00	1.3513E+00	1.3978E+00
Z	1.1175E+00	1.2711E+00	1.3679E+00
GAME	8.2081E-01	9.5637E-01	9.8337E-01
U	8.2761E+00	2.0896E+00	2.0477F+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.6382E-09	5.4305E-07	3.4026E-06
HE	3.1319E-01	2.7535E-01	2.5587E-01
HE+	8.4630F-22	2.6264E-16	2.2317E-14
HE++	3.2389E-81	5.1974E-60	1.1214E-52
H	2.1034E-01	4.2656E-01	5.3785E-01
H+	3.6382E-09	5.4305E-07	3.4026E-06
H2	4.7647E-01	2.9809E-01	2.0627E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3905E+02	9.1715F+02	1.4267E+03
T	1.4096E+01	1.9634E+01	2.2931F+01
RHO	8.4710E+00	3.4513E+01	4.2571E+01
H	2.5979E+01	4.4496E+01	5.5474E+01
A	3.6779F+00	4.8258E+00	5.5541E+00
S	1.3407E+00	1.3969E+00	1.4492F+00
Z	1.1654E+00	1.3535E+00	1.4634E+00
GAME	9.2482E-01	9.7633E-01	9.2049F-01
U	9.1217E+00	2.2404E+00	2.2658E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5237E-08	2.3211E-06	1.6635F-05
HE	3.0034E-01	2.5958E-01	2.3947E-01
HE+	2.3153E-23	7.9159F-15	9.7595E-13
HE++	1.1697E-74	8.8237E-55	1.4514E-46
H	2.8379E-01	5.2237E-01	6.3327F-01
H+	1.5237E-08	2.3211E-06	1.6635E-05
H2	4.1587E-01	2.1934E-01	1.2753F-01

P1 = 5.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9143E+02	1.3918E+03	2.2525E+03
T	1.5922F+01	2.4429E+01	3.3032E+01
RHO	9.4126E+00	3.7511E+01	4.2230E+01
H	3.5091E+01	6.6905E+01	7.8420E+01
A	4.1280E+00	5.9257E+00	7.5138E+00
S	1.4194E+00	1.4872E+00	1.5480E+00
Z	1.2773E+00	1.5185E+00	1.6148E+00
GAME	8.3790E-01	9.4959E-01	1.0584F+00
U	1.0785E+01	2.7045E+00	3.0897F+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5991E-07	3.9725E-05	7.6149E-04
HE	2.7401E-01	2.3044E-01	2.1675E-01
HE+	4.4051E-19	6.4919E-12	1.0347E-08
HE++	8.9283E-67	1.1427E-43	7.7737E-32
H	4.3425E-01	6.8311E-01	7.5917E-01
H+	1.5981E-07	3.8725E-05	7.6148E-04
H2	2.9174E-01	9.6379E-02	2.2564E-02

P1 = 5.00E+03 N/SQ-M, US1= 1.50F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2045E+02	1.6266E+03	2.7444E+03
T	1.6908F+01	2.8103F+01	4.1395F+01
RHO	9.7297E+00	3.6559E+01	4.6341E+01
H	4.0163F+01	6.5773E+01	9.2262E+01
A	4.3855E+00	6.7150E+00	8.4323E+00
S	1.4586E+00	1.5293E+00	1.5915F+00
Z	1.3430E+00	1.5931E+00	1.6434F+00
GAME	8.4880F-01	1.0135E+00	1.0452E+00
U	1.1599E+01	3.0956F+00	3.6929F+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.5251E-07	1.7972F-04	4.5620F-03
HE	2.6119E-01	2.2109E-01	2.1297E-01
HE+	4.6574E-17	2.0464F-10	8.2294F-07
HE++	7.2951E-63	9.6927E-39	6.6737E-25
H	5.0744E-01	7.3615F-01	7.6935F-01
H+	4.5251E-07	1.7972F-04	4.5612F-03
H2	2.3135E-01	4.2413E-02	8.5616E-03

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.512[illegible]E+02	1.83[illegible]E+03	3.2360E+03
T	1.[illegible]E+01	[illegible]E+01	4.9196E+01
RHO	9.92E1E+00	3.4273E+01	3.9493E+01
H	4.5579E+01	7.[illegible]	1.0646E+02
A	4.6761E+00	7.55[illegible]	9.0242E+00
S	1.499[illegible]E+00	1.50[illegible]	1.6279E+00
Z	1.4056E+00	1.6214E+00	1.6659E+00
GAME	8.6335E-01	1.0334E+00	9.9476E-01
U	1.2402E+01	3.5918E+00	4.1637E+00

SPECIES	MOLE FRACTIONS		
E-	1.2547E-06	3.5893E-04	1.4076E-02
HE	2.4990E-01	2.1596E-01	2.1009E-01
HE+	5.2668E-16	1.1819E-09	1.3062E-05
HE++	5.2378E-59	1.1731E-31	1.3236E-20
H	5.7716E-01	7.6345E-01	7.5721E-01
H+	1.2547E-06	3.5879E-04	1.4063E-02
H2	1.7384E-01	1.8467E-02	4.5492E-03

P1 = 5.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5219E+02	2.3227E+03	4.3559E+03
T	2.327[illegible]E+01	4.9749E+01	6.5940E+01
RHO	9.5166E+00	2.7878E+01	3.7618E+01
H	6.3805E+01	1.0975E+02	1.4911E+02
A	6.0293E+00	9.0249E+00	1.0384E+01
S	1.6183E+00	1.6641E+00	1.7203E+00
Z	1.5839E+00	1.6747E+00	1.7587E+00
GAME	9.8228E-01	9.7756E-01	9.2762E-01
U	1.4655E+01	5.0005E+00	4.9618E+00

SPECIES	MOLE FRACTIONS		
E-	4.4469E-05	1.7839E-02	6.3479E-02
HE	2.2014E-01	2.0897E-01	1.9845E-01
HE+	2.7678E-12	1.9296E-05	5.6011E-04
HE++	2.6817E-45	3.3967E-20	9.7180E-15
H	7.4195E-01	7.5227E-01	6.7293E-01
H+	4.4469E-05	1.7821E-02	6.2918E-02
H2	3.7828E-02	3.0759E-03	1.6604E-03

P1 = 5.00E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8369E+02	2.0259E+03	3.6924E+03
T	1.9297E+01	3.8860E+01	5.5699F+01
RHO	9.9853E+00	3.1766F+01	3.9171F+01
H	5.1336E+01	8.8436F+01	1.2065E+02
A	5.0179E+00	9.2022E+00	9.5146E+00
S	1.5399E+00	1.6021E+00	1.6598F+00
Z	1.4723E+00	1.6411E+00	1.6927F+00
GAME	8.8628E-01	1.0849F+00	9.6036F-01
U	1.3184E+01	4.1419E+00	4.5097F+00

SPECIES	MOLE FRACTIONS		
E-	3.5874F-06	3.2529F-03	2.8217E-02
HE	2.3773F-01	2.1327F-01	2.0670F-01
HE+	6.2462E-15	2.9855E-07	7.3247E-05
HE++	1.3779E-55	1.3309F-26	6.5344F-19
H	6.4154E-01	7.7155E-01	7.3397E-01
H+	3.5874E-06	3.2526F-03	2.9144E-02
H2	1.2072E-01	9.6695E-03	2.9984E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.872[illegible]E+02	2.4033F+03	4.4754E+03
T	2.6562F+01	5.4292F+01	6.9749F+01
RHO	8.5390F+00	2.6087E+01	3.5742E+01
H	7.0487F+01	1.1949F+02	1.6300E+02
A	6.7575F+00	9.3593E+00	1.0729F+01
S	1.6537E+00	1.6944F+00	1.7508E+00
Z	1.6246F+00	1.6972F+00	1.7953F+00
GAME	1.0542E+00	9.[illegible]082F-01	9.1918E-01
U	1.5316E+01	5.2435F+00	5.1024F+00

SPECIES	MOLE FRACTIONS		
E-	2.1311E-04	2.9342F-02	8.2201E-02
HE	2.1344E-01	2.0516F-01	1.9399F-01
HE+	1.2910F-13	6.3739F-05	1.0666F-03
HE++	3.0460F-39	2.9971F-19	9.6229E-14
H	7.6927F-01	7.3192F-01	6.4042F-01
H+	2.1311F-04	2.9978E-02	8.1134E-02
H2	1.58[illegible]E-02	2.1364F-03	1.2859F-03

P1 = 5.00E+03 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1750E+02	2.1921E+03	4.0933E+03
T	2.0951E+01	4.4520E+01	6.1187F+01
RHO	9.3656E+00	2.9727F+01	3.8707F+01
H	5.7412E+01	9.8370F+01	1.3493F+02
A	5.4491E+00	9.6932E+00	9.9586F+00
S	1.5709E+00	1.6332F+00	1.6902F+00
Z	1.5361E+00	1.6364E+00	1.7241F+00
GAME	9.2230F-01	1.0154E+00	9.4010F-01
U	1.3941F+01	4.6273F+00	4.7691F+00

SPECIES	MOLE FRACTIONS		
E-	1.1433E-05	9.[illegible]59E-03	4.5171F-02
HE	2.2775E-01	2.1139F-01	2.0276F-01
HE+	1.0[illegible]E-13	3.2249E-04	2.3917F-04
HE++	1.2[illegible]E-40	4.8[illegible]E-23	4.3349E-16
H	6.[illegible]E-01	7.[illegible]E-01	7.0471F-01
H+	1.1433E-05	9.[illegible]E-03	4.6332F-02
H2	7.41[illegible]E-02	4.[illegible]E-03	2.1823E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2[illegible]E+02	2.4597F+03	4.5143F+03
T	3.1[illegible]E+01	5.9273F+01	7.3145F+01
RHO	8.3[illegible]E+00	2.4499F+01	3.3665F+01
H	7.745[illegible]E+01	1.3058E+02	1.7680F+02
A	7.4[illegible]E+00	9.6302E+00	1.1065F+01
S	1.6[illegible]E+00	1.7247E+00	1.7811F+00
Z	1.643[illegible]E+00	1.7236E+00	1.8332E+00
GAME	1.0[illegible]E+00	9.3297F-01	9.1395E-01
U	1.5921E+01	5.[illegible]95E+00	5.2126F+00

SPECIES	MOLE FRACTIONS		
E-	9.7825E-04	4.4255E-02	1.0397F-01
HE	2.1330[illegible]-01	2.0[illegible]290F-01	1.8914E-01
HE+	5.46[illegible]E-09	1.6436E-04	1.7804E-03
HE++	2.44[illegible]E-33	6.4035E-17	5.9275F-13
H	7.7823E-01	7.0732F-01	6.0752F-01
H+	9.7824E-04	4.4091E-02	9.9187E-02
H2	6.5194E-03	1.5[illegible]95E-03	1.0105F-03

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5986E+02	2.5453E+03	4.5968E+03
T	3.5625E+01	6.1974E+01	7.6395E+01
RHO	7.822JE+00	2.3421E+01	3.2122E+01
H	8.4753E+01	1.4230E+02	1.9117E+02
A	7.8532E+00	1.0006E+01	1.1402E+01
S	1.7134E+00	1.7523E+00	1.8133E+00
Z	1.6503E+00	1.7530E+00	1.8732E+00
GAME	1.0490E+00	9.2120E-01	9.0845E-01
U	1.6537E+01	5.5206E+00	5.3169E+00

SPECIES	MOLE FRACTIONS		
E-	3.3374E-03	6.0268F-02	1.1998E-01
HE	2.1208E-01	1.9924E-01	1.8437E-01
HE+	1.1121E-07	3.5392E-04	2.7730E-03
HE++	1.2666E-29	1.2939F-15	2.8930E-12
H	7.7808E-01	6.7902E-01	5.7516E-01
H+	3.3372E-03	5.9914E-02	1.1721E-01
H2	3.1563E-03	1.2087E-03	8.1006E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8742E+02	3.1130E+03	5.4169E+03
T	4.7512E+01	7.2568E+01	8.6617E+01
RHO	7.3056E+00	2.3035E+01	3.1152E+01
H	1.0388E+02	1.8258E+02	2.4094E+02
A	8.6805E+00	1.1058E+01	1.2504E+01
S	1.7852E+00	1.8295E+00	1.8919E+00
Z	1.6923E+00	1.8623E+00	2.0075E+00
GAME	9.3711E-01	9.0475E-01	8.9923E-01
U	1.8599E+01	5.8960E+00	5.6937E+00

SPECIES	MOLE FRACTIONS		
E-	2.5935E-02	1.1467E-01	1.7854E-01
HE	2.0680E-01	1.9596E-01	1.6592E-01
HE+	1.7839E-05	1.9764E-03	8.4253E-03
HE++	1.0974E-20	6.5537E-13	1.7717E-10
H	7.4042E-01	5.8404E-01	4.7654E-01
H+	4.5917E-02	1.1269E-01	1.7011E-01
H2	9.1260E-04	6.5874E-04	4.6243E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5957E+02	2.6834E+03	4.7775E+03
T	4.0311E+01	6.5561E+01	7.9713E+01
RHO	7.5187E+00	2.2909E+01	3.1286E+01
H	9.2413E+01	1.5494E+02	2.0662E+02
A	8.1629E+00	1.0344E+01	1.1755E+01
S	1.7399E+00	1.7791E+00	1.8383E+00
Z	1.6604E+00	1.7469E+00	1.9158E+00
GAME	1.0029E+00	9.1346E-01	9.0485E-01
U	1.7187E+01	5.0399E+00	5.4359E+00

SPECIES	MOLE FRACTIONS		
E-	9.2[illegible]E-03	7.7591E-02	1.3940E-01
HE	2.1076E-01	1.9517E-01	1.7854E-01
HE+	1.0774E-04	6.7997E-04	4.1517E-03
HE++	5.7[illegible]E-25	1.3422E-14	1.2546E-11
H	7.7[illegible]E-01	6.4994E-[illegible]	5.4210E-01
H+	8.2[illegible]E-03	7.[illegible]91E-02	1.3525E-01
H2	1.9[illegible]E-03	9.0417E-04	6.6207E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3535E+02	3.3900E+03	5.8459E+03
T	5.0717E+01	7.6043E+01	9.0174E+01
RHO	7.3109E+00	2.3417E+01	3.1531E+01
H	1.1770E+02	1.9770E+02	2.5976E+02
A	8.9374E+00	1.1428E+01	1.2895E+01
S	1.8071E+00	1.8540E+00	1.9182E+00
Z	1.7135E+00	1.9037E+00	2.0560E+00
GAME	9.1914E-01	9.0210E-01	8.9483E-01
U	1.9345E+01	5.7343E+00	5.9323E+00

SPECIES	MOLE FRACTIONS		
E-	3.7782E-02	1.3383E-01	1.9788E-01
HE	2.0421E-01	1.8076E-01	1.5878E-01
HE+	4.6615E-05	3.0899E-03	1.1448E-02
HE++	3.5189E-19	3.4111E-12	5.8049E-10
H	7.1951E-01	5.5102E-01	4.4507E-01
H+	3.7736E-02	1.3074E-01	1.8643E-01
H2	7.1193E-04	5.5573E-04	3.9180E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4213E+02	2.8747E+03	5.0553E+03
T	4.3956E+01	6.9075E+01	8.3114E+01
RHO	7.3627E+00	2.2974E+01	3.1022E+01
H	1.0044E+02	1.6827E+02	2.2314E+02
A	8.4253E+00	1.0696E+01	1.2123E+01
S	1.7629E+00	1.8947E+00	1.9854E+00
Z	1.6744E+00	1.8233E+00	1.9635E+00
GAME	9.6411E-01	9.0829E-01	9.0187E-01
U	1.7876E+01	5.7645E+00	5.5559E+00

SPECIES	MOLE FRACTIONS		
E-	1.5906E-02	9.5959E-02	1.5895E-01
HE	2.0[illegible]E-01	1.9376E-01	1.7252E-01
HE+	5.2[illegible]E-06	1.1973E-03	5.2056E-03
HE++	1.32[illegible]E-24	1.0534E-13	4.3250E-11
H	7.5774E-[illegible]	6.1674E-01	5.3934E-01
H+	1.5[illegible]E-02	9.4650E-02	1.5294E-01
H2	1.2397E-03	7.4953E-04	5.5023E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8573E+02	3.6998E+03	6.3313E+03
T	5.3666E+01	7.9443E+01	9.3766E+01
RHO	7.3546E+00	2.3929E+01	3.2063E+01
H	1.2687E+02	2.1358E+02	2.7957E+02
A	9.1974E+00	1.1796E+01	1.3292E+01
S	1.8280E+00	1.8778E+00	1.9442E+00
Z	1.7373E+00	1.9462E+00	2.1059E+00
GAME	9.6722E-01	8.9997E-01	8.9474E-01
U	2.0137E+01	6.1900E+00	5.9747E+00

SPECIES	MOLE FRACTIONS		
E-	5.3961E-02	1.5267E-01	2.1680E-01
HE	2.0153E-01	1.7526E-01	1.5113E-01
HE+	1.0107E-04	4.5780E-03	1.5078E-02
HE++	5.9375E-19	1.4400E-11	1.7371E-09
H	6.5617E-01	5.1393E-01	4.1495E-01
H+	5.3859E-02	1.4800E-01	2.0172E-01
H2	5.7648E-04	4.7446E-04	3.3408E-04

Table I. - Continued

p_1 = 5 kN/ m^2

P1 = 5.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3843E+02	4.0391E+03	6.8642E+03
T	5.6404E+01	9.2944E+01	9.7391E+01
RHO	7.4218E+00	2.4492E+01	3.2685E+01
H	1.3642E+02	2.3020E+02	3.0030E+02
A	9.4598E+00	1.2169E+01	1.3695E+01
S	1.8497E+00	1.9017E+00	1.9702E+00
Z	1.7640E+00	1.9906E+00	2.1566E+00
GAME	8.9940E-01	8.9801E-01	8.9309E-01
U	2.0882E+01	6.3285E+00	6.1292E+00

SPECIES	MOLE FRACTIONS		
E-	6.5087E-02	1.7152E-01	2.3519E-01
HE	1.9922E-01	1.6929E-01	1.4301E-01
HE+	1.9523E-04	6.5325E-03	1.9281E-02
HE++	6.3000E-17	5.6739E-11	4.7760E-09
H	6.7113E-01	4.8726E-01	3.8633E-01
H+	6.4992E-02	1.6499E-01	2.1591E-01
H2	4.7855E-04	4.0643E-04	2.8596E-04

P1 = 5.00E+03 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7099E+02	5.6476E+03	9.3944E+03
T	6.6152E+01	9.6236E+01	1.1220E+02
RHO	7.7760E+00	2.6937E+01	3.5380E+01
H	1.7816E+02	3.0357E+02	3.9199E+02
A	1.0523E+01	1.3672E+01	1.5411E+01
S	1.9333E+00	1.9576E+00	2.0742E+00
Z	1.8870E+00	2.1785E+00	2.3666E+00
GAME	8.8685E-01	8.9156E-01	8.9445E-01
U	2.4034E+01	6.9347E+00	6.7664E+00

SPECIES	MOLE FRACTIONS		
E-	1.2615E-01	2.4283E-01	3.0295E-01
HE	1.8415E-01	1.4123E-01	1.0774E-01
HE+	1.2706E-03	1.9425E-02	4.0152E-02
HE++	5.8490E-14	4.2518E-09	1.3949E-07
H	5.6329E-01	3.7288E-01	2.8620E-01
H+	1.2499E-01	2.2341E-01	2.6280E-01
H2	2.5559E-04	2.2561E-04	1.5463E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.9337E+02	4.4252E+03	7.4426E+03
T	5.8995E+01	9.6255E+01	1.0135E+02
RHO	7.5027E+00	2.5073E+01	3.3350E+01
H	1.4632E+02	2.4753E+02	3.2202E+02
A	9.723PE+00	1.2549F+01	1.4109E+01
S	1.8707E+00	1.9260E+00	1.9963F+00
Z	1.7924E+00	2.0269E+00	2.0996E+00
GAME	8.9416E-01	8.9611E-01	8.9205E-01
U	2.1664E+01	6.4787E+00	6.2912E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.9879E-02	1.9930E-01	2.5315E-01
ME	1.9492E-01	1.6281E-01	1.3445F-01
ME+	3.4157E-04	9.0170E-03	2.4028E-02
ME++	4.8145E-16	1.955CE-10	1.2749E-08
H	6.4493E-01	4.5624E-01	3.5901E-01
H+	7.9529E-02	1.8129E-01	2.2912E-01
H2	4.0347E-04	3.4855E-04	2.4499E-04

P1 = 5.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5048E+02	4.7963E+03	8.055CF+03
T	6.1467E+01	8.96C2E+01	1.0469F+02
RHO	7.5912E+00	2.5652F+01	3.4042E+01
H	1.5659E+02	2.6554E+02	3.4443F+02
A	9.9893E+00	1.2921E+01	1.4528F+01
S	1.9914F+00	1.9499E+00	2.0221F+00
Z	1.8227E+00	2.0835E+00	2.2034F+00
GAME	8.9367E-01	8.9435E-01	8.9194E-01
U	2.2451E+01	6.6300E+00	6.4335E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	9.5366E-02	2.0935E-01	2.7024F-01
ME	1.9147E-01	1.5600E-01	1.2573F-01
ME+	5.5730E-04	1.1989E-02	2.9116E-02
ME++	2.9516E-15	5.9562F-10	2.9303F-08
H	6.1902E-01	4.2720F-01	3.3356E-01
H+	9.4529E-02	1.9639F-01	2.4113E-01
H2	3.4411E-04	3.0096F-04	2.1067F-04

P1 = 5.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0390E+03	6.5922F+03	1.0979F+04
T	7.0600F+01	1.0282F+02	1.2669E+02
RHO	7.9575E+00	2.9114E+01	3.6573E+01
H	2.0311E+02	3.4418F+02	4.4318F+02
A	1.1003E+01	1.4460E+01	1.6374E+01
S	1.9745E+00	2.0459F+00	2.1205E+00
Z	1.9575E+00	2.2793F+00	2.4751F+00
GAME	8.8652E-01	8.9064E-01	9.0234E-01
U	2.5625E+01	7.2472F+00	7.1256F+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.0578E-01	2.7520F-01	3.3349E-01
ME	1.7649E-01	1.2542E-01	9.9945E-02
ME+	2.5302E-03	2.8872E-02	5.1462E-02
ME++	7.1135E-13	2.2197E-08	5.7335E-07
H	5.0956E-01	3.2472E-01	2.4289E-01
H+	1.5677E-01	2.4663E-01	2.9201E-01
H2	1.9220E-04	1.6594E-04	1.1178E-04

P1 = 5.00E+03 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2360E+03	7.5913F+03	1.2484E+04
T	7.4887E+01	1.0952E+02	1.2975F+02
RHO	9.1285E+00	3.2920E+01	3.7475E+01
H	2.0255E+02	3.4730F+02	4.4958F+02
A	1.1159E+01	1.5234E+01	1.7466F+01
S	2.0618E+00	2.1327E+00	2.1779E+00
Z	2.0311E+00	2.3739E+00	2.5887E+00
GAME	8.8446E-01	8.9273F-01	9.1569F-01
U	2.7211E+01	7.5751E+00	7.5411E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.3779E-01	3.0304E-01	3.6736E-01
ME	1.6796E-01	1.0973E-01	7.2925E-02
ME+	4.4656E-03	3.6683E-02	5.2359E-02
ME++	6.4027E-12	5.3739E-08	2.1421E-06
H	4.5041E-01	2.8103E-01	2.0321E-01
H+	1.9[illegible]E-01	2.[illegible]5E-01	3.0205E-01
H2	1.40[illegible]E-04	1.2714F-04	7.6731E-05

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3812E+03	8.6734E+03	1.4229E+04
T	7.9099E+01	1.1641E+02	1.3939E+02
RHO	8.2845E-03	3.0122E-01	3.9085E-01
H	2.5133E+02	4.3291E+02	5.5693E+02
A	1.2138E+01	1.6086E+01	1.8698E+01
S	2.0587E+00	2.1419E+00	2.2325E+00
Z	2.1077E+00	2.4734E+00	2.6997E+00
GAME	8.8372E-01	9.9866E-01	9.3579E-01
U	2.8798E+01	7.9131E+00	7.9973E+00

SPECIES	MOLE FRACTIONS		
E-	2.1727E-01	3.3300E-01	3.9997E-01
HE	1.5873E-01	9.2333E-02	5.7838E-02
HE+	7.3284E-03	4.9172E-02	7.1799E-02
HE++	3.9300E-11	3.6416E-07	7.5443E-06
H	4.0662E-01	2.4159E-01	1.6438E-01
H+	2.0994E-01	2.8382E-01	3.1706E-01
H2	1.1010E-04	9.3952E-05	5.6139E-05

P1 = 5.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9624E+03	1.2206E+04	2.0458E+04
T	9.1461E+01	1.4023E+02	1.9674E+02
RHO	8.6751E-03	3.1359E-01	3.7465E-01
H	3.3705E+02	5.8330E+02	7.6425E+02
A	1.3754E+01	1.9106E+01	2.3671E+01
S	2.1859E+00	2.2849E+00	2.3936E+00
Z	2.3479E+00	2.7750E+00	3.0212E+00
GAME	8.8161E-01	9.4464E-01	1.0761E+00
U	3.3551E+01	9.2585E+00	1.0156E+01

SPECIES	MOLE FRACTIONS		
E-	2.9[illegible]E-01	4.0[illegible]E-01	4.5[illegible]E-01
HE	1.2[illegible]E-01	4.6[illegible]E-02	2.8[illegible]E-02
HE+	2.7[illegible]E-02	7.0[illegible]E-02	8.0[illegible]E-02
HE++	3.4[illegible]E-05	1.1335E-05	3.4577E-04
H	2.7[illegible]E-01	1.4013E-01	6.6871E-02
H+	2.7[illegible]E-01	3.2[illegible]E-01	3.6340E-01
H2	4.7[illegible]E-05	3.6474E-05	7.4409E-04

P1 = 5.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5339E+03	9.8639E+03	1.6134E+04
T	8.3246E+01	1.2372E+02	1.4981E+02
RHO	8.4281E+00	3.0777E+01	3.8285E+01
H	2.7851E+02	4.8077E+02	6.2058E+02
A	1.2676E+01	1.7619E+01	2.0145E+01
S	2.1039E+00	2.1906E+00	2.2858E+00
Z	2.1864E+00	2.5747E+00	2.8131E+00
GAME	8.8289E-01	9.3913E-01	9.6294E-01
U	3.6385E+01	9.3166E+00	8.5755E+00

SPECIES	MOLE FRACTIONS		
E-	2.4542E-01	3.5924E-01	4.1349E-01
HE	1.4879E-01	7.6563E-02	4.4731E-02
HE+	1.1254E-02	5.9373E-02	7.9659E-02
HE++	2.0605E-10	1.7217E-06	2.6980E-05
H	3.6329E-01	2.0493E-01	1.2929E-01
H+	2.3413E-01	2.9984E-01	3.3378E-01
H2	9.3292E-05	6.7132E-05	2.9942E-05

P1 = 5.00E+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6363E+03	1.0092E+04	1.7206E+04
T	8.7357E+01	1.3153E+02	1.6366E+02
RHO	8.5581E+00	3.1251E+01	3.8066E+01
H	3.0704E+02	5.3103E+02	6.8991E+02
A	1.3215E+01	1.8331E+01	2.1818E+01
S	2.1433E+00	2.2379E+00	2.3387E+00
Z	2.2565E+00	2.6741E+00	2.9224E+00
GAME	8.8266E-01	9.2432E-01	9.4529E-01
U	3.1965E+01	9.7474E+00	9.2707E+00

SPECIES	MOLE FRACTIONS		
E-	2.7212E-01	3.9332E-01	4.3541E-01
HE	1.3796E-01	6.2395E-02	3.4052E-02
HE+	1.6644E-02	6.3687E-02	8.5614E-02
HE++	9.3916E-10	3.7727E-06	5.5933E-05
H	3.1774E-01	1.7154E-01	9.5218E-02
H+	2.5307E-01	3.1452E-01	3.4959E-01
H2	6.2951E-05	4.4574E-05	1.5956E-05

P1 = 5.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0391E+03	1.3434E+04	2.2878E+04
T	9.5595E+01	1.5037E+02	2.0105E+02
RHO	8.7781E+00	3.1213E+01	3.6674E+01
H	3.6841E+02	6.3757E+02	8.4451E+02
A	1.4314E+01	2.0429E+01	2.5457E+01
S	2.2286E+00	2.3312E+00	2.4406E+00
Z	2.4299E+00	2.8683E+00	3.1028E+00
GAME	8.8209E-01	9.6957E-01	1.0389E+00
U	3.5133E+01	9.8782E+00	1.1048E+01

SPECIES	MOLE FRACTIONS		
E-	3.2039E-01	4.2476E-01	4.6822E-01
HE	1.1386E-01	5.9278E-02	1.9625E-02
HE+	3.3241E-02	9.2713E-02	9.1736E-02
HE++	1.1790E-08	3.3735E-05	1.4419E-03
H	2.4418E-01	1.1122E-01	4.5365E-02
H+	2.9375E-01	3.4198E-01	3.7361E-01
H2	3.5511E-05	1.8619E-05	3.2392E-06

P1 = 5.00E+03 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2232E+03	1.4663E+04	2.5419E+04
T	9.9581E+01	1.6139E+02	2.2315E+02
RHO	8.9659E+00	3.2729E+01	3.5959E+01
H	4.0117E+02	6.9374E+02	9.2837E+02
A	1.4899E+01	2.1914E+01	2.6857E+01
S	2.2715E+00	2.3700E+00	2.4477E+00
Z	2.5124E+00	2.9583E+00	3.1677E+00
GAME	8.8403E-01	9.8727E-01	1.0204E+00
U	3.6773E+01	1.0358E+01	1.1907E+01

SPECIES	MOLE FRACTIONS		
E-	3.4[illegible]E-01	4.4197E-01	4.7912E-01
HE	1.0[illegible]E-01	5.0718E-02	1.5147E-02
HE+	3.8[illegible]E-02	9.7537E-02	9.0735E-02
HE++	3.6[illegible]E-08	1.0172E-04	4.6576E-03
H	2.1[illegible]E-01	9.5464E-02	3.1169E-02
H+	3.[illegible]E-01	3.5461E-01	3.7822E-01
H2	2.6[illegible]E-05	1.0539E-05	1.4[illegible]E-06

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 5.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.414[illegible]E+03	1.5960E+04	2.7994E+04
T	1.[illegible]E+02	1.7434E+02	2.[illegible]E+02
RHO	9.[illegible]E+00	2.9[illegible]E+01	3.[illegible]E+01
H	4.[illegible]E+04	7.[illegible]E+02	1.0152E+03
A	1.[illegible]E+01	2.3267E+01	2.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	2.[illegible]E+00	3.[illegible]E+00	3.[illegible]E+00
GAME	9.[illegible]E-01	1.[illegible]E+00	9.[illegible]E-01
U	3.[illegible]E+01	4.[illegible]E+01	1.2853E+01

SPECIES	MOLE FRACTIONS		
E-	3.[illegible]E-01	4.[illegible]E-01	4.9902E-01
HE	8.[illegible]E-02	2.[illegible]E-02	1.1859E-02
HE+	4.[illegible]E-02	9.[illegible]E-02	9.5999E-02
HE++	1.[illegible]E-07	2.[illegible]E-04	1.0753E-02
H	1.[illegible]E-01	6.[illegible]E-02	2.2945E-02
H+	3.[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
H2	1.[illegible]E-05	5.[illegible]E-06	7.5975E-07

P1 = 5.00E+03 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0300E+03	1.9202E+04	3.5449E+04
T	1.189[illegible]E+02	2.2095E+02	2.9916E+02
RHO	8.9660E+00	2.7174E+01	3.5085E+01
H	5.45[illegible]E+02	9.3401E+02	1.2906E+03
A	1.7605E+01	2.6775E+01	3.1290E+01
S	2.4423E+00	2.5377E+00	2.6476E+00
Z	2.8418E+00	3.1981E+00	3.3774E+00
GAME	9.1713E-01	1.0146E+00	9.6902E-01
U	4.288[illegible]E+01	1.4146E+01	1.4729E+01

SPECIES	MOLE FRACTIONS		
E-	4.1946E-01	4.9407E-01	5.1146E-01
HE	4.9509E-02	1.2119E-02	5.3606E-03
HE+	7.3649E-02	9.1945E-02	5.7903E-02
HE++	1.9126E-06	5.3752E-03	4.0366E-02
H	1.1169E-01	2.5107E-02	1.2093E-02
H+	3.4574E-01	3.8138E-01	3.7283E-01
H2	6.69[illegible]E-06	7.2369E-07	2.0692E-07

P1 = 5.00E+03 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6131E+03	1.7313E+04	3.3514E+04
T	1.6871E+02	1.8997E+02	2.6324E+02
RHO	9.9756E+00	2.9644E+01	3.5439E+01
H	4.7075E+02	9.1063E+02	1.1014E+03
A	1.6136E+01	2.4676E+01	2.8924E+01
S	2.3573E+00	2.4604E+00	2.5709E+00
Z	2.6791E+00	3.1032E+00	3.2742E+00
GAME	8.5434E-01	1.0353E+00	9.7367E-01
U	3.6929E+01	1.2301E+01	1.3513E+01

SPECIES	MOLE FRACTIONS		
E-	3.8388E-01	4.6778E-01	4.9605E-01
HE	7.4361E-02	1.9924E-02	9.3310E-03
HE+	5.6394E-02	9.3135E-02	7.8494E-02
HE++	2.9165E-07	9.6655E-04	1.9373E-02
H	1.5763E-01	4.6382E-02	1.7933E-02
H+	3.2749E-01	3.7294E-01	3.7911E-01
H2	1.4053E-05	2.7716E-06	4.6127E-07

P1 = 5.03E+03 N/SQ-M, US1= 5.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2+7.E+03	2.0279E+04	3.7757E+04
T	1.2489E+02	2.3652E+02	3.1783E+02
RHO	8.9313E+00	2.6465E+01	3.4658E+01
H	5.8533E+02	9.9303E+02	1.3738E+03
A	1.8469E+01	2.7519E+01	3.2712E+01
S	2.4461E+00	2.5744E+00	2.6954E+00
Z	2.9210E+00	3.2395E+00	3.4277E+00
GAME	9.3491E-01	9.8832E-01	9.8725E-01
U	4.4377E+01	1.4915E+01	1.5322E+01

SPECIES	MOLE FRACTIONS		
E-	4.3513E-01	4.9065E-01	5.1863E-01
HE	3.8626E-02	9.8993E-03	3.7992E-03
HE+	9.1177E-02	9.7697E-02	4.7236E-02
HE++	4.9946E-06	1.0537E-02	5.1075E-02
H	9.1121E-02	1.9+18E-02	1.0024E-02
H+	3.5392E-01	3.9199E-01	3.4924E-01
H2	4.3116E-06	4.1510E-07	1.4105E-07

P1 = 5.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9182E+03	1.9116E+04	3.9033E+04
T	1.1366E+02	2.3479E+02	2.8136E+02
RHO	9.5959E+00	2.9356E+01	3.5313E+01
H	5.0767E+02	8.7131E+02	1.1897E+03
A	1.6993E+01	2.5961E+01	3.0374E+01
S	2.4006E+00	2.4993E+00	2.6691E+00
Z	2.7697E+00	3.1535E+00	3.3252E+00
GAME	9.3391E-01	1.0353E+00	9.6456E-01
U	4.1367E+01	1.2735E+01	1.4136E+01

SPECIES	MOLE FRACTIONS		
E-	4.0224E-01	4.7675E-01	5.0379E-01
HE	6.1473E-02	1.5541E-02	7.2211E-03
HE+	6.5237E-02	9.2627E-02	6.8598E-02
HE++	7.4134E-07	2.9111E-03	4.2437E-02
H	1.4394E-01	3.3737E-02	1.4633E-02
H+	3.3714E-01	3.7591E-01	3.7632E-01
H2	9.8736E-06	1.4433E-06	3.0326E-07

P1 = 5.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4693E+03	2.1303E+04	3.9955E+04
T	1.3176E+02	2.5111E+02	3.3794E+02
RHO	8.7471E+00	2.5855E+01	3.3991E+01
H	6.7613E+02	1.0661E+03	1.4704E+03
A	1.5446E+01	2.8259E+01	3.4317E+01
S	2.5256E+00	2.6133E+00	2.7226E+00
Z	2.9967E+00	3.2807E+00	3.4744E+00
GAME	9.5757E-01	9.6929E-01	1.0030E+00
U	4.5824E+01	1.5570E+01	1.5992E+01

SPECIES	MOLE FRACTIONS		
E-	4.4992E-01	4.9735E-01	5.2510E-01
HE	6.9419E-02	7.9178E-03	2.5377E-03
HE+	8.7643E-02	9.1153E-02	3.7236E-02
HE++	1.3457E-05	1.7617E-02	6.0964E-02
H	7.2721E-02	1.5596E-02	8.2677E-03
H+	3.6115E-01	3.8367E-01	3.6550E-01
H2	2.5970E-06	2.6520E-07	9.4349E-08

Table I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, JS1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.695JE+05	2.2249E+04	4.1928E+04
T	1.3979E+02	2.6511E+02	3.6306E+02
RHO	8.6235E+00	2.5251E+01	3.2990E+01
M	6.6814E+02	1.1351E+03	1.5704E+03
A	2.0552E+01	2.5391E+01	3.6137E+01
S	2.5651F+00	2.6465F+00	2.7601E+00
Z	3.0650F+00	3.3236E+00	3.5162E+00
GAME	9.8597E-01	9.5983E-01	1.0303E+00
U	4.7245E+01	1.6119E+01	1.6724E+01

SPECIES	MOLE FRACTIONS		
E-	4.6166E-01	5.0354F-01	5.3074E-01
HE	2.1383E-02	5.28..3E-03	1.5713F-03
HE+	9.2772E-02	7.2929E-02	2.9219E-02
HE++	3.7741F-05	2.6158E-02	6.9751E-02
H	5.5333E-02	1.2829E-02	4.7038E-03
H+	3.6881E-01	3.7832E-01	3.6302F-01
H2	1.6470E-36	1.7350E-07	6.0471E-39

P1 = 5.00E+03 N/SQ-M, JS1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3925E+03	2.4399E+04	4.6391E+04
T	1.7273E+02	3.0535E+02	4.5039E+02
RHO	1.9205E+00	2.3169E+01	2.9629E+01
M	9.0146E+02	1.3699E+03	1.8968E+03
A	2.4153E+01	3.2064E+01	4.2378E+01
S	2.6747E+00	2.7569E+00	2.8722E+00
Z	3.2102E+00	3.4489E+00	3.5975E+00
GAME	1.0515E+00	9.7622E-01	1.1083E+00
U	5.1204E+01	1.7495E+01	1.9563E+01

SPECIES	MOLE FRACTIONS		
E-	4.8862E-01	5.2159E-01	5.4140E-01
HE	8.1335E-03	2.7283E-03	2.4697E-04
HE+	9.9919E-02	4.5141E-02	1.0774E-02
HE++	9.7417E-04	5.3611E-02	8.6258E-02
H	2.0954F-02	7.7023E-03	3.2134E-03
H+	3.8415E-01	3.6923F-01	3.5911E-01
H2	1.6659E-37	5.6447E-39	1.2194E-39

P1 = 5.03E+03 N/SQ-M, US1= 6.43E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9237E+03	2.3056E+04	4.3472E+04
T	1.4945E+02	2.7309E+02	3.8679E+02
RHO	8.4334E+00	2.4638E+01	3.1647E+01
H	7.1436E+02	1.2055E+03	1.6753E+03
A	2.1787E+01	2.9954E+01	3.8161E+01
S	2.6041E+00	2.6308E+00	2.7983E+00
Z	3.1253E+00	3.3651E+00	3.5514E+00
GAME	1.3167E+00	9.5982E-01	1.0601E+00
U	4.9597E+01	1.6583E+01	1.7579E+01

SPECIES	MOLE FRACTIONS		
E-	4.7205E-01	5.0968E-01	5.3540E-01
HE	1.5319E-02	4.9343E-03	9.9301E-04
HE+	9.6306E-02	6.3975E-02	2.0652E-02
HE++	1.1262E-04	3.5095E-02	7.7076E-02
H	4.0617E-02	1.6910E-02	5.3126E-03
H+	3.7526E-01	3.7551E-01	3.6674E-01
H2	7.3409E-07	1.1799E-07	3.6362E-08

P1 = 5.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6340E+03	2.4955E+04	4.7751E+04
T	1.8624E+02	3.1992E+02	4.8631E+02
RHO	7.6790E+00	2.2372E+01	2.7191E+01
H	8.4839E+02	1.4237E+03	2.0138E+03
A	2.5009E+01	3.3293E+01	4.4372E+01
S	2.7089E+00	2.7944E+00	2.9065E+00
Z	3.2407E+00	3.4969E+00	3.6111E+00
GAME	1.0363E+00	9.9310E-01	1.1211E+00
U	5.2477E+01	1.8011E+01	2.0649E+01

SPECIES	MOLE FRACTIONS		
E-	4.9094E-01	5.2678E-01	5.4307E-01
HE	6.1275E-03	1.9225E-03	1.2951E-04
HE+	9.9229E-02	3.6476E-02	8.0154E-03
HE++	2.6408E-03	6.1991E-02	8.9779E-02
H	1.4872E-02	6.4983E-03	2.5090E-03
H+	3.8632E-01	3.6634E-01	3.5750E-01
H2	7.9008E-09	3.8874E-08	7.0969E-09

P1 = 5.00E+03 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1004E+03	2.3795E+04	4.5356E+04
T	1.6033E+02	2.9179E+02	4.1722E+02
RHO	9.1739E+00	2.3924E+01	3.0175E+01
H	7.9594E+02	1.2774E+03	1.7851E+03
A	2.3221E+01	3.0976E+01	4.0335E+01
S	2.6395E+00	2.7208E+00	2.8263E+00
Z	3.1727E+00	3.4097E+00	3.5787E+00
GAME	1.0421E+00	9.6472E-01	1.0994E+00
U	4.9923E+01	1.7042E+01	1.8559E+01

SPECIES	MOLE FRACTIONS		
E-	4.7941E-01	5.1534E-01	5.3894E-01
HE	2.1339E-02	7.7119E-03	4.7393E-04
HE+	1.8896E-02	5.4284E-02	1.4927E-02
HE++	3.3219E-04	4.5943E-02	9.2497E-02
H	2.9336E-02	9.0883E-03	4.1389E-03
H+	3.8319E-01	3.7629E-01	3.5912E-01
H2	3.5726E-07	8.1329E-08	2.1213E-08

Table I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8746E+01	7.2699E+01
T	3.5541E+00	4.4743E+00	6.5308E+00
RHO	3.9293E+00	6.4257E+00	1.1130E+01
H	3.6325E+00	4.6130E+00	6.9058E+00
A	1.8736E+00	2.0903E+00	2.4946E+00
S	1.0753E+00	1.0772E+00	1.0974E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.8771E-01	9.7663E-01	9.5279E-01
U	2.5703E+00	1.5703E+00	1.4036E+00

SPECIES	MOLE FRACTIONS		
E-	5.6984E-53	1.3458E-34	5.3596E-20
HE	3.5000E-01	3.5000E-01	3.4997E-01
HE+	1.7367E-62	1.6982E-52	2.6193E-43
HE++	0.	0.	0.
H	4.4302E-09	4.4974E-07	1.8453E-04
H+	8.1343E-20	8.1343E-20	1.3493E-19
H2	6.5000E-01	6.5000E-01	6.4985E-01

P1 = 1.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4012E+01	1.5360E+02	2.6697E+02
T	8.4505E+00	1.1341E+01	1.3399E+01
RHO	5.1937E+00	1.3225E+01	2.0186E+01
H	9.3006E+00	1.4056E+01	1.8820E+01
A	2.7726E+00	3.1454E+00	3.4562E+00
S	1.1782E+00	1.1902E+00	1.2194E+00
Z	1.0029E+00	1.0241E+00	1.0610E+00
GAME	9.0714E-01	8.5190E-01	8.4029E-01
U	4.8719E+00	1.9123E+00	1.6895E+00

SPECIES	MOLE FRACTIONS		
E-	5.5879E-15	3.6261E-11	1.7348E-09
HE	3.4902E-01	3.4178E-01	3.2987E-01
HE+	7.7174E-36	2.6424E-25	1.3862E-21
HE++	0.	0.	2.1287E-79
H	5.6172E-03	4.6994E-02	1.1500E-01
H+	5.5879E-15	3.6261E-11	1.7348E-09
H2	6.4537E-01	6.1124E-01	5.5512E-01

P1 = 1.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2025E+01	5.6114E+01	1.2747E+02
T	4.9979E+00	6.6793E+00	9.2149E+00
RHO	4.4153E+00	8.3999E+00	1.3799E+01
H	5.1726E+00	7.0796E+00	1.0285E+01
A	2.2002E+00	2.5196E+00	2.8860E+00
S	1.1114E+00	1.1159E+00	1.1391E+00
Z	1.0000E+00	1.0001E+00	1.0041E+00
GAME	9.7049E-01	9.5032E-01	9.0023E-01
U	3.3340E+00	1.7515E+00	1.5703E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.5533E-31	2.3244E-19	6.1397E-14
HE	3.5000E-01	3.4995E-01	3.4858E-01
HE+	1.7124F-50	2.2695E-42	3.8919E-31
HE++	0.	0.	0.
H	4.7008E-06	2.8513E-04	9.1091E-03
H+	8.1343E-20	3.1377E-19	6.1397E-14
H2	6.5000E-01	6.4976E-01	6.4331E-01

P1 = 1.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8434E+01	2.3750E+02	4.1240E+02
T	1.0074E+01	1.3251E+01	1.5214E+01
RHO	5.7171E+00	1.1475E+01	2.4334E+01
H	1.1914E+01	1.4701E+01	2.4790E+01
A	2.4647E+00	3.4247E+00	3.7775E+00
S	1.2096E+00	1.2298E+00	1.2621E+00
Z	1.0141E+00	1.0621E+00	1.1143E+00
GAME	9.6035E-01	9.3535E-01	9.4194E-01
U	5.6896E+00	1.8256E+00	1.7481E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.0360E-12	1.5275E-09	2.5217E-09
HE	3.4515E-01	3.4955E-01	3.1470E-01
HE+	1.8735E-28	3.4734E-22	4.3845E-13
HE++	0.	1.6279E-20	1.1744E-10
H	2.7740E-04	1.1497E-01	2.0464E-01
H+	2.3035E-12	1.5275E-09	2.5217E-09
H2	6.2711E-01	5.5438E-01	4.8121E-01

P1 = 1.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1987E+01	9.5612E+01	1.9714E+02
T	6.6599E+00	9.1253E+00	1.1493E+01
RHO	4.8019E+00	1.0433E+01	1.6755E+01
H	7.0583E+00	1.0189E+01	1.4219E+01
A	2.5147E+00	2.8493E+00	3.1701E+00
S	1.1457E+00	1.1533E+00	1.1787E+00
Z	1.0002E+00	1.0043E+00	1.0237E+00
GAME	9.4931E-01	8.9819E-01	8.5419E-01
U	4.0949E+00	1.8336E+00	1.6447E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.1516E-19	5.5331E-14	4.3437E-11
HE	3.4994E-01	3.4981E-01	3.4161E-01
HE+	1.3140E-42	2.1712E-31	4.8508E-25
HE++	0.	0.	0.
H	3.6329E-04	8.4956E-03	4.6247E-02
H+	3.9629E-19	5.5531E-14	4.3437E-11
H2	6.4970E-01	6.4279E-01	6.1135E-01

P1 = 1.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5139E+01	3.5236E+02	5.9375E+02
T	1.1424E+01	1.5032E+01	1.7086E+01
RHO	6.3504E+00	1.3334E+01	2.0937E+01
H	1.4630E+01	2.4051E+01	3.0701E+01
A	3.1478E+00	3.7315E+00	4.1459E+00
S	1.2422E+00	1.2594E+00	1.3071E+00
Z	1.0368E+00	1.1144E+00	1.1907E+00
GAME	9.3689E-01	9.4003E-01	8.5204E-01
U	6.5350E+00	1.9714E+00	1.8370E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.3643E-11	2.0152E-08	1.8164E-07
HE	3.4776E-01	3.4940E-01	2.9643E-01
HE+	3.3447E-25	2.7502E-19	4.7558E-17
HE++	5.4654E-01	4.8392E-71	1.1419E-62
H	7.0619E-02	2.0537E-01	3.0611E-01
H+	7.3E+0E-11	2.0162E-08	1.9164E-07
H2	5.9[illegible]E-01	4.8057E-01	3.4746E-01

Table I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4197E+01	4.9842E+02	8.0281E+02
T	1.2589E+01	1.6792E+01	1.9133E+01
RHO	7.0066E+00	2.5197E+01	3.3378E+01
H	1.8234E+01	3.0166E+01	3.8037E+01
A	3.3375E+00	4.0990E+00	4.5705E+00
S	1.2759E+00	1.3119E+00	1.3540E+00
Z	1.0680E+00	1.1780E+00	1.2591E+00
GAME	8.2855E-01	9.4941E-01	9.6954E-01
U	7.3893E+00	2.0542E+00	1.9633E+00

SPECIES	MOLE FRACTIONS		
E-	8.3492E-10	1.4597E-07	1.0398E-06
HE	3.2772E-01	2.9711E-01	2.7798E-01
HE+	7.1510E-23	2.4465E-17	2.6690E-15
HE++	1.[illegible]81E-83	3.1977E-63	4.6642E-56
H	1.2733E-01	3.0224E-01	4.1154E-01
H+	8.3482E-10	1.4597E-07	1.0398E-06
H2	5.4495E-01	4.0065E-01	3.1048E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6352E+02	1.0917E+03	1.7467E+03
T	1.5661E+01	2.2816E+01	2.9373E+01
RHO	8.6696E+00	3.3923E+01	4.0745E+01
H	3.0335E+01	5.2085E+01	6.4178E+01
A	3.9733E+00	5.4156E+00	6.4906E+00
S	1.3853E+00	1.4446E+00	1.5099E+00
Z	1.2044E+00	1.4104E+00	1.5271E+00
GAME	8.3697E-01	9.1137E-01	9.8253E-01
U	9.9126E+00	2.5310E+00	2.6786E+00

SPECIES	MOLE FRACTIONS		
E-	8.3367E-09	1.2305E-05	1.1741E-04
HE	2.9360E-01	2.6816E-01	2.2919E-01
HE+	1.8631E-19	7.6315E-13	1.8979E-10
HE++	8.7508E-59	7.7490E-47	5.6684E-38
H	3.3941E-01	5.9193E-01	6.8996E-01
H+	8.3367E-09	1.2305E-05	1.1741E-04
H2	3.6309E-01	1.6299E-01	8.0607E-02

P1 = 1.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1529E+02	6.7333E+02	1.0690E+03
T	1.3649E+01	1.8610E+01	2.1391E+01
RHO	7.6290E+00	2.9936E+01	3.7116E+01
H	2.1921E+01	3.6878E+01	4.6309E+01
A	3.5369E+00	4.4937E+00	5.0699E+00
S	1.3111E+00	1.3557E+00	1.4024E+00
Z	1.1072E+00	1.2503E+00	1.3464E+00
GAME	8.2772E-01	8.6396E-01	8.9247E-01
U	9.2395E+00	2.1709E+00	2.1309E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.1896E-09	7.5497E-07	5.0212E-06
HE	3.1611E-01	2.7992E-01	2.5996E-01
HE+	4.0809E-21	1.1138E-15	1.0486E-13
HE++	9.6332E-79	1.9226E-57	1.5747E-50
H	1.9368E-01	4.0044E-01	5.1453E-01
H+	5.1896E-09	7.5497E-07	5.0212E-06
H2	4.9021E-01	3.1964E-01	2.2551E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3842E+02	8.7325E+02	1.3829E+03
T	1.4661E+01	2.0977E+01	2.4204E+01
RHO	8.1889E+00	3.1933E+01	3.9716E+01
H	2.5955E+01	4.4197E+01	5.5621E+01
A	3.7478E+00	4.9166E+00	5.6842E+00
S	1.3476E+00	1.4032E+00	1.4516E+00
Z	1.1536E+00	1.3290E+00	1.4386E+00
GAME	9.3096E-01	9.9396E-01	9.2791E-01
U	9.0797E+00	2.3261E+00	2.3592E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.2754E-09	3.2016E-06	2.3241E-05
HE	3.0357E-01	2.6336E-01	2.4329E-01
HE+	1.0922E-19	3.2175E-14	3.9342E-12
HE++	2.0815E-72	5.4414E-52	3.3965E-44
H	2.6533E-01	4.3506E-01	6.0972E-01
H+	2.2754E-08	3.2016E-05	2.3241E-05
H2	4.3111E-01	2.4157E-01	1.4695E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9056E+02	1.3107E+03	2.1662E+03
T	1.6683E+01	2.5539E+01	3.3981E+01
RHO	9.0596E+00	3.4731E+01	3.9973E+01
H	3.5060E+01	6.0495E+01	7.8349E+01
A	4.2170E+00	6.0112E+00	7.5322E+00
S	1.4246E+00	1.4882E+00	1.5489E+00
Z	1.2608E+00	1.4891E+00	1.5947E+00
GAME	8.4545E-01	9.5014E-01	1.0469E+00
U	1.0739E+01	2.8018E+00	3.1456E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.4747E-07	4.6434E-05	7.0253E-04
HE	2.7760E-01	2.3504E-01	2.1949E-01
HE+	2.4048E-17	1.7661E-11	1.4179E-08
HE++	7.7140E-64	5.5744E-42	4.0954E-31
H	4.1373E-01	6.5680E-01	7.4375E-01
H+	2.4747E-07	4.6434E-05	7.0253E-04
H2	3.3868E-01	1.0837E-01	3.5379E-02

P1 = 1.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1942E+02	1.5441E+03	2.6337E+03
T	1.7766E+01	2.9071E+01	4.2003E+01
RHO	9.3494E+00	3.4131E+01	3.8391E+01
H	4.0129E+01	6.9335E+01	9.2035E+01
A	4.4841E+00	6.7344E+00	8.4946E+00
S	1.4634E+00	1.5297E+00	1.5926E+00
Z	1.3214E+00	1.5562E+00	1.6314E+00
GAME	8.5675E-01	1.0025E+00	1.0536E+00
U	1.1546E+01	3.1603E+00	3.7194E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.0130E-07	1.9273E-04	3.6617E-03
HE	2.6947E-01	2.2491E-01	2.1454E-01
HE+	2.6400E-16	4.7023E-10	7.7997E-07
HE++	1.7995E-61	2.5024E-36	9.3134E-25
H	4.9655E-01	7.1426E-01	7.6507E-01
H+	7.0130E-07	1.9279E-04	3.6609E-03
H2	2.6481E-01	5.3462E-02	1.5078E-02

Table I. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5009E+02	1.7503E+03	3.1011E+03
T	1.8947E+01	3.3709E+01	5.0082E+01
RHO	9.5298E+00	3.2398E+01	3.7402E+01
H	4.5559E+01	7.8502E+01	1.0629E+02
A	4.7833E+00	7.5348E+00	9.1639E+00
S	1.5032E+00	1.5681E+00	1.6298E+00
Z	1.3855E+00	1.6024E+00	1.6555E+00
GAME	8.7177E-01	1.0513E+00	1.0128E+00
U	1.2343E+01	3.6295E+00	4.2191E+00

SPECIES	MOLE FRACTIONS		
E-	1.9156E-06	7.3092E-04	1.1441E-02
HE	2.5270E-01	2.1842E-01	2.1140E-01
HE+	2.7462E-15	1.3138E-03	1.2474E-02
HE++	3.0971E-56	2.6806E-31	1.8246E-20
H	5.5559E-01	7.4972E-01	7.5761E-01
H+	1.9156E-06	7.3092E-04	1.1429E-02
H2	1.9132E-01	3.0456E-02	8.1071E-03

P1 = 1.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5093E+02	2.2282E+03	4.2399E+03
T	2.4247E+01	5.0497E+01	6.8499E+01
RHO	9.2263E+00	2.6512E+01	3.5511E+01
H	6.3761E+01	1.0814E+02	1.4970E+02
A	6.0832E+00	9.1596E+00	1.0606E+01
S	1.6197E+00	1.6656E+00	1.7232E+00
Z	1.5686E+00	1.6643E+00	1.7430E+00
GAME	9.7297E-01	9.9827E-01	9.4215E-01
U	1.4601E+01	5.0787E+00	5.1252E+00

SPECIES	MOLE FRACTIONS		
E-	5.1383E-05	1.4218E-02	5.6312E-02
HE	2.2313E-01	2.1028E-01	2.0017E-01
HE+	6.9271E-12	1.6580E-05	6.3254E-04
HE++	1.2347E-43	3.9073E-20	2.4259E-14
H	7.2496E-01	7.5568E-01	6.8426E-01
H+	5.1383E-05	1.4202E-02	5.5679E-02
H2	5.1968E-02	5.6053E-03	2.9436E-03

P1 = 1.00E+04 N/SQ M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8235E+07	1.9325E+03	3.5464E+03
T	2.0316E+04	3.9252E+01	5.7161E+01
RHO	9.5865E+00	3.0224E+01	3.6905E+01
H	5.1297E+01	8.7977E+01	1.2070E+02
A	5.1285E+00	8.2311E+00	9.6967E+00
S	1.5425E+00	1.6033E+00	1.6626E+00
Z	1.4499E+00	1.6290E+00	1.6811E+00
GAME	8.9289E-01	1.0596E+00	9.7846E-01
U	1.3124E+01	4.1609E+00	4.6051E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.2655E-06	2.3393E-03	2.3826E-02
HE	2.4140E-01	2.1496E-01	2.0912E-01
HE+	2.9335E-14	2.6450E-07	7.5324E-05
HE++	9.4906E-53	1.4050E-26	1.1711E-17
H	6.2058E-01	7.6462E-01	7.3893E-01
H+	5.2635E-06	2.5391E-03	2.3750E-02
H2	1.3801E-01	1.5445E-02	5.3048E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8628E+02	2.3266E+03	4.4189E+03
T	2.7367E+01	5.5453E+01	7.2999E+01
RHO	8.7709E+00	2.4902E+01	3.4354E+01
H	7.0454E+01	1.1996E+02	1.6432E+02
A	6.7509E+00	9.5235E+00	1.0998E+01
S	1.6550E+00	1.6955E+00	1.7531E+00
Z	1.6092E+00	1.6849E+00	1.7776E+00
GAME	1.0349E+00	9.7072E-01	9.3212E-01
U	1.5274E+01	5.3763E+00	5.2965E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.9919E-04	2.4596E-02	7.4099E-02
HE	2.1749E-01	2.0767E-01	1.9565E-01
HE+	1.9721E-10	6.1640E-05	1.2430E-03
HE++	2.0443E-38	4.2226E-18	2.7070E-13
H	7.5658E-01	7.3924E-01	6.8397E-01
H+	1.9919E-04	2.4534E-02	7.2846E-02
H2	2.5532E-02	3.9953E-03	2.3025E-03

P1 = 1.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1612E+02	2.0932E+03	3.9342E+03
T	2.2004E+01	4.5023E+01	6.3248E+01
RHO	9.4958E+00	2.8232E+01	3.6402E+01
H	5.7366E+01	9.7835E+01	1.3520E+02
A	5.5475E+00	8.7439E+00	1.0172E+01
S	1.5823E+00	1.6351E+00	1.6933E+00
Z	1.5129E+00	1.6468E+00	1.7105E+00
GAME	9.2444E-01	1.0324E+00	9.5543E-01
U	1.3885E+01	4.6571E+00	4.8986E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5436E-05	6.8983E-03	3.9221E-02
HE	2.3134E-01	2.1259E-01	2.0436E-01
HE+	3.8115E-13	2.6522E-06	2.5936E-04
HE++	2.6150E-49	7.0340E-23	9.7946E-16
H	6.7860E-01	7.6509E-01	7.1333E-01
H+	1.5426E-05	6.8959E-03	3.8973E-02
H2	9.0624E-02	4.7719E-03	3.4529E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2211E+02	2.3972E+03	4.5345E+03
T	3.1439E+01	5.9885E+01	7.6906E+01
RHO	8.2004E+00	2.3425E+01	3.2296E+01
H	7.7433E+01	1.2993E+02	1.7819E+02
A	7.4173E+00	9.8634E+00	1.1356E+01
S	1.6871E+00	1.7249E+00	1.7828E+00
Z	1.6321E+00	1.7099E+00	1.7936E+00
GAME	1.0721E+00	9.5107E-01	9.2454E-01
U	1.5994E+01	5.5931E+00	5.4306E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.6931E-04	3.7307E-02	9.2028E-02
HE	2.1445E-01	2.0465E-01	1.9099E-01
HE+	5.4209E-09	1.6755E-04	2.1127E-03
HE++	4.0137E-33	1.4755E-16	1.7909E-12
H	7.7222E-01	7.1787E-01	6.2324E-01
H+	7.6953E-04	3.7143E-02	9.0916E-02
H2	1.1759E-02	2.9655E-03	1.8284E-03

Table I. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5928E+02	2.4803E+03	4.5946E+03
T	3.6015E+01	6.3991E+01	9.0545E+01
RHO	7.7543E+00	2.2329E+01	3.0815E+01
H	9.4729E+01	1.4155E+02	1.9274E+02
A	7.9244E+00	1.0204E+01	1.1702E+01
S	1.7159E+00	1.7533E+00	1.9117E+00
Z	1.6445E+00	1.7362E+00	1.8512E+00
GAME	1.0632E+00	9.3742E-01	9.1946E-01
U	1.6516E+01	5.7327E+00	5.5485E+00

SPECIES	MOLE FRACTIONS		
E-	2.5890E-03	5.1843E-02	1.1016E-01
HE	2.1283E-01	2.0122E-01	1.8577E-01
HE+	9.8857E-08	3.7361E-04	3.2996E-03
HE++	1.4066E-28	2.5632E-15	8.8525E-12
H	7.7608E-01	6.9289E-01	5.9244E-01
H+	2.5889E-03	5.1469E-02	1.0686E-01
H2	5.9153E-03	2.2030E-03	1.4777E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8535E+02	2.9847E+03	5.3290E+03
T	4.8652E+01	7.5552E+01	9.1606E+01
RHO	7.1462E+00	2.1519E+01	2.9441E+01
H	1.0993E+02	1.9117E+02	2.4231E+02
A	8.8544E+00	1.1273E+01	1.2799E+01
S	1.7999E+00	1.9299E+00	1.8926E+00
Z	1.6836E+00	1.8359E+00	1.9759E+00
GAME	9.5716E-01	9.1615E-01	9.0506E-01
U	1.8532E+01	6.1523E+00	5.9440E+00

SPECIES	MOLE FRACTIONS		
E-	2.1650E-02	1.0244E-01	1.6592E-01
HE	2.0787E-01	1.8848E-01	1.6746E-01
HE+	1.9296E-05	2.1695E-03	9.6731E-03
HE++	2.0285E-20	1.4593E-12	4.8098E-10
H	7.4719E-01	6.0544E-01	5.0304E-01
H+	2.1611E-02	1.0027E-01	1.5615E-01
H2	1.6766E-03	1.2043E-03	9.6626E-04

P1 = 1.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9964E+02	2.6031E+03	4.7547E+03
T	4.0560E+01	6.7906E+01	8.4153E+01
RHO	7.4292E+00	2.1639E+01	2.9883E+01
H	9.2375E+01	1.5391E+02	2.0813E+02
A	8.2866E+00	1.0551E+01	1.2055E+01
S	1.7419E+00	1.7798E+00	1.8395E+00
Z	1.6551E+00	1.7666E+00	1.9907E+00
GAME	1.0224E+00	9.2793E-01	9.1342E-01
U	1.7155E+01	5.9700E+00	9.6685E+00

SPECIES	MOLE FRACTIONS		
E-	6.4886E-03	6.7783E-02	1.2853E-01
HE	2.1114E-01	1.9738E-01	1.8022E-01
HE+	9.3614E-07	7.3157E-04	4.8956E-03
HE++	4.5776E-25	2.9397E-14	3.7206E-11
H	7.72[illegible]E-01	6.6529E-01	5.6149E-01
H+	6.4877E-03	6.7051E-02	1.2364E-01
H2	3.4504E-03	1.7561E-03	1.2176E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3267E+02	3.2347E+03	5.7195E+03
T	5.2183E+01	7.9313E+01	9.5381E+01
RHO	7.1209E+00	2.1765E+01	2.9675E+01
H	1.1759E+02	1.9605E+02	2.6087E+02
A	9.1253E+00	1.1643E+01	1.3181E+01
S	1.8108E+00	1.8540E+00	1.9181E+00
Z	1.7027E+00	1.8738E+00	2.0203E+00
GAME	9.3724E-01	9.1210E-01	9.0162E-01
U	1.9263E+01	6.3002E+00	6.0737E+00

SPECIES	MOLE FRACTIONS		
E-	3.2265E-02	1.2048E-01	1.8405E-01
HE	2.0550E-01	1.8339E-01	1.6035E-01
HE+	5.0098E-05	3.[illegible]906E-03	1.2885E-02
HE++	7.6357E-19	7.5752E-12	1.4771E-09
H	7.2867E-01	5.7463E-01	4.7080E-01
H+	3.2215E-02	1.1709E-01	1.7117E-01
H2	1.2990E-03	1.0220E-03	7.4459E-04

P1 = 1.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4064E+02	2.7724E+03	5.0319E+03
T	4.4792E+01	7.1752E+01	8.7834E+01
RHO	7.2373E+00	2.1466E+01	2.9471E+01
H	1.0045E+02	1.6712E+02	2.2464E+02
A	8.5866E+00	1.0938E+01	1.2421E+01
S	1.7660E+00	1.8253E+00	1.8863E+00
Z	1.6677E+00	1.8000E+00	1.9323E+00
GAME	9.8565E-01	9.2119E-01	9.0901E-01
U	1.7920E+01	6.0034E+00	5.7992E+00

SPECIES	MOLE FRACTIONS		
E-	1.2893E-02	8.4787E-02	1.4713E-01
HE	2.0997E-01	1.9314E-01	1.7413E-01
HE+	5.0616E-05	1.5066E-03	6.9961E-03
HE++	1.0[illegible]E-22	4.2[illegible]2E-13	1.4047E-10
H	7.0205E-01	6.3589E-01	5.3059E-01
H+	1.2999E-02	7.3461E-02	1.4013E-01
H2	2.2997E-03	1.4334E-03	1.0205E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8237E+02	3.5157E+03	6.1637E+03
T	5.5435E+01	8.3026E+01	9.9211E+01
RHO	7.1373E+00	2.2130E+01	3.0069E+01
H	1.2672E+02	2.1169E+02	2.9049E+02
A	9.3971E+00	1.2015E+01	1.3573E+01
S	1.8322E+00	1.8776E+00	1.9435E+00
Z	1.7247E+00	1.9135E+00	2.0662E+00
GAME	9.2364E-01	9.0860E-01	8.9871E-01
U	2.0009E+01	6.4513E+00	6.2194E+00

SPECIES	MOLE FRACTIONS		
E-	4.4344E-02	1.3958E-01	2.0206E-01
HE	2.0282E-01	1.7748E-01	1.5274E-01
HE+	1.1313E-04	5.8315E-03	1.6660E-02
HE++	1.4456E-17	3.3332E-11	4.1737E-09
H	7.0744E-01	5.4409E-01	4.4253E-01
H+	4.4231E-02	1.3355E-01	1.8540E-01
H2	1.0475E-03	8.7692E-04	6.4410E-04

Table I. - Continued.

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3461E+02	3.8296E+03	6.5605E+03
T	5.8481E+01	8.6721E+01	1.0338E+02
RHO	7.1819E+00	2.2592E+01	3.0579E+01
H	1.3625E+02	2.2814E+02	3.0111E+02
A	9.6708E+00	1.2369E+01	1.3974E+01
S	1.8532E+00	1.9311E+00	1.9688E+00
Z	1.7490E+00	1.9547E+00	2.1130E+00
GAME	9.1434E-01	9.0538E-01	8.9651E-01
U	2.0773E+01	6.5977E+00	6.3685E+00

SPECIES	MOLE FRACTIONS		
E-	5.7457E-02	1.5663E-01	2.1968E-01
HE	1.9949E-01	1.7191E-01	1.4470E-01
HE+	2.2306E-04	7.1518E-03	2.0937E-02
HE++	1.6858E-16	1.2521E-10	1.0942E-09
H	6.8425E-01	5.1408E-01	4.1537E-01
H+	5.7274E-02	1.4949E-01	1.9874E-01
H2	8.6773E-04	7.5850E-04	5.6000E-04

P1 = 1.00E+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6513E+02	5.5197E+03	9.0325E+03
T	6.9299E+01	1.0111E+02	1.1899E+02
RHO	7.4692E+00	2.4728E+01	3.2900E+01
H	1.7791E+02	3.0075E+02	3.9236E+02
A	1.0773E+01	1.3893E+01	1.5702E+01
S	1.9354E+00	1.9940E+00	2.0698E+00
Z	1.8644E+00	2.1278E+00	2.3072E+00
GAME	8.9813E-01	8.9553E-01	8.9806E-01
U	2.3888E+01	7.2111E+00	7.0094E+00

SPECIES	MOLE FRACTIONS		
E-	1.1556E-01	2.2503E-01	2.8519E-01
HE	1.9619E-01	1.4409E-01	1.1079E-01
HE+	1.5218E-03	2.0405E-02	4.0905E-02
HE++	1.8329E-13	8.2992E-09	2.6547E-07
H	5.8223E-01	4.0548E-01	3.1851E-01
H+	1.1463E-01	2.0459E-01	2.4428E-01
H2	4.6774E-04	4.4613E-04	3.2424E-04

P1 = 1.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8901E+02	4.1670E+03	7.1986E+03
T	6.1358E+01	9.0363E+01	1.0699E+02
RHO	7.2426E+00	2.3094E+01	3.1142E+01
H	1.4613E+02	2.4526E+02	3.2269E+02
A	9.9456E+00	1.2763E+01	1.4385E+01
S	1.8746E+00	1.9244E+00	1.9941E+00
Z	1.7755E+00	1.9968E+00	2.1606E+00
GAME	9.0795E-01	9.0239E-01	8.9520E-01
U	2.1544E+01	6.7511E+00	6.5254E+00

SPECIES	MOLE FRACTIONS		
E-	7.1407E-02	1.7436E-01	2.3682E-01
HE	1.9673E-01	1.6552E-01	1.3638E-01
HE+	3.9776E-04	9.7599E-03	2.5611E-02
HE++	1.3727E-15	4.1580E-10	2.6446E-09
H	6.5972E-01	4.8511E-01	3.8949E-01
H+	7.1309E-02	1.6460E-01	2.1121E-01
H2	7.3204E-04	6.6017E-04	4.8837E-04

P1 = 1.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0929E+03	5.1929E+03	1.0429E+04
T	7.4218E+01	1.0921E+02	1.2755E+02
RHO	7.6294E+00	2.6939E+01	3.9945E+01
H	2.0087E+02	3.4102E+02	4.4343E+02
A	1.1324E+01	1.4647E+01	1.6691E+01
S	1.9764E+00	2.0434E+00	2.1231E+00
Z	1.9305E+00	2.2170E+00	2.4088E+00
GAME	8.9507E-01	8.9404E-01	9.0673E-01
U	2.5462E+01	7.5232E+00	7.3799E+00

SPECIES	MOLE FRACTIONS		
E-	1.4555E-01	2.5631E-01	3.1526E-01
HE	1.7851E-01	1.2851E-01	9.4155E-02
HE+	3.0339E-03	2.9312E-02	5.1143E-02
HE++	2.2505E-12	4.1736E-09	1.2136E-06
H	5.3023E-01	3.5933E-01	2.7509E-01
H+	1.4224E-01	2.2703E-01	2.6412E-01
H2	3.5029E-04	3.4591E-04	2.4173E-04

P1 = 1.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4559E+02	4.5288E+03	7.7738E+03
T	6.4103E+01	9.3970E+01	1.1092E+02
RHO	7.3134E+00	2.3626E+01	3.1731E+01
H	1.5637E+02	2.6309E+02	3.4495E+02
A	1.0221E+01	1.3132E+01	1.4807E+01
S	1.8945E+00	1.9476E+00	2.0193E+00
Z	1.8037E+00	2.0399E+00	2.2248E+00
GAME	9.0351E-01	8.9967E-01	8.9493E-01
U	2.2322E+01	6.9044E+00	6.6790E+00

SPECIES	MOLE FRACTIONS		
E-	8.5839E-02	1.9173E-01	2.5341E-01
HE	1.9339E-01	1.5872E-01	1.2799E-01
HE+	6.5745E-04	1.2861E-02	3.0561E-02
HE++	9.5391E-15	1.2364E-09	6.0013E-08
H	6.3631E-01	4.5731E-01	3.6496E-01
H+	8.5181E-02	1.7484E-01	2.2285E-01
H2	6.2545E-04	5.7737E-04	4.2665E-04

P1 = 1.00E+04 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2295E+03	7.1401E+03	1.1964E+04
T	7.8549E+01	1.1539E+02	1.3693E+02
RHO	7.7340E+00	2.5799E+01	3.4769E+01
H	2.0252E+02	3.9381E+02	4.9843E+02
A	1.1872E+01	1.5452E+01	1.7807E+01
S	2.0116E+00	2.0873E+00	2.1720E+00
Z	1.9995E+00	2.3049E+00	2.5136E+00
GAME	8.9283E-01	8.9616E-01	9.2147E-01
U	2.7026E+01	7.9523E+00	7.8033E+00

SPECIES	MOLE FRACTIONS		
E-	1.7511E-01	2.8509E-01	3.4375E-01
HE	1.6972E-01	1.1266E-01	7.8678E-02
HE+	5.3147E-03	3.9914E-02	8.0562E-02
HE++	1.8332E-11	1.0952E-07	3.5314E-06
H	4.7979E-01	3.1572E-01	2.3385E-01
H+	1.6647EE-01	2.4077E-01	2.9314E-01
H2	2.7422E-04	2.6998E-04	1.7355E-04

Table I. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3729E+03	9.1546E+03	1.3638E+04
T	8.3550E+01	1.2279E+02	1.4738E+02
RHO	7.9310E+00	2.7649E+01	3.5310E+01
H	2.5099E+02	4.2905E+02	5.5753E+02
A	1.2418E+01	1.6315E+01	1.9077E+01
S	2.0575E+00	2.1336E+00	2.2233E+00
Z	2.0717E+00	2.4019E+00	2.6207E+00
GAME	8.9092E-01	9.0249E-01	9.4226E-01
U	2.8622E+01	9.2073E+00	9.300JE+00

SPECIES	MOLE FRACTIONS		
E-	2.0376E-01	3.1324E-01	3.7053E-01
HE	1.6033E-01	9.7189E-02	6.4911E-02
HE+	8.6179E-03	4.8529E-02	6.8627E-02
HE++	1.1734E-10	5.9438E-07	1.1686E-05
H	4.3194E-01	2.7612E-01	1.9393E-01
H+	1.9516E-01	2.6471E-01	3.0188E-01
H2	2.1214E-04	2.0592E-04	1.1992E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8522E+03	1.1498E+04	1.9033E+04
T	9.6952E+01	1.4833E+02	1.9393E+02
RHO	8.3125E+00	2.9976E+01	3.4996E+01
H	3.3664E+02	5.7838E+02	7.6432E+02
A	1.4058E+01	1.9413E+01	2.3935E+01
S	2.1807E+00	2.2769E+00	2.3755E+00
Z	2.2983E+00	2.6839E+00	2.9343E+00
GAME	9.8689E-01	9.4630E-01	1.0224E+00
U	3.3358E+01	9.5913E+00	1.0389E+01

SPECIES	MOLE FRACTIONS		
E-	2.9217E-01	3.9530E-01	4.3770E-01
HE	1.2719E-01	9.9099E-02	3.5190E-02
HE+	2.5108E-02	7.2294E-02	9.3638E-02
HE++	9.6325E-09	1.5205E-05	4.1436E-04
H	3.0938E-01	1.7165E-01	8.9305E-02
H+	2.5706E-01	3.1297E-01	3.5319E-01
H2	9.9396E-05	7.7416E-05	2.3564E-05

P1 = 1.00E+04 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5247E+03	9.2264E+03	1.5460E+04
T	8.80E1E+01	1.3060E+02	1.5942E+02
RHO	9.0699E+00	2.9305E+01	3.5549E+01
H	2.781SE+02	4.7664E+02	6.2113E+02
A	1.2962E+01	1.7255E+01	2.0519E+01
S	2.0985E+00	2.180CE+00	2.2741E+00
Z	2.145RE+00	2.4959E+00	2.7291E+00
GAME	8.890RE-01	9.1337E-01	9.6808E-01
U	3.020?E+01	8.6069F+00	9.9735E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.3123E-01	3.3938E-01	3.9526E-01
HE	1.5068E-01	3.2661E-02	5.3176E-02
HE+	1.3324E-02	5.7565E-02	7.5381E-02
HE++	5.8321E-10	1.8684E-06	9.7924E-05
H	3.8728E-01	2.3902E-01	1.7627E-01
H+	2.1821E-01	2.8151E-01	3.2010E-01
H2	1.6461E-04	1.5403E-04	7.5929E-05

P1 = 1.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0279E+03	1.2667F+04	2.1921E+04
T	1.3141E+02	1.5845E+02	2.1074E+02
RHO	9.4161E+00	2.8776E+01	3.4433E+01
H	3.6795E+02	6.3236F+02	8.4431E+02
A	1.4623E+01	2.0691E+01	2.5671E+01
S	2.2221E+00	2.3167E+00	2.4239F+00
Z	2.3763E+00	2.7781E+00	3.021CE+00
GAME	8.874cE-01	9.7162E-01	1.0352E+00
U	3.4936E+01	1.0208E+01	1.1299E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.05E3E-01	4.0612F-01	4.5383E-01
HE	1.1483E-01	4.8062E-02	2.8657E-02
HE+	3.2511E-02	7.7892E-02	8.5981E-02
HE++	2.7355E-08	4.2360E-05	1.3190E-03
H	2.7387E-01	1.3969E-01	6.4999E-02
H+	2.7311E-01	3.2915E-01	3.6531E-01
H2	7.7033E-05	5.0246E-05	1.196?E-05

P1 = 1.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6846E+03	1.0346E+04	1.7450E+04
T	9.2517E+01	1.3999E+02	1.7395E+02
RHO	8.1965E+00	2.8733E+01	3.5402E+01
H	3.0673E+02	5.2649E+02	6.9003E+02
A	1.3536E+01	1.8288F+01	2.2169E+01
S	2.1395E+00	2.2261E+00	2.3235F+00
Z	2.2215E+00	2.5007E+00	2.8352E+00
GAME	8.9759F-01	9.2996F-01	9.9733E-01
U	3.1783E+01	9.3836F+00	9.5722E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.5759E-01	3.8321E-01	4.1949F-01
HE	1.3956E-01	4.0935F-02	4.3223E-02
HE+	1.8551F-02	6.9591E-02	9.0099E-02
HE++	2.4161F-06	5.4768E-06	1.2551E-04
H	3.4610E-01	2.0397E-01	1.2469F-01
H+	2.3883E-01	2.9761E-01	3.3773F-01
H2	1.2753E-04	1.1133E-04	4.4079F-05

P1 = 1.00E+04 N/SQ-M, US1= 4.80F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.211JE+03	1.3837E+04	2.4355E+04
T	1.3594E+02	1.6999E+02	2.3245E+02
RHO	9.503JE+00	2.8426E+01	3.3867E+01
H	4.0071E+02	6.9912E+02	9.2903E+02
A	1.521CE+01	2.2017E+01	2.7154E+01
S	2.2635F+00	2.3601E+00	2.4733E+00
Z	2.4544E+00	2.9655F+00	3.0937E+00
GAME	8.8974E-01	9.9579F-01	1.0233E+00
U	3.6507E+01	1.0905E+01	1.2245E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.27c0E-01	4.2421F-01	4.6367F-01
HE	1.0218E-01	3.0909F-02	2.3324E-02
HE+	4.0469E-02	9.2171F-02	9.6390E-02
HE++	7.5356E-08	1.1373E-04	3.7201E-03
H	2.4224E-01	1.1175E-01	4.7057F-02
H+	2.6730E-01	3.4196E-01	3.7314F-01
H2	5.9319E-05	3.1150E-05	5.6397F-06

Table I. - Continued

p_1 = 10 kN/ m^2

P1 = 1.03E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4015E+03	1.4956E+04	2.6918E+04
T	1.1[illegible]E+02	1.[illegible]54E+02	2.5353E+02
RHO	8.57[illegible]E+00	2.7898E+01	3.3544E+01
H	4.3681E+02	7.4563E+02	1.0139E+03
A	1.5823E+01	2.3390E+01	2.8317E+01
S	2.3050E+00	2.4014E+00	2.5124E+00
Z	2.5334E+00	2.9446E+00	3.1533E+00
GAME	8.941[illegible]E-01	1.0179E+00	1.0029E+00
U	3.80[illegible]E+01	1.1[illegible]85E+01	1.3083E+01

SPECIES	MOLE FRACTIONS		
E-	3.4[illegible]75E-01	4.3957E-01	4.7679E-01
HE	8.[illegible]373E-02	1.3284E-02	1.9082E-02
HE+	4.3[illegible]75E-02	8.5279E-02	8.3591E-02
HE++	2.1214E-07	2.9[illegible]9E-04	8.3138E-03
H	2.13[illegible]9E-01	1.7045E-02	3.5667E-02
H+	2.[illegible]57E-01	3.5590E-01	3.7656E-01
H2	4.5731E-05	1.8439E-05	3.2703E-06

P1 = 1.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0141E+03	1.8251E+04	3.4061E+04
T	1.2630E+02	2.2769E+02	3.1156E+02
RHO	8.6117E+00	2.5632E+01	3.2985E+01
H	5.4524E+02	9.2769E+02	1.2811E+03
A	1.7978E+01	2.7004E+01	3.1764E+01
S	2.4286E+00	2.5178E+00	2.6287E+00
Z	2.7711E+00	3.1272E+00	3.3143E+00
GAPE	9.2343E-01	1.0242E+00	9.7712E-01
U	4.2660E+01	1.4319E+01	1.5088E+01

SPECIES	MOLE FRACTIONS		
E-	4.0459E-01	4.7238E-01	5.0216E-01
HE	5.3864E-02	1.9499E-02	9.5237E-03
HE+	7.2436E-02	8.8450E-02	6.3022E-02
HE++	3.2C76E-06	3.9704E-03	3.3057E-02
H	1.369[illegible]E-01	3.9706E-02	1.9221E-02
H+	3.3214[illegible]E-01	3.7599E-01	3.7302E-01
H2	1.7668[illegible]E-05	3.2959E-06	9.5902E-07

P1 = 1.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5991E+03	1.6116E+04	2.9271E+04
T	1.1549E+02	1.9669E+02	2.7369E+02
RHO	8.6135E+00	2.7173E+01	3.3329E+01
H	4.7027E+02	8.0465E+02	1.1039E+03
A	1.6488E+01	2.4754E+01	2.9401E+01
S	2.3464E+00	2.4419E+00	2.5528E+00
Z	2.6128E+00	3.0154E+00	3.2089E+00
GAME	9.3091E-01	1.0332E+00	9.8429E-01
U	3.9614E+01	1.2545E+01	1.3800E+01

SPECIES	MOLE FRACTIONS		
E-	3.6853E-01	4.5291E-01	4.8581E-01
HE	7.6904E-02	2.7773E-02	1.5439E-02
HE+	5.7051E-02	8.7543E-02	7.8401E-02
HE++	5.3999E-07	7.5878E-04	1.5231E-02
H	1.8600E-01	6.7346E-02	2.8170E-02
H+	3.1149E-01	3.6376E-01	3.7695E-01
H2	3.3924E-05	1.0399E-05	2.0760E-06

P1 = 1.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2305E+03	1.9264E+04	3.6322E+04
T	1.3251E+02	2.4355E+02	3.3076E+02
RHO	8.5584E+00	2.4922E+01	3.2630E+01
H	5.8471E+02	9.9194E+02	1.3746E+03
A	1.9835E+01	2.7860E+01	3.3131E+01
S	2.4691E+00	2.5544E+00	2.6658E+00
Z	2.8685E+00	3.1738E+00	3.3654E+00
GAME	9.3988E-01	1.0041E+00	9.8609E-01
U	4.4148E+01	1.5150E+01	1.5701E+01

SPECIES	MOLE FRACTIONS		
E-	4.2076E-01	4.8012E-01	5.0972E-01
HE	4.3797E-02	1.6276E-02	7.1027E-03
HE+	7.9068E-02	8.6291E-02	5.4236E-02
HE++	7.7348E-06	7.7110E-03	4.2662E-02
H	1.1469E-01	3.1194E-02	1.6127E-02
H+	3.4167E-01	3.7841E-01	3.7018E-01
H2	1.2060E-05	1.9551E-06	6.7033E-07

P1 = 1.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8034E+03	1.7194E+04	3.1695E+04
T	1.2366E+02	2.1189E+02	2.9299E+02
RHO	8.6284E+00	2.6382E+01	3.3156E+01
H	5.0760E+02	8.6521E+02	1.1899E+03
A	1.7230E+01	2.5983E+01	3.0844E+01
S	2.3877E+00	2.4836E+00	2.5913E+00
Z	2.6922E+00	3.0757E+00	3.2628E+00
GAME	9.1152E-01	1.0339E+00	9.7591E-01
U	4.1144E+01	1.3457E+01	1.4459E+01

SPECIES	MOLE FRACTIONS		
E-	3.8715E-01	4.6354E-01	4.9430E-01
HE	6.4978E-02	2.3259E-02	1.2250E-02
HE+	6.5923E-02	8.8732E-02	7.1192E-02
HE++	1.3677E-04	1.8826E-03	2.3826E-02
H	1.6619E-01	5.1470E-02	2.2336E-02
H+	3.2213E-01	3.7113E-01	3.7545E-01
H2	2.4965E-05	3.7721E-06	1.3738E-06

P1 = 1.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4519E+03	2.0240E+04	3.8430E+04
T	1.3954E+02	2.5891E+02	3.5110E+02
RHO	8.4614E+00	2.4292E+01	3.2057E+01
H	6.2546E+02	1.0583E+03	1.4710E+03
A	1.9792E+01	2.8656E+01	3.4653E+01
S	2.5062E+00	2.5905E+00	2.7024E+00
Z	2.9236E+00	3.2181E+00	3.4144E+00
GAME	9.6021E-01	9.8554E-01	1.0017E+00
U	4.5602E+01	1.5870E+01	1.6344E+01

SPECIES	MOLE FRACTIONS		
E-	4.3563E-01	4.8727E-01	5.1675E-01
HE	3.4911E-02	1.3495E-02	5.0475E-03
HE+	8.4796E-02	8.2099E-02	4.5426E-02
HE++	1.8981E-05	1.3179E-02	5.2034E-02
H	9.3846E-02	2.5155E-02	1.3489E-02
H+	3.5081E-01	3.7881E-01	3.6725E-01
H2	7.8028E-06	1.2304E-06	4.6352E-07

Table I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.67[illegible]E+03	2.1262E+04	4.04[illegible]E+04
T	1.47[illegible]E+02	2.7364E+02	3.73[illegible]E+02
RHO	8.33[illegible]E+00	2.3827E+01	3.13[illegible]E+01
H	6.67[illegible]E+02	1.1279E+03	1.57[illegible]E+03
A	2.08[illegible]E+01	2.9479E+01	3.63[illegible]E+01
S	2.5477E+00	2.6250E+00	2.73[illegible]E+00
Z	2.99[illegible]E+00	3.2610E+00	3.43[illegible]E+00
GAME	9.8361E-01	9.7382E-01	1.02[illegible]E+00
U	4.70[illegible]E+01	1.6378E+01	1.70[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.4[illegible]E-01	4.9402E-01	5.23[illegible]E-01
HE	2.74[illegible]E-02	1.1093E-02	3.39[illegible]E-03
HE+	8.93[illegible]E-02	7.6221E-02	3.70[illegible]E-02
HE++	4.71[illegible]E-03	2.0013E-02	6.07[illegible]E-02
H	7.50[illegible]E-02	2.0870E-02	1.11[illegible]E-02
H+	3.59[illegible]E-01	3.7778E-01	3.64[illegible]E-01
H2	4.79[illegible]E-06	8.2789E-07	3.13[illegible]E-07

P1 = 1.00E+04 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.38[illegible]E+03	2.3559E+04	4.53[illegible]E+04
T	1.78[illegible]E+02	3.1583E+02	4.50[illegible]E+02
RHO	7.73[illegible]E+00	2.2011E+01	2.78[illegible]E+01
H	8.01[illegible]E+02	1.3421E+03	1.89[illegible]E+03
A	2.42[illegible]E+01	3.2362E+01	4.21[illegible]E+01
S	2.65[illegible]E+00	2.7280E+00	2.84[illegible]E+00
Z	3.15[illegible]E+00	3.3889E+00	3.55[illegible]E+00
GAME	1.04[illegible]E+00	9.7851E-01	1.09[illegible]E+00
U	5.10[illegible]E+01	1.7982E+01	1.95[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.77[illegible]E-01	5.1311E-01	5.3[illegible]E-01
HE	1.31[illegible]E-02	5.4302E-03	7.49[illegible]E-04
HE+	9.09[illegible]E-02	5.3428E-02	1.79[illegible]E-02
HE++	8.05[illegible]E-04	4.4420E-02	7.90[illegible]E-02
H	3.30[illegible]E-02	1.2761E-02	5.92[illegible]E-03
H+	3.78[illegible]E-01	3.7085E-01	3.59[illegible]E-01
H2	7.93[illegible]E-07	2.8736E-07	7.99[illegible]E-08

P1 = 1.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9097E+03	2.2099E+04	4.2239E+04
T	1.5006E+02	7.8793E+02	3.9872E+02
RHO	8.1849E+00	2.3223E+01	3.0263E+01
H	7.1079E+02	1.1978E+03	1.6752E+03
A	2.1978E+01	3.0371E+01	3.8249E+01
S	2.3854E+00	2.6604E+00	2.7770E+00
Z	3.0356E+00	3.3049E+00	3.5005E+00
GAME	1.0000E+00	9.6932E-01	1.0402E+00
U	4.8410E+01	1.6972E+01	1.7843E+01

SPECIES	MOLE FRACTIONS		
E-	4.6017E-01	5.0074E-01	5.2064E-01
HE	2.1421E-02	8.9139E-03	2.1651E-03
HE+	9.2908E-02	6.9072E-02	2.9340E-02
HE++	1.2078E-04	2.7917E-02	6.8520E-02
H	5.8330E-02	1.7515E-02	9.1118E-03
H+	3.6096E-01	3.7584E-01	3.0226E-01
H2	2.7014E-05	5.6835E-07	2.0233E-07

P1 = 1.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6236E+03	2.4237E+04	4.6914E+04
T	1.9167E+02	3.3093E+02	4.9220E+02
RHO	7.5533E+00	2.1354E+01	2.6823E+01
H	8.4795E+02	1.4164E+03	2.0111E+03
A	2.5249E+01	3.3536E+01	4.4246E+01
S	2.6894E+00	2.7619E+00	2.8834E+00
Z	3.1936E+00	3.4296E+00	3.5803E+00
GAME	1.0414E+00	9.9091E-01	1.1110E+00
U	5.2360E+01	1.8471F+01	2.0720E+01

SPECIES	MOLE FRACTIONS		
E-	4.8335E-01	5.1890E-01	5.3914E-01
HE	1.0400E-02	4.0243E-03	4.1354E-04
HE+	9.7176E-02	4.5327E-02	1.3939E-02
HE++	1.9507E-03	5.2700E-02	8.3403E-02
H	2.4787E-02	1.0873E-02	4.7010E-03
H+	3.8227E-01	3.6817F-01	3.5040E-01
H2	4.2071E-07	2.0321F-07	4.8390E-08

P1 = 1.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1423E+03	2.2866E+04	4.3839E+04
T	1.6076E+02	3.0162E+02	4.2572E+02
RHO	7.9720E+00	2.2652E+01	2.9148E+01
H	7.5524E+02	1.2690E+03	1.7806E+03
A	2.3140E+01	3.1311E+01	4.0102E+01
S	2.6211E+00	2.6940E+00	2.8121E+00
Z	3.1110E+00	3.3468E+00	3.5334E+00
GAME	1.0313E+00	9.7120E-01	1.0725E+00
U	4.9753E+01	1.7497F+01	1.8633E+01

SPECIES	MOLE FRACTIONS		
E-	4.8930E-01	5.0700E-01	5.3294E-01
HE	1.0174E-02	7.0723E-03	1.2944E-03
HE+	9.2405E-02	6.1493E-02	2.3140E-02
HE++	3.1005E-03	3.6020E-02	7.4034E-02
H	4.4438E-02	1.4950F-02	7.4124E-03
H+	3.7347E-01	3.7347E-01	3.6030E-01
H2	1.1107E-06	4.0463E-07	1.2902E-07

Table I. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8745E+01	7.2704E+01
T	3.5541E+00	4.4740E+00	6.5326E+00
RHO	3.9293E+00	6.4257E+00	1.1128E+01
H	3.6325E+00	4.6130E+00	6.9063E+00
A	1.8736E+00	2.0903E+00	2.4960E+00
S	1.0782E+00	1.0802E+00	1.1012E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.8771E-01	9.7664E-01	9.5361E-01
U	2.5703E+00	1.5703E+00	1.4040E+00

SPECIES	MOLE FRACTIONS		
E-	2.0147E-53	6.5262E-35	2.5695E-20
HE	3.5000E-01	3.5000E-01	3.4998E-01
HE+	2.4475E-62	2.4016E-52	2.8067E-43
HE++	0.	0.	0.
H	3.1336E-09	3.1802E-07	1.3096E-04
H+	9.1343E-20	8.1343E-20	1.0703E-19
H2	6.5000E-01	6.5000E-01	6.4989E-01

P1 = 2.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3967E+01	1.5127E+02	2.8703E+02
T	5.4849E+00	1.1521E+01	1.3825E+01
RHO	5.1711E+00	1.2878E+01	1.9705E+01
H	9.2978E+00	1.4004E+01	1.8903E+01
A	2.7898E+00	3.1821E+00	3.5158E+00
S	1.1850E+00	1.1968E+00	1.2269E+00
Z	1.0021E+00	1.0195E+00	1.0536E+00
GAPE	9.1535E-01	9.6206E-01	9.4962E-01
U	4.8668E+00	1.9531E+00	1.7332E+00

SPECIES	MOLE FRACTIONS		
E-	3.9972E-15	3.4245E-11	2.2025E-09
HE	3.4927E-01	3.4330E-01	3.3220E-01
HE+	4.9590E-34	5.4119E-25	5.5964E-21
HE++	0.	0.	3.7268E-77
H	4.1568E-03	3.8262E-02	1.0169E-01
H+	3.9973E-15	3.4245E-11	2.2025E-09
H2	6.4657E-01	6.1843E-01	5.6611E-01

P1 = 2.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2024E+01	5.6094E+01	1.2787E+02
T	4.9879E+00	6.6808E+00	9.2767E+00
RHO	4.4153E+00	8.3954E+00	1.3742E+01
H	5.1726E+00	7.0778E+00	1.0300E+01
A	2.2002E+00	2.5214E+00	2.9077E+00
S	1.1158E+00	1.1203E+00	1.1445E+00
Z	1.0000E+00	1.0001E+00	1.0031E+00
GAME	9.7053E-01	9.5151E-01	9.0857E-01
U	3.3339E+00	1.7524E+00	1.5796E+00

SPECIES	MOLE FRACTIONS		
E-	1.9644E-31	1.2745E-19	4.6502E-14
HE	3.5000E-01	3.4996E-01	3.4893E-01
HE+	2.4227E-50	2.0789E-42	5.7172E-31
HE++	0.	0.	0.
H	3.3244E-06	2.0225E-04	6.1317E-03
H+	8.1343E-20	2.0879E-19	4.6502E-14
H2	6.5000E-01	6.4983E-01	6.4894E-01

P1 = 2.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1983E+01	9.5118E+01	1.9788E+02
T	6.6624E+00	9.1608E+00	1.1732E+01
RHO	4.7998E+00	1.0351E+01	1.6540E+01
H	7.0584E+00	1.0174E+01	1.4276E+01
A	2.5171E+00	2.8878E+00	3.2146E+00
S	1.1514E+00	1.1587E+00	1.1855E+00
Z	1.0001E+00	1.0031E+00	1.0197E+00
GAME	9.5082E-01	9.0746E-01	8.6375E-01
U	4.0943E+00	1.8989E+00	1.6745E+00

SPECIES	MOLE FRACTIONS		
E-	1.7732E-19	3.6909E-14	4.5033E-11
HE	3.4995E-01	3.4890E-01	3.4323E-01
HE+	1.1952E-42	2.1774E-31	1.0283E-24
HE++	0.	0.	1.2381E-18
H	2.5821E-04	6.2704E-03	3.8671E-02
H+	2.5866E-19	3.6908E-14	4.5003E-11
H2	6.4979E-01	6.4483E-01	6.1810E-01

P1 = 2.00E+04 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8244E+01	2.3121E+02	4.0847E+02
T	1.0207E+01	1.3595E+01	1.5917E+01
RHO	5.6431E+00	1.6147E+01	2.3419E+01
H	1.1905E+01	1.8598E+01	2.4371E+01
A	2.9686E+00	3.4816E+00	3.8535E+00
S	1.2178E+00	1.2357E+00	1.2697E+00
Z	1.0112E+00	1.0533E+00	1.1029E+00
GAME	8.7119E-01	8.4653E-01	8.5031E-01
U	5.6734E+00	1.9815E+00	1.8020E+00

SPECIES	MOLE FRACTIONS		
E-	1.9245E-12	1.7254E-09	3.1834E-08
HE	3.4612E-01	3.3230E-01	3.1737E-01
HE+	4.2745E-28	2.3952E-21	1.9569E-18
HE++	0.	9.1995E-79	6.4490E-68
H	2.2199E-02	1.0117E-01	1.8644E-01
H+	1.9245E-12	1.7254E-09	3.1934E-08
H2	6.3109E-01	5.6654E-01	4.9618E-01

P1 = 2.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4893E+01	3.3995E+02	5.7326E+02
T	1.1681E+01	1.5537E+01	1.7873E+01
RHO	6.2195E+00	1.9866E+01	2.7514E+01
H	1.4881E+01	2.3935E+01	3.0781E+01
A	3.1915E+00	3.8086E+00	4.2341E+00
S	1.2504E+00	1.2762E+00	1.3143E+00
Z	1.0308E+00	1.1014E+00	1.1657E+00
GAME	8.4599E-01	8.4766E-01	8.6046E-01
U	6.5398E+00	2.0362E+00	1.9017E+00

SPECIES	MOLE FRACTIONS		
E-	8.2955E-11	2.5167E-08	2.5929E-07
HE	3.3953E-01	3.1778E-01	3.0025E-01
HE+	1.2213E-24	9.5359E-19	2.2062E-16
HE++	3.6749E-91	1.6169E-68	1.4212E-60
H	5.5952E-02	1.9414E-01	2.9430E-01
H+	8.2855E-11	2.5167E-08	2.5929E-07
H2	6.0362E-01	4.9909E-01	4.1546E-01

Table I. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3785E+01	4.7795E+02	7.8386E+02
T	1.2965E+01	1.7460E+01	2.0092E+01
RHO	6.8248E+00	2.3583E+01	3.1461E+01
M	1.8215E+01	2.9959E+01	3.8125E+01
A	3.3902E+00	4.1677E+00	4.6763E+00
S	1.2842E+00	1.3181E+00	1.3606E+00
Z	1.0599E+00	1.1608E+00	1.2400E+00
GAME	8.3639E-01	8.5705E-01	8.7768E-01
U	7.3567E+00	2.1280E+00	2.0356E+00

SPECIES	MOLE FRACTIONS		
E-	1.0597E-09	1.9244E-07	1.5083E-06
HE	3.3022E-01	3.0152E-01	2.8225E-01
HE+	2.8004E-22	9.5677E-17	1.2465E-14
HE++	0.1481E-81	1.4535E-62	2.0454E-54
H	1.1302E-01	2.7701E-01	3.8715E-01
H+	1.0597E-09	1.9244E-07	1.5083E-06
H2	5.5676E-01	4.2147E-01	3.3060E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6274E+02	1.0356E+03	1.6986E+03
T	1.6365E+01	2.3959E+01	2.9607E+01
RHO	8.3621E+00	3.1306E+01	3.9073E+01
M	3.0305E+01	5.1708E+01	6.6322E+01
A	4.0543E+00	5.5116E+00	6.6059E+00
S	1.3927E+00	1.4480E+00	1.5042E+00
Z	1.1892E+00	1.3937E+00	1.4990E+00
GAME	8.4462E-01	9.1829E-01	9.8385E-01
U	9.8646E+00	2.6334E+00	2.7762E+00

SPECIES	MOLE FRACTIONS		
E-	1.1979E-07	1.5967E-05	1.4357E-04
HE	2.9432E-01	2.5349E-01	2.3364E-01
HE+	9.9682E-18	2.6034E-12	5.3872E-10
HE++	2.8433E-65	8.9499E-45	3.9456E-36
H	3.1818E-01	5.5145E-01	6.6448E-01
H+	1.1979E-07	1.5967E-05	1.4357E-04
H2	3.8750E-01	1.9533E-01	1.0159E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1477E+02	6.4285E+02	1.0406E+03
T	1.4139E+01	1.9441E+01	2.2604E+01
RHO	7.4014E+00	2.6911E+01	3.4766E+01
H	2.1898E+01	3.6619E+01	4.6436E+01
A	3.5985E+00	4.5637E+00	5.1949E+00
S	1.3193E+00	1.3610E+00	1.4082E+00
Z	1.0967E+00	1.2287E+00	1.3234E+00
GAME	8.3510E-01	8.7191E-01	9.0208E-01
U	8.7002E+00	2.2544E+00	2.2175E+00

SPECIES	MOLE FRACTIONS		
E-	7.1219E-09	1.0136E-06	7.2468E-06
HE	3.1914E-01	2.8485E-01	2.6447E-01
HE+	1.8318E-20	4.3320E-15	4.7561E-13
HE++	4.9621E-75	2.7880E-55	1.4258E-47
H	1.7633E-01	3.7227E-01	4.8875E-01
H+	7.1219E-09	1.0136E-06	7.2468E-06
H2	5.0453E-01	3.4287E-01	2.4677E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3777E+02	8.3068E+02	1.3413E+03
T	1.5259E+01	2.1574E+01	2.5631E+01
RHO	7.9195E+00	2.9546E+01	3.7067E+01
H	2.5928E+01	4.3881E+01	5.5778E+01
A	3.8189E+00	5.0078E+00	5.8204E+00
S	1.3555E+00	1.4046E+00	1.4563E+00
Z	1.1401E+00	1.3032E+00	1.4119E+00
GAME	9.3834E-01	8.9199E-01	9.3618E-01
U	9.0368E+00	2.4206E+00	2.4552E+00

SPECIES	MOLE FRACTIONS		
E-	3.2872E-09	4.2957E-06	3.1993E-05
HE	3.0700E-01	2.6857E-01	2.4791E-01
HE+	5.5110E-19	1.2247E-13	1.5352E-11
HE++	2.9279E-73	9.9375E-50	4.8844E-42
H	2.4572E-01	4.6531E-01	5.9330E-01
H+	3.2872E-09	4.2957E-06	3.1983E-05
H2	4.4728E-01	2.6611E-01	1.6873E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8962E+02	1.2499E+03	2.0839E+03
T	1.7493E+01	2.6766E+01	3.5255E+01
RHO	9.7199E+00	3.2051E+01	3.7672E+01
H	3.5026E+01	6.0054E+01	7.8319E+01
A	4.3053E+00	6.3956E+00	7.5766E+00
S	1.4308E+00	1.4904E+00	1.5510E+00
Z	1.2433E+00	1.4569E+00	1.5689E+00
GAME	8.5346E-01	9.5288E-01	1.0378E+00
U	1.0682E+01	2.9038E+00	3.2151E+00

SPECIES	MOLE FRACTIONS		
E-	3.7482E-07	5.5917E-05	6.9068E-04
HE	2.8151E-01	2.4025E-01	2.2308E-01
HE+	1.3079E-16	4.9103E-11	2.2963E-08
HE++	4.4255E-61	3.4911E-40	3.6179E-30
H	3.9136E-01	6.2700E-01	7.2318E-01
H+	3.7482E-07	5.5917E-05	6.9066E-04
H2	3.2713E-01	1.3264E-01	5.2360E-02

P1 = 2.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1837E+02	1.4625E+03	2.5209E+03
T	1.9679E+01	3.0239E+01	4.2951E+01
RHO	8.9829E+00	3.1719E+01	3.6454E+01
H	4.0092E+01	6.9952E+01	9.1799E+01
A	4.5858E+00	6.7782E+00	8.5419E+00
S	1.4694E+00	1.5312E+00	1.5943E+00
Z	1.3016E+00	1.5248E+00	1.6137E+00
GAME	8.6504E-01	9.9644E-01	1.0551E+00
U	1.1490E+01	3.2532E+00	3.7539E+00

SPECIES	MOLE FRACTIONS		
E-	1.0643E-06	1.9379E-04	3.0446E-03
HE	2.6951E-01	2.2955E-01	2.1699E-01
HE+	1.3966E-15	9.3189E-10	8.1318E-07
HE++	2.9646E-59	2.5343E-37	1.5477E-24
H	4.6337E-01	6.3773E-01	7.5131E-01
H+	1.0643E-06	1.9379E-04	3.0439E-03
H2	2.6772E-01	8.2335E-02	2.5511E-02

Table I. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 1.69E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4997E+02	1.6617E+03	2.9703E+03
T	1.9966E+01	3.4618E+01	5.1062E+01
RHO	9.145EE+00	3.0440E+01	3.5427E+01
H	4.5497E+01	7.8005E+01	1.060AE+02
A	4.9939E+00	7.5324E+00	9.2424E+00
S	1.5083E+00	1.5694E+00	1.6324E+00
Z	1.3629E+00	1.5769E+00	1.6420E+00
GAME	8.8012E-01	1.0394E+00	1.0277E+00
U	1.2295E+01	3.6989E+00	4.2715E+00

SPECIES	MOLE FRACTIONS		
E-	2.8703E-06	6.6246E-04	9.3396E-03
HE	2.5691E-01	2.2196E-01	2.1315E-01
HE+	1.3807E-14	1.7371E-08	1.2149E-05
HE++	1.6037E-53	1.1349E-30	2.6679E-20
H	5.3252E-01	7.2968E-01	7.5395E-01
H+	2.87J3E-06	6.6244E-04	9.3275E-03
H2	2.1067E-01	4.7038E-02	1.4227E-02

P1 = 2.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4940E+02	2.1315E+03	4.1084E+03
T	2.5387E+01	5.1226E+01	7.1140E+01
RHO	8.9144E+00	2.5189E+01	3.3458E+01
H	6.3707E+01	1.0750E+02	1.5013E+02
A	6.1613E+00	9.2761E+00	1.0839E+01
S	1.6223E+00	1.6679E+00	1.7269E+00
Z	1.5439E+00	1.6519E+00	1.7261E+00
GAME	9.6954E-01	1.0169E+00	9.5672E-01
U	1.4539E+01	5.1426E+00	5.2808E+00

SPECIES	MOLE FRACTIONS		
E-	6.1719E-05	1.1264E-02	4.9289E-02
HE	2.2670E-01	2.1186E-01	2.0208E-01
HE+	1.9180E-11	1.4929E-05	6.9249E-04
HE++	7.4627E-42	4.3542E-20	5.3797E-14
H	7.0437E-01	7.5549E-01	6.9412E-01
H+	6.1719E-05	1.1249E-02	4.8596E-02
H2	6.8805E-02	1.0121E-02	5.2182E-03

P1 = 2.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8162E+02	1.8401E+03	3.4017E+03
T	2.1428E+01	3.9879E+01	5.8614E+01
RHO	9.1986E+00	2.8643E+01	3.4802E+01
H	5.1246E+01	8.7473E+01	1.2066E+02
A	5.2444E+00	8.2439E+00	9.8664E+00
S	1.5471E+00	1.6046E+00	1.6660E+00
Z	1.4257E+00	1.6109E+00	1.6676E+00
GAME	9.0030E-01	1.0579E+00	9.9590E-01
U	1.3066E+01	4.1911E+00	4.6917E+00

SPECIES	MOLE FRACTIONS		
E-	7.6340E-06	2.0675E-03	1.9918E-02
HE	2.4549E-01	2.1726E-01	2.0980E-01
HE+	1.3444E-13	2.6272E-07	7.6155E-05
HE++	6.3441E-50	2.1769E-26	1.9585E-17
H	5.9716E-01	7.5229E-01	7.4101E-01
H+	7.6340E-06	2.0673E-03	1.9942E-02
H2	1.5733E-01	2.6314E-02	9.3486E-03

P1 = 2.00E+04 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1463E+02	1.9969E+03	3.7935E+03
T	2.3173E+01	4.5581E+01	6.5284E+01
RHO	9.1284E+00	2.6923E+01	3.4244E+01
H	5.7314E+01	9.7283E+01	1.3536E+02
A	5.6570E+00	8.9175E+00	1.0377E+01
S	1.5853E+00	1.6372E+00	1.6970E+00
Z	1.4874E+00	1.6332E+00	1.6955E+00
GAME	9.2844E-01	1.0444E+00	9.7283E-01
U	1.3815E+01	4.6999E+00	5.0196E+00

SPECIES	MOLE FRACTIONS		
E-	2.0913E-05	5.3544E-03	3.3646E-02
HE	2.3531E-01	2.1429E-01	2.0619E-01
HE+	1.4526E-12	2.5419E-06	2.7303E-04
HE++	5.7804E-46	7.6577E-23	1.9127E-15
H	6.5531E-01	7.5939E-01	7.1976E-01
H+	2.0913E-05	5.3523E-03	3.3373E-02
H2	1.0934E-01	1.5614E-02	6.7974E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8502E+02	2.2413E+03	4.3343E+03
T	2.8368E+01	5.6530E+01	7.6257E+01
RHO	8.5605F+00	2.3720E+01	3.2320E+01
H	7.0407E+01	1.1816E+02	1.6484E+02
A	6.7709E+00	9.6742E+00	1.1256E+01
S	1.6572E+00	1.6976E+00	1.7563E+00
Z	1.5888E+00	1.6715E+00	1.7586F+00
GAME	1.0193E+00	9.9049E-01	9.4476E-01
U	1.5224E+01	5.4906F+00	5.4843E+00

SPECIES	MOLE FRACTIONS		
E-	2.0061E-04	1.9922E-02	6.5884E-02
HE	2.2029E-01	2.0934E-01	1.9762E-01
HE+	3.2671E-10	5.7916E-05	1.3994E-03
HE++	2.4689E-37	5.4920F-18	6.6778E-13
H	7.4061E-01	7.4374E-01	6.6649E-01
H+	2.0001E-04	1.9864E-02	6.4484E-02
H2	3.8700E-02	7.0743E-03	4.1241E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2120E+02	2.3239E+03	4.4657E+03
T	3.2133E+01	6.1386E+01	8.0736E+01
RHO	9.6990E+00	2.2353E+01	3.0957E+01
H	7.7357E+01	1.2919E+02	1.7945E+02
A	7.4266E+00	1.0041E+01	1.1634E+01
S	1.6899E+00	1.7266E+00	1.7857F+00
Z	1.6187E+00	1.6936F+00	1.7926E+00
GAME	1.0604E+00	9.6981E-01	9.3525E-01
U	1.5965F+01	5.7447E+00	5.6480E+00

SPECIES	MOLE FRACTIONS		
E-	6.8300E-04	3.0948E-02	8.2840E-02
HE	2.1623F-01	2.065CE-01	1.9293E-01
HE+	6.4237E-09	1.6492F-C4	2.4231E-03
HE++	1.2196E-32	2.2704E-16	4.7593E-12
H	7.6237E-01	7.2639E-01	6.3817E-01
H+	6.8299E-04	3.0783E-C2	8.0425E-02
H2	2.0039E-02	5.2192E-C3	3.3109E-03

Table I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5859E+02	2.4139E+03	4.5843E+03
T	3.6524E+01	6.5917E+01	9.4940E+01
RHO	7.6764E+00	2.1309E+01	2.9564E+01
H	8.4700E+01	1.4076E+02	1.9425E+02
A	7.9746E+00	1.0398F+01	1.1992E+01
S	1.7188E+00	1.7546E+00	1.8141F+00
Z	1.6357E+00	1.7185E+00	1.8277E+00
GAME	1.0645E+00	9.5450E-01	9.2738F-01
U	1.6491E+01	5.9368E+00	5.7790E+00

SPECIES	MOLE FRACTIONS		
E-	2.0560E-03	4.3999E-02	9.9926E-02
HE	2.1399E-01	2.0329E-01	1.8770E-01
HE+	9.3710E-08	3.8170E-04	3.8018E-03
HE++	1.9614E-28	4.4935E-15	2.4088E-11
H	7.7109E-01	7.0490E-01	6.0974F-01
H+	2.0559E-03	4.3519E-02	9.6124E-02
H2	1.0817E-02	4.0232E-03	2.7087E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8339E+02	2.8653E+03	5.2465E+03
T	4.9775E+01	7.8540E+01	9.6781E+01
RHO	6.9985E+00	2.0164E+01	2.7913E+01
H	1.0871E+02	1.7978E+02	2.4358E+02
A	9.0272E+00	1.1492E+01	1.3072E+01
S	1.7934E+00	1.8313E+00	1.8940E+00
Z	1.6747E+00	1.8093E+00	1.9421E+00
GAME	9.7757E-01	9.2781E-01	9.0919E-01
U	1.8476E+01	6.4074E+00	6.1809E+00

SPECIES	MOLE FRACTIONS		
E-	1.7857E-02	9.0240E-02	1.5204E-01
HE	2.0897E-01	1.9114E-01	1.6949E-01
HE+	1.8386E-05	2.3103E-03	1.0729E-02
HE++	3.4750E-20	2.9234E-12	1.1577E-09
H	7.5223E-01	6.2617E-01	5.2479E-01
H+	1.7839E-02	8.7930E-02	1.4131E-01
H2	3.0835E-03	2.2105E-03	1.6379E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9775E+02	2.5267E+03	4.7372E+03
T	4.1132E+01	7.0222E+01	8.8816E+01
RHO	7.3438E+00	2.0605E+01	2.8611E+01
H	9.2336E+01	1.5297E+02	2.0974E+02
A	8.3927E+00	1.0755E+01	1.2346E+01
S	1.7454E+00	1.7813E+00	1.8416E+00
Z	1.6478E+00	1.7463E+00	1.8644E+00
GAME	1.0392E+00	9.4320E-01	9.2055E-01
U	1.7124E+01	6.0996E+00	5.9120E+00

SPECIES	MOLE FRACTIONS		
E-	5.1680E-03	5.8329E-02	1.1723E-01
HE	2.1240E-01	1.9966E-01	1.8212E-01
HE+	8.5917E-37	7.6441E-04	5.6079E-03
HE++	5.6973E-25	5.3669E-14	9.9599E-11
H	7.7095E-01	6.8047E-01	5.8116E-01
H+	5.1071E-33	5.7564E-02	1.1162E-01
H2	6.4339E-03	3.2101E-03	2.2530E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3013E+02	3.0926E+03	5.6079E+03
T	5.3592E+01	8.2623E+01	1.0096E+02
RHO	6.9497E+00	2.0299E+01	2.8040E+01
H	1.1746E+02	1.9442E+02	2.6212E+02
A	9.3128E+00	1.1852E+01	1.3450E+01
S	1.8153E+00	1.8550E+00	1.9193E+00
Z	1.6919E+00	1.8439E+00	1.9830E+00
GAME	9.5653E-01	9.2203E-01	9.0457E-01
U	1.9186E+01	6.5654E+00	6.3261E+00

SPECIES	MOLE FRACTIONS		
E-	2.7127E-02	1.0703E-01	1.6933E-01
HE	2.0682E-01	1.8619E-01	1.6242E-01
HE+	5.2021E-35	3.6212E-03	1.4089E-02
HE++	1.4643E-18	1.5269E-11	3.4106E-09
H	7.3654E-01	5.9781E-01	4.9749E-01
H+	2.7075E-02	1.0343E-01	1.5524E-01
H2	2.3835E-03	1.8875E-03	1.4242E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3924E+02	2.6747E+03	4.9514E+03
T	4.5624E+01	7.4407E+01	9.2748E+01
RHO	7.1191E+00	2.0234E+01	2.8062E+01
H	1.0033E+02	1.6595E+02	2.2605E+02
A	9.7289E+00	1.1115E+01	1.2703E+01
S	1.7703E+00	1.8068E+00	1.8682E+00
Z	1.6602E+00	1.7766E+00	1.9024E+00
GAME	1.0059E+00	9.3464E-01	9.1455E-01
U	1.7781E+01	6.2535E+00	6.0365E+00

SPECIES	MOLE FRACTIONS		
E-	1.0405E-02	7.3883E-02	1.3457E-01
HE	2.1381E-01	1.9563E-01	1.7609E-01
HE+	4.9712E-36	1.3914E-03	7.8905E-03
HE++	2.9349E-22	4.5109E-13	3.5603E-10
H	7.6413E-01	6.5397E-01	5.5296E-01
H+	1.0460E-02	7.2502E-02	1.2668E-01
H2	4.2519E-03	2.6336E-03	1.9069E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7931E+02	3.3494E+03	6.0172E+03
T	5.7179E+01	8.6662E+01	1.0494E+02
RHO	6.9403E+00	2.0554E+01	2.8321E+01
H	1.2659E+02	2.0985E+02	2.8156E+02
A	9.5987E+00	1.2223E+01	1.3835E+01
S	1.8367E+00	1.8784E+00	1.9441E+00
Z	1.7118E+00	1.8803E+00	2.0246E+00
GAME	9.4131E-01	9.1684E-01	9.0085E-01
U	1.9919E+01	6.7207E+00	6.4663E+00

SPECIES	MOLE FRACTIONS		
E-	3.9611E-02	1.2412E-01	1.9627E-01
HE	2.0434E-01	1.8076E-01	1.5498E-01
HE+	1.2177E-04	5.3762E-03	1.7995E-02
HE++	3.1338E-17	6.6684E-11	9.1301E-09
H	7.1772E-01	5.6932E-01	4.7124E-01
H+	3.7849E-02	1.1774E-01	1.6837E-01
H2	1.9150E-03	1.6305E-03	1.2492E-03

Table I. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3084E+02	3.6337E+03	6.4739E+03
T	6.0546E+01	9.0625E+01	1.0907E+02
RHO	6.9609E+00	2.0908E+01	2.9715E+01
H	1.3608E+02	2.2602E+02	3.0196E+02
A	9.8843E+00	1.2590E+01	1.4230E+01
S	1.8576E+00	1.9013E+00	1.9688E+00
Z	1.7341E+00	1.9177E+00	2.0671E+00
GAME	9.3054E-01	9.1210E-01	8.9817E-01
U	2.0667E+01	6.8780E+00	6.6133E+00

SPECIES	MOLE FRACTIONS		
E-	5.0063E-02	1.4102E-01	2.0288E-01
HE	2.0159E-01	1.7492E-01	1.4723E-01
HE+	2.4663E-04	7.5898E-03	2.2090E-02
HE++	4.0051E-16	2.4698E-10	2.2611E-08
H	6.9670E-01	5.4161E-01	4.4592E-01
H+	4.9816E-02	1.3343E-01	1.8079E-01
H2	1.5837E-03	1.4245E-03	1.1021E-03

P1 = 2.00E+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5918E+02	5.0145E+03	8.6922E+03
T	7.2545E+01	1.0613E+02	1.2619E+02
RHO	7.1815E+00	2.2761E+01	3.0691E+01
H	1.7765E+02	2.9786E+02	3.9269E+02
A	1.1024E+01	1.43[illegible]7E+01	1.5970E+01
S	1.9386E+00	1.9919E+00	2.0672E+00
Z	1.8411E+00	2.0759E+00	2.2444E+00
GAME	9.0999E-01	8.98[illegible]9E-01	9.0054E-01
U	2.3741E+01	7.4[illegible]5E+00	7.2526E+00

SPECIES	MOLE FRACTIONS		
E-	1.0465E-01	2.0606E-01	2.[illegible]51E-01
HE	1.8833E-01	1.4766E-01	1.1530E-01
HE+	1.7711E-03	2.0940E-02	4.0647E-02
HE++	5.1714E-13	1.4906E-08	4.6746E-07
H	6.3150E-01	4.3933E-01	3.5331E-01
H+	1.0288E-01	1.8512E-01	2.2486E-01
H2	8.6194E-04	8.8179E-04	6.7834E-04

P1 = 2.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8458E+02	3.9431E+03	6.9711E+03
T	6.3735E+01	9.4548E+01	1.1323E+02
RHO	7.0008E+00	2.13?9E+01	2.9175E+01
M	1.4593E+02	2.4291E+02	3.2326E+02
A	1.0170E+01	1.2957E+01	1.4637E+01
S	1.0782E+00	1.9241E+00	1.9934E+00
Z	1.7584E+00	1.9562E+00	2.1103E+00
GAME	9.2286E-01	9.0776E-01	8.9669E-01
U	2.1423E+01	7.0326E+00	4.7640E+00

SPECIES	MOLE FRACTIONS		
E-	6.2975E-02	1.5778E-01	2.1908E-01
HE	1.9860E-01	1.6863E-01	1.3929E-01
HE+	4.4870E-04	1.0287E-02	2.6562E-02
HE++	3.4907E-15	8.0325E-10	5.2175E-08
H	6.7412E-01	5.1455E-01	4.2157E-01
H+	6.2526E-02	1.4750E-01	1.9252E-01
H2	1.3363E-03	1.2536E-03	9.759?E-04

P1 = 2.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0960F+03	5.8316F+03	1.0010E+04
T	7.7998E+01	1.1378E+02	1.3549E+02
RHO	7.3203E+00	2.3749E+01	3.1605F+01
M	2.0057E+02	3.3780F+02	4.4356F+02
A	1.1587E+01	1.4934F+01	1.6984F+01
S	1.5784E+00	2.0371F+00	2.1166E+00
Z	1.9023F+00	2.1582F+00	2.3378F+00
GAME	9.0592E-01	9.9639F-01	9.1076E-01
U	2.5302E+01	7.7933F+00	7.6246F+00

SPECIES	MOLE FRACTIONS		
E-	1.3330E-01	2.3617E-01	2.9474F-01
HE	1.8047F-01	1.3259E-01	1.0011F-01
HE+	3.5131E-03	2.9483F-02	4.9603E-02
HE++	6.4485F-12	7.1152E-09	1.6737F-06
H	5.5226E-01	3.9426E-01	3.0950E-01
H+	1.2979E-01	2.0669E-01	2.4513F-01
H2	6.6501E-04	7.0649E-04	5.2248F-04

P1 = 2.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4069E+02	4.2786E+03	7.5081E+03
T	6.6782E+01	9.8441E+01	1.1745E+02
RHO	7.0544E+00	2.1780E+01	2.9678E+01
M	1.5815E+02	2.6055E+02	3.4543E+02
A	1.0455E+01	1.3325E+01	1.5060F+01
S	1.8985E+00	1.9469E+00	2.0179E+00
Z	1.7845E+00	1.9956E+00	2.1541E+00
GAME	9.1725E-01	9.0389E-01	8.9652E-01
U	2.2192E+01	7.1856E+00	6.9115E+00

SPECIES	MOLE FRACTIONS		
E-	7.6539E-02	1.7429E-01	2.3488E-01
HE	1.9539E-01	1.6194E-01	1.3129E-01
HE+	5.5275F-04	1.3451E-02	3.1206F-02
HE++	2.2914E-14	2.3393F-09	1.1340E-07
H	6.5046F-01	4.8840F-01	3.9811E-01
H+	7.5756F-02	1.6093E-01	2.0367E-01
H2	1.1438E-03	1.1099F-03	8.6594F-04

P1 = 2.00E+04 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2216E+03	6.7211E+03	1.1470E+04
T	9.3199E+01	1.2153E+02	1.4569E+02
RHO	7.4613E+00	2.4667F+01	3.2330F+01
M	2.2496E+02	3.8026E+02	4.9853E+02
A	1.2144E+01	1.5646F+01	1.8136F+01
S	2.0181E+00	2.0822E+00	2.1662E+00
Z	1.9670E+00	2.2420E+00	2.4352E+00
GAME	9.3112E-01	8.9836E-01	8.2707E-01
U	2.6870E+01	8.1222F+00	8.0653E+00

SPECIES	MOLE FRACTIONS		
E-	1.6170E-01	2.6462E-01	3.2283E-01
HE	1.7176E-01	1.1772E-01	8.6159F-02
HE+	6.1697E-03	3.8387E-02	5.7561E-02
HE++	5.2919F-11	2.7521E-07	3.5093E-06
H	5.0432E-01	3.5247E-01	2.6780E-01
H+	1.5553F-01	2.2623F-01	2.6526E-01
H2	5.2040E-04	5.6520E-04	3.8934E-04

Table I. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3642E+03	7.6756E+03	1.3072E+04
T	8.8241E+01	1.2954E+02	1.5707E+02
RHO	7.5992E+00	2.5458E+01	3.2830E+01
H	2.5063E+02	4.2515E+02	5.5773E+02
A	1.2644E+01	1.6522E+01	1.9436E+01
S	2.0577E+00	2.1272E+00	2.2155E+00
Z	2.0343E+00	2.3275E+00	2.5351E+00
GAME	8.9765E-01	9.0537E-01	9.4870E-01
U	2.8442E+01	8.4881E+00	8.5748E+00

SPECIES	MOLE FRACTIONS		
E-	1.8934E-01	2.9153E-01	3.4942E-01
HE	1.6218E-01	1.0335E-01	7.3920E-02
HE+	9.8675E-03	4.7025E-02	6.4123E-02
HE++	3.1827E-10	9.1673E-07	1.7086E-05
H	4.5873E-01	3.1314E-01	2.2697E-01
H+	1.7947E-01	2.4451E-01	2.8527E-01
H2	4.1105E-04	4.4698E-04	2.7807E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8416E+03	1.0842E+04	1.8816E+04
T	1.0282E+02	1.5683E+02	2.0276E+02
RHO	7.9740E+00	2.6677E+01	3.2705E+01
H	3.3622E+02	5.7349E+02	7.6472E+02
A	1.4349E+01	1.9679E+01	2.4243E+01
S	2.1772E+00	2.2603E+00	2.3626E+00
Z	2.2461E+00	2.5917E+00	2.8875E+00
GAME	9.9146E-01	9.5292E-01	1.0215E+00
U	3.3167E+01	9.9112E+00	1.0692E+01

SPECIES	MOLE FRACTIONS		
E-	2.6561E-01	3.5353E-01	4.1857E-01
HE	1.2876E-01	6.7634E-02	4.6527E-02
HE+	2.7069E-02	6.7390E-02	7.6367E-02
HE++	1.9887E-08	2.0306F-05	4.5528E-04
H	3.3992E-01	2.0513E-01	1.1672E-01
H+	2.3854E-01	2.9616E-01	3.4129E-01
H2	2.0850E-04	1.8889E-04	6.9622E-05

P1 = 2.00E+04 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5154E+03	8.6896E+03	1.4827E+04
T	9.3165E+01	1.3793E+02	1.7020E+02
RHO	7.7322E+00	2.6100E+01	3.3017E+01
H	2.7776E+02	4.7242E+02	6.2159E+02
A	1.3241E+01	1.7473E+01	2.0916E+01
S	2.0974E+00	2.1716E+00	2.2654E+00
Z	2.1036E+00	2.4138E+00	2.6385E+00
GAPE	8.9465E-01	9.1703E-01	9.7417E-01
U	3.0017E+01	8.8948E+00	9.1745E+00

SPECIES	MOLE FRACTIONS		
E-	2.1595E-01	3.1679E-01	3.7482E-01
HE	1.5174E-01	9.0142E-02	6.3231E-02
HE+	1.4646E-02	5.4853E-02	6.9370E-02
HE++	1.5062E-09	2.7309E-06	5.2198E-05
H	4.1604E-01	2.7594E-01	1.8699E-01
H+	2.0130E-01	2.6193E-01	3.0535E-01
H2	3.2677E-04	3.4735E-04	1.8831E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0164E+03	1.1957E+04	2.1030E+04
T	1.0765E+02	1.6758E+02	2.2243E+02
RHO	8.0771E+00	2.6628E+01	3.2318E+01
H	3.6754E+02	6.2708E+02	8.4368E+02
A	1.4924E+01	2.0919E+01	2.5915E+01
S	2.2172E+00	2.3034E+00	2.4092E+00
Z	2.3190E+00	2.6796E+00	2.9255E+00
GAME	8.9212E-01	9.7442E-01	1.0321E+00
U	3.4738E+01	1.0529E+01	1.1569E+01

SPECIES	MOLE FRACTIONS		
E-	2.8865E-01	3.8436E-01	4.3603E-01
HE	1.1661E-01	5.8633E-02	3.9896E-02
HE+	3.4313E-02	7.1932E-02	7.8493E-02
HE++	5.9533E-09	5.1877E-05	1.2593E-03
H	3.0592E-01	1.7256E-01	8.9269E-02
H+	2.5434E-01	3.1233E-01	3.5502E-01
H2	1.6640E-04	1.3136E-04	3.9696E-05

P1 = 2.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6745E+03	9.7459E+03	1.6736E+04
T	9.9031E+01	1.4702E+02	1.9532E+02
RHO	7.8547E+00	2.6485E+01	3.2954E+01
H	3.0829E+02	5.2189E+02	6.9059E+02
A	1.3793E+01	1.8532E+01	2.2536E+01
S	2.1375E+00	2.2165E+00	2.3146E+00
Z	2.1747E+00	2.5030E+00	2.7405E+00
GAPE	8.9243E-01	9.3326E-01	1.0000E+00
U	3.1592E+01	9.9649E+00	9.8854E+00

SPECIES	MOLE FRACTIONS		
E-	3.4153E-01	3.4105E-01	3.9803E-01
HE	1.4078E-01	7.8381E-02	5.4199E-02
HE+	2.0407E-02	6.1743E-02	7.3360E-02
HE++	5.9354E-09	7.6699E-06	1.5602E-04
H	3.7621E-01	2.3956E-01	1.4977E-01
H+	2.2136E-01	2.7933E-01	3.2436E-01
H2	2.6038E-04	2.6030E-04	1.1731E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1988E+03	1.3075E+04	2.3351E+04
T	1.1256E+02	1.7931E+02	2.4360E+02
RHO	8.1639E+00	2.6382E+01	3.1533E+01
H	4.0024E+02	6.9251E+02	9.2672E+02
A	1.5524E+01	2.2217E+01	2.7406E+01
S	2.2573E+00	2.3451E+00	2.4536E+00
Z	2.3928E+00	2.7643E+00	3.0019E+00
GAPE	8.9475E-01	9.9595E-01	1.0271E+00
U	3.6303E+01	1.1228E+01	1.2466E+01

SPECIES	MOLE FRACTIONS		
E-	3.1056E-01	4.0312E-01	4.5039E-01
HE	1.0438E-01	5.1039E-02	3.4043E-02
HE+	4.1898E-02	7.5493E-02	7.9420E-02
HE++	1.6241E-07	1.2774E-04	3.1278E-03
H	2.7438E-01	1.4279E-01	6.8306E-02
H+	2.6866E-01	3.2737E-01	3.6470E-01
H2	1.3211E-04	8.7864E-05	2.2719E-05

Table I. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3884E+03	1.4179E+04	2.5722E+04
T	1.1761E+02	1.9203E+02	2.6514E+02
RHO	8.2306E+00	2.5974E+01	3.1616E+01
H	4.343CE+02	7.3963E+02	1.0125E+03
A	1.6157E+01	2.3538E+01	2.8683E+01
S	2.2974E+00	2.3851E+00	2.4960E+00
Z	2.4674E+00	2.8426E+00	3.0685E+00
GAME	8.9961E-01	1.0149E+00	1.0113E+00
U	3.7858E+01	1.2001F+01	1.3313E+01

SPECIES	MOLE FRACTIONS		
E-	3.3138E-01	4.1961E-01	4.6229E-01
HE	5.2297E-02	4.4546E-02	2.8780F-02
HE+	4.9553E-02	7.8276E-02	7.R616E-02
HE++	4.1252E-07	3.0271E-04	6.6667E-03
H	2.4484E-01	1.164RE-01	5.3295E-02
H+	2.81A2E-01	3.4073E-01	3.7034E-01
H2	1.03R8E-04	5.6813E-05	1.3607E-05

P1 = 2.C0E+C4 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9981E+03	1.7316E+04	3.2731E+04
T	1.3447E+02	2.3660E+02	3.2570E+02
RHO	8.2764E+00	2.4079E+01	3.1041E+01
H	5.4463E+02	9.2075E+02	1.2810E+03
A	1.8352E+01	2.7186E+01	3.2251E+01
S	2.4168E+00	2.5001E+00	2.6110E+00
Z	2.6937E+00	3.0393E+00	3.2375E+00
GAME	9.2977E-01	1.0278E+00	9.8640E-01
U	4.2434E+01	1.4575E+01	1.5419E+01

SPECIES	MOLE FRACTIONS		
E-	3.8751E-01	4.5713E-01	4.9035E-01
HE	5.9409E-02	2.9383E-02	1.5844E-02
HE+	7.0516E-02	8.2643E-02	6.5816E-02
HE++	5.2769E-06	3.1321E-03	2.6449E-02
H	1.6552E-01	5.9486E-02	2.9902E-02
H+	3.1679E-01	3.6822E-01	3.7164E-01
H2	4.5297E-05	1.3300E-05	4.2285E-06

P1 = 2.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5848E+03	1.5245E+04	2.8073E+04
T	1.2294E+02	2.0610E+02	2.8583E+02
RHO	8.2659E+00	2.5361E+01	3.1403E+01
H	4.6972E+02	7.9832E+02	1.1002E+03
A	1.6842E+01	2.4868E+01	2.9838E+01
S	2.3391E+00	2.4252E+00	2.5356E+00
Z	2.5437E+00	2.9166E+00	3.1276E+00
GAME	9.07C5E-01	1.0287E+00	9.9591E-01
U	3.9397E+01	1.2831E+01	1.4088E+01

SPECIES	MOLE FRACTIONS		
E-	3.5141E-01	4.3431E-01	4.7245E-01
HE	8.0488E-02	3.8789E-02	2.4070E-02
HE+	5.7139E-02	9.0511E-02	7.5882E-02
HE++	1.0056E-06	7.0321E-04	1.1954E-02
H	2.1662E-01	9.3269E-02	4.2972E-02
H+	2.9430E-01	3.5239E-01	3.7266E-01
H2	8.0152E-05	3.5139E-05	8.7711E-06

P1 = 2.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7884E+03	1.6302E+04	3.0455E+04
T	1.2847E+02	2.2106E+02	3.0611E+02
RHO	8.2900E+00	2.4733E+01	3.1248E+01
H	5.0651E+02	9.5973E+02	1.1900E+03
A	1.7562E+01	2.6100E+01	3.1019E+01
S	2.3773E+00	2.4632E+00	2.5741E+00
Z	2.6182E+00	2.9817E+00	3.1839E+00
GAME	9.1695E-01	1.0335E+00	9.9724E-01
U	4.0927E+01	1.3710E+01	1.4796E+01

SPECIES	MOLE FRACTIONS		
E-	3.6987E-01	4.4465E-01	4.8178E-01
HE	6.9667E-02	3.3817E-02	1.9729E-02
HE+	6.4068E-02	8.2025E-02	7.1410E-02
HE++	2.3179E-06	1.5395E-03	1.8788E-02
H	1.9063E-01	7.4399E-02	3.5490E-02
H+	3.6579E-01	3.6155E-01	3.7280E-01
H2	6.1176E-05	2.1566E-05	5.9662E-06

P1 = 2.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2132E+03	1.8284E+04	3.4914E+04
T	1.4116E+02	2.5234E+02	3.4580E+02
RHO	8.2229E+00	2.3442E+01	3.0683E+01
H	5.8404E+02	9.8460E+02	1.3752E+03
A	1.9223E+01	2.8128E+01	3.3604E+01
S	2.4565E+00	2.5360E+00	2.6480E+00
Z	2.7694E+00	3.0910E+00	3.2906E+00
GAME	9.4563E-01	1.0144E+00	9.9238E-01
U	4.3911E+01	1.5389E+01	1.6084E+01

SPECIES	MOLE FRACTIONS		
E-	4.0424E-01	4.6619E-01	4.9857E-01
HE	5.0072E-02	2.5363E-02	1.2287E-02
HE+	7.6295E-02	8.2047E-02	5.9344E-02
HE++	1.2005E-05	5.8235E-03	3.4733E-02
H	1.4142E-01	4.8065E-02	2.5303E-02
H+	3.2792E-01	3.7250E-01	3.6976E-01
H2	3.2302E-05	8.3982E-06	3.0140E-06

P1 = 2.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4338E+03	1.9235E+04	3.7040E+04
T	1.4926E+02	2.6771E+02	3.6632E+02
RHO	8.1519E+00	2.2497E+01	3.0272E+01
H	6.2476E+02	1.0502E+03	1.4718E+03
A	2.0148E+01	2.8977E+01	3.5048E+01
S	2.4943E+00	2.5705E+00	2.6835E+00
Z	2.8412E+00	3.1379F+00	3.3403E+00
GAME	9.6371E-01	9.9953E-01	1.0039E+00
U	4.5364E+01	1.6165E+01	1.6738E+01

SPECIES	MOLE FRACTIONS		
E-	4.1928E-01	4.7418E-01	5.0603E-01
HE	4.2044E-02	2.1763E-02	9.2682E-03
HE+	8.1116E-02	8.0029E-02	5.2633E-02
HE++	2.6783E-05	9.7462E-03	4.2881E-02
H	1.1939E-01	3.9613E-02	2.1549E-02
H+	3.3811E-01	3.7466F-01	3.6764E-01
H2	2.2431E-05	5.5513E-06	2.1751E-06

Table I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6600E+03	2.0164E+04	3.9031E+04
T	1.5634E+02	2.8322E+02	3.887JE+02
RHO	8.0424E+00	2.2357E+01	2.9632F+01
M	6.6679E+02	1.1193E+03	1.5719E+03
A	2.1162E+01	2.9843E+01	3.6662E+01
S	2.5319E+00	2.635RE+0C	2.7199E+00
Z	2.91C8E+00	3.1846E+0C	3.3887E+00
GAME	9.8404E-01	9.8744E-01	1.0204E+00
U	4.6792E+01	1.6823E+01	1.7436E+01

SPECIES	MOLE FRACTIONS		
E-	4.3317E-01	4.8188F-01	5.1308E-01
HE	3.5009E-02	1.8337E-02	6.6467E-03
HE+	8.517JE-02	7.6477E-02	4.5651E-02
HE++	6.0741E-05	1.5091E-02	5.0988E-02
H	5.8698E-02	3.2986E-02	1.R175E-02
H+	3.4798E-01	3.7522E-01	3.6546E-01
H2	1.4843E-C5	3.7553E-C6	1.5286E-06

P1 = 2.0CE+C4 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.363RE+03	2.2632F+04	4.4273E+04
T	1.8676E+02	3.2739E+02	4.6945E+02
RHC	7.5734E+00	2.0951E+01	2.6904E+01
M	8.0027E+02	1.3324E+03	1.8930E+03
A	2.4448E+01	3.2691E+01	4.2202E+01
S	2.6378E+00	2.7061F+00	2.8263E+00
Z	3.0953E+0J	3.3156E+00	3.5053E+00
GAME	1.0373E+00	9.8396E-01	1.0823E+00
U	5.C87JE+U1	1.9467E+01	1.9917E+01

SPECIES	MOLE FRACTIONS		
E-	4.6521E-01	5.0235E-01	5.2929E-01
HE	2.0166E-02	1.0043E-02	1.8992E-03
HE+	9.2557E-02	6.0044E-02	2.7109F-02
HE++	7.1951E-C4	3.5475E-02	7.0949E-02
H	5.0135E-C2	2.0726F-02	1.0382E-02
H+	3.7121E-01	3.7136E-01	3.6049E-01
H2	3.3853E-06	1.3963F-06	4.6634F-07

P1 = 2.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8899E+03	2.1039E+04	4.0954E+04
T	1.6549E+02	2.9784E+02	4.1305E+02
RHO	7.8976E+00	2.1880E+01	2.8810E+01
H	7.1306E+02	1.1892E+03	1.6752E+03
A	2.2251E+01	3.0714E+01	3.8411E+01
S	2.5699E+00	2.6391E+00	2.7561E+00
Z	2.9763E+00	3.2284E+00	3.4331E+00
GAME	1.0052E+00	9.9109E-01	1.0405E+00
U	4.8178E+01	1.7379E+01	1.82C8E+01

SPECIES	MOLE FRACTIONS		
E-	4.45c4E-01	4.8491E-01	5.1939E-01
HE	2.9015E-02	1.5332E-02	4.5508E-03
HE+	8.8439E-02	7.1856E-02	3.8874E-02
HE++	1.3984E-04	2.1226E-02	5.8524E-02
H	7.9843E-02	2.8073E-02	1.5199E-02
H+	3.5692E-01	3.7466E-01	3.6347E-01
H2	9.3472E-06	2.6660E-06	1.0495E-06

P1 = 2.00E+04 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1245E+03	2.1848E+04	4.2622E+04
T	1.7557E+02	3.1239E+02	4.4027E+02
RHO	7.7421E+00	2.1375E+01	2.7877E+01
H	7.5451E+02	1.2593E+03	1.7828E+03
A	2.3354E+01	3.1650E+01	4.0300E+01
S	2.6039E+00	2.6725E+00	2.7921E+00
Z	3.0342E+00	3.2719E+00	3.4727E+00
GAME	1.0242E+00	9.8003E-01	1.0622E+00
U	4.9537E+01	1.7957E+01	1.9058E+01

SPECIES	MOLE FRACTIONS		
E-	4.5623E-01	4.9571E-01	5.2497E-01
HE	2.4151E-02	1.2569E-02	2.9665E-03
HE+	9.0977E-02	6.6314E-02	3.2537E-02
HE++	3.1839E-04	2.8086E-02	6.5282E-02
H	6.3702E-02	2.4C96E-02	1.2573E-02
H+	3.6472E-01	3.7323E-01	3.6177E-01
H2	5.7168E-06	1.9239E-06	7.0194E-07

P1 = 2.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6068E+03	2.3342E+04	4.5885E+04
T	1.9899E+02	3.4241E+02	5.0224E+02
RHO	7.3976E+00	2.0307E+01	2.5861E+01
H	8.4722E+02	1.4063E+03	2.0087E+03
A	2.5448E+01	3.3769E+01	4.4171E+01
S	2.67C9E+00	2.7385E+00	2.8605E+00
Z	3.1295E+00	3.3570E+00	3.5327E+00
GAME	1.0399E+00	9.9208E-01	1.0996E+00
U	5.2169E+01	1.8994E+01	2.0922E+01

SPECIES	MOLE FRACTIONS		
E-	4.7276E-01	5.0849E-01	5.3294E-01
HE	1.6897E-02	7.8703E-03	1.1593E-03
HE+	9.3363E-02	5.3607E-02	2.2386E-02
HE++	1.57C2E-03	4.2783E-02	7.5528E-02
H	3.9159E-02	1.7931E-02	8.4860E-03
H+	3.7624E-01	3.6932E-01	3.5950E-01
H2	1.9743E-06	1.0236E-06	3.0256E-07

Table I. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8745E+01	7.27C8E+01
T	3.5541E+00	4.4740E+00	6.5342E+00
RHO	3.9293E+00	6.4257E+0C	1.1127E+01
H	3.6325E+00	4.6130E+00	6.9066E+00
A	1.8736E+00	2.0903E+00	2.4972E+00
S	1.C825E+00	1.0946E+00	1.1067E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.8771E-01	9.7664E-01	9.5435E-01
U	2.5703E+00	1.5703E+00	1.4043E+00

SPECIES	MOLE FRACTIONS		
E-	5.0968E-54	1.6511E-35	8.3229E-21
HE	3.5000E-01	3.5000E-01	3.4999E-01
HE+	3.8699E-62	3.7974E-52	3.5573E-43
HE++	0.	0.	0.
H	1.9824E-09	2.0066E-07	8.3100E-05
H+	8.1343E-20	8.1343E-20	8.9663E-20
H2	6.5000E-01	6.5000E-01	6.4993E-01

P1 = 5.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3924E+01	1.4876E+02	2.8757E+02
T	8.5181E+00	1.1726E+01	1.4377E+01
RHO	5.1494E+00	1.2507E+01	1.9159E+C1
H	9.2951E+00	1.3945E+01	1.9012E+01
A	2.8073E+00	3.2272E+00	3.5933E+00
S	1.195JE+00	1.2067E+00	1.2378E+00
Z	1.0014E+00	1.0143E+00	1.0440E+00
GAPE	9.2394E-01	8.7563E-01	8.6024E-01
U	4.8619E+00	2.0005E+0C	1.7885E+00

SPECIES	MOLE FRACTIONS		
E-	2.3960E-15	2.7657E-11	2.7123E-09
HE	3.4952E-01	3.4505E-01	3.3525E-C1
HE+	9.0767E-34	7.6674E-25	2.2469E-20
HE++	0.	1.0387E-87	8.3015E-73
H	2.7464E-03	2.8252E-02	8.4299E-02
H+	2.3960E-15	2.7657E-11	2.7123E-09
H2	6.4773E-01	6.2667E-01	5.9046E-01

P1 = 5.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2024E+01	5.6075E+01	1.2807E+02
T	4.9880E+00	6.6820E+00	9.3386E+00
RHO	4.4153E+00	8.3913E+00	1.3685E+01
H	5.1726E+00	7.0770E+00	1.0314E+01
A	2.2063E+00	2.5230E+00	2.9304E+00
S	1.1221E+00	1.1269E+00	1.1524E+00
Z	1.0006E+00	1.0001E+00	1.0021E+00
GAME	9.7057E-01	9.5259E-01	9.1764E-01
U	3.3339E+00	1.7532E+00	1.5889E+00

SPECIES	MOLE FRACTIONS		
E-	4.9717E-32	5.3331E-20	2.9390E-14
HE	3.5000E-01	3.4999E-01	3.4927E-01
HE+	3.8321E-50	1.9585E-42	7.1260E-31
HE++	0.	0.	0.
H	2.1028E-06	1.2829E-04	4.1437E-03
H+	8.1343E-20	1.3467E-19	2.9390E-14
H2	6.5000E-01	6.4989E-01	6.4658E-01

P1 = 5.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8069E+01	2.2406E+02	4.0482E+02
T	1.0353E+01	1.4025E+01	1.6635E+01
RHO	5.5646E+00	1.5327E+01	2.2370E+01
H	1.1895E+01	1.8475E+01	2.4490E+01
A	3.0392E+00	3.5419E+00	3.9480E+00
S	1.2289E+00	1.2463E+00	1.2811E+00
Z	1.0091E+00	1.0424E+00	1.0879E+00
GAME	8.8506E-01	8.5916E-01	8.6128E-01
U	5.6566E+00	2.0516E+00	1.8734E+00

SPECIES	MOLE FRACTIONS		
E-	1.4818E-12	1.8675E-09	4.5206E-08
HE	3.4719E-01	3.3577E-01	3.2172E-01
HE+	6.2868E-28	8.8631E-21	1.2176E-17
HE++	0.	1.7796E-76	5.1354E-65
H	1.6044E-02	8.1298E-02	1.6163E-01
H+	1.4818E-12	1.8675E-09	4.5206E-08
H2	6.3676E-01	5.8293E-01	5.1668E-01

P1 = 5.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1980E+01	9.4637E+01	1.9880E+02
T	6.6646E+00	9.2084E+00	1.2016E+01
RHO	4.7990E+00	1.0256E+01	1.6299E+01
H	7.0582E+00	1.0160E+01	1.4342E+01
A	2.5192E+00	2.9091E+00	3.2695E+00
S	1.1596E+00	1.1673E+00	1.1954E+00
Z	1.0001E+00	1.0021E+00	1.0150E+00
GAME	9.5218E-01	9.1711E-01	8.7644E-01
U	4.0939E+00	1.9141E+00	1.7095E+00

SPECIES	MOLE FRACTIONS		
E-	7.7331E-20	2.0396E-14	4.3371E-11
HE	3.4997E-01	3.4927E-01	3.4492E-01
HE+	1.1299E-42	3.5093E-31	3.2792E-24
HE++	0.	0.	4.4645E-88
H	1.6406E-04	4.1917E-03	2.9584E-02
H+	1.5867E-19	2.0397E-14	4.3371E-11
H2	6.4986E-01	6.4654E-01	6.2559E-01

P1 = 5.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4541E+01	3.2510E+02	5.6161E+02
T	1.1995E+01	1.6199E+01	1.8971E+01
RHO	6.0681E+00	1.8507E+01	2.5852E+01
H	1.4962E+01	2.3735E+01	3.0902E+01
A	3.2477E+00	3.8829E+00	4.3531E+00
S	1.2625E+00	1.2868E+00	1.3257E+00
Z	1.0241E+00	1.0844E+00	1.1451E+00
GAME	8.5861E-01	8.5828E-01	8.7226E-01
U	6.4787E+00	2.1235E+00	1.9875E+00

SPECIES	MOLE FRACTIONS		
E-	9.5550E-11	3.1384E-09	3.9339E-07
HE	3.4176E-01	3.2274E-01	3.0565E-01
HE+	3.5460E-24	4.4343E-18	1.5427E-15
HE++	2.2164E-87	1.4298E-66	9.1600E-57
H	4.7096E-02	1.5574E-01	2.5345E-01
H+	8.5550E-11	3.1384E-08	3.9339E-07
H2	6.1115E-01	5.2151E-01	4.4090E-01

Table I. - Continued

$p_1 = 50 kN/m^2$

P1 = 5.00E+04 N/SQ-M, USI= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3246E+01	4.5287E+02	7.6134E+02
T	1.3453E+01	1.8361E+01	2.1498E+01
RHO	6.6046E+00	2.1680E+01	2.9184E+01
H	1.8189E+01	2.9683E+01	3.8261E+01
A	3.4591E+00	4.2573E+00	4.8198E+00
S	1.2968E+00	1.3282E+00	1.3714E+00
Z	1.0494E+00	1.1377E+00	1.2135E+00
GAME	8.4753E-01	8.6766E-01	8.9045E-01
U	7.3139E+00	2.2265E+00	2.1371E+00

SPECIES	MOLE FRACTIONS		
E-	1.3386E-09	2.5994E-07	2.3533E-06
HE	3.3351E-01	3.0764E-01	2.8842E-01
HE+	1.4796E-21	5.0992E-16	8.8628E-14
HE++	9.3907E-80	1.4706E-58	3.8836E-50
H	9.4220E-02	2.4203E-01	3.5190E-01
H+	1.3386E-09	2.5994E-07	2.3533E-06
H2	5.7227E-01	4.5032E-01	3.5968E-01

P1 = 5.00E+04 N/SQ-M, USI= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6169E+02	9.6578E+02	1.6166E+03
T	1.7347E+01	2.5588E+01	3.1929E+01
RHO	7.9794E+00	2.8182E+01	3.4798E+01
H	3.0263E+01	5.1188E+01	6.6531E+01
A	4.1633E+00	5.6407E+00	6.7781E+00
S	1.4044E+00	1.4546E+00	1.5139E+00
Z	1.1681E+00	1.3393E+00	1.4550E+00
GAME	8.5538E-01	9.2843E-01	9.8896E-01
U	9.8004E+00	2.7741E+00	2.9127E+00

SPECIES	MOLE FRACTIONS		
E-	1.9205E-07	2.1790E-05	1.8799E-04
HE	2.9963E-01	2.6133E-01	2.4055E-01
HE+	7.8477E-17	1.2329E-11	2.2037E-09
HE++	6.8507E-62	1.7537E-42	1.0143E-33
H	2.8781E-01	5.0662E-01	6.2486E-01
H+	1.9205E-07	2.1790E-05	1.8799E-04
H2	4.1255E-01	2.3200E-01	1.3421E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1407E+02	6.0520E+02	1.0048E+03
T	1.4794E+01	2.0593E+01	2.4350E+01
RHO	7.1220E+00	2.4500E+01	3.1966E+01
H	2.1867E+01	3.6270E+01	4.6616E+01
A	3.6801E+00	4.6702E+00	5.3645E+00
S	1.3318E+00	1.3703E+00	1.4179E+00
Z	1.0826E+00	1.1996E+00	1.2909E+00
GAME	9.4556E-01	8.8296E-01	9.1551E-01
U	8.1501E+00	2.3682E+00	2.3360E+00

SPECIES	MOLE FRACTIONS		
E-	1.0119E-08	1.4239E-06	1.1266E-05
HE	3.2329E-01	2.9177E-01	2.7113E-01
HE+	1.2049E-19	2.3734E-14	3.1862E-12
HE++	2.4822E-72	8.7345E-53	1.7117E-44
H	1.5261E-01	3.3273E-01	4.5062E-01
H+	1.0119E-08	1.4239E-06	1.1266E-05
H2	5.2410E-01	3.7550E-01	2.7822E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8836E+02	1.1615E+03	1.9834E+03
T	1.8642E+01	2.8566E+01	3.7448E+01
RHO	8.2854E+00	2.8821E+01	3.4695E+01
H	3.4978E+01	5.9439E+01	7.8405E+01
A	4.4329E+00	6.2169E+00	7.6778E+00
S	1.4419E+00	1.4957E+00	1.5558E+00
Z	1.2189E+00	1.4108E+00	1.5266E+00
GAME	8.6478E-01	9.5906E-01	1.0311E+00
U	1.0611E+01	3.0509E+00	3.3349E+00

SPECIES	MOLE FRACTIONS		
E-	6.1955E-07	7.0993E-05	7.2738E-04
HE	2.8714E-01	2.4809E-01	2.2926E-01
HE+	1.0778E-15	1.9044E-10	5.3153E-08
HE++	1.3446E-57	1.0706E-37	1.2864E-28
H	3.5920E-01	5.8212E-01	6.8774E-01
H+	6.1995E-07	7.0993E-05	7.2703E-04
H2	3.5366E-01	1.6965E-01	8.1545E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3690E+02	7.7790E+02	1.2901E+03
T	1.6078E+01	2.2970E+01	2.7718E+01
RHO	7.5859E+00	2.6714E+01	3.3991E+01
H	2.5892E+01	4.3449E+01	5.6001E+01
A	3.9139E+00	5.1284E+00	6.0078E+00
S	1.3677E+00	1.4127E+00	1.4646E+00
Z	1.1225E+00	1.2677E+00	1.3733E+00
GAME	8.4877E-01	9.0319E-01	9.4821E-01
U	9.9795E+00	2.5490E+00	2.5893E+00

SPECIES	MOLE FRACTIONS		
E-	5.0238E-08	6.0414E-06	4.7372E-05
HE	3.1191E-01	2.7609E-01	2.5496E-01
HE+	3.9868E-18	6.4390E-13	8.8552E-11
HE++	1.9399E-66	3.6452E-49	6.8916E-39
H	2.1822E-01	4.2231E-01	5.4353E-01
H+	5.0238E-08	6.0414E-06	4.7372E-05
H2	4.6997E-01	3.0159E-01	2.0152E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1688E+02	1.3783E+03	2.3865E+03
T	1.9986E+01	3.2071E+01	4.4614E+01
RHO	8.5217E+00	2.8670E+01	3.3858E+01
H	4.0037E+01	6.8153E+01	9.1607E+01
A	4.7239E+00	6.8635E+00	8.6128E+00
S	1.4794E+00	1.5353E+00	1.5986E+00
Z	1.2734E+00	1.4772E+00	1.5800E+00
GAME	8.7691E-01	9.9434E-01	1.0524E+00
U	1.1411E+01	3.3903E+00	3.8358E+00

SPECIES	MOLE FRACTIONS		
E-	1.7710E-06	2.1735E-04	2.6043E-03
HE	2.7485E-01	2.3693E-01	2.2152E-01
HE+	1.1551E-14	2.5797E-09	1.0903E-06
HE++	1.1436E-53	1.6891E-33	7.9054E-24
H	4.2942E-01	6.4547E-01	7.2633F-01
H+	1.7710E-06	2.1735E-04	2.6032E-03
H2	2.9573E-01	1.1716E-01	4.6941E-02

Table I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4715E+02	1.5457E+03	2.8050E+03
T	2.1436E+01	3.6261E+01	5.2697E+01
RHO	8.6606E+00	2.7799E+01	3.2945E+01
M	4.5435E+01	7.7255E+01	1.0579E+02
A	5.0453E+00	7.5637E+00	9.4109E+00
S	1.5171E+00	1.5730E+00	1.6370E+00
Z	1.3313E+00	1.5334E+00	1.6157E+00
GAME	8.9206E-01	1.0289E+00	1.0402E+00
U	1.2198E+01	3.7979E+00	4.3480E+00

SPECIES	MOLE FRACTIONS		
E-	4.7247E-06	6.3219E-04	7.3454E-03
HE	2.6291E-01	2.2825E-01	2.1661E-01
HE+	1.0792E-13	3.1397E-09	1.2822E-05
HE++	4.0424E-50	1.6443E-29	5.8995E-20
H	4.9765E-01	6.9379E-01	7.4011E-01
H+	4.7247E-06	6.3216E-04	7.3325E-03
H2	2.3943E-01	7.6689E-02	2.8584E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4722E+02	2.0048E+03	3.9255E+03
T	2.7142E+01	5.2365E+01	7.4662E+01
RHO	8.4952E+00	2.3503E+01	3.0922E+01
M	6.3626E+01	1.0661E+02	1.5053E+02
A	6.2904E+00	9.3957E+00	1.1121E+01
S	1.6276E+00	1.6721E+00	1.7332E+00
Z	1.5059E+00	1.6269E+00	1.7003E+00
GAME	9.6816E-01	1.0349E+00	9.7428E-01
U	1.4448E+01	5.2197E+00	5.4743E+00

SPECIES	MOLE FRACTIONS		
E-	8.0933E-05	8.3924E-03	4.0633E-02
HE	2.3242E-01	2.1485E-01	2.0509E-01
HE+	8.0334E-11	1.3677E-05	7.5602E-04
HE++	2.3339E-39	5.8937E-20	1.3587E-13
H	6.7162E-01	7.4703E-01	7.0260E-01
H+	8.0933E-05	8.3787E-03	3.9877E-02
H2	9.5755E-02	2.1332E-02	1.1041E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7907E+02	1.7174E+03	3.2149E+03
T	2.3048E+01	4.1192E+01	8.0680E+01
RHO	8.7058E+00	2.6458E+01	3.2225E+01
H	5.1169E+01	8.6697E+01	1.2049E+02
A	5.4046E+00	8.2587E+00	1.0064E+01
S	1.5547E+00	1.6382E+00	1.6715E+00
Z	1.3908E+00	1.5758E+00	1.6441E+00
GAME	9.1125E-01	1.0508E+00	1.0152E+00
U	1.2969E+01	4.2638E+00	4.7998E+00

SPECIES	MOLE FRACTIONS		
E-	1.2145E-05	1.7061E-03	1.5713E-02
HE	2.5165E-01	2.2211E-01	2.1281E-01
HE+	9.4946E-13	3.2330E-07	7.9506E-05
HE++	1.6246E-46	8.0912E-26	4.0099E-17
H	5.6196E-01	7.2567E-01	7.3646E-01
H+	1.2145E-05	1.7058E-03	1.5634E-02
H2	1.8637E-01	4.9904E-02	1.0312E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8301E+02	2.1222E+03	4.1907E+03
T	2.9924E+01	5.7979E+01	8.9602E+01
RHO	8.2352E+00	2.2189E+01	3.0045E+01
H	7.0330E+01	1.1718E+02	1.6567E+02
A	6.8430E+00	9.8456E+00	1.1567E+01
S	1.6619E+00	1.7018E+00	1.7624E+00
Z	1.5542E+00	1.6496E+00	1.7305E+00
GAME	1.0068E+00	1.0135E+00	9.5922E-01
U	1.5144E+01	5.6153E+00	5.7187E+00

SPECIES	MOLE FRACTIONS		
E-	2.1970E-04	1.4997E-02	5.5391E-02
HE	2.2519E-01	2.1212E-01	2.0068E-01
HE+	8.6266E-10	5.3613E-05	1.5704E-03
HE++	1.5221E-35	7.6757E-18	1.8752E-12
H	7.1252E-01	7.4266E-01	6.7970E-01
H+	2.1970E-04	1.4944E-02	5.3811E-02
H2	6.1849E-02	1.5229E-02	9.9527E-03

P1 = 5.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1249E+02	1.8699E+03	3.5959E+03
T	2.4907E+01	4.6670E+01	8.8073E+01
RHO	8.6525E+00	2.4947E+01	3.1597E+01
H	5.7236E+01	9.6462E+01	1.3547E+02
A	5.8143E+00	8.8756E+00	1.0627E+01
S	1.5917E+00	1.6411E+00	1.7034E+00
Z	1.4500E+00	1.6059E+00	1.6719E+00
GAME	9.3605E-01	1.0511E+00	9.9241E-01
U	1.3721E+01	4.7571E+00	5.1780E+00

SPECIES	MOLE FRACTIONS		
E-	3.1039E-05	4.0753E-03	2.7211E-02
HE	2.4137E-01	2.1794E-01	2.0907E-01
HE+	9.4051E-12	2.5047E-06	2.9099E-04
HE++	5.0653E-43	1.3198E-22	4.4204E-15
H	6.2603E-01	7.4239E-01	7.2232E-01
H+	3.1039E-05	4.0728E-03	2.6970E-02
H2	1.3794E-01	3.1523E-02	1.4197E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1968E+02	2.2231E+03	4.3875E+03
T	3.3400E+01	6.3319E+01	8.5876E+01
RHO	7.8968E+00	2.1015E+01	2.9002E+01
H	7.7336E+01	1.2817E+02	1.8379E+02
A	7.4462E+00	1.0252E+01	1.1966E+01
S	1.6941E+00	1.7305E+00	1.7910E+00
Z	1.5912E+00	1.6707E+00	1.7616E+00
GAME	1.0433E+00	9.9361E-01	9.4649E-01
U	1.5209E+01	5.9352E+00	5.9132E+00

SPECIES	MOLE FRACTIONS		
E-	6.0993E-04	2.3794E-02	7.0626E-02
HE	2.1996E-01	2.0933E-01	1.9591E-01
HE+	9.9441E-09	1.5763E-04	2.7662E-03
HE++	1.1171E-31	3.6249E-16	1.4409E-11
H	7.4124E-01	7.3168E-01	6.5558E-01
H+	6.0992E-04	2.3636E-02	6.7960E-02
H2	3.7578E-02	1.1399E-02	7.2526E-03

Table I. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5734E+02	2.3190E+03	4.5446E+03
T	3.7537E+01	6.8330E+01	9.0697E+01
RHO	7.5304E+00	2.0044E+01	2.7934E+01
H	8.4646E+01	1.3964E+02	1.9608E+02
A	8.0209E+00	1.0633E+01	1.2336E+01
S	1.7238E+00	1.7579E+00	1.8192E+00
Z	1.6162E+00	1.6932E+00	1.7938E+00
GAME	1.0605E+00	9.7717E-01	9.3541E-01
U	1.6446E+01	6.1853E+00	6.0821E+00

SPECIES	MOLE FRACTIONS		
E-	1.6207E-03	3.4391E-02	8.6212E-02
HE	2.1656E-01	2.0634E-01	1.9074E-01
HE+	1.0438E-07	3.7484E-04	4.3740E-03
HE++	5.6348E-29	7.9212E-15	7.5996E-11
H	7.5766E-01	7.1600E-01	6.3081E-01
H+	1.6206E-03	3.4017E-02	9.1939E-02
H2	2.2539E-02	8.8833E-03	6.0297E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.911[illegible]E+02	2.7265E+03	5.1646E+03
T	5.1149E+01	8.2494E+01	1.0394E+02
RHO	6.84C2E+00	1.9634E+01	2.6230E+01
H	1.086[illegible]E+02	1.7798E+02	2.4533E+02
A	9.2359E+00	1.1744E+01	1.3399E+01
S	1.7999E+00	1.8346E+00	1.8977E+00
Z	1.66C9E+00	1.7736E+00	1.9944E+00
GAME	1.0041E+00	9.4265E-01	9.1030E-01
U	1.8399E+01	6.7484E+00	6.4909E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible]3E-02	7.4662E-02	1.3283E-01
HE	[illegible]71E-01	1.9492E-01	1.7303E-01
HE+	1.7595E-05	2.4131E-03	1.1725E-02
HE++	5.8858[illegible]-20	6.3370E-12	3.1447E-09
H	7.5533E-01	6.5080E-01	5.5747E-01
H+	1.3495E-02	7.2249E-02	1.2113E-01
H2	6.9365E-03	4.9515E-03	3.8360E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.964ME+02	2.4271E+03	4.7039E+03
T	4.237CE+01	7.321cE+01	9.5151E+01
RHC	7.2261E+00	1.9294E+01	2.7070E+01
H	9.2279E+01	1.5170F+02	2.1164E+02
A	8.5019E+00	1.1039F+01	1.2684E+01
S	1.7511E+00	1.7848E+0C	1.8460E+00
Z	1.6331E+0C	1.7182E+00	1.8262E+00
GAME	1.0521E+00	9.635JE-C1	9.2592E-01
U	1.708JE+01	6.3917E+0C	6.2135E+00

SPECIES	MOLE FRACTIONS		
E-	3.9166E-03	4.6790F-02	1.0161E-01
HE	2.1431E-01	2.0293E-01	1.8529E-01
HE+	9.2323E-07	7.7775E-04	6.3654E-03
HE++	9.703?E-25	1.0699E-13	3.0285E-10
H	7.6391E-01	6.9639E-01	6.0639E-01
H+	3.8158E-03	4.6012E-02	9.5242E-02
H2	1.4144E-02	7.1397E-03	5.1108E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3767E+02	2.5624E+03	4.9107E+03
T	4.6661E+01	7.7908F+01	9.9576E+01
RHC	6.9967E+00	1.9949E+01	2.6514E+01
H	1.0026E+02	1.6446F+02	2.2811E+02
A	9.9934E+00	1.1378E+01	1.3036E+01
S	1.7762E+00	1.8102E+00	1.8723E+00
Z	1.646?E+0C	1.7450E+00	1.8600E+00
GAME	1.0292F+00	9.5230F-01	9.1749E-01
U	1.773cE+01	6.5760E+00	6.3599E+00

SPECIES	MOLE FRACTIONS		
E-	7.6522E-03	6.0291F-02	1.1729E-01
HE	2.1252E-01	1.9914E-01	1.7934E-01
HE+	4.49C9E-0c	1.4317F-03	9.9344E-03
HE++	4.3230E-22	9.5614F-13	1.0441F-09
H	7.6253E-01	6.7441E-01	5.9169E-01
H+	7.6977E-03	5.9860F-02	1.0845E-01
H2	9.5713E-03	5.8669E-03	4.3949E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2703E+02	2.9234E+03	5.4786E+03
T	5.5402E+01	8.7016E+01	1.0836E+02
RHO	6.7508E+00	1.8623E+01	2.6199E+01
H	1.1731E+02	1.9230E+02	2.6361E+02
A	9.5536E+00	1.2109E+01	1.3752E+01
S	1.8224E+00	1.9582E+00	1.9226E+00
Z	1.6765E+00	1.8040E+0C	1.9298E+00
GAME	9.9266E-01	9.3400E-01	9.0433E-01
U	1.9091E+01	6.9153E+00	6.6331E+00

SPECIES	MOLE FRACTIONS		
E-	2.1136E-02	8.9620E-02	1.4837E-01
HE	2.0872E-01	1.9022E-01	1.6632E-01
HE+	5.2548E-05	3.7916E-03	1.5044E-02
HE++	2.9945E-18	3.3284E-11	8.6376E-09
H	7.4368E-01	6.2628E-01	5.3355E-01
H+	2.1083E-02	8.5828E-02	1.3333E-01
H2	5.3304E-03	4.2584E-03	3.3874E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7537E+02	3.1497E+03	5.8404E+03
T	5.942cE+01	9.1461E+01	1.1278E+02
RHO	6.7C84E+00	1.8761E+01	2.6348E+01
H	1.2644E+02	2.0742E+02	2.9273E+02
A	9.8619E+0C	1.2469E+01	1.4123E+01
S	1.8439E+00	1.8811E+00	1.9469E+00
Z	1.6941E+00	1.8J6E+00	1.9655E+00
GAME	9.6603E-01	9.2608E-01	8.9982E-01
U	1.9803E+01	7.0760E+00	6.7648E+00

SPECIES	MOLE FRACTIONS		
E-	3.0322E-02	1.0484E-01	1.6355E-01
HE	2.0647E-01	1.8507E-01	1.5941E-01
HE+	1.2915E-04	5.6067E-03	1.8661E-02
HE++	7.3718E-17	1.432ME-10	2.1542E-08
H	7.2862E-01	6.0154E-01	5.1046E-01
H+	3.0194E-02	9.9231F-C2	1.4489E-01
H2	4.2722E-03	3.7195E-03	3.0237E-03

Table I. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 2.80E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.2605E+02	3.3990E+03	6.2441E+03
T	6.3266E+01	9.5887E+01	1.1724E+02
RHO	6.6956E+00	1.8969E+01	2.6603E+01
H	1.3585E+02	2.2325E+02	3.0277E+02
A	1.0169E+01	1.2831E+01	1.4509E+01
S	1.8650E+00	1.9042E+00	1.9709E+00
Z	1.7140E+00	1.9689E+00	2.0020E+00
GAME	9.5346E-01	9.1872E-01	8.9684E-01
U	2.0531E+01	7.2439E+00	6.8991E+00

SPECIES	MOLE FRACTIONS		
E-	4.0852E-02	1.2039E-01	1.7854E-01
HE	2.0393E-01	1.7937E-01	1.5231E-01
HE+	2.6984E-04	7.9099E-03	2.2520E-02
HE++	1.0748E-15	5.3100E-10	4.9951E-08
H	7.1084E-01	5.7658E-01	4.8790E-01
H+	4.0582E-02	1.1249E-01	1.5602E-01
H2	3.5236E-03	3.2759E-03	2.7144F-03

P1 = 5.00E+C4 N/SQ-M, US1= 3.20E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5129E+02	4.6516E+03	8.2684E+03
T	7.6946E+01	1.1293E+02	1.3616E+02
RHO	6.8329E+00	2.0532E+01	2.8170E+01
H	1.7729E+02	2.9407E+02	3.9260E+02
A	1.1354E+01	1.4270E+01	1.6270E+01
S	1.9448E+00	1.9920E+00	2.0664E+00
Z	1.8093E+00	2.0061E+00	2.1557E+00
GAME	9.2592E-01	8.9878E-01	9.0190E-01
U	2.3546E+01	7.8285E+00	7.5337E+00

SPECIES	MOLE FRACTIONS		
E-	9.0018E-02	1.7968E-01	2.3640E-01
HE	1.9137E-01	1.5362E-01	1.2386E-01
HE+	2.0666E-03	2.0845E-02	3.8497E-02
HE++	1.7223E-12	2.8315E-08	8.5737E-07
H	6.2664E-01	4.8485E-01	4.0155E-01
H+	8.7952E-02	1.5894E-01	1.9790E-01
H2	1.9489E-03	2.1660E-03	1.7940E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7905E+02	3.6789E+03	6.6953E+03
T	6.6898E+01	1.0019E+02	1.2181E+02
RHO	6.7098E+00	1.9307E+01	2.6952E+01
H	1.4567E+02	2.3990E+02	3.2389E+02
A	1.0469E+01	1.3185E+01	1.4915E+01
S	1.8855E+00	1.9261E+00	1.9950E+00
Z	1.7356E+00	1.9020E+00	2.0394E+00
GAPE	9.4393E-01	9.1228E-01	8.9549E-01
U	2.1272E+01	7.3890E+00	7.0522E+00

SPECIES	MOLE FRACTIONS		
E-	5.2280E-02	1.3544E-01	1.9338E-01
HE	2.0116E-01	1.7341E-01	1.4507E-01
HE+	5.0393E-04	1.0601E-02	2.6549E-02
HE++	1.0230E-14	1.6706E-09	1.0943E-07
H	6.9130E-01	5.5277E-01	4.6573E-01
H+	5.1776E-02	1.2484E-01	1.6683E-01
H2	2.9764E-03	2.9303E-03	2.4457E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0769E+03	5.3999E+03	9.6946E+03
T	8.3152E+01	1.2138E+02	1.4667E+02
RHO	6.9456E+00	2.1410E+01	2.9917E+01
H	2.0015E+02	3.3352E+02	4.4338E+02
A	1.1928E+01	1.5032E+01	1.7332E+01
S	1.9836E+00	2.0357E+00	2.1143E+00
Z	1.8644E+00	2.0776E+00	2.2386E+00
GAME	9.1782E-01	8.9610E-01	9.1494E-01
U	2.5087E+01	9.1358E+00	7.9267E+00

SPECIES	MOLE FRACTIONS		
E-	1.1652E-01	2.0760E-01	2.6435E-01
HE	1.8361E-01	1.3996E-01	1.1076E-01
HE+	4.1102E-03	2.8609E-02	4.5652E-02
HE++	2.1905E-11	1.2696E-07	2.9879E-06
H	5.8192E-01	4.4315E-01	3.5917E-01
H+	1.1240E-01	1.7899E-01	2.1869E-01
H2	1.5293E-03	1.7990E-03	1.4314E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.3431E+02	3.9818E+03	7.1862E+03
T	7.0350E+01	1.0446E+02	1.2647E+02
RHO	6.7428E+00	1.9686E+01	2.7354E+01
H	1.5585E+02	2.5725E+02	3.4599E+02
A	1.0765E+01	1.3542E+01	1.5341E+01
S	1.9054E+00	1.9492E+00	2.0188E+00
Z	1.7587E+00	1.9362E+00	2.0773E+00
GAME	9.3667E-01	9.0667E-01	8.9596E-01
U	2.2024E+01	7.5399E+00	7.2055E+00

SPECIES	MOLE FRACTIONS		
E-	6.4343E-02	1.5047E-01	2.0793E-01
HE	1.9816E-01	1.6735E-01	1.3787E-01
HE+	8.5881E-04	1.3714E-02	3.0610E-02
HE++	7.0432E-14	4.7215E-09	2.2683E-07
H	6.7060E-01	5.2937E-01	4.4406E-01
H+	6.3484E-02	1.3676E-01	1.7732E-01
H2	2.5585E-03	2.6358E-03	2.2086E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2156E+03	6.2225E+03	1.3865E+04
T	8.9067E+01	1.3300E+02	1.5927E+02
RHO	7.0696E+00	2.2255E+01	2.9516E+01
H	2.2443E+02	3.7558E+02	4.9838E+02
A	1.2499E+01	1.5855E+01	1.8542E+01
S	2.0220E+00	2.0792E+00	2.1621E+00
Z	1.9225E+00	2.1509E+00	2.3257E+00
GAME	9.1094E-01	8.9907E-01	9.3403E-01
U	2.6640E+01	9.4547E+00	8.3903E+00

SPECIES	MOLE FRACTIONS		
E-	1.4300E-01	2.3432E-01	2.9166E-01
HE	1.7497E-01	1.2637E-01	9.8825E-02
HE+	7.1752E-03	3.6363E-02	5.1655E-02
HE++	1.7635E-10	4.6519E-07	9.9594E-06
H	5.3791E-01	4.0349E-01	3.1675E-01
H+	1.3582E-01	1.9796E-01	2.3999E-01
H2	1.2239E-03	1.4934E-03	1.1102E-03

Table I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3527E+03	7.1097E+03	1.2387E+04
T	9.4761E+01	1.3896E+02	1.7134E+02
RHO	7.1985E+00	2.2985E+01	2.9902E+01
H	2.5013E+02	4.2006E+02	5.5789E+02
A	1.3040E+01	1.6756E+01	1.9914E+01
S	2.0604E+00	2.1225E+00	2.2101E+00
Z	1.9830E+00	2.2259E+00	2.4177E+00
GAME	9.0496E-01	9.0764E-01	9.5729E-01
U	2.8203E+01	8.8254E+00	8.9371E+00

SPECIES	MOLE FRACTIONS		
E-	1.6893E-01	2.5997E-01	3.1936E-01
HE	1.6521E-01	1.1367E-01	8.8307E-02
HE+	1.1285E-02	4.3562E-02	5.6432E-02
HE++	1.0148E-09	1.4744E-06	2.6416E-05
H	4.9593E-01	3.6517E-01	2.7416E-01
H+	1.5764E-01	2.1640E-01	2.6188E-01
H2	9.9314E-04	1.2266E-03	8.2717E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8275E+03	1.0062E+04	1.7877E+04
T	1.1111E+02	1.6943E+02	2.2104E+02
RHO	7.5684E+00	2.4116E+01	2.9972E+01
H	3.3563E+02	5.6694E+02	7.6548E+02
A	1.4705E+01	2.0001E+01	2.4671E+01
S	2.1754E+00	2.2496E+00	2.3496E+00
Z	2.1732E+00	2.4630E+00	2.6985E+00
GAME	8.9553E-01	9.5875E-01	1.0204E+00
U	3.2913E+01	1.0324E+01	1.1116E+01

SPECIES	MOLE FRACTIONS		
E-	2.4129E-01	3.3067E-01	3.9881E-01
HE	1.3229E-01	9.2794E-02	6.4082E-02
HE+	2.8765E-02	5.9284E-02	6.5109E-02
HE++	5.2435E-08	2.7792E-05	5.1152E-04
H	3.8457E-01	2.5531E-01	1.5853E-01
H+	2.1253E-01	2.7133E-01	3.2268E-01
H2	5.5494E-04	5.9391E-04	2.6849E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5030E+03	9.0493E+03	1.4069E+04
T	1.0025E+02	1.4848E+02	1.8612E+02
RHO	7.3274E+00	2.3526E+01	3.0083E+01
M	2.7723E+02	4.6680E+02	6.2240E+02
A	1.3589E+01	1.7754E+01	2.1428E+01
S	2.0987E+00	2.1660E+00	2.2578E+00
Z	2.0451E+00	2.3041E+00	2.5127E+00
GAME	9.0013E-01	9.2139E-01	9.8175E-01
U	2.9772E+01	9.2683E+00	9.5916E+00

SPECIES	MOLE FRACTIONS		
E-	1.9403E-01	2.8486E-01	3.4393E-01
HE	1.5476E-01	1.0199E-01	7.9137E-02
HE+	1.6379E-02	4.9911E-02	6.0080E-02
HE++	4.5276E-09	4.2441E-06	7.4679E-05
H	4.5639E-01	3.2731E-01	2.3249E-01
H+	1.7765E-01	2.3494E-01	2.8370E-01
H2	8.1396E-04	9.8506E-04	5.9995E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0014E+03	1.1103E+04	1.9981E+04
T	1.1652E+02	1.8110E+02	2.4113E+02
RHO	7.6718E+00	2.4104E+01	2.9764E+01
M	3.6692E+02	6.1999E+02	8.4392E+02
A	1.5292E+01	2.1236E+01	2.6273E+01
S	2.2138E+00	2.2905E+00	2.3937E+00
Z	2.2388E+00	2.5435E+00	2.7840E+00
GAME	8.9643E-01	9.7907E-01	1.0282E+00
U	3.4480E+01	1.0967E+01	1.1968E+01

SPECIES	MOLE FRACTIONS		
E-	2.6347E-01	3.5172E-01	4.0751E-01
HE	1.2077E-01	7.4938E-02	5.7502E-02
HE+	3.5558E-02	6.2604E-02	6.6996E-02
HE++	1.4708E-07	6.5848E-05	1.2188E-03
H	3.5183E-01	2.2125E-01	1.2852E-01
H+	2.2791E-01	2.8898E-01	3.3808E-01
H2	4.5840E-04	4.4063E-04	1.7448E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6613E+03	9.0414E+03	1.5902E+04
T	1.0572E+02	1.5854E+02	2.0263E+02
RHO	7.4522E+00	2.3937E+01	3.0103E+01
M	3.0573E+02	5.1587E+02	6.9159E+02
A	1.4146E+01	1.9931E+01	2.3028E+01
S	2.1370E+00	2.2079E+00	2.3042E+00
Z	2.1886E+00	2.3925E+00	2.6070E+00
GAME	8.9686E-01	9.3886E-01	1.0038E+00
U	3.1343E+01	9.7509E+00	1.0320E+01

SPECIES	MOLE FRACTIONS		
E-	2.1816E-01	3.0823E-01	3.6748E-01
HE	1.4370E-01	9.1905E-02	7.1203E-02
HE+	2.2285E-02	5.5088E-02	6.2853E-02
HE++	1.6614E-09	1.1154E-05	2.0035E-04
H	4.1931E-01	2.9097E-01	1.9363E-01
H+	1.9587E-01	2.5312E-01	3.0423E-01
H2	6.7113E-04	7.7727E-04	4.0518E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1827E+03	1.2150E+04	2.2187E+04
T	1.2203E+02	1.9353E+02	2.6244E+02
RHO	7.7581E+00	2.3948E+01	2.9539E+01
M	3.9958E+02	6.7487E+02	9.2457E+02
A	1.5910E+01	2.2500E+01	2.7760E+01
S	2.2523E+00	2.3298E+00	2.4361E+00
Z	2.3056E+00	2.6216E+00	2.8620E+00
GAME	8.9974E-01	9.9782E-01	1.0260E+00
U	3.6038E+01	1.1678E+01	1.2853E+01

SPECIES	MOLE FRACTIONS		
E-	2.8472E-01	3.7092E-01	4.2359E-01
HE	1.0394E-01	6.9131E-02	5.1210E-02
HE+	4.2405E-02	6.5230E-02	6.8435E-02
HE++	3.7730E-07	1.4779E-04	2.6482E-03
H	3.2078E-01	1.8985E-01	1.0415E-01
H+	2.4252E-01	3.0464E-01	3.4986E-01
H2	3.7648E-04	3.1944E-04	1.1355E-04

Table I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.CCE+C4 N/SQ-M, US1= 5.COE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3713E+03	1.3189E+04	2.6433E+04
T	1.2770E+02	2.0702E+02	2.9412E+02
RHO	7.9237E+00	2.3610E+01	2.9330E+01
H	4.3361E+02	7.3149E+02	1.0117E+03
A	1.6567E+01	2.3799E+01	2.9105E+01
S	2.2907E+00	2.3690E+00	2.4767E+00
Z	2.3734E+00	2.6984E+00	2.9320E+00
GAPE	9.0559E-01	1.0138E+00	1.0169E+00
U	3.7597E+01	1.2449E+01	1.3681E+01

SPECIES	MOLE FRACTIONS		
E-	3.0510E-01	3.8875E-01	4.3732E-01
HE	5.8394E-02	6.1913E-02	4.5096E-02
HE+	4.9073E-02	6.7471E-02	6.9162E-02
HE++	9.04[illegible]2E-07	3.2188E-04	5.1155E-03
H	2.9110E-01	1.6068E-01	8.5310E-02
H+	2.56[illegible]3E-01	[illegible].2064E-01	3.5792E-01
H2	3.0705E-04	2.2405E-04	7.5782E-05

P1 = 5.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9767E+03	1.6159E+04	3.1129E+04
T	1.4653E+02	2.5171E+02	3.4804E+02
RHO	7.8685E+00	2.2141E+01	2.8731E+01
H	5.4377E+02	9.1117E+02	1.2814E+03
A	1.8840E+01	2.7393E+01	3.2892E+01
S	2.4047E+00	2.4799E+00	2.5903E+00
Z	2.[illegible]817E+00	2.8995E+00	3.1131E+00
GAME	9.[illegible]820E-01	1.0281E+00	9.9851E-01
U	4.2132E+01	1.4958E+01	1.5899E+01

SPECIES	MOLE FRACTIONS		
E-	3.6105E-01	4.3101E-01	4.7000E-01
HE	6.9269E-02	.6006E-02	2.7780E-02
HE+	6.6289E-02	.2258E-02	6.5521E-02
HE++	9.6360[illegible]E-06	2.4454E-03	1.9129E-02
H	2.084[illegible]E-01	9.4340E-02	5.1316E-02
H+	2.947[illegible]E-01	3.5387E-01	3.6622E-01
H2	1.5146E-04	7.1726E-05	2.7438E-05

P1 = 5.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
D	2.5867E+03	1.4205E+04	2.6684E+04
T	1.3362E+02	2.2131E+02	3.0555E+02
RHO	7.8653E+00	2.3163E+01	2.9154E+01
H	4.6900E+02	7.8971E+02	1.0990E+03
A	1.7270E+01	2.5071E+01	3.0355E+01
S	2.3290E+00	2.4072E+00	2.5154E+00
Z	2.4422E+00	2.7710E+00	2.9955E+00
GAME	9.1400E-01	1.0250E+00	1.0067E+00
U	3.9120E+01	1.3274E+01	1.4442E+01

SPECIES	MOLE FRACTIONS		
E-	3.2462E-01	4.0470E-01	4.4923E-01
HE	8.7946E-02	5.6244E-02	3.9156E-02
HE+	5.5367E-02	6.9396E-02	6.8943E-02
HE++	2.0580E-06	6.6899E-04	9.7431E-03
H	2.6257E-01	1.3488E-01	7.1084E-02
H+	2.6925E-01	3.3396E-01	3.6290E-01
H2	2.4702E-04	1.5414E-04	5.2542E-05

P1 = 5.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1907E+03	1.7108E+04	3.3240E+04
T	1.5371E+02	2.6719E+02	3.6890E+02
RHO	7.8286E+00	2.1670E+01	2.8451E+01
H	5.8313E+02	9.7471E+02	1.3753E+03
A	1.9713E+01	2.8393E+01	3.4216E+01
S	2.4420E+00	2.5139E+00	2.6256E+00
Z	2.6516E+00	2.9547E+00	3.1671E+00
GAME	9.5346E-01	1.0211E+00	1.0021E+00
U	4.3604E+01	1.5745E+01	1.6551E+01

SPECIES	MOLE FRACTIONS		
E-	3.7785E-01	4.4163E-01	4.7904E-01
HE	6.1201E-02	4.1330E-02	2.2732E-02
HE+	7.0773E-02	7.2918E-02	6.2608E-02
HE++	2.0204E-05	4.2059E-03	2.5171E-02
H	1.8300E-01	7.9573E-02	4.4339E-02
H+	3.0704E-01	3.6030E-01	3.6609E-01
H2	1.1464E-04	4.9933E-05	2.0500E-05

P1 = 5.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7694E+03	1.5199E+04	2.9939E+04
T	1.3987E+02	2.3615E+02	3.2702E+02
RHO	7.8807E+00	2.2681E+01	2.8957E+01
H	5.0572E+02	8.4962E+02	1.1895E+03
A	1.8026E+01	2.6270E+01	3.1612E+01
S	2.3670E+00	2.4437E+00	2.5536E+00
Z	2.5119E+00	2.8374E+00	3.0560E+00
GAME	9.2493E-01	1.0299E+00	9.9997E-01
U	4.0636E+01	1.4114E+01	1.5207E+01

SPECIES	MOLE FRACTIONS		
E-	3.4328E-01	4.1859E-01	4.6012E-01
HE	7.9202E-02	5.1045E-02	3.3290E-02
HE+	6.1158E-02	7.0999E-02	6.7655E-02
HE++	4.5129E-05	1.3109E-03	1.3542E-02
H	2.3504E-01	1.1299E-01	5.9969E-02
H+	2.3214E-01	3.4497E-01	3.6534E-01
H2	1.9543E-04	1.0556E-04	3.7417E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4102E+03	1.8011E+04	3.5289E+04
T	1.6149E+02	2.8309E+02	3.9084E+02
RHO	7.7620E+00	2.1153E+01	2.8033E+01
H	6.2380E+02	1.0398E+03	1.4724E+03
A	2.0646E+01	2.9344E+01	3.5661E+01
S	2.4787E+00	2.5486E+00	2.6616E+00
Z	2.7206E+00	3.0378E+00	3.2204E+00
GAME	9.7018E-01	1.0113E+00	1.0103E+00
U	4.5051E+01	1.6519E+01	1.7245E+01

SPECIES	MOLE FRACTIONS		
E-	3.9360E-01	4.5167E-01	4.8772E-01
HE	5.4009E-02	3.6626E-02	1.8004E-02
HE+	7.4598E-02	7.2894E-02	5.8967E-02
HE++	4.1849E-05	6.8436E-03	3.1696E-02
H	1.5875E-01	6.7252E-02	3.8229E-02
H+	3.1892E-01	3.6488E-01	3.6536E-01
H2	8.4491E-05	3.4878E-05	1.9198E-05

Table I. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6349E+03	1.8878E+04	3.7246E+04
T	1.6597E+02	2.9894E+02	4.1335E+02
RHO	7.6714E+00	2.0649E+01	2.7547E+01
H	6.6574E+02	1.1067E+03	1.5724E+03
A	2.1632E+01	3.0268E+01	3.7172E+01
S	2.5146E+00	2.5829E+00	2.6963E+00
Z	2.7877E+00	3.0583E+00	3.2710E+00
GAME	9.8756E-01	1.0021E+00	1.0220E+00
U	4.6471E+01	1.7253E+01	1.7955E+01

SPECIES	MOLE FRACTIONS		
E-	4.0818E-01	4.6050E-01	4.9559E-01
HE	4.7659E-02	3.2045E-02	1.3932E-02
HE+	7.7806E-02	7.1999E-02	5.4906E-02
HE++	8.5945E-05	1.0400E-02	3.8161E-02
H	1.3601E-01	5.7321E-02	3.3045E-02
H+	3.3020E-01	3.6771E-01	3.6436E-01
H2	6.0547E-05	2.4822E-05	1.1299E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3393E+03	2.1376E+04	4.2680E+04
T	2.0025E+02	3.4516E+02	4.9212E+02
RHO	7.3029E+00	1.9381E+01	2.5478E+01
H	7.9920E+02	1.3191E+03	1.8925E+03
A	2.4744E+01	3.3114E+01	4.2340E+01
S	2.6168E+00	2.6797E+00	2.7996E+00
Z	2.9673E+00	3.1955E+00	3.4040E+00
GAME	1.0304E+00	9.9421E-01	1.0702E+00
U	5.0585E+01	1.9070E+01	2.0339E+01

SPECIES	MOLE FRACTIONS		
E-	4.4395E-01	4.8366F-01	5.1528E-01
HE	3.2937E-02	1.9973F-02	5.2988E-03
HE+	8.4316E-02	6.4485E-02	4.1053E-02
HE++	6.9999E-04	2.5072E-02	5.6469E-02
H	7.9834E-02	3.7779E-02	2.0612E-02
H+	3.5824E-01	3.6903E-01	3.6129E-01
H2	1.9138E-05	1.0308E-05	4.2324E-06

P1 = 5.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8[illegible]E+03	1.9758E+04	3.9084E+04
T	1.7923E+02	3.1418E+02	4.3700E+02
RHO	7.5605E+00	2.0258E+01	2.6955E+01
H	7.0896E+02	1.1761E+03	1.6741E+03
A	2.2660E+01	3.1166E+01	3.8764E+01
S	2.5497E+00	2.6148E+00	2.7304E+00
Z	2.8519E+00	3.1044E+00	3.3181E+00
GAME	1.0045E+00	9.9590E-01	1.0363E+00
U	4.7865E+01	1.7853E+01	1.8640E+01

SPECIES	MOLE FRACTIONS		
E-	4.2149E-01	4.6851E-01	5.0273E-01
HE	4.2085E-02	2.7872E-02	1.0499E-02
HE+	8.0463E-02	7.0264E-02	5.0540E-02
HE++	1.7516E-04	1.4609E-02	4.4454E-02
H	1.1507E-01	4.9692E-02	2.8497E-02
H+	3.4068E-01	3.6903E-01	3.6329E-01
H2	4.2194E-05	1.8388E-05	8.3285E-06

P1 = 5.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5837E+03	2.2161E+04	4.4393E+04
T	2.1198E+02	3.6103E+02	5.2290E+02
RHO	7.1661E+00	1.8949E+01	2.4684E+01
H	8.4619E+02	1.3932E+03	2.0061E+03
A	2.5730E+01	3.4177E+01	4.4195E+01
S	2.6489E+00	2.7114E+00	2.8327E+00
Z	3.0174E+00	3.2393E+00	3.4394E+00
GAME	1.0350E+00	9.9879E-01	1.0860E+00
U	5.1907E+01	1.9618E+01	2.1224E+01

SPECIES	MOLE FRACTIONS		
E-	4.5318E-01	4.9064E-01	5.2026E-01
HE	2.9152E-02	1.6468E-02	3.6372E-03
HE+	8.5489E-02	6.0692E-02	3.6521E-02
HE++	1.3531E-03	3.0888E-02	6.1605E-02
H	6.5824E-02	3.3139E-02	1.7435E-02
H+	3.6499E-01	3.6817E-01	3.6053E-01
H2	1.2615E-05	7.8181E-06	2.9739E-06

P1 = 5.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0993E+03	2.0581E+04	4.0900E+04
T	1.8935E+02	3.2970E+02	4.6332E+02
RHO	7.4336E+00	1.9812E+01	2.6248E+01
H	7.5344E+02	1.2468E+03	1.7817E+03
A	2.3711E+01	3.2121E+01	4.0506E+01
S	2.5839E+00	2.6477E+00	2.7652E+00
Z	2.9123E+00	3.1508E+00	3.3631E+00
GAME	1.0195E+00	9.9317E-01	1.0530E+00
U	4.9234E+01	1.8460E+01	1.9477E+01

SPECIES	MOLE FRACTIONS		
E-	4.3347E-01	4.7633E-01	5.0939E-01
HE	3.7191E-02	2.3763E-02	7.5759E-03
HE+	9.2635E-02	6.7702E-02	4.5821E-02
HE++	3.5397E-04	1.9618E-02	5.0674E-02
H	9.6202E-02	4.3172E-02	2.4316E-02
H+	3.5012E-01	3.6940E-01	3.6222E-01
H2	2.8638E-05	1.3661E-05	5.9856E-06

Table I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3967E+01	2.8745E+01	7.2711E+01
T	3.5541E+00	4.4740E+00	6.5349E+00
RHC	3.5293E+00	6.4257E+00	1.1126E+01
H	3.6325E+00	4.6130E+00	6.9068E+00
A	1.8736E+00	2.0903E+00	2.4979E+00
S	1.0960E+00	1.0882E+00	1.1113E+00
Z	1.0006E+00	1.0003E+00	1.0000E+00
GAME	9.8771E-01	9.7665E-01	9.5472E-01
U	2.5703E+00	1.5703E+00	1.4044E+00

SPECIES	MOLE FRACTIONS		
E-	1.8620E-54	5.8374E-35	3.2087E-21
HE	3.5000E-01	3.5000E-01	3.4999E-01
HE+	5.4729E-62	5.3704E-52	4.6712E-43
HE++	0.	0.	0.
H	1.4019E-09	1.4261E-07	5.8858E-05
H+	8.1343E-20	8.1343E-20	8.4550E-20
H2	6.5000E-01	6.5000E-01	6.4995E-01

P1 = 1.00E+05 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3904E+01	1.4723E+02	2.8821E+02
T	9.5359E+00	1.1954E+01	1.4777E+01
RHC	5.1379E+00	1.2284E+01	1.8806E+01
H	9.2936E+00	1.3909E+01	1.9093E+01
A	2.8172E+00	3.2578E+00	3.6499E+00
S	1.2033E+00	1.2151E+00	1.2472E+00
Z	1.0016E+00	1.0111E+00	1.0371E+00
GAME	9.2896E-01	9.9551E-01	9.6926F-01
U	4.8592E+00	2.8309E+00	1.8278E+00

SPECIES	MOLE FRACTIONS		
E-	1.5621E-15	2.1639E-11	3.0149E-09
HE	3.4965E-01	3.4615E-01	3.3749E-01
HE+	1.0432E-33	2.5940E-25	7.7189E-20
HE++	0.	7.2290E-97	1.1088E-72
H	1.9875E-03	2.1986E-02	7.1559E-02
H+	1.5622E-15	2.1639E-11	3.0149E-09
H2	6.4836E-01	6.3186E-01	5.8096E-01

P1 = 1.00E+05 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2024E+01	5.6066E+01	1.2818E+02
T	4.9880E+00	6.6927E+00	9.3730E+00
RHO	4.4153E+00	8.3892E+00	1.3655E+01
H	5.1726E+00	7.0767E+00	1.0322E+01
A	2.2003E+00	2.5238E+00	2.9436E+00
S	1.1273E+00	1.1323E+00	1.1590E+00
Z	1.0000E+00	1.0000E+00	1.0015E+00
GAME	9.7059E-01	9.5313E-01	9.2302E-01
U	3.3339E+00	1.7537E+00	1.5941E+00

SPECIES	MOLE FRACTIONS		
E-	1.7581E-32	2.5948E-20	1.9702E-14
HE	3.5000E-01	3.4998E-01	3.4947E-01
HE+	5.4205E-50	2.0132E-42	7.4285E-31
HE++	0.	0.	0.
H	1.4868E-06	9.3844E-05	3.0385E-03
H+	8.1343E-26	1.0729E-19	1.0702E-14
H2	6.5000E-01	6.4993E-01	6.4749E-01

P1 = 1.00E+05 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1979E+01	9.4376E+01	1.9939E+02
T	6.6658E+00	9.2304E+00	1.2201E+01
RHO	4.7971E+00	1.0209E+01	1.6148E+01
H	7.0581E+00	1.0152E+01	1.4394E+01
A	2.5203E+00	2.9209E+00	3.3076E+00
S	1.1664E+00	1.1744E+00	1.2047E+00
Z	1.0001E+00	1.0015E+00	1.0119E+00
GAME	9.5288E-01	9.2289E-01	8.8575E-01
U	4.0937E+00	1.9224E+00	1.7314E+00

SPECIES	MOLE FRACTIONS		
E-	3.8068E-26	1.2876E-14	3.9278E-11
HE	3.4998E-01	3.4947E-01	3.4539E-01
HE+	1.1690E-42	4.4742E-31	7.3699E-24
HE++	0.	0.	1.7624E-17
H	1.1628E-04	3.0412E-03	2.2567E-02
H+	1.1541E-19	1.2874E-14	3.9278E-11
H2	6.4990E-01	6.4749E-01	6.3356E-01

P1 = 1.00E+05 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7562E+01	2.1491E+02	4.3307E+02
T	1.0442E+01	1.4323E+01	1.7259E+01
RHO	5.5169E+00	1.4902E+01	2.1591E+01
H	1.1889E+01	1.8391E+01	2.4589E+01
A	3.0662E+00	3.5956E+00	4.0212E+00
S	1.2384E+00	1.2534E+00	1.2911E+00
Z	1.0062E+00	1.0349E+00	1.0767E+00
GAME	8.9474E-01	8.6731E-01	8.7017E-01
U	5.6455E+00	2.1012E+00	1.9264E+00

SPECIES	MOLE FRACTIONS		
E-	1.1254E-12	1.0439E-09	3.5669E-08
HE	3.4755E-01	3.3742E-01	3.2537E-01
HE+	6.2473E-28	2.0063E-20	4.4198E-17
HE++	0.	3.7426E-75	1.7304E-62
H	1.2291E-02	6.7350E-02	1.4245E-01
H+	1.1294E-12	1.0399E-09	5.5699E-08
H2	6.3567E-01	5.9444E-01	5.3249E-01

P1 = 1.00E+05 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4630E+01	3.1529E+02	5.5444E+02
T	1.2207E+01	1.4695E+01	1.9934E+01
RHO	6.5701E+00	1.7325E+01	2.4756E+01
H	1.4956E+01	2.3594E+01	3.1004E+01
A	3.2877E+00	3.8375E+00	4.4435E+00
S	1.2729E+00	1.2952E+00	1.3295E+00
Z	1.0156E+00	1.0721E+00	1.1292E+00
GAME	8.6956E-01	8.0669E-01	8.9159E-01
U	6.4578E+00	2.1864E+00	2.0526E+00

SPECIES	MOLE FRACTIONS		
E-	8.2546E-11	3.4852E-09	5.1214E-07
HE	3.4381E-01	3.2640E-01	3.0598E-01
HE+	9.2502E-24	1.2409E-17	5.9656E-15
HE++	2.0277E-57	4.5563E-64	6.7251E-56
H	5.9363E-02	1.3452E-01	2.2891E-01
H+	8.2502E-11	3.4852E-09	5.1214E-07
H2	6.1435E-01	5.3302E-01	4.6123E-01

Table I.- Continued

p_1 = 100 kN/ m^2

P1 = 1.COE+C5 N/SQ-M, US1= 1.COE+C4 M/SEC

	POVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.2985E+01	4.3610E+02	7.4701E+02
T	1.3804E+01	1.9049E+01	2.2631E+01
RHO	6.4581E+00	2.0434E+01	2.7676E+01
H	1.8171E+01	2.9487E+01	3.8385E+01
A	3.5097E+00	4.3240E+00	4.9302E+00
S	1.3075E+00	1.3375E+00	1.3812E+00
Z	1.0415E+00	1.1204E+00	1.1927E+00
GAME	8.5646E-01	8.7604E-01	9.0057E-01
U	7.2853E+00	2.3004E+00	2.2153E+00

SPECIES	MOLE FRACTIONS		
E-	1.4869E-09	3.0882E-07	3.1555E-06
HE	3.3593E-01	3.1239E-01	2.9346E-01
HE+	4.4505E-21	1.5793E-15	3.5438E-13
HE++	1.6197E-77	1.2749E-56	4.7549E-48
H	8.0373E-02	2.1496E-01	3.2307E-01
H+	1.4869E-09	3.0982E-07	3.1555E-06
H2	5.8369E-01	4.7271E-01	3.8346E-01

P1 = 1.CCE+C5 N/SQ-M, US1= 1.3CE+04 M/SEC

	POVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6C99E+02	9.1659E+02	1.5E71E+03
T	1.8123E+01	2.C903E+01	3.3543E+01
RHO	7.7C97E+00	2.0374E+01	3.2517E+01
H	3.0230E+01	5.0783E+01	6.C759E+01
A	4.2464E+00	5.7394E+00	6.9249E+00
S	1.4150E+00	1.4617E+00	1.5185E+00
Z	1.1512E+00	1.2066E+00	1.4194E+00
GAME	8.6403E-01	9.3670E-01	9.9432E-01
U	9.7514E+00	2.9947E+00	3.0322E+00

SPECIES	MOLE FRACTIONS		
E-	2.6234E-07	2.6731E-05	2.3652E-04
HE	3.0393E-01	2.6784E-01	2.4652E-01
HE+	3.4144E-16	3.9077E-11	6.6917E-09
HE++	2.1675E-59	3.2744E-40	7.4744E-32
H	2.6234E-01	4.6923E-01	5.9063E-01
H+	2.6234E-07	2.6731E-05	2.3652E-04
H2	4.3429E-01	2.6236E-01	1.6239E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8743E+02	1.0998E+03	1.9155E+03
T	1.5555E+01	3.0058E+01	3.0549E+01
RHO	7.9917E+00	2.6633E+01	3.2509E+01
H	3.4943E+01	5.8998E+01	7.8536E+01
A	4.5265E+00	6.5134E+00	7.7908E+00
S	1.4518E+00	1.5019E+00	1.5622E+00
Z	1.1991E+00	1.3738E+00	1.4899E+00
GAME	8.7377E-01	9.6518E-01	1.0301E+00
U	1.0557E+01	3.1666E+00	3.4434E+00

SPECIES	MOLE FRACTIONS		
E-	8.6433E-07	8.3744E-05	7.9241E-04
HE	2.9198E-01	2.5477E-01	2.3492E-01
HE+	4.8405E-15	5.1921E-10	1.1427E-07
HE++	5.5981E-55	5.7172E-35	2.5687E-27
H	3.3212E-01	5.4391E-01	6.5523E-01
H+	8.6433E-07	8.3744E-05	7.9229E-04
H2	3.7600E-01	2.0115E-01	1.0827E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3625E+02	7.4103E+02	1.2545E+03
T	1.6712E+01	2.9379E+01	2.9452E+01
RHO	7.3522E+00	2.4817E+01	3.1738E+01
H	2.5864E+01	4.3118E+01	5.6179E+01
A	3.9855E+00	5.2185E+00	6.1534E+00
S	1.3786E+00	1.4206E+00	1.4729E+00
Z	1.1085E+00	1.2401E+00	1.3426E+00
GAME	8.5712E-01	9.1232E-01	9.5797E-01
U	8.9306E+00	2.6461E+00	2.6946E+00

SPECIES	MOLE FRACTIONS		
E-	6.5897E-08	7.5122E-06	6.1942E-05
HE	3.1562E-01	2.8225E-01	2.6838E-01
HE+	1.6C41E-17	2.1127E-12	3.1218E-11
HE++	1.7134E-64	4.3456E-45	8.1416E-37
H	1.6643E-01	3.8714E-01	5.0952E-01
H+	6.5897E-08	7.5122E-06	6.1841E-05
H2	4.8795E-01	3.3359E-01	2.2955E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1574E+02	1.2837E+03	2.2943E+03
T	2.1304E+01	3.3662E+01	4.6539E+01
RHO	8.1943E+00	2.6525E+01	3.1905E+01
H	3.9992E+01	6.7595E+01	9.1592E+01
A	4.8364E+00	6.3428E+00	8.6967E+00
S	1.4988E+00	1.5937E+00	1.6339E+00
Z	1.2508E+00	1.4377E+00	1.5462E+00
GAME	8.8625E-01	9.5033E-01	1.0494E+00
U	1.1351E+01	3.5345E+00	3.9206E+00

SPECIES	MOLE FRACTIONS		
E-	2.5[illegible]E-08	2.3[illegible]E-06	2.4652E-05
HE	2.7[illegible]E-01	2.4[illegible]E-01	2.2[illegible]E-01
HE+	5.2[illegible]E-14	3.8[illegible]E-09	1.6[illegible]E-06
HE++	4.2[illegible]E-51	4.5[illegible]E-32	4.[illegible]E-23
H+	4.[illegible]E-01	6.[illegible]E-01	6.9937E-01
H+	2.5[illegible]E-08	2.3[illegible]E-06	2.4652E-05
H2	3.[illegible]E-01	1.[illegible]E-01	8.9629E-02

Table I. - Continued

p_1 = 100 kN/ m^2

P1 = 1.CDE+C5 N/SQ-M, US1= 1.60E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.458IE+02	1.461uE+03	2.6894E+03
T	2.264:E+01	3.7827E+01	5.4449E+01
RHO	8.314CE+0C	2.5847E+01	3.1117E+01
M	4.5384E+01	7.6637E+01	1.U565E+02
A	5.1627E+01	7.6124E+00	9.4990E+00
S	1.5259E+00	1.5777E+0C	1.6422E+00
Z	1.3054E+0C	1.4942E+0C	1.5874E+00
GAME	9.3157E-01	1.0252E+0C	1.0440E+00
U	1.<132E+01	3.8998E+00	4.4220E+00

SPECIES	MOLE FRACTIONS		
E-	6.66E7E-0E	6.3725E-04	6.3995E-03
HE	2.69.7E-01	2.3423E-01	2.2048E-01
HE+	4.79:9E-13	5.5649E-09	1.5146E-05
HE++	1.72/6E-47	1.9964E-29	1.6356E-19
H-	4.68:4E-01	6.59U2E-01	7.2UR6E-01
H+	6.66978E-0E	6.3719E-04	6.3943E-03
H2	2.6377E-01	1.0487E-01	4.5864E-02

P1 = 1.CCE+C5 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4542E+02	1.9097E+03	3.7822E+03
T	2.8672E+01	5.3537E+01	7.7505E+01
RHC	8.1759E+00	2.2232E+01	2.9106E+01
M	6.3556E+01	1.05R7E+02	1.5C69E+02
A	6.4C51E+00	9.46U0E+0C	1.1306E+01
S	1.6336E+00	1.6767E+00	1.7395E+00
Z	1.4735E+00	1.6036E+00	1.6766E+00
GAME	9.7134E-01	1.0424E+00	9.8364E-01
U	1.4373E+01	5.2819E+00	5.6127E+00

SPECIES	MOLE FRACTIONS		
E-	1.0350E-04	6.9957E-03	3.4969E-02
HE	2.3753E-01	2.1824E-01	2.0795E-01
HE+	2.47U8E-1C	1.3940E-05	8.0903E-04
HE++	2.0871E-37	9.7489E-20	2.7073E-13
H	6.4240E-01	7.3214E-01	7.0391E-01
H+	1.0650E-04	6.8919E-03	3.4160E-02
H2	1.1987E-01	3.5811E-02	1.9102E-02

P1 = 1.0GE+C5 N/SQ-M, US1= 1.70F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7754E+02	1.6252E+03	3.0910E+03
T	2.4392E+01	4.2603E+01	6.2587E+01
RHO	8.3523E+00	2.4764E+01	3.0399E+01
M	5.1112E+01	8.5036E+01	1.2035E+02
A	5.5330E+00	9.2939E+00	1.0491E+01
S	1.5624E+00	1.6127E+00	1.6772E+00
Z	1.3623E+00	1.5405E+00	1.6194E+00
GAME	9.2031E-01	1.0456E+00	1.0247E+00
U	1.2898E+01	4.3447E+00	4.9855E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.6812E-05	1.5646E-03	1.3359E-02
NE	2.5652E-01	2.2720E-01	2.1605E-01
NE+	3.9339E-12	4.4536E-07	8.5201E-05
NE++	3.8607E-44	3.9009E-25	8.2044E-17
H	5.3182E-01	6.9599E-01	7.2499E-01
H+	1.6812E-05	1.5641E-03	1.3273E-02
H2	2.1122E-01	7.2673E-02	3.2258E-02

P1 = 1.0GE+C5 N/SQ-M, US1= 2.00F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8124E+02	2.028UF+03	4.0647E+03
T	3.142HE+01	5.9245E+01	8.3985E+01
RHC	7.967CE+00	2.1339F+01	2.9379E+01
M	7.025CE+01	1.1637E+02	1.6659E+02
A	6.927CE+00	9.945CE+0C	1.1763F+01
S	1.6472E+00	1.7065F+00	1.7685E+00
Z	1.522CE+00	1.6276E+00	1.7354E+00
GAME	1.0322E+00	1.0262E+00	9.6601E-01
U	1.5374E+01	5.7039E+00	5.8850E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.4672E-04	1.2208E-02	4.8056E-02
NE	2.2957E-01	2.1507E-01	2.0355E-01
NE+	2.0352E-05	5.2172E-05	1.0832E-03
NE++	5.2051E-34	1.1362F-17	3.7873E-12
H	6.8572E-01	7.3419F-01	6.9479E-01
H+	2.4672E-04	1.2156E-02	4.6366E-02
H2	8.3419E-02	2.6334F-02	1.5566E-02

P1 = 1.0GE+C5 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1094E+02	1.7747E+03	3.4505E+03
T	2.6306E+01	4.7915E+01	7.0254E+01
RHC	8.3059E+00	2.0350IE+01	2.9757F+01
M	5.7171E+01	9.5772E+01	1.3542E+02
A	5.9411E+00	8.9089E+00	1.0778E+01
S	1.5598E+00	1.6650E+00	1.7593E+00
Z	1.4195E+00	1.5751E+00	1.6482E+00
GAME	9.4325E-01	1.0513E+00	1.0033E+00
U	1.3644E+01	4.8139E+00	5.2936E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.1227E-05	3.4543E-03	2.3139E-02
NE	2.4652E-01	2.2227E-01	2.1204E-01
NE+	2.1159E-11	2.6913E-06	3.0498E-04
NE++	1.0007E-43	5.2054E-27	8.5106E-15
H	5.0937E-01	7.2357E-01	7.1746E-01
H+	4.1227E-05	3.4512E-03	2.2929E-02
H2	1.3254E-01	5.4396E-02	2.4726E-02

P1 = 1.0GE+C5 N/SQ-M, US1= 2.10F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1822E+02	2.1604F+03	4.3039E+03
T	3.4727E+01	6.4942E+01	9.9962E+01
RHC	7.7C6CE+00	2.0C19E+01	2.7599E+01
M	7.7277E+01	1.2735E+02	1.9159E+02
A	7.4489E+00	1.0336E+01	1.2171E+01
S	1.6597E+00	1.7369E+00	1.7969E+00
Z	1.5624E+00	1.6449E+00	1.7347E+00
GAME	1.0333E+00	1.0396E+00	9.5324E-01
U	1.5759E+01	6.0557E+00	6.1044E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	6.0242E-06	1.9834E-03	6.1919E-02
NE	2.2395E-01	2.1211E-01	1.9478E-01
NE+	1.0961E-06	1.5331E-04	2.9939E-03
NE++	1.1917E-30	5.1471E-16	3.0076E-11
H	7.1965E-01	7.2499E-01	6.6461E-01
H+	6.0324E-06	1.9788E-03	5.8839E-02
H2	5.9387E-02	2.0123E-02	1.2973E-02

Table I. - Continued

p_1 = 100 kN/ m^2

P1 = 1.03E+05 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5602E+02	2.2390E+03	4.4822E+03
T	3.8679E+01	7.0249E+01	9.5124E+01
RHO	7.3981E+00	1.9371E+01	2.6709E+01
H	8.4589E+01	1.3871E+02	1.9705E+02
A	8.0585E+00	1.0791E+01	1.2537E+01
S	1.7289E+00	1.7626E+00	1.8243E+00
Z	1.5936E+00	1.6712E+00	1.7642E+00
GAME	1.0535E+00	9.9193E-01	9.3659E-01
U	1.8399E+01	6.3560E+00	6.2791E+00

SPECIES	MOLE FRACTIONS		
E-	1.4471E-03	2.8517E-02	7.5718E-02
HE	2.1963E-01	2.0906E-01	1.9372E-01
HE+	1.3535E-07	3.7166E-04	4.6699E-03
HE++	2.3277E-27	1.2192E-14	1.5536E-10
H	7.4306E-01	7.1809E-01	6.4386E-01
H+	1.4470E-03	2.8146E-02	7.1048E-02
H2	3.6825E-02	1.5821E-02	1.0988E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7945E+02	2.6282E+03	5.1027E+03
T	5.2293E+01	9.5497E+01	1.0948E+02
RHO	6.7260E+00	1.7614E+01	2.5127E+01
H	1.0952E+02	1.7662E+02	2.4649E+02
A	9.3780E+00	1.1917E+01	1.3567E+01
S	1.9602E+00	1.9399E+00	1.9022E+00
Z	1.6474E+00	1.7454E+00	1.8549E+00
GAME	1.0209E+00	9.5195E-01	9.0639E-01
U	1.8343E+01	6.9582E+00	6.7061E+00

SPECIES	MOLE FRACTIONS		
E-	1.0999E-02	6.3716E-02	1.1779E-01
HE	2.1244E-01	1.9830E-01	1.7663E-01
HE+	1.7375E-05	2.4337E-03	1.2056E-02
HE++	5.3325E-20	1.0371E-11	5.8538E-09
H	7.5259E-01	6.6541E-01	5.9051E-01
H+	1.0771E-02	6.1283E-02	1.0573E-01
H2	1.2595E-02	9.0667E-03	7.2991E-03

P1 = 1.CCE+05 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2483E+02	2.8373E+03	5.3886E+03
T	5.6795E+01	9.0347E+01	1.1414E+02
RHO	6.617CE+00	1.7528E+01	2.5031E+01
H	1.1721E+02	1.9072E+02	2.6452E+02
A	9.7237E+00	1.2274E+01	1.3918E+01
S	1.828CE+00	1.8623E+0C	1.9269E+00
Z	1.6627E+00	1.7728E+0C	1.8860E+00
GAME	1.0013E+00	9.4065E-01	9.9985E-01
U	1.9024E+01	7.1757E+00	6.8376E+00

SPECIES	MOLE FRACTIONS		
E-	1.7356E-02	7.7099E-02	1.9168E-01
HE	2.1045E-01	1.9361E-01	1.7040E-01
HE+	5.2481E-05	3.8233E-03	1.5177E-02
HE++	4.9203E-18	5.4425E-11	1.5197E-08
H	7.4511E-01	6.4434E-01	5.5971E-01
H+	1.7304E-02	7.3276E-02	1.1650E-01
H2	9.7301E-03	7.8501E-03	6.5332E-03

P1 = 1.CCE+05 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.725HE+02	3.013AE+03	5.7202E+03
T	6.112JE+01	9.5129E+01	1.1994E+02
RHO	6.9531E+00	1.7589E+01	2.5100E+01
H	1.2022E+02	2.0961E+02	2.9347E+02
A	1.0053E+01	1.2625E+01	1.4283E+01
S	1.9537E+00	1.9852E+0C	1.9509E+00
Z	1.6795E+00	1.8012E+00	1.9176E+00
GAME	9.8462E-01	9.3027E-01	8.9516E-01
U	1.9721E+01	7.3+15E+0C	6.9689E+00

SPECIES	MOLE FRACTIONS		
E-	2.5225E-02	9.3946E-02	1.4546E-01
HE	2.0880E-01	1.8866E-01	1.6403E-01
HE+	1.3035E-04	5.6409E-03	1.8524E-02
HE++	1.2948E-15	2.3287E-10	3.6293E-08
H	7.3342E-01	6.2272E-01	5.3919E-01
H+	2.5105E-02	8.5205E-02	1.2693E-01
H2	7.9106E-03	6.9109E-03	5.9061E-03

P1 = 1.CCE+05 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3627E+02	2.4745E+03	4.8594E+03
T	4.7695E+01	8.0526E+01	1.0488E+02
RHO	6.887CE+00	1.7873E+01	2.5417E+01
H	1.0026E+02	1.6327E+02	2.2631E+02
A	9.0622E+00	1.1552E+01	1.3244E+01
S	1.7823E+00	1.8145E+00	1.9771E+00
Z	1.632-E+00	1.7193E+0C	1.8243E+00
GAME	1.0046E+00	9.8396E-01	9.1472E-01
U	1.7599E+01	6.9381E+00	6.5732E+00

SPECIES	MOLE FRACTIONS		
E-	6.2974E-03	2.0395E-02	1.0375E-01
HE	2.0149E-01	2.0224E-01	1.9262E-01
HE+	4.3526E-06	1.4306E-03	9.2313E-03
HE++	7.3965E-22	1.5381E-12	2.0383E-09
H	7.5852E-01	6.9533E-01	6.0155E-01
H+	6.6698E-03	4.2315E-02	9.4560E-02
H2	1.7381E-02	1.3053E-02	9.2457E-03

Table I. - Continued

p_1 = 100 kN/ m^2

P1 = 1.00E+05 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4530E+02	4.4052E+03	7.9729E+03
T	8.0328E+01	1.1813E+02	1.4404E+02
RHO	6.5946E+00	1.9102E+01	2.6537E+01
H	1.7700E+02	2.9121E+02	3.9230E+02
A	1.1594E+01	1.4376E+01	1.6453E+01
S	1.9511E+00	1.9946E+00	2.0685E+00
Z	1.7846E+00	1.9523E+00	2.0859E+00
GAME	9.3770E-01	8.9622E-01	9.0101E-01
U	2.3397E+01	8.0724E+00	7.7291E+00

SPECIES	MOLE FRACTIONS		
E-	7.9065E-02	1.5939E-01	2.1269E-01
HE	1.9387E-01	1.5914E-01	1.3213E-01
HE+	2.2440E-03	2.0134E-02	3.5061E-02
HE++	3.7746E-12	4.1419E-09	1.2268E-06
H	6.4437E-01	5.1844E-01	4.3880E-01
H+	7.6821E-02	1.3895E-01	1.7702E-01
H2	3.6236E-03	4.2552E-03	3.7112E-03

P1 = 1.30E+05 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.2265E+02	3.2462E+03	6.0929E+03
T	6.5267E+01	9.9835E+01	1.2360E+02
RHO	6.5230E+00	1.7764E+01	2.5296E+01
H	1.3568E+02	2.2126E+02	3.0326E+02
A	1.0373E+01	1.2972E+01	1.4664E+01
S	1.8717E+00	1.9076E+00	1.9746E+00
Z	1.6574E+00	1.8304F+00	1.9496E+00
GAME	9.7118E-01	9.2083E-01	8.9240E-01
U	2.0435E+01	7.4979E+00	7.0955E+00

SPECIES	MOLE FRACTIONS		
E-	3.4392E-02	1.0473E-01	1.5934E-01
HE	2.0592E-01	1.8333E-01	1.5753E-01
HE+	2.7865E-04	7.9964E-03	2.1994E-02
HE++	1.9863E-15	9.3936E-10	8.0605E-08
H	7.1893E-01	6.0104E-01	5.1903E-01
H+	3.4113E-02	9.6846E-02	1.3705E-01
H2	6.4694E-03	6.1659E-03	5.3636E-03

P1 = 1.00E+05 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7501E+02	3.5029E+03	6.5092E+03
T	6.9246E+01	1.3447E+02	1.2849E+02
RHO	6.5179E+00	1.8024E+01	2.5553E+01
H	1.4547E+02	2.3768E+02	3.2416E+02
A	1.0686E+01	1.3317E+01	1.5076E+01
S	1.8921E+00	1.9296E+00	1.9983E+00
Z	1.7171E+00	1.8603E+00	1.9825E+00
GAME	9.6041E-01	9.1252E-01	8.9159E-01
U	2.1162E+01	7.6473E+00	7.2469E+00

SPECIES	MOLE FRACTIONS		
E-	4.4577E-02	1.1859E-01	1.7262E-01
HE	2.0336E-01	1.7762E-01	1.5099E-01
HE+	5.2576E-04	1.0526E-02	2.5547E-02
HE++	2.0079E-14	2.6199E-09	1.7017E-07
H	7.6207E-01	5.7964E-01	4.9887E-01
H+	4.4047E-02	1.0806E-01	1.4703E-01
H2	5.4776E-03	5.5590E-03	4.8859E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.2952E+02	3.7821E+03	6.9598E+03
T	7.3069E+01	1.4093E+02	1.3354E+02
RHO	5.5305E+00	1.8355E+01	2.5844E+01
H	1.5561E+02	2.5491E+02	3.4589E+02
A	1.0954E+01	1.3042E+01	1.5506E+01
S	1.9121E+00	1.9512E+00	2.0222E+00
Z	1.7384E+00	1.8904E+00	2.0166E+00
GAME	9.5162E-01	9.0558E-01	8.9231E-01
U	2.1897E+01	7.7874E+00	7.3976E+00

SPECIES	MOLE FRACTIONS		
E-	5.5549E-02	1.3222E-01	1.9525E-01
HE	2.0042E-01	1.7195E-01	1.4446E-01
HE+	9.1829E-04	1.8484E-02	2.8706E-02
HE++	1.4043E-13	7.2206E-09	3.4294E-07
H	6.8377E-01	5.5663E-01	4.7852E-01
H+	5.4653E-02	1.1874E-01	1.5715E-01
H2	4.7171E-03	5.0549E-03	4.4559E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0726E+03	5.1144E+03	9.1449E+03
T	8.7154E+01	1.7727E+02	1.5968E+02
RHO	6.6036E+00	1.9038E+01	2.7197E+01
H	1.9968E+02	3.1043E+02	4.4912E+02
A	1.2172E+01	1.2136E+01	1.7554E+01
S	1.9486E+00	2.0334E+00	2.1154E+00
Z	1.8347E+00	2.0115E+00	2.1637E+00
GAME	9.2644E-01	9.0453E-01	8.8165E-01
U	2.6492E+01	9.2056E+00	8.1404E+00

SPECIES	MOLE FRACTIONS		
E-	1.0039E-01	1.9497E-01	2.3949E-01
HE	1.8051E-01	1.4054E-01	1.2205E-01
HE+	4.4731E-03	2.7139E-02	4.1462E-02
HE++	4.9420E-11	1.7624E-07	3.9973E-06
H	6.0031E-01	4.7354E-01	3.9771E-01
H+	9.0501E-02	1.9789E-01	1.9797E-01
H2	2.8872E-03	4.4250E-03	3.0323E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2027E+03	5.4983E+03	1.0453E+04
T	9.8365E+01	1.8767E+02	1.6450E+02
RHO	6.8051E+00	2.0736E+01	2.7669E+01
H	2.2460E+02	3.2211E+02	4.6821E+02
A	1.2731E+01	1.2972E+01	1.8818E+01
S	2.0271E+00	2.0795E+00	2.1622E+00
Z	1.8877E+00	2.0838E+00	2.2437E+00
GAME	9.1602E-01	8.9755E-01	8.3733E-01
U	2.6461E+01	9.6299E+00	8.6310E+00

SPECIES	MOLE FRACTIONS		
E-	1.2[illegible]E-01	2.1301E-01	2.4605E-01
HE	1.7724E-01	1.2431E-01	1.1013E-01
HE+	7.7569E-03	3.3571E-02	4.6455E-02
HE++	3.4[illegible]	[illegible]	1.2096E-05
H	5.8[illegible]	4.4[illegible]	3.5597E-01
H+	1.2[illegible]	1.8[illegible]	2.1947E-01
H2	2.3[illegible]	3.[illegible]	2.4133E-03

Table I. - Continued

p_1 = 100 kN/m^2

P1 = 1.00E+05 N/SQ-M, US1= 3.93E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3442E+03	6.7322E+03	1.1926E+04
T	9.9876E+01	1.4643E+02	1.8314E+02
RHO	6.9279E+00	2.1406E+01	2.8000E+01
H	2.4974E+02	4.1630E+02	5.5813E+02
A	1.3276E+01	1.6897E+01	2.0227E+01
S	2.0646E+00	2.1222E+00	2.2388E+00
Z	1.9427E+00	2.1478E+00	2.3257E+00
GAME	9.0834E-01	9.0780E-01	9.6063E-01
U	2.8026E+01	9.0623E+03	9.2168E+03

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5261E-01	2.3437E-01	2.9239E-01
HE	1.6812E-01	1.2304E-01	1.0089E-01
HE+	1.2044E-02	3.9912E-02	4.9574E-02
HE++	2.1454E-09	1.9521E-06	3.4161E-05
H	5.2471E-01	4.0563E-01	3.1253E-01
H+	1.4057E-01	1.9445E-01	2.4274E-01
H2	1.9436E-03	2.5969E-03	1.8548E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.43E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8174E+03	9.5349E+03	1.7256E+04
T	1.1771E+02	1.7994E+02	2.3699E+02
RHO	7.2965E+00	2.2419E+01	2.9124E+01
H	3.0351E+02	5.0626E+02	7.0651E+02
A	1.4944E+01	2.0222E+01	2.4954E+01
S	2.1771E+00	2.2456E+00	2.3437E+00
Z	2.1154E+00	2.2744E+00	2.5895E+00
GAME	9.9654E-01	9.6171E-01	1.0149E+00
U	3.2727E+01	1.0046E+04	1.1461E+04

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.2146E-01	3.0356E-01	3.6340E-01
HE	1.3030E-01	9.5594E-02	7.4557E-02
HE+	2.9154E-02	4.2095E-02	5.0508E-02
HE++	9.7955E-08	4.3021E-05	5.4637E-04
H	4.2043E-01	2.9531E-01	1.9549E-01
H+	1.5220E-01	2.2547E-01	3.0527E-01
H2	1.1605E-03	1.3619E-03	7.0875E-04

P1 = 1.00E+05 N/SQ-M, US1= 4.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4978E+03	7.6289E+03	1.3554E+04
T	1.0591E+02	1.5680E+02	1.9936E+02
RHO	7.0558E+00	2.1942E+01	2.9169E+01
H	2.7688E+02	4.6277E+02	6.2269E+02
A	1.3819E+01	1.7915E+01	2.1749E+01
S	2.1024E+00	2.1637E+00	2.2547E+00
Z	1.9996E+00	2.2174E+00	2.4136E+00
GAME	9.0198E-01	9.2309E-01	9.3301E-01
U	2.9551E+01	9.5111E+00	9.8818E+00

SPECIES	MOLE FRACTIONS		
E-	1.7622E-01	2.5904E-01	3.1774E-01
HE	1.5790E-01	1.1285E-01	9.2729E-02
HE+	1.7191E-02	4.4993E-02	5.2193E-02
HE++	5.1827E-09	5.4134E-06	9.1481E-05
H	4.9963E-01	3.6992E-01	2.7049E-01
H+	1.5903E-01	2.1305E-01	2.6537E-01
H2	1.6293E-03	2.1531E-03	1.3919E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9903E+03	1.0523E+04	1.9304E+04
T	1.2364E+02	1.9247E+02	2.5784E+02
RHO	7.4028E+00	2.2429E+01	2.9037E+01
H	3.0645E+02	6.1465E+02	8.4456E+02
A	1.5534E+01	2.1456E+01	2.6512E+01
S	2.2141E+00	2.2848E+00	2.3857E+00
Z	2.1747E+00	2.4397E+00	2.6704E+00
GAME	8.5789E-01	9.8076E-01	1.0209E+00
U	3.4292E+01	1.1312E+01	1.2313E+01

SPECIES	MOLE FRACTIONS		
E-	2.4226E-04	3.2447E-01	3.8261E-01
HE	1.2559E-01	9.9669E-02	7.2091E-02
HE+	3.3358E-02	5.4774E-02	5.7800E-02
HE++	2.6240E-07	7.0056E-05	1.1868E-03
H	3.8852E-01	2.8141E-01	1.6339E-01
H+	2.6669E-01	2.6954E-01	3.2244E-01
H2	9.8306E-04	1.0586E-03	4.9781E-04

P1 = 1.00E+05 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6514E+03	9.5699E+03	1.5344E+04
T	1.1183E+02	1.6794E+02	2.1740E+02
RHO	7.1914E+00	2.2243E+01	2.9204E+01
H	3.0531E+02	5.1141E+02	6.9247E+02
A	1.4371E+01	1.9031E+01	2.3346E+01
S	2.1393E+00	2.2053E+00	2.2998E+00
Z	2.0356E+00	2.2899E+00	2.5024E+00
GAME	8.5794E-01	9.4178E-01	1.0019E+00
U	3.1161E+01	1.0033E+01	1.0652E+01

SPECIES	MOLE FRACTIONS		
E-	1.9503E-01	2.8119E-01	3.4164E-01
HE	1.4723E-01	1.0375E-01	8.5309E-02
HE+	2.2969E-02	4.9382E-02	5.4263E-02
HE++	3.2238E-08	1.3944E-05	2.3166E-04
H	4.5336E-01	3.3214E-01	2.3359E-01
H+	1.7606E-01	2.3205E-01	2.8092E-01
H2	1.3743E-03	1.7377E-03	9.0983E-04

P1 = 1.00E+05 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1712E+03	1.1523E+04	2.1421E+04
T	1.2963E+02	2.0583E+02	2.7954E+02
RHO	7.4855E+00	2.2243E+01	2.7905E+01
H	3.5952E+02	6.6099E+02	9.2667E+02
A	1.6171E+01	2.2713E+01	2.7982E+01
S	2.2514E+00	2.3221E+00	2.4263E+00
Z	2.2353E+00	2.5124E+00	2.7463E+00
GAME	9.3225E-01	9.9737E-01	1.0290E+00
U	3.5944E+01	1.2046E+01	1.3146E+01

SPECIES	MOLE FRACTIONS		
E-	2.6273E-01	3.4463E-01	3.9345E-01
HE	1.1534E-01	8.2341E-02	6.5697E-02
HE+	1.1478E-02	5.0824E-02	5.5471E-02
HE++	6.4782E-07	2.1229E-04	2.3551E-03
H	3.5941E-01	2.2994E-01	1.3743E-01
H+	2.2217E-01	2.8393E-01	3.3536E-01
H2	8.6782E-04	1.0134E-03	3.2185E-04

Table I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3596E+03	1.2515E+04	2.3597E+04
T	1.3591E+02	2.1992E+02	3.0184E+02
RHO	7.5552E+00	2.2019E+01	2.7757E+01
H	4.3360E+02	7.6575E+02	1.0118E+03
A	1.6846E+01	2.3974E+01	2.9370E+01
S	2.2995E+00	2.4666E+00	2.4659E+00
Z	2.2574E+00	2.5944E+00	2.9166E+00
GAMA	9.6903E-01	1.0111E+00	1.0147E+00
U	3.7392E+01	1.2425E+01	1.3992E+01

SPECIES	MOLE FRACTIONS		
E-	2.8249E-01	3.6215E-01	4.1443E-01
HE	1.3516E-01	7.6514E-02	5.9021E-02
HE+	4.7242E-02	5.4277E-02	4.0991E-02
HE++	1.4922E-04	3.3224E-04	4.2618E-03
H	3.2574E-01	1.9891E-01	1.1612E-01
H+	2.3264E-01	3.3291E-01	3.4493E-01
H2	6.9066E-04	5.6083E-04	2.5109E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.63E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9607E+03	1.5346E+04	3.0015E+04
T	1.5666E+02	2.6544E+02	3.6812E+02
RHO	7.5859E+00	2.0792E+01	2.7156E+01
H	5.4316E+02	9.0358E+02	1.2816E+03
A	1.9203E+01	2.7505E+01	3.3311E+01
S	2.3954E+00	2.4676E+00	2.5772E+00
Z	2.4913E+00	2.7936E+00	3.0025E+00
GAME	9.4481E-01	1.0250E+00	1.0039E+00
U	4.1935E+01	1.5281E+01	1.6252E+01

SPECIES	MOLE FRACTIONS		
E-	3.3805E-01	4.0684E-01	4.5056E-01
HE	7.8917E-02	6.0556E-02	3.9090E-02
HE+	6.1560E-02	6.3249E-02	6.2819E-02
HE++	1.4372E-05	2.0668E-03	1.4661E-02
H	2.4463E-01	1.2759E-01	7.4347E-02
H+	2.7646E-01	3.3946E-01	3.5842E-01
H2	3.6746E-04	2.3230E-04	1.0433E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5532E+03	1.3481E+04	2.5764E+04
T	1.4245E+02	2.3469E+02	3.2402E+02
RHO	7.591CE+00	2.1644E+01	2.7591E+01
H	4.6843E+02	7.8304E+02	1.0995E+03
A	1.7579E+01	2.5212E+01	3.0688E+01
S	2.3259E+00	2.3974E+00	2.5039E+00
Z	2.3611E+00	2.6543E+00	2.9819E+00
GAME	9.187CE-01	1.0205E+00	1.0085E+00
U	3.4915E+01	1.3635E+01	1.4779E+01

SPECIES	MOLE FRACTIONS		
E-	3.0174E-01	3.7874E-01	4.2764E-01
HE	9.5636E-02	7.0989E-02	5.2341E-02
HE+	5.2597E-02	6.0241E-02	6.2127E-02
HE++	3.2940E-06	6.4597E-04	6.9803E-03
H	3.0032E-01	1.7175E-01	9.9174E-02
H+	2.4914E-01	2.1720E-01	3.5155E-01
H2	5.6837E-04	4.3651E-04	1.8417E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1748E+03	1.6275E+04	3.2009E+04
T	1.6445E+02	2.8152E+02	3.8984E+02
RHO	7.5517E+00	2.0366E+01	2.6919E+01
H	5.8244E+02	9.6716E+02	1.3758E+03
A	2.0090E+01	2.8564E+01	3.4644E+01
S	2.4351E+00	2.5018E+00	2.6116E+00
Z	2.[illegible]69E+00	2.8387E+00	3.0575E+00
GAME	9.6006E-01	1.0209E+00	1.0071E+00
U	4.3386E+01	1.6063E+01	1.6911E+01

SPECIES	MOLE FRACTIONS		
E-	3.5487E-01	4.1892E-01	4.6042E-01
HE	7.1761E-02	5.5373E-02	3.3010E-02
HE+	6.5117E-02	6.4495E-02	6.2267E-02
HE++	2.8785E-05	3.4274E-03	1.9196E-02
H	2.1824E-01	1.1004E-01	6.5256E-02
H+	2.8970E-01	3.4757E-01	3.5977E-01
H2	2.8810E-04	1.6995E-04	8.0748E-05

P1 = 1.00E+05 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7537E+03	1.4417E+04	2.7873E+04
T	1.4940E+02	2.4963E+02	3.4568E+02
RHO	7.5961E+00	2.1247E+01	2.7404E+01
H	5.051CE+02	8.4248E+02	1.1885E+03
A	1.8371E+01	2.6373E+01	3.1964E+01
S	2.3633E+00	2.4323E+00	2.5403E+00
Z	2.4265E+00	2.7182E+00	2.9424E+00
GAME	9.3353E-01	1.0250E+00	1.0045E+00
U	4.0418E+01	1.4459E+01	1.5491E+01

SPECIES	MOLE FRACTIONS		
E-	3.2047E-01	3.9330E-01	4.3937E-01
HE	8.6937E-02	6.5917E-02	4.5775E-02
HE+	5.7427E-02	6.1769E-02	6.2761E-02
HE++	7.0287E-06	1.1755E-03	1.0415E-02
H	2.7181E-01	1.4943E-01	8.5765E-02
H+	2.6322E-01	3.2918E-01	3.5579E-01
H2	4.5964E-04	3.2439E-04	1.3630E-04

P1 = 1.00E+05 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3932E+03	1.7169E+04	3.4084E+04
T	1.7275E+02	2.9776E+02	4.1232E+02
RHO	7.4939E+00	1.9926E+01	2.6565E+01
H	6.2308E+02	1.0321E+03	1.4727E+03
A	2.1020E+01	2.9569E+01	3.6062E+01
S	2.4701E+00	2.5356E+00	2.6462E+00
Z	2.6711E+00	2.8938E+00	3.1117E+00
GAME	9.7584E-01	1.0147E+00	1.0134E+00
U	4.4826E+01	1.6803E+01	1.7605E+01

SPECIES	MOLE FRACTIONS		
E-	3.7072E-01	4.2992E-01	4.6981E-01
HE	6.8381E-02	5.0144E-02	2.7218E-02
HE+	6.8123E-02	6.5421E-02	6.1115E-02
HE++	5.4460E-05	5.3731E-03	2.4145E-02
H	1.9208E-01	9.5239E-02	5.7244E-02
H+	3.0268E-01	3.5377E-01	3.6041E-01
H2	2.2143E-04	1.2525E-04	6.2217E-05

Table I. - Concluded

p_1 = 100 kN/ m^2

P1 = 1.00E+05 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6170E+03	1.8023E+04	7.5984E+04
T	1.8178E+02	3.1360E+02	4.3554E+02
PHO	7.4089E+00	1.9518E+01	2.4113E+01
M	4.5497E+02	1.0988E+03	1.5726E+03
A	2.2003E+01	3.0518E+01	3.7547E+01
S	2.5051E+00	2.5680E+00	2.6805E+00
Z	2.6875E+00	2.9446E+00	3.1640E+00
GAMF	9.9165E-01	1.0086E+00	1.0230E+00
U	4.6242E+01	1.7507E+01	1.8217E+01

SPECIES	MOLE FRACTIONS		
E-	3.8590E-01	4.3975E-01	4.7855E-01
HF	5.9500E-02	4.5074E-02	2.1950E-02
HE+	7.0711E-02	6.5908E-02	5.9379E-02
HE++	1.0968E-04	7.8790E-03	2.9291E-02
H	1.6985E-01	8.2208E-02	6.0194E-02
H+	3.1486E-01	3.5809E-01	3.6059E-01
H2	1.6620E-04	9.4269E-05	4.7740E-05

P1 = 1.00E+05 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3204E+03	2.0498E+04	8.1431E+04
T	2.1270E+02	3.4154E+02	5.1413E+02
PHO	7.0960E+00	1.8358E+01	2.4381E+01
M	7.9835E+02	1.3097E+03	1.8904E+03
A	2.5012E+01	3.2447E+01	4.2489E+01
S	2.6038E+00	2.6830E+00	2.7812E+00
Z	2.8826E+00	3.0876E+00	3.3052E+00
GAMF	1.0275E+00	1.0019E+00	1.0624E+00
U	5.0364E+01	1.9429E+01	2.0597E+01

SPECIES	MOLE FRACTIONS		
E-	4.2263E-01	4.6564E-01	5.0081E-01
HF	4.5282E-02	3.0354E-02	9.9710E-03
HE+	7.4277E-02	6.4177E-02	5.1116E-02
HE++	7.1434E-04	1.8817E-02	4.4806E-02
H	1.0810E-01	5.7122E-02	3.3201E-02
H+	3.4593E-01	3.6383E-01	3.6008E-01
H2	6.3820E-05	4.2895E-05	2.0451E-05

P1 = 1.00E+05 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5636E+03	2.1283E+04	4.3162E+04
T	2.2439E+02	3.7822E+02	5.4391E+02
RHO	6.9778E+00	1.7959E+01	2.3724E+01
H	8.4527E+02	1.3831E+03	2.0032E+03
A	2.5578E+01	3.4[illegible]12 01	4.4251E+01
S	2.6[illegible]3E+00	2.6945E+00	2.8134E+00
Z	2.9146F+00	3.1334E+00	3.3450E+00
GAME	1.0219E+00	1.0050E+00	1.0763F+00
U	[illegible].1479F+01	1.9995F+01	2.1465E+01

SPECIES	MOLE FRACTIONS		
E-	4.3354E-01	4.7344E-01	5.0674E-01
HE	4.1274E-02	2.5814E-02	7.3956E-03
HE+	7.7532E-02	6.2512E-02	4.7694E-02
HE++	1.2775E-03	2.3375E-02	4.9585E-02
H	9.2004E-02	5.0644E-02	2.8738E-02
H+	3.5385E-01	3.6418E-01	3.[illegible]987E-01
H2	4.[illegible]52[illegible]E-05	3.3329E-05	1.[illegible]148E-05

P1 = 1.00E+05 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0809E+03	1.9583E+04	3.9[illegible]24E+04
T	2.0181E+02	3.4548E+02	4.8820E+02
RHO	7.2029E+00	1.8734E+01	2.4994E+01
H	7.5[illegible]2E+02	1.2377E+03	1.7814E+03
A	2.4[illegible]24E+01	3.2439E+01	4.[illegible]77CE+01
S	2.[illegible]72E+00	2.[illegible]21E+00	2.7483E+00
Z	2.8074E+00	3.0413E+00	3.2[illegible]E+00
GAME	1.0187E+00	1.00[illegible]E+00	1.0483E+00
U	[illegible].0012E+01	1.8810E+01	1.9[illegible]8E+01

SPECIES	MOLE FRACTIONS		
E-	4.1234E-01	4.[illegible]52E-01	4.9417E-01
HE	4.9[illegible]8E-02	3.[illegible]107E-02	1.[illegible]264E-02
HE+	7.6764E-02	6.[illegible]03E-02	5.4284E-02
HE++	2.[illegible]76E-04	1.[illegible]74E-02	3.[illegible]76E-02
H	1.[illegible]C[illegible]E-01	6.4477E-02	3.8227E-02
H+	3.[illegible]49[illegible]E-01	3.[illegible]287E-01	3.[illegible]031E-01
H2	8.[illegible]E-05	[illegible].[illegible]38E-05	3.[illegible]5E-05

Table II.- Nondimensional Thermodynamic Properties and Flow Velocity for Incident (moving), Standing, and Reflected Normal Shocks in a 0.20He-0.80H_2 Mixture

[User cautioned about using table at pressures exceeding 10 MN/m^2 and temperatures exceeding 25 000 K]

$p_1 = 5$ N/m^2

P1 = 5.00E+00 N/SQ-M, USI= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2[illegible]E+01	2.6294E+01	4.4968E+01
T	3.1753E+00	3.9838E+00	5.4704E+00
RHO	3.9601E+00	4.6010E+00	1.1450E+01
H	3.2447E+00	4.1057E+00	6.0075E+00
A	1.7739E+00	1.9769E+00	2.3091E+00
S	1.0504E+00	1.0519E+00	1.0664E+00
Z	1.0000E+00	1.0000E+00	1.0006E+00
GAMF	9.9100E-01	9.8098E-01	7.3976E-01
U	2.45[illegible]E+00	1.4729E+00	1.3009E+00

SPECIES	MOLE FRACTIONS		
E-	1.1174E-48	4.2642E-36	1.0712E-20
HE	2.0000E-01	2.0000E-01	1.9988E-01
HE+	2.5193E-6[illegible]	5.0600E-[illegible]	1.1289E-48
HE++	0.	0.	0.
H	5.5422E-09	1.7687E-06	1.1769E-09
H+	7.2402E-20	7.2402E-20	8.3072E-20
H2	8.0000E-01	8.0000E-01	7.9894E-01

P1 = 5.00E+00 N/SQ-M, USI= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0163E+01	1.7052E+02	2.7448E+02
T	6.8991E+00	8.3559E+00	8.9723E+00
RHO	5.7479E+00	1.9211E+01	2.7753E+01
H	8.1285E+00	1.2693E+01	1.[illegible]761E+01
A	2.4104E+00	2.6577E+00	2.799[illegible]E+00
S	1.1263E+00	1.1426E+00	1.1647E+00
Z	1.0129E+00	1.0625E+00	1.10[illegible]E+00
GAMF	8.9142E-01	7.9564E-01	7.9191E-01
U	4.7[illegible]E+00	1.4204E+00	1.2410E+00

SPECIES	MOLE FRACTIONS		
E-	3.7767E-1[illegible]	3.8814E-1[illegible]	4.0[illegible]6E-12
HE	1.9745E-01	1.8824E-01	1.8133E-01
HE+	2.324[illegible]E-40	2.4155E-33	1.7724E-31
HE++	0.	0.	0.
H	2.5465E-02	1.1764E-01	1.8674E-01
H+	3.7774E-1[illegible]	3.8814E-13	4.0556E-12
H2	7.7708E-01	6.9412E-01	6.3193E-01

P1 = 5.00E+00 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9812E+01	5.2557E+01	1.1297E+02
T	4.4066E+00	5.8647E+00	7.2781E+00
RHO	4.4964E+00	8.9481E+00	1.5292E+01
M	4.5642E+00	6.2600E+00	8.7197E+00
A	2.0723E+00	2.3309E+00	2.4768E+00
S	1.0764E+00	1.0800E+00	1.0964E+00
Z	1.0000E+00	1.0011E+00	1.0154E+00
GAME	9.7470E-01	9.2536E-01	8.3024E-01
U	3.1954E+00	1.6049E+00	1.3298E+00

SPECIES	MOLE FRACTIONS		
E-	2.5379E-32	2.3359E-19	4.8662E-16
HE	2.0000E-01	1.9977E-01	1.9696E-01
HE+	3.2606E-56	6.3133E-47	5.2314E-37
HE++	0.	0.	0.
H	2.2689E-05	2.2464E-03	3.0411E-02
H+	7.2401E-20	3.0591E-19	4.8669E-16
H2	7.9998E-01	7.9796E-01	7.7263E-01

P1 = 5.00E+00 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8929E+01	9.6444E+01	1.7524E+02
T	5.7913E+00	7.3906E+00	8.2142E+00
RHO	4.9724E+00	1.2794E+01	2.0300E+01
M	6.1810E+00	9.1076E+00	1.1863E+01
A	2.3116E+00	2.4860E+00	2.6242E+00
S	1.1014E+00	1.1092E+00	1.1291E+00
Z	1.0012E+00	1.0199E+00	1.0509E+00
GAME	9.2147E-01	8.1983E-01	7.0896E-01
U	3.9393E+00	1.9303E+00	1.2773E+00

SPECIES	MOLE FRACTIONS		
E-	1.0742E-19	4.8583E-19	2.1809E-13
HE	1.9976E-01	1.9609E-01	1.9021E-01
HE+	1.6874E-46	4.1093E-38	1.7877E-34
HE++	0.	0.	0.
H	2.4268E-03	3.9053E-02	9.6934E-02
H+	3.5107E-20	4.8583E-19	2.1808E-13
H2	7.9781E-01	7.8499E-01	7.1276E-01

P1 = 5.00E+00 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3843E+01	2.8629E+02	4.2841E+02
T	7.6110E+00	9.1317E+00	9.6731E+00
RHO	6.8147E+00	2.7981E+01	3.7877E+01
M	1.0392E+01	1.6567E+01	2.0451E+01
A	2.5127E+00	2.8454E+00	2.9938E+00
S	1.1534E+00	1.1814E+00	1.2097E+00
Z	1.0037E+00	1.1207E+00	1.1657E+00
GAME	7.9918E-01	7.0127E-01	7.9213E-01
U	5.5099E+00	1.3684E+00	1.2319E+00

SPECIES	MOLE FRACTIONS		
E-	2.6148E-14	4.5940E-12	3.6813E-11
HE	1.9269E-01	1.7847E-01	1.7054E-01
HE+	8.0430E-37	1.4233E-30	3.2798E-29
HE++	0.	0.	0.
H	7.3065E-02	2.1837E-01	2.5921E-01
H+	2.6148E-14	4.5940E-12	3.6813E-11
H2	7.3424E-01	6.0422E-01	5.3881E-01

P1 = 5.00E+00 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9556E+01	4.4812E+02	6.3943E+02
T	8.1348E+00	9.8291E+00	1.0341E+01
RHO	7.9742E+00	3.6822E+01	4.9519E+01
M	1.2987E+01	2.1868E+01	2.5819E+01
A	2.6233E+00	3.0445E+00	3.2047E+00
S	1.1834E+00	1.2254E+00	1.2676E+00
Z	1.0215E+00	1.1909E+00	1.2484E+00
GAME	7.8918E-01	7.0252E-01	7.0541E-01
U	6.4483E+00	1.3443E+00	1.2418E+00

SPECIES	MOLE FRACTIONS		
E-	2.0439E-12	5.2149E-11	2.9842E-10
HE	1.8558E-01	1.6795E-01	1.6018E-01
HE+	1.2662E-34	1.1805E-28	2.1293E-27
HE++	0.	0.	0.
H	1.3417E-01	3.2047E-01	3.5824E-01
H+	3.0439E-12	5.2149E-11	2.9842E-10
H2	5.7925E-01	5.1158E-01	4.4158E-01

Table II. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7178E+01	6.5926E+02	9.1066E+02
T	8.5693E+00	1.0479E+01	1.1006E+01
RHO	9.1413E+00	4.9502E+01	6.1806E+01
M	1.5818E+01	2.7311E+01	3.1848E+01
A	2.7378E+00	3.2567E+00	3.4349E+00
S	1.2164E+00	1.2738E+00	1.3100E+00
Z	1.1128E+00	1.2716E+00	1.3387E+00
GAME	7.8599E-01	7.9626E-01	8.0077E-01
U	7.3190E+00	1.3519E+00	1.2705E+00

SPECIES	MOLE FRACTIONS		
E-	1.7948E-12	3.0077E-10	1.0284E-09
HE	1.7972E-01	1.5729E-01	1.4940E-01
HE+	8.0016E-33	9.5687E-28	8.5709E-26
HE++	0.	0.	0.
H	2.0276E-01	4.2714E-01	5.0598E-01
H+	1.7948E-12	3.0077E-10	1.0284E-09
H2	6.1752E-01	4.1597E-01	3.4462E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5124E+02	1.5925E+03	2.1108E+03
T	9.6624E+00	1.2587E+01	1.3586E+01
RHO	1.2321E+01	8.0750E+01	9.3339E+01
M	2.6179E+01	4.7079E+01	5.4087E+01
A	3.1102E+00	4.0295E+00	4.3804E+00
S	1.2318E+00	1.4395E+00	1.4885E+00
Z	1.2702E+00	1.5668E+00	1.6645E+00
GAME	7.8814E-01	8.2331E-01	8.4851E-01
U	9.8152E+00	1.4979E+00	1.4929E+00

SPECIES	MOLE FRACTIONS		
E-	7.2432E-11	2.1652E-08	1.0049E-07
HE	1.5745E-01	1.2765E-01	1.2015E-01
HE+	3.7161E-29	1.3198E-22	6.6179E-21
HE++	0.	3.2752E-84	1.4614E-77
H	4.2554E-01	7.2347E-01	7.9848E-01
H+	7.2632E-11	2.1652E-08	1.0069E-07
H2	4.1701E-01	1.4887E-01	8.1369E-02

P1 = 5.00E+00 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0667E+02	9.2079E+02	1.2445E+03
T	8.95[illegible]E+00	1.1124E+01	1.1706E+01
RHO	1.0272E+01	[illegible].0780E+01	7.[illegible]88[illegible]E+01
H	1.8975E+01	3.3338E+01	3.[illegible]532E+01
A	2.[illegible]562E+00	3.4856E+00	3.6905E+00
S	1.2[illegible]22E+00	1.3261E+00	1.3464E+00
Z	1.1598E+00	1.3619E+00	1.4389E+00
GAME	7.8949E-01	8.0193E-01	8.0860E-01
U	8.1587E+00	1.3792E+00	1.3165E+00

SPECIES	MOLE FRACTIONS		
E-	7.2124E-12	1.3903E-09	4.[illegible]308E-09
HE	1.7245E-01	1.4685E-01	1.[illegible]899E-01
HE+	7.0621E-32	1.[illegible]078E-[illegible]	2.9186E-24
HE++	0.	0.	4.1999E-89
H	2.7[illegible]2E-01	5.3147E-01	6.1007E-01
H+	7.2124E-12	1.3903E-09	4.[illegible]308E-09
H2	5.[illegible]2C3E-01	3.21A8E-01	2.[illegible]093E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2802E+02	1.2328E+03	1.6432E+03
T	9.31[illegible]7E+00	1.1806E+01	1.2506E+01
RHO	1.1[illegible]8E+01	7.1460E+01	8.4852E+01
H	2.2428E+01	3.9927E+01	4.[illegible]914E+01
A	2.9800E+00	3.7380E+00	3.9880E+00
S	1.2907E+00	1.3814E+00	1.4261E+00
Z	1.2122E+00	1.4608E+00	1.5485E+00
GAME	7.8632E-01	8.1013E-01	8.2124E-01
U	8.9895E+00	1.4[illegible]7E+00	1.3859E+00

SPECIES	MOLE FRACTIONS		
E-	2.4462E-11	[illegible].2970E-09	1.8638E-08
HE	1.6497E-01	1.3691E-01	1.2914E-01
HE+	1.7[illegible]44E-30	4.[illegible]288E-24	1.1142E-22
HE++	0.	2.8077E-89	2.0979E-83
H	[illegible].[illegible]927E-01	4.3093E-01	5.0844E-01
H+	2.[illegible]42E-11	[illegible].2970E-09	1.8638E-08
H2	4.8475E-01	2.[illegible]216E-01	1.6241E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7629E+02	1.9937E+03	2.6663E+03
T	1.0002E+01	1.363[illegible]E+01	1.[illegible]929E+01
RHO	1.3219E+01	8.7290E+01	9.4508E+01
H	3.0227E+01	5.4766E+01	6.3508E+01
A	3.2476E+00	4.4111E+00	5.2434E+00
S	[illegible].3751E+00	1.4984E+00	1.[illegible]534E+00
Z	1.3333E+00	1.6751E+00	1.7712E+00
GAME	7.9080E-01	8.[illegible]188E-01	9.7452E-01
U	1.0634E+01	1.6107E+00	1.7285E+00

SPECIES	MOLE FRACTIONS		
E-	1.8402E-10	1.1207E-07	1.9320E-06
HE	[illegible].50[illegible]E-01	1.1939E-01	1.1292E-01
HE+	2.1499E-28	8.1980E-21	1.1059E-17
HE++	0.	4.8959E-77	1.2290E-65
H	4.[illegible]997E-01	8.0607E-01	8.7082E-01
H+	1.8602E-10	1.1207E-07	1.9320E-06
H2	2.5003E-01	7.4532E-02	1.6259E-02

P1 = 5.00E+00 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0318E+02	2.4095E+03	[illegible].3914E+03
T	1.03[illegible]E+01	1.[illegible]641E+01	2.3[illegible]84E+01
RHO	1.4005E+01	8.7137E+01	[illegible].[illegible]986E+01
H	3.4572E+01	6.2918E+01	7.4054E+01
A	3.3944E+00	[illegible].1[illegible]63E+00	6.[illegible]934E+00
S	1.4206E+00	[illegible].55[illegible]E+00	1.A175E+00
Z	1.4013E+00	1.7679E+00	1.8002E+00
GAME	7.91[illegible]E-01	9.6150E-01	1.[illegible]193E+00
U	1.14[illegible]E+01	1.8399E+00	2.4357E+00

SPECIES	MOLE FRACTIONS		
E-	4.712[illegible]E-10	1.4678[illegible]-06	[illegible].8214E-06
HE	1.42[illegible]E-01	1.1313E-01	1.1110E-01
HE+	[illegible].18[illegible]E-27	[illegible].1582E-18	1.9439E-15
HE++	0.	6.457[illegible]E-47	[illegible].842[illegible]E-[illegible]3
H	[illegible].7773E-01	8.[illegible]873E-01	8.8727E-01
H+	4.7127E-10	1.4678E-06	[illegible].8214E-06
H2	2.84[illegible]E-01	1.8139E-02	4.[illegible]A[illegible]E-06

Table II. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3180E+02	2.7748E+03	4.1574E+03
T	1.0722E+01	2.0294E+01	3.0640E+01
RHO	1.4469E+01	7.5684E+01	7.4685E+01
H	3.9215E+01	7.1299E+01	8.8841E+01
A	3.5738E+00	6.4535E+00	7.3111E+00
S	1.6680E+00	1.6047E+00	1.6617E+00
Z	1.4737E+00	1.7978E+00	1.8168E+00
GAME	7.9927E-01	1.1360E+00	9.6023E-01
U	1.2251E+01	2.3760E+00	2.9929E+00

SPECIES	MOLE FRACTIONS		
E-	1.1934E-09	9.4783E-05	9.2135E-03
HE	1.3571E-01	1.1125E-01	1.1009E-01
HE+	2.6738E-26	1.8456E-12	2.0410E-08
HE++	0.	1.1350E-50	4.3176E-32
H	6.4294E-01	8.8722E-01	8.7120E-01
H+	1.1934E-09	9.4783E-05	9.3135E-03
H2	2.2135E-01	1.3385E-02	8.6417E-05

P1 = 5.00E+00 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2779E+02	3.9069E+03	6.2137E+03
T	1.2350E+01	3.3886E+01	3.9836E+01
RHO	1.5536E+01	6.3064E+01	8.0532E+01
H	5.4917E+01	9.9431E+01	1.2497E+02
A	4.2263E+00	7.4825E+00	8.1114E+00
S	1.6172E+00	1.7059E+00	1.7581E+00
Z	1.7085E+00	1.8487E+00	1.9369E+00
GAME	8.4654E-01	9.0166E-01	8.5272E-01
U	1.4408E+01	3.6015E+00	3.4920E+00

SPECIES	MOLE FRACTIONS		
E-	3.3755E-08	2.6542E-02	7.0699E-02
HE	1.1706E-01	1.0811E-01	1.0325E-01
HE+	9.1744E-23	1.7923E-07	4.2031E-06
HE++	8.6836E-85	3.3475E-30	1.1367E-23
H	8.2937E-01	8.3863E-01	7.5533E-01
H+	3.3755E-08	2.6542E-02	7.0695E-02
H2	5.3567E-02	6.7502E-05	2.2514E-05

P1 = 5.00E+00 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6221E+02	3.1196E+03	4.8930E+03
T	1.1134E+01	2.6090E+01	3.4732E+01
RHO	1.5192E+01	6.6309E+01	7.6162E+01
H	4.4158E+01	7.9992E+01	1.0083E+02
A	3.7307E+00	7.0856E+00	7.5646E+00
S	1.5169E+00	1.6431E+00	1.6955E+00
Z	1.5502E+00	1.8032E+00	1.8497E+00
GAME	8.0641E-01	1.0672E+00	8.9068E-01
U	1.3050E+01	2.9910E+00	3.2519E+00

SPECIES	MOLE FRACTIONS		
E-	3.0182E-09	1.9993E-03	2.6934E-02
HE	1.2902E-01	1.1091E-01	1.0812E-01
HE+	2.3452E-25	3.8096E-10	3.1205E-07
HE++	0.	2.1135E-38	8.4071E-28
H	7.0984E-01	8.8489E-01	8.3796E-01
H+	3.0182E-09	1.9993E-03	2.6934E-02
H2	1.6114E-01	1.9821E-04	4.4835E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6189E+02	4.1213E+03	6.5033E+03
T	1.3760E+01	3.6404E+01	4.1591E+01
RHO	1.4816E+01	6.0281E+01	7.8752E+01
H	6.0717E+01	1.0973E+02	1.3706E+02
A	4.8216E+00	7.7142E+00	8.3601E+00
S	1.6641E+00	1.7385E+00	1.7914E+00
Z	1.7751E+00	1.8878E+00	1.9855E+00
GAME	9.5179E-01	8.6994E-01	8.4635E-01
U	1.5325E+01	3.7697E+00	3.5516E+00

SPECIES	MOLE FRACTIONS		
E-	3.2925E-07	4.4594E-02	9.3449E-02
HE	1.1267E-01	1.0616E-01	1.0072E-01
HE+	2.7722E-20	8.9719E-07	9.0390E-06
HE++	1.5442E-75	6.5563E-27	1.8290E-22
H	8.7331E-01	8.0442E-01	7.1236E-01
H+	3.2925E-07	4.4593E-02	9.3440E-02
H2	1.4021E-02	3.0330E-05	1.7006E-05

P1 = 5.00E+00 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9428E+02	3.4990E+03	5.4977E+03
T	1.1639E+01	3.0709E+01	3.7588E+01
RHO	1.5922E+01	6.2737E+01	7.8760E+01
H	4.9397E+01	8.9317E+01	1.1279E+02
A	3.9395E+00	7.2791E+00	7.8393E+00
S	1.5669E+00	1.6756E+00	1.7268E+00
Z	1.6295E+00	1.8188E+00	1.8908E+00
GAME	8.1859E-01	9.4963E-01	8.6464E-01
U	1.3839E+01	3.4250E+00	3.3941E+00

SPECIES	MOLE FRACTIONS		
E-	8.6222E-09	1.0447E-02	4.8073E-02
HE	1.2274E-01	1.0996E-01	1.0577E-01
HE+	2.9701E-24	2.0888E-08	1.4580E-04
HE++	9.3810E-91	4.8270E-33	2.3624E-25
H	7.7241E-01	8.6907E-01	7.9805E-01
H+	8.6222E-09	1.0447E-02	4.8072E-02
H2	1.0445E-01	7.7142E-05	3.0392E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9444E+02	3.9374E+03	6.0966E+03
T	1.7085E+01	3.8175E+01	4.2736E+01
RHO	1.2840E+01	5.3644E+01	7.0157E+01
H	6.6738E+01	1.1975E+02	1.4818E+02
A	5.9099E+00	7.9041E+00	8.5542E+00
S	1.7088E+00	1.7753E+00	1.8291E+00
Z	1.7980E+00	1.9227E+00	2.0334E+00
GAME	1.1370E+00	8.5118E-01	8.4206E-01
U	1.5912E+01	3.8103E+00	3.5650E+00

SPECIES	MOLE FRACTIONS		
E-	1.6814E-05	6.3824E-02	1.1479E-01
HE	1.1123E-01	1.0402E-01	9.8343E-02
HE+	5.6668E-16	2.2553E-06	1.5135E-05
HE++	3.4144E-60	9.8489E-25	1.0959E-21
H	8.8760E-01	7.6831E-01	6.7206E-01
H+	1.6814E-05	6.3822E-02	1.1477E-01
H2	1.1292E-03	1.8291E-05	1.2490E-05

Table II. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2694E+02	3.7248E+03	5.6432E+03
T	2.1430E+01	3.9511E+01	4.3656E+01
RHO	1.1065E+01	4.7967E+01	6.2096E+01
H	7.2995E+01	1.2986E+02	1.5910E+02
A	6.5793E+00	8.0919E+00	8.7333E+00
S	1.7442E+00	1.8121E+00	1.8665E+00
Z	1.8006E+00	1.9654E+00	2.0817E+00
GAME	1.1218E+00	8.4320E-01	8.3926E-01
U	1.6443E+01	3.7931E+00	3.5655E+00

SPECIES	MOLE FRACTIONS		
E-	4.7820E-04	8.4172E-02	1.3533E-01
HE	1.1107E-01	1.0176E-01	9.6053E-02
HE+	2.5631E-12	4.6715E-06	2.2837E-05
HE++	5.1807E-47	1.1183E-23	4.5236E-21
H	8.8784E-01	7.2989E-01	6.3329E-01
H+	4.7820E-04	8.4167E-02	1.3530E-01
H2	1.3202E-04	1.3125E-05	9.3071E-06

P1 = 4.00E+00 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4313E+02	4.2563E+03	6.1764E+03
T	3.0479E+01	4.3543E+01	4.7235E+01
RHO	9.6616E+00	4.6181E+01	5.8011E+01
H	9.3731E+01	1.6577E+02	1.9915E+02
A	7.0109E+00	8.7764E+00	9.4494E+00
S	1.8245E+00	1.9082E+00	1.9681E+00
Z	1.8444E+00	2.1167E+00	2.2540E+00
GAME	8.7436E-01	8.3571E-01	8.3866E-01
U	1.8417E+01	3.8540E+00	3.6763E+00

SPECIES	MOLE FRACTIONS		
E-	2.4078E-02	1.4962E-01	2.0143E-01
HE	1.0844E-01	9.4462E-02	8.8649E-02
HE+	4.9865E-08	2.5284E-05	8.2051E-05
HE++	2.1182E-31	5.2371E-21	4.6686E-19
H	8.4340E-01	6.0629E-01	5.0849E-01
H+	2.4078E-02	1.4960E-01	2.0135E-01
H2	1.0936E-05	6.5110E-06	4.6399E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4196E+02	3.7121E+03	5.5221E+03
T	2.5387E+01	4.0780E+01	4.4678E+01
RHO	1.0071E+01	4.5269E+01	5.7929E+01
H	7.9554E+01	1.4072E+02	1.7096E+02
A	6.8021E+00	8.2933E+00	8.9372E+00
S	1.7737E+00	1.8455E+00	1.9014E+00
Z	1.8068E+00	2.0108E+00	2.1336E+00
GAME	1.0087E+00	8.2874E-01	8.3790E-01
U	1.7021E+01	3.7903E+00	3.5782E+00

SPECIES	MOLE FRACTIONS		
E-	3.7981E-03	1.0486E-01	1.5636E-01
HE	1.1069E-01	9.9453E-02	9.3704E-02
HE+	4.6040E-10	8.4159E-06	3.4361E-05
HE++	8.8058E-39	9.2434E-23	1.9299E-20
H	8.8169E-01	6.9082E-01	5.9357E-01
H+	3.7981E-03	1.0485E-01	1.5633E-01
H2	3.5434E-05	1.0034E-05	7.2066E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8805E+02	4.6827E+03	6.7355E+03
T	3.2186E+01	4.4944E+01	4.8631E+01
RHO	9.7604E+00	4.7899E+01	5.9685E+01
H	1.0132E+02	1.7960E+02	2.1490E+02
A	7.1647E+00	9.0400E+00	9.7372E+00
S	1.8488E+00	1.9391E+00	2.0012E+00
Z	1.8719E+00	2.1752E+00	2.3206E+00
GAME	8.5202E-01	8.3592E-01	8.4017E-01
U	1.9176E+01	3.9084E+00	3.7457E+00

SPECIES	MOLE FRACTIONS		
E-	3.8420E-02	1.7249E-01	2.2433E-01
HE	1.0684E-01	9.1904E-02	8.6060E-02
HE+	1.7043E-07	4.1474E-05	1.2570E-04
HE++	1.8168E-29	3.3408E-20	2.2812E-18
H	8.1431E-01	5.6310E-01	4.6527E-01
H+	3.8419E-02	1.7245E-01	2.2420E-01
H2	7.9407E-04	5.3962E-06	3.7474E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0093E+02	3.9187E+03	5.7493E+03
T	2.8707E+01	4.2147E+01	4.6905E+01
RHO	9.7135E+00	4.5097E+01	5.7149E+01
H	8.6471E+01	1.5276E+02	1.8446E+02
A	6.8865E+00	8.5257E+00	9.1808E+00
S	1.7996E+00	1.8773E+00	1.9352E+00
Z	1.8218E+00	2.0617E+00	2.1916E+00
GAME	9.1905E-01	8.3650E-01	8.3782E-01
U	1.7491E+01	3.8113E+00	3.6229E+00

SPECIES	MOLE FRACTIONS		
E-	1.1951E-02	1.2694E-01	1.7867E-01
HE	1.0978E-01	9.4993E-02	9.1204E-02
HE+	9.3418E-09	1.4840E-05	5.3119E-05
HE++	2.7171E-34	7.4030E-22	9.4 7E-20
H	8.4422E-01	6.4912E-01	5.5146E-01
H+	1.1891E-02	1.2693E-01	1.7862E-01
H2	1.7229E-05	7.9911E-06	5.7459E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3536E+02	5.1749E+03	7.3896E+03
T	3.2612E+01	4.4341E+01	5.0069E+01
RHO	9.9330E+00	4.9926E+01	6.1738E+01
H	1.0923E+02	1.9416E+02	2.3158E+02
A	7.3288E+00	9.3135E+00	1.0040E+01
S	1.8730E+00	1.9702E+00	2.0347E+00
Z	1.9029E+00	2.2368E+00	2.3906E+00
GAME	8.2976E-01	8.2685E-01	8.4223E-01
U	1.9954E+01	3.9711E+00	3.8264E+00

SPECIES	MOLE FRACTIONS		
E-	5.4084E-02	1.9527E-01	2.4704E-01
HE	1.0512E-01	8.9350E-02	8.3472E-02
HE+	4.3045E-07	6.5814E-05	1.9034E-04
HE++	5.5112E-28	1.8552E-19	1.0698E-17
H	7.8672E-01	5.2011E-01	4.2244E-01
H+	5.4084E-02	1.9520E-01	2.4685E-01
H2	6.1785E-06	4.4158E-06	3.0064E-06

Table II. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8475E+02	5.7187E+03	8.1154E+03
T	3.4857E+01	4.7729E+01	5.1535E+01
PHO	1.0144E+01	5.2075E+01	5.3933E+01
M	1.1744E+02	2.0935E+02	2.4899E+02
A	7.4966E+00	9.5948E+00	1.0355E+01
S	1.8972E+00	2.0015E+00	2.0685E+00
Z	1.9366E+00	2.3009E+00	2.4631E+00
GAME	8.3254E-01	8.3831E-01	8.4479E-01
U	2.0740E+01	4.0410E+00	3.9091E+00

SPECIES	MOLE FRACTIONS		
E-	7.0545E-02	2.1769E-01	2.6921E-01
HE	1.0327E-01	8.6822E-02	8.0915E-02
HE+	9.0454E-07	1.0150E-04	2.8444E-04
HE++	8.2903E-27	9.4846E-19	4.7509E-17
H	7.5563E-01	4.7779E-01	3.8066E-01
H+	7.0544E-02	2.1759E-01	2.6893E-01
H2	9.0017E-06	3.6288E-06	2.3877E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.0239E+02	8.3360E+03	1.1651E+04
T	3.8878E+01	5.3360E+01	5.7932E+01
PHO	1.1098E+01	6.0570E+01	7.2442E+01
M	1.5333E+02	2.7618E+02	3.2644E+02
A	8.1797E+00	1.0805E+01	1.1757E+01
S	1.9959E+00	2.1301E+00	2.2077E+00
Z	2.0914E+00	2.5792E+00	2.7761E+00
GAME	8.2288E-01	8.4824E-01	8.5943E-01
U	2.3923E+01	4.3845E+00	4.2277E+00

SPECIES	MOLE FRACTIONS		
E-	1.3933E-01	3.0210E-01	3.5161E-01
HE	9.5623E-02	7.7063E-02	7.0682E-02
HE+	7.1077E-06	4.8199E-04	1.3621E-03
HE++	1.7131E-23	3.0759E-16	1.4746E-14
H	6.2572E-01	3.1873E-01	2.2610E-01
H+	1.3932E-01	3.0162E-01	3.5024E-01
H2	2.5338E-06	1.5009E-06	7.7717E-07

P1 = 5.00E+00 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3623E+02	6.3106E+03	8.9093E+03
T	3.5977E+01	4.9117E+01	5.3044E+01
RHO	1.0374E+01	5.4270E+01	6.4171E+01
H	1.2596E+02	2.2517E+02	2.6722E+02
A	7.6661E+00	9.8844E+00	1.0684E+01
S	1.9215E+00	2.0331E+00	2.1027E+00
Z	1.9726E+00	2.3674E+00	2.5383E+00
GAME	8.2812E-01	8.4021E-01	8.4772E-01
U	2.1532E+01	4.1171E+00	4.0019E+00

SPECIES	MOLE FRACTIONS		
E-	8.7493E-02	2.3968E-01	2.9087E-01
HE	1.0139E-01	8.4327E-02	7.8371E-02
HE+	1.6852E-06	1.5309E-04	4.2196E-04
HE++	8.2657E-26	4.3739E-18	2.0401E-16
H	7.2362E-01	4.3631E-01	3.3989E-01
H+	8.7492E-02	2.3953E-01	2.9044E-01
H2	4.1461E-06	2.9627E-06	1.8666E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0224E+03	9.8627E+03	1.3746E+04
T	4.0604E+01	5.6357E+01	6.1693E+01
RHO	1.1856E+01	6.4151E+01	7.5773E+01
H	1.7307E+02	3.1202E+02	3.6977E+02
A	8.5316E+00	1.1468E+01	1.2560E+01
S	2.0475E+00	2.1962E+00	2.2794E+00
Z	2.1793E+00	2.7280E+00	2.9405E+00
GAME	8.2258E-01	8.5550E-01	8.6956E-01
U	2.5518E+01	4.5979E+00	4.4921E+00

SPECIES	MOLE FRACTIONS		
E-	1.7404E-01	3.4019E-01	3.8787E-01
HE	9.1758E-02	7.2310E-02	6.4954E-02
HE+	1.5190E-05	1.0036E-03	3.0609E-03
HE++	2.8689E-22	4.4906E-15	2.7284E-13
H	5.6015E-01	2.4733E-01	1.5931E-01
H+	1.7403E-01	3.3918E-01	3.8481E-01
H2	1.8558E-06	8.7043E-07	3.6494E-07

P1 = 5.00E+00 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8969E+02	6.9454E+03	9.7645E+03
T	3.7007E+01	5.0512E+01	5.4614E+01
RHO	1.0614E+01	5.6442E+01	6.8324E+01
H	1.3478E+02	2.4159E+02	2.8620E+02
A	7.8366E+00	1.0182E+01	1.1029E+01
S	1.9461E+00	2.0452E+00	2.1378E+00
Z	2.0109E+00	2.4361E+00	2.6167E+00
GAME	8.2539E-01	8.4252E-01	8.5117E-01
U	2.2328E+01	4.1997E+00	4.1022E+00

SPECIES	MOLE FRACTIONS		
E-	1.0472E-01	2.6112E-01	3.1211E-01
HE	9.9473E-02	8.1871E-02	7.5807E-02
HE+	2.8851E-06	2.2694E-04	6.2555E-04
HE++	6.0314E-25	1.8941E-17	8.6536E-16
H	5.9108E-01	2.9588E-01	2.9997E-01
H+	1.0472E-01	2.6090E-01	3.1149E-01
H2	3.4989E-06	2.3947E-06	1.4256E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1503E+03	1.1518E+04	1.6058E+04
T	4.2222E+01	5.9430E+01	6.4134E+01
RHO	1.1985E+01	6.7068E+01	7.6248E+01
H	1.9402E+02	3.5208E+02	4.1436E+02
A	8.8908E+00	1.2184E+01	1.3437E+01
S	2.1001E+00	2.2630E+00	2.3518E+00
Z	2.2726E+00	2.8801E+00	3.1032E+00
GAME	8.2359E-01	8.6443E-01	8.7985E-01
U	2.7113E+01	4.8441E+00	4.6039E+00

SPECIES	MOLE FRACTIONS		
E-	2.0796E-01	3.7502E-01	4.1995E-01
HE	8.7976E-02	6.7331E-02	5.7302E-02
HE+	2.9488E-05	2.1105E-03	7.1486E-03
HE++	3.3810E-21	6.5472E-14	5.9200E-12
H	4.9411E-01	1.8242E-01	1.0280E-01
H+	2.0793E-01	3.7291E-01	4.1288E-01
H2	1.2573E-06	4.5220E-07	1.4080E-07

Table II. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2852E+03	1.3274E+04	1.8563E+04
T	4.3813E+01	6.3323E+01	7.1423E+01
RHO	1.2370E+01	6.9177E+01	7.9844E+01
H	2.1615E+02	3.9326E+02	4.6619E+02
A	9.2609E+00	1.2953E+01	1.4364E+01
S	2.1539E+00	2.3297E+00	2.4240E+00
Z	2.3712E+00	3.0303E+00	3.2551E+00
GAME	8.2554E-01	8.7435E-01	8.8748E-01
U	2.8701E+01	5.1344E+00	5.2612E+00

SPECIES	MOLE FRACTIONS		
E-	2.4089E-01	4.0601E-01	4.4703E-01
HE	8.4292E-02	6.1452E-02	4.5304E-02
HE+	5.3915E-05	4.5468E-03	1.6137E-02
HE++	3.1624E-20	1.0296E-12	1.3898E-10
H	4.3392E-01	1.2653E-01	6.0637E-02
H+	2.4084E-01	4.0146E-01	4.3089E-01
H2	9.7901E-07	2.0350E-07	4.4414E-08

P1 = 5.00E+00 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7325E+03	1.8929E+04	2.7513E+04
T	4.8628E+01	7.8404E+01	1.0407E+02
RHO	1.3222E+01	7.0579E+01	7.3847E+01
H	2.8949E+02	5.2907E+02	6.4604E+02
A	1.0468E+01	1.5614E+01	2.0302E+01
S	2.3222E+00	2.5258E+00	2.6388E+00
Z	2.6944E+00	3.4208E+00	3.5809E+00
GAME	8.3629E-01	9.0904E-01	1.1063E+00
U	3.3421E+01	6.2624E+00	7.2927E+00

SPECIES	MOLE FRACTIONS		
E-	3.3195E-01	4.7380E-01	4.9720E-01
HE	7.3944E-02	2.4785E-02	1.5751E-03
HE+	2.8345E-04	3.3682E-02	5.4284E-02
HE++	1.3534E-17	4.6691E-09	7.5124E-06
H	2.6216E-01	2.7615E-02	4.0277E-03
H+	3.3167E-01	4.4012E-01	4.4290E-01
H2	3.0604E-07	7.1362E-09	1.0633E-10

P1 = 5.00E+00 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4272E+03	1.[illegible]109E+04	2.1251E+04
T	4.5382E+01	6.7638E+01	7.7750E+01
RHO	1.2708E+01	7.0372E+01	8.0583E+01
H	2.3948E+02	4.3651E+02	[illegible].1939E+02
A	9.6447E+00	1.3767E+01	1.5436E+01
S	2.2090E+00	2.3965E+00	2.4953E+00
Z	2.4747E+00	3.1744E+00	3.3918E+00
GAME	8.2827E-01	8.8272E-01	9.0350E-01
U	3.0282E+01	[illegible].4696E+00	5.6672E+00

SPECIES	MOLE FRACTIONS		
E-	2.7264E-01	4.3296E-01	4.6930E-01
HE	8.9723E-02	5.[illegible]064E-02	2.8335E-02
HE+	9.5009E-05	9.9386E-03	3.0631E-02
HE++	2.5495E-19	1.8223E-11	2.9840E-09
H	3.7[illegible]0E-01	8.1018E-02	3.[illegible]058E-02
H+	2.7254E-01	4.2302E-01	4.3867E-01
H2	6.8992E-07	7.6413E-08	1.1759E-08

P1 = 5.00E+00 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.89[illegible]4E+03	2.0778E+04	3.1245E+04
T	[illegible].0392E+01	8.6164E+01	1.2992E+02
RHO	1.3389E+01	6.8584E+01	6.6840E+01
H	3.1658E+02	5.7791E+02	7.2448E+02
A	1.0918E+01	1.7128E+01	2.2797E+01
S	2.3800E+00	2.5872E+00	2.7046E+00
Z	2.8093E+00	3.5160E+00	3.5981E+00
GAME	8.4201E-01	9.6946E-01	1.1117E+00
U	3.4975E+01	6.8341E+00	8.7655E+00

SPECIES	MOLE FRACTIONS		
E-	3.5927E-01	4.8806E-01	4.9973E-01
HE	7.0697E-02	1.0314E-02	2.0478E-04
HE+	4.9598E-04	4.6566E-02	5.4734E-02
HE++	9.9070E-17	8.1131E-08	6.4411E-04
H	2.1077E-01	1.3563E-02	9.7254E-04
H+	3.5877E-01	4.4149E-01	4.4371E-01
H2	1.8704E-07	1.4569E-09	4.3621E-12

P1 = 5.00E+00 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5764E+03	1.7006E+04	2.4165E+04
T	4.6974E+01	7.2596E+01	8.6690E+01
RHO	1.2994E+01	7.0883E+01	7.9432E+01
H	2.6399E+02	4.8181E+02	[illegible].7754E+02
A	1.0046E+01	1.4609E+01	1.7144E+01
S	2.2651E+00	2.4619E+00	2.[illegible]663E+00
Z	2.5826E+00	3.[illegible]049E+00	3.5093E+00
GAME	8.3181E-01	9.8955E-01	9.6614E-01
U	3.1854E+01	[illegible].8407E+00	4.2291E+00

SPECIES	MOLE FRACTIONS		
E-	3.0303E-01	4.[illegible]E-01	4.8708E-01
HE	7.7277E-02	4.0537E-02	1.0918E-02
HE+	1.6431E-04	1.9980E-02	4.6073E-02
HE++	1.8868E-18	3.0917E-10	8.1437E-08
H	3.1466E-01	4.8763E-02	1.4927E-02
H+	3.0287E-01	4.[illegible]37E-01	4.4100E-01
H2	4.7017E-07	2.5052E-08	2.019[illegible]E-09

P1 = [illegible].00E+00 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0648E+03	2.2388E+04	3.4748E+04
T	[illegible].2334E+01	9.8118E+01	1.[illegible]54E+02
RHO	1.3484E+01	6.[illegible]86E+01	6.[illegible]71[illegible]E+01
H	3.4464E+02	6.2742E+02	7.9989E+02
A	1.140[illegible]E+01	1.9462E+01	2.3106E+01
S	2.4382E+00	2.6442E+00	2.7[illegible]2E+00
Z	2.926[illegible]E+00	3.[illegible]727E+00	3.6227E+00
GAME	8.4941E-01	1.080[illegible]E+00	9.7893E-01
U	3.6[illegible]17E+01	7.7126E+00	9.8048E+00

SPECIES	MOLE FRACTIONS		
E-	3.8483E-01	4.961[illegible]E-01	[illegible].0314E-01
HE	6.74[illegible]E-02	2.4940E-03	6.8990E-[illegible]
HE+	8.9800E-04	5.3483E-02	4.8362E-02
HE++	7.9832E-16	2.3076E-08	6.77[illegible]E-[illegible]
H	1.6289E-01	5.1375E-03	4.315[illegible]E-04
H+	3.8393E-01	4.4270E-01	4.4122E-01
H2	1.04[illegible]E-07	1.6195E-10	7.2094E-13

Table II. - Continued

p_1 = 5 N/m^2

P1 = 5.00E+00 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2406E+03	2.3696E+04	3.7868E+04
T	5.4557E+01	1.1401E+02	1.6396E+02
RHO	1.3498E+01	5.7860E+01	6.3017E+01
H	3.7388E+02	6.7780E+02	8.7073E+02
A	1.1941E+01	2.1578E+01	2.3673E+01
S	2.4968E+00	2.6949E+00	2.7995E+00
Z	3.0427E+00	3.5919E+00	3.6649E+00
GAME	8.5900E-01	1.1369E+00	9.3260E-01
U	3.8041E+01	8.8815E+00	1.0380E+01

SPECIES	MOLE FRACTIONS		
E-	4.0841E-01	4.9888E-01	5.0886E-01
HE	6.4011E-02	5.2112E-04	3.4943E-05
HE+	1.7211E-03	5.5095E-02	3.6501E-02
HE++	7.5688E-15	6.6692E-05	1.8025E-02
H	1.1917E-01	1.7896E-03	2.8582E-04
H+	4.0649E-01	4.4365E-01	4.3629E-01
H2	5.1755E-08	1.4721E-11	2.9621E-13

P1 = 5.00E+00 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8027E+03	2.7329E+04	4.6963E+04
T	6.4033E+01	1.5708E+02	2.1108E+02
RHO	1.3052E+01	4.7643E+01	5.8029E+01
H	4.6856E+02	8.3950E+02	1.1022E+03
A	1.3744E+01	2.3163E+01	2.9382E+01
S	2.6685E+00	2.8219E+00	2.9263E+00
Z	3.3533E+00	3.6509E+00	3.7852E+00
GAME	8.7973E-01	9.3553E-01	1.0805E+00
U	4.2496E+01	1.1635E+01	1.2324E+01

SPECIES	MOLE FRACTIONS		
E-	4.6322E-01	5.0698E-01	5.2446E-01
HE	4.3438E-02	3.5371E-05	1.5495E-06
HE+	1.6204E-02	4.0493E-02	3.8223E-03
HE++	2.2633E-11	1.4252E-02	4.9014E-02
H	3.0117E-02	2.6405E-04	9.1136E-05
H+	4.4702E-01	4.3798E-01	4.2261E-01
H2	2.3452E-09	1.9662E-13	2.4616E-14

P1 = 5.00E+00 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4222E+03	2.4834E+04	4.0739E+04
T	5.7201E+01	1.3094E+02	1.7611E+02
RHO	1.3418E+01	5.2681E+01	6.2307E+01
H	4.0428E+02	7.2910E+02	9.4223E+02
A	1.2533E+01	2.2746E+01	2.4787E+01
S	2.5550E+00	2.7401E+00	2.8417E+00
Z	3.1558E+00	3.6002E+00	3.7127E+00
GAMF	8.7022E-01	1.0976E+00	9.3962E-01
U	3.9544E+01	1.0069E+01	1.0851E+01

SPECIES	MOLE FRACTIONS		
E-	4.2942E-01	5.0002E-01	5.1518E-01
HE	5.9812E-02	1.5491E-04	1.7000E-05
HE+	3.5635E-03	5.4486E-02	2.3274E-02
HE++	9.2366E-14	9.3500E-04	1.0578E-02
H	8.7951E-02	7.3507E-04	2.0627E-04
H+	4.2605E-01	4.4369E-01	4.3075E-01
H2	2.1485E-08	1.5500E-12	1.4710E-13

P1 = 5.00E+00 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0023E+03	2.8781E+04	4.9578E+04
T	6.8030E+01	1.6689E+02	2.4068E+02
RHO	1.2843E+01	4.6727E+01	5.4259E+01
H	5.0246E+02	8.9908E+02	1.1977E+03
A	1.4400E+01	2.3897E+01	3.2319E+01
S	2.7232E+00	2.8595E+00	2.9694E+00
Z	3.4363E+00	3.6908E+00	3.7963E+00
GAMF	8.8695E-01	9.2711E-01	1.1432E+00
U	4.3948E+01	1.2073E+01	1.3639E+01

SPECIES	MOLE FRACTIONS		
E-	4.7619E-01	5.1230E-01	5.2585E-01
HE	2.9956E-02	1.9605E-05	2.5701E-07
HE+	2.8245E-02	2.9360E-02	9.2954E-04
HE++	2.8748E-10	2.4809E-02	5.1753E-02
H	1.7473E-02	1.9652E-04	5.1736E-05
H+	4.4794E-01	4.3332E-01	4.2141E-01
H2	7.1054E-10	1.0325E-13	7.0328E-15

P1 = 5.00E+00 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6094E+03	2.5978E+04	4.3485E+04
T	6.0387E+01	1.4573E+02	1.9044E+02
RHO	1.3253E+01	4.9273E+01	6.0790E+01
H	4.3584E+02	7.8244E+02	1.0182E+03
A	1.3151E+01	2.2851E+01	2.6604E+01
S	2.6124E+00	2.7823E+00	2.8839E+00
Z	3.2604E+00	3.6180E+00	3.7562E+00
GAMF	8.7842E-01	9.9040E-01	9.8940E-01
U	4.1024E+01	1.1029E+01	1.1443E+01

SPECIES	MOLE FRACTIONS		
E-	4.4793E-01	5.0248E-01	5.2080E-01
HE	5.3524E-02	6.5572E-05	6.6397E-06
HE+	7.8156E-03	4.9786E-02	1.1494E-02
HE++	1.4390E-12	5.4278E-03	4.1746E-02
H	5.9621E-02	3.9257E-04	1.4470E-04
H+	4.4011E-01	4.4184E-01	4.2981E-01
H2	7.5027E-09	4.7250E-13	6.8114E-14

P1 = 5.00E+00 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2044E+03	2.6984E+04	5.2467E+04
T	7.2827E+01	1.7717E+02	2.7367E+02
RHO	1.2545E+01	4.5358E+01	5.0465E+01
H	5.2748E+02	9.5981E+02	1.2976E+03
A	1.5339E+01	2.5044E+01	3.4708E+01
S	2.7762E+00	2.8979E+00	3.0090E+00
Z	3.5094E+00	3.7313E+00	3.7989E+00
GAMF	9.2050E-01	9.4895E-01	1.1587E+00
U	4.5372E+01	1.2541E+01	1.5025E+01

SPECIES	MOLE FRACTIONS		
E-	4.8713E-01	5.1759E-01	5.2618E-01
HE	1.5974E-02	9.5887E-06	5.0060E-08
HE+	4.1012E-02	1.8251E-02	2.6185E-04
HE++	3.4742E-09	3.5340E-02	5.2385E-02
H	9.7729E-03	2.4692E-04	3.0556E-05
H+	4.4611E-01	4.2866E-01	4.2115E-01
H2	1.8794E-10	5.4386E-14	2.1894E-15

Table II. - Continued.

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4093E+03	9.0304E+04	9.3912E+04
T	7.9870E+01	1.8891E+02	3.0731E+02
RHO	1.1973E+01	4.2615E+01	4.6171E+01
M	5.7348E+02	1.0194E+03	1.3970E+03
A	1.6968E+01	2.6686E+01	3.6834E+01
S	2.8273E+00	2.9372E+00	3.0476E+00
Z	3.5650E+00	3.7643E+00	3.7996E+00
GAME	1.0111E+00	1.0014E+00	1.1619E+00
U	4.6687E+01	1.3910E+01	1.6363E+01

SPECIES	MOLE FRACTIONS		
E-	4.9910E-01	5.2182E-01	5.2624E-01
HE	9.3721E-03	3.7945E-04	1.2294E-08
HE+	9.0728E-02	9.3823E-03	9.3351E-05
HE++	6.4083E-08	4.3745E-02	9.2544E-02
H	4.4323E-03	1.0529E-04	1.9062E-05
H+	4.4437E-01	4.2495E-01	4.2108E-01
H2	3.1417E-11	2.5408E-14	7.5807E-16

P1 = 5.00E+00 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0091E+03	2.7697E+04	5.1902E+04
T	1.1619E+02	2.3738E+02	4.0402E+02
RHO	9.5824E+00	3.0725E+01	3.3809E+01
M	6.8697E+02	1.1896E+03	1.6827E+03
A	2.1503E+01	3.2188E+01	4.2289E+01
S	2.9503E+00	3.0498E+00	3.1522E+00
Z	3.6003E+00	3.7976E+00	3.7994E+00
GAME	1.1113E+00	1.1493F+00	1.1631E+00
U	5.6003E+01	1.5598E+01	1.9734E+01

SPECIES	MOLE FRACTIONS		
E-	5.0011E-01	5.2601E-01	5.2031E-01
HE	7.2931E-03	9.8613E-08	5.2537E-10
HE+	5.4907E-02	6.0939E-04	1.2003E-05
HE++	5.6317E-04	5.2056E-02	5.2024E-02
H	2.6593E-04	3.0841E-05	6.1340E-06
H+	4.4406E-01	4.2129E-01	4.2102E-01
H2	5.2782E-14	1.4232E-15	5.5501E-17

P1 = 5.00E+00 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6079E+03	2.9620E+04	5.3565E+04
T	9.0247E+01	2.0288E+02	3.3919E+02
RHO	1.1136E+01	3.8578E+01	4.1560E+01
H	6.1034E+02	1.0769E+03	1.4922E+03
A	1.9009E+01	2.8492E+01	3.8711E+01
S	2.8728E+00	2.9767E+00	3.0847E+00
Z	3.5899E+00	3.7844E+00	3.7998E+00
GAME	1.1153E+00	1.0722E+00	1.1627E+00
U	4.7845E+01	1.3808E+01	1.7541E+01

SPECIES	MOLE FRACTIONS		
E-	4.9860E-01	5.2438E-01	5.2629E-01
HE	1.1643E-02	1.2014E-06	3.7983E-09
HE+	5.4548E-02	4.0085E-03	4.1986E-05
HE++	1.8161E-06	4.8837E-02	5.2592E-02
H	1.8379E-03	7.1063E-05	1.2610E-05
H+	4.4405E-01	4.2270E-01	4.2106E-01
H2	3.2673E-12	1.0147E-14	2.9354E-16

P1 = 5.00E+00 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2239E+03	2.7464E+04	5.2631E+04
T	1.2760E+02	2.5746E+02	4.3809E+02
RHO	9.1477E+00	2.8080E+01	3.1570E+01
H	7.2711E+02	1.2488E+03	1.7852E+03
A	2.1549E+01	3.3657E+01	4.4043E+01
S	2.9842E+00	3.0813E+00	3.1813E+00
Z	3.6114E+00	3.7990E+00	3.8000E+00
GAME	1.0057E+00	1.1582E+00	1.1631E+00
U	5.1236E+01	1.6631E+01	2.0871E+01

SPECIES	MOLE FRACTIONS		
E-	5.0154E-01	5.2619E-01	5.2831E-01
HE	3.0221E-05	3.1074E-08	2.3030E-10
HE+	5.2002E-02	2.5346E-04	8.2530E-06
HE++	3.3409E-05	5.2393E-02	5.2024E-02
H	1.4630E-04	2.1018E-05	4.5043E-06
H+	4.4289E-01	4.2115E-01	4.1852E-01
H2	1.3781E-14	5.8712E-16	2.8900E-17

P1 = 5.00E+00 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8035E+03	2.8476E+04	5.2308E+04
T	1.0322E+02	2.1934E+02	3.7121E+02
RHO	1.0249E+01	3.4219E+01	3.7120E+01
H	6.4815E+02	1.1328E+03	1.5849E+03
A	2.0838E+01	3.0605E+01	4.0508E+01
S	2.9147E+00	3.0153E+00	3.1205E+00
Z	3.5977E+00	3.7940E+00	3.7995E+00
GAME	1.1477E+00	1.1255E+00	1.1635E+00
U	4.8953E+01	1.4534E+01	1.8601E+01

SPECIES	MOLE FRACTIONS		
E-	4.9950E-01	5.2557E-01	5.2833E-01
HE	2.4400E-04	3.3476E-07	1.3699E-09
HE+	5.5309E-02	1.5378E-03	2.1731E-05
HE++	4.3000E-05	5.1177E-02	5.2611E-02
H	5.9714E-04	4.6313E-05	8.6133E-06
H+	4.4420E-01	4.2167E-01	4.2106E-01
H2	3.2493E-13	3.6908E-15	1.2102E-16

Table II. - Continued.

p_1 = 10 N/m^2

P1 = 1.00E+01 N/SQ-M. US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6294E+01	6.4997E+01
T	3.1753E+00	3.9838E+00	5.6803E+00
RHO	3.9601E+00	6.6010E+00	1.1437E+01
M	3.2467E+00	4.1057E+00	6.0098E+00
A	1.7739E+00	1.9769E+00	2.3173E+00
S	1.0518E+00	1.0533E+00	1.0682E+00
Z	1.0000E+00	1.0000E+00	1.0004E+00
GAME	9.9100E-01	9.8101E-01	9.4497E-01
U	2.4570E+00	1.4725E+00	1.3034E+00

SPECIES	MOLE FRACTIONS		
E-	3.9508E-49	2.2153E-36	6.0927E-21
HE	2.0000E-01	2.0000E-01	1.9991E-01
HE+	3.5628E-65	7.1579E-58	1.4592E-48
HE++	0.	0.	0.
H	3.8446E-09	1.2505E-06	8.5678E-04
H+	7.2402E-20	7.2402E-20	7.8464E-20
H2	8.0000E-01	8.0000E-01	7.9923E-01

P1 = 1.00E+01 N/SQ-M. US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0043E+01	1.6612E+02	2.7113E+02
T	6.9918E+00	8.5483E+00	9.2284E+00
RHO	5.6656E+00	1.8383E+01	2.6762E+01
M	6.1200E+00	1.2632E+01	1.5781E+01
A	2.4382E+00	2.6891E+00	2.8394E+00
S	1.1295E+00	1.1451E+00	1.1694E+00
Z	1.0108E+00	1.0573E+00	1.0977E+00
GAME	8.4114E-01	8.0016E-01	7.9583E-01
U	4.7370E+00	1.4586E+00	1.2719E+00

SPECIES	MOLE FRACTIONS		
E-	4.9473E-16	5.8641E-13	6.5092E-12
HE	1.9786E-01	1.8917E-01	1.8240E-01
HE+	3.8358E-40	1.4545E-33	1.0252E-30
HE++	0.	0.	0.
H	2.1449E-02	1.0832E-01	1.7804E-01
H+	4.9480E-16	5.8641E-13	6.5094E-12
H2	7.8070E-01	7.0251E-01	6.3977E-01

P1 = 1.00E+01 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9812E+01	5.2420E+01	1.1341E+02
T	4.4042E+00	5.8759E+00	7.401[illegible]E+00
RHO	4.4962E+00	8.9115E.00	1.5123E+01
M	4.5642E+00	6.2553E+00	8.749[illegible]E+00
A	2.0726E+00	2.3425E+00	2.5074E+00
S	1.0784E+00	1.0821E+00	1.0990E+00
Z	1.0000E+00	1.0008E+00	1.0134E+00
GAME	9.7494E-01	9.3317E-01	8.3894E-01
U	3.1953E+00	1.6114E+00	1.3511E+00

SPECIES	MOLE FRACTIONS		
E-	9.0255E-33	1.4458E-19	1.7253E-15
HE	2.0000E-01	1.9983E-01	1.9736E-01
HE+	4.6339E-56	4.0027E-47	4.4294E-37
HE++	0.	0.	0.
H	1.6057E-05	1.6564E-03	2.6371E-02
H+	7.2401E-20	2.1690E-19	1.7[illegible]96E-15
H2	7.9999E-01	7.9851E-01	7.7[illegible]7E-01

P1 = 1.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3658E+01	2.7755E+02	4.203[illegible]E+02
T	7.7676E+00	9.3830E+00	9.98[illegible]E+00
RHO	6.6782E+00	2.6545E+01	3.6202[illegible]E+01
M	1.0384E+01	1.6887E+01	2.0467[illegible]E+01
A	2.5432E+00	2.8823E+00	3.0397[illegible]E+00
S	[illegible].1566E+00	1.1835E+00	1.2[illegible]E+00
Z	1.0344E+00	1.1137E+00	1.1631[illegible]E+00
GAME	8.0498E-01	7.9499E-01	7.957[illegible]E-01
U	5.5902E+00	1.4050E+00	1.2652[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	3.3132E-14	1.0382E-11	6.2[illegible]E-11
HE	1.9334E-01	1.7958E-01	1.7[illegible]5E-01
HE+	4.0070E-36	5.6854E-30	2.[illegible]2E-26
HE++	0.	0.	0.
H	6.6584E-02	2.0419E-01	2.8[illegible]9E-01
H+	3.3132E-14	1.0382E-11	6.2[illegible]E-11
H2	7.4007E-01	6.1623E-01	5.4[illegible]0E-01

P1 = 1.00E+01 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8808E+01	9.5169E+01	1.75[illegible]E+02
T	5.0061E+00	7.5004E+00	8.42[illegible]E+00
RHO	4.9577E+00	1.2477E+01	1.98[illegible]E+01
M	6.1797E+00	9.0784E+00	1.19[illegible]E+01
A	2.3251E+00	2.5140E+00	2.66[illegible]E+00
S	1.1041E+00	1.1117E+00	1.1319E+00
Z	1.0009E+00	1.0171E+00	1.0472E+00
GAME	9.3024E-01	8.2852E-01	8.0364E-01
U	3.9363E+00	1.5631E+00	1.30[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	7.0226E-20	4.4599E-15	3.4[illegible]E-13
HE	1.9982E-01	1.9864E-01	1.9[illegible]E-01
HE+	1.4873E-46	7.9577E-37	1.5[illegible]E-33
HE++	0.	0.	0.
H	1.7906E-03	3.3592E-02	9.0[illegible]E-02
H+	2.1116E-21	4.4599E-15	3.4[illegible]E-13
H2	7.9839E-01	7.6977E-01	7.1[illegible]E-01

P1 = 1.00E+01 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9313E+01	4.3334E+02	8.[illegible]15E+02
T	8.3370E+00	1.0125E+01	1.[illegible]0E+01
RHO	7.7897E+00	3.6206E+01	4.707[illegible]E+01
M	1.2948E+01	2.1751E+01	2.58[illegible]E+01
A	2.6572E+00	3.0871E+00	3.253[illegible]E+00
S	1.1805E+00	1.2268E+00	1.259[illegible]E+00
Z	1.0074E+00	1.1824E+00	1.24[illegible]E+00
GAME	7.9346E-01	7.9610E-01	7.992[illegible]E-01
U	6.4404E+00	1.3872E+00	1.27[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	4.3611E-13	8.8664E-11	3.7[illegible]E-10
HE	1.8737E-01	1.6916E-01	1.611[illegible]E-01
HE+	7.6033E-34	2.3793E-28	1.5[illegible]E-26
HE++	0.	0.	0.
H	1.2626E-01	3.0845E-01	3.8[illegible]E-01
H+	4.3611E-13	8.8664E-11	3.7[illegible]E-10
H2	6.8[illegible]E-01	5.2240E-01	4.5[illegible]E-01

Table II. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M. US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6891E+01	6.3613E+02	8.8805E+02
T	8.8097E+00	1.0827E+01	1.1416E+01
RHO	8.9071E+00	4.6575E+01	5.8497E+01
M	1.5809E+01	2.7196E+01	3.1874E+01
A	2.7753E+00	3.3056E+00	3.4954E+00
S	1.2193E+00	1.2745E+00	1.3110E+00
Z	1.1074E+00	1.2616E+00	1.3297E+00
GAME	7.8954E-01	7.9996E-01	8.0488E-01
U	7.2947E+00	1.3954E+00	1.3104E+00

SPECIES	MOLE FRACTIONS		
E-	2.8760E-12	5.1180E-10	1.7980E-09
HE	1.8061E-01	1.5853E-01	1.5040E-01
HE+	7.6210E-33	2.0793E-26	6.5089E-25
HE++	0.	0.	1.6489E-91
H	1.9394E-01	4.1473E-01	4.9597E-01
H+	2.8760E-12	5.1180E-10	1.7980E-09
H2	6.2545E-01	4.2675E-01	3.5363E-01

P1 = 1.00E+01 N/SQ-M. US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5084E+02	1.5329E+03	2.0525E+03
T	9.9885E+00	1.3078E+01	1.4154E+01
RHO	1.1961E+01	7.5503E+01	8.7747E+01
M	2.6169E+01	4.6919E+01	5.4173E+01
A	3.1597E+00	4.0993E+00	4.4660E+00
S	1.3336E+00	1.4370E+00	1.4866E+00
Z	1.2627E+00	1.5524E+00	1.6526E+00
GAME	7.9158E-01	8.2766E-01	8.5267E-01
U	9.7891E+00	1.5511E+00	1.5457E+00

SPECIES	MOLE FRACTIONS		
E-	1.2495E-10	3.5562E-08	1.6292E-07
HE	2.5840E-01	1.2883E-01	1.2102E-01
HE+	1.6735E-28	8.2720E-22	3.7041E-20
HE++	0.	1.4829E-80	4.2467E-74
H	4.1605E-01	7.1169E-01	7.8975E-01
H+	1.2495E-10	3.5562E-08	1.6292E-07
H2	4.2556E-01	1.5948E-01	8.9224E-02

P1 = 1.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0635E+02	8.8728E+02	1.2115E+03
T	9.2302E+00	1.1522E+01	1.2167E+01
RHO	9.9872E+00	5.7020E+01	6.9670E+01
M	1.8965E+01	3.3209E+01	3.8575E+01
A	2.8979E+00	3.5413E+00	3.7599E+00
S	1.2548E+00	1.3259E+00	1.3605E+00
Z	1.1535E+00	1.3505E+00	1.4289E+00
GAME	7.8872E-01	8.0590E-01	8.1312E-01
U	8.1339E+00	1.4251E+00	1.3600E+00

SPECIES	MOLE FRACTIONS		
E-	1.2853E-11	2.2703E-09	7.5737E-09
HE	1.7338E-01	1.4809E-01	1.3996E-01
HE+	1.4156E-30	9.0533E-25	2.1567E-23
HE++	0.	1.6472E-90	7.4859E-86
H	2.6619E-01	5.1908E-01	6.0039E-01
H+	1.2853E-11	2.2703E-09	7.5737E-09
H2	5.6043E-01	3.3283E-01	2.5965E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7583E+02	1.9168E+03	2.5858E+03
T	1.0356E+01	1.4154E+01	1.6390E+01
RHO	1.2814E+01	8.1602E+01	8.9606E+01
M	3.0216E+01	5.4586E+01	6.3538E+01
A	3.3017E+00	4.4798E+00	5.2542E+00
S	1.3764E+00	1.4947E+00	1.5500E+00
Z	1.3251E+00	1.6597E+00	1.7607E+00
GAME	7.9437E-01	8.5434E-01	9.5667E-01
U	1.0806E+01	1.6657E+00	1.7693E+00

SPECIES	MOLE FRACTIONS		
E-	3.3568E-10	1.6973E-07	2.2679E-06
HE	1.5094E-01	1.2051E-01	1.1359E-01
HE+	1.9216E-27	3.9823E-20	2.7289E-17
HE++	0.	2.0993E-74	1.1210E-64
H	4.9063E-01	7.9495E-01	8.6400E-01
H+	3.3568E-10	1.6973E-07	2.2679E-06
H2	3.5843E-01	8.4547E-02	2.3223E-02

P1 = 1.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2706E+02	1.1869E+03	1.5984E+03
T	9.6170E+00	1.2252E+01	1.3023E+01
RHO	1.1011E+01	6.6901E+01	7.9832E+01
M	2.2418E+01	3.9784E+01	4.5978E+01
A	3.0256E+00	3.8010E+00	4.0671E+00
S	1.2930E+00	1.3803E+00	1.4254E+00
Z	1.2054E+00	1.4480E+00	1.5374E+00
GAME	7.8964E-01	8.1438E-01	8.2614E-01
U	8.9644E+00	1.4758E+00	1.4335E+00

SPECIES	MOLE FRACTIONS		
E-	4.3643E-11	9.0182E-09	3.2016E-08
HE	1.6592E-01	1.3812E-01	1.3008E-01
HE+	2.3099E-29	2.8744E-23	7.4916E-22
HE++	0.	3.3945E-86	2.3482E-80
H	3.4082E-01	6.1877E-01	6.9916E-01
H+	4.3643E-11	9.0182E-09	3.2016E-08
H2	4.9326E-01	2.4311E-01	1.7076E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0264E+02	2.3184E+03	3.2734E+03
T	1.0731E+01	1.6036E+01	2.3543E+01
RHO	1.3561E+01	8.2370E+01	7.7349E+01
M	3.4561E+01	6.2727E+01	7.5809E+01
A	3.4533E+00	5.1483E+00	6.9041E+00
S	1.4213E+00	1.5512E+00	1.6139E+00
Z	1.3923E+00	1.7552E+00	1.7991E+00
GAME	7.9813E-01	9.4169E-01	1.1208E+00
U	1.1417E+01	1.8799E+00	2.4246E+00

SPECIES	MOLE FRACTIONS		
E-	8.6218E-10	1.6388E-06	4.0857E-04
HE	1.4364E-01	1.1395E-01	1.1117E-01
HE+	2.3841E-28	1.1407E-17	1.2980E-11
HE++	0.	2.0802E-65	2.0346E-43
H	5.6358E-01	8.6053E-01	8.8710E-01
H+	8.6218E-10	1.6388E-06	4.0857E-04
H2	2.9478E-01	2.5524E-02	9.2307E-04

Table II. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M. US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3124E+02	2.6804E+03	4.0221E+03
T	1.1126E+01	2.0375E+01	3.1040E+01
RHO	1.6196E+01	7.3269E+01	7.1454E+01
H	3.9203E+01	7.1131E+01	8.8817E+01
A	3.6171E+00	6.4105E+00	7.4372E+00
S	1.4680E+00	1.6008E+00	1.6598E+00
Z	1.4641E+00	1.7955E+00	1.8153E+00
GAME	8.0319E-01	1.1233E+00	9.8257E-01
U	1.2221E+01	2.3693E+00	3.0280E+00

SPECIES	MOLE FRACTIONS		
E-	2.1059E-69	6.7306E-05	7.6119E-03
HE	1.3660E-01	1.1139E-01	1.1028E-01
HE+	1.8553E-23	1.3010E-13	1.9930E-08
HE++	0.	1.1271E-50	6.4740E-32
H	6.3397E-01	8.8587E-01	8.7434E-01
H+	2.1059E-69	6.7306E-05	7.6119E-03
H2	2.2943E-01	2.5990E-03	1.5233E-04

P1 = 1.00E+01 N/SQ-M. US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2705E+02	3.7357E+03	6.0346E+03
T	1.2816E+01	3.4633E+01	4.1236E+01
RHO	1.5037E+01	5.8902E+01	7.5895E+01
H	5.4902E+01	9.9088E+01	1.2540E+02
A	4.2955E+00	7.6090E+00	8.2765E+00
S	1.6149E+00	1.7041E+00	1.7569E+00
Z	1.6970E+00	1.8408E+00	1.9282E+00
GAME	8.4832E-01	9.1173E-01	8.6150E-01
U	1.4574E+01	3.7196E+00	3.6013E+00

SPECIES	MOLE FRACTIONS		
E-	5.3890E-08	2.2304E-02	6.6546E-02
HE	1.1785E-01	1.0864E-01	1.0372E-01
HE+	5.2975E-22	2.1122E-07	5.6623E-06
HE++	1.1782E-81	2.3281E-29	5.4844E-23
H	8.2148E-01	8.4666E-01	7.6317E-01
H+	5.3890E-08	2.2304E-02	6.6534E-02
H2	8.0671E-02	8.9846E-05	3.7738E-05

P1 = 1.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6158E+02	3.0099E+03	4.7400E+03
T	1.1564E+01	2.6097E+01	3.5592E+01
RHO	1.4690E+01	6.4007E+01	7.2214E+01
M	4.4142E+01	7.9800E+01	1.0101E+02
A	3.7988E+00	7.1519E+00	7.7062E+00
S	1.5161E+00	1.6403E+00	1.6944E+00
Z	1.5398E+00	1.8019E+00	1.8491E+00
GAME	8.1046E-01	1.0877E+00	9.0476E-01
U	1.3018E+01	2.9890E+00	3.3243E+00

SPECIES	MOLE FRACTIONS		
E-	5.2601E-09	1.4446E-03	2.4013E-02
HE	1.2989E-01	1.1099E-01	1.0845E-01
HE+	1.4388E-24	2.7661E-10	3.7532E-07
HE++	1.2444E-89	1.1353E-38	2.6788E-27
H	7.0115E-01	8.8574E-01	8.4345E-01
H+	5.2601E-09	1.4446E-03	2.4012E-02
H2	1.6897E-01	3.8239E-04	7.6887E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.6127E+02	3.9846E+03	6.3816E+03
T	1.4134E+01	3.7370E+01	4.3201E+01
RHO	1.4475E+01	5.7031E+01	7.4732E+01
M	6.0704E+01	1.0935E+02	1.3700E+02
A	4.8240E+00	7.8477E+00	8.5403E+00
S	1.8633E+00	1.7359E+00	1.7895E+00
Z	1.7659E+00	1.8745E+00	1.9759E+00
GAME	9.3203E-01	8.8073E-01	8.5430E-01
U	1.5299E+01	3.8799E+00	3.6741E+00

SPECIES	MOLE FRACTIONS		
E-	5.9385E-07	3.9830E-02	8.9036E-02
HE	1.1326E-01	1.0669E-01	1.0121E-01
HE+	6.9174E-20	1.0744E-06	1.2503E-05
HE++	3.9310E-73	2.3264E-26	9.8959E-22
H	8.8743E-01	8.1760E-01	7.2070E-01
H+	5.9385E-07	3.9829E-02	8.9018E-02
H2	1.9310E-02	5.1042E-05	2.8505E-05

P1 = 1.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING	REFLECTED SHOCK
P	2.9358E+02	3.36	5.4267E+03
T	1.2090E+01	3.10 01	3.8755E+01
RHO	1.5004E+01	5.9720E+01	7.4340E+01
M	4.9376E+01	8.9039E+01	1.1311E+02
A	4.0116E+00	7.4059E+00	7.9924E+00
S	1.5653E+00	1.6735E+00	1.7258E+00
Z	1.6184E+00	1.8148E+00	1.8830E+00
GAME	8.2250E-01	9.7409E-01	8.7500E-01
U	1.3805E+01	3.4653E+00	3.4830E+00

SPECIES	MOLE FRACTIONS		
E-	1.4699E-08	8.3022E-03	4.4423E-02
HE	1.2358E-01	1.1020E-01	1.0010E-01
HE+	1.8254E-23	2.1060E-08	1.8690E-06
HE++	7.7119E-86	3.6208E-32	9.8000E-25
H	7.8422E-01	8.7306E-01	8.0492E-01
H+	1.4699E-08	8.3022E-03	4.4423E-02
H2	1.1220E-01	1.3098E-04	5.1245E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9422E+02	3.8715E+03	6.0956E+03
T	1.7196E+01	3.9365E+01	4.4549E+01
RHO	1.2763E+01	5.1441E+01	6.7647E+01
M	6.6733E+01	1.1945E+02	1.4905E+02
A	5.8824E+00	8.0492E+00	8.7515E+00
S	1.7068E+00	1.7717E+00	1.8204E+00
Z	1.7963E+00	1.9119E+00	2.0239E+00
GAME	1.1203E+00	8.6087E-01	8.4971E-01
U	1.5903E+01	3.9470E+00	3.6994E+00

SPECIES	MOLE FRACTIONS		
E-	1.3209E-05	5.8551E-02	1.1037E-01
HE	1.1134E-01	1.0461E-01	9.8828E-02
HE+	5.1472E-16	3.0059E-06	2.1705E-05
HE++	6.4016E-60	4.0539E-24	6.7339E-21
H	8.8653E-01	7.7826E-01	6.8041E-01
H+	1.3209E-05	5.8548E-02	1.1035E-01
H2	2.0995E-03	3.1598E-05	2.1180E-05

Table II. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2087E+02	3.6800E+03	5.6693E+03
T	2.1408E+01	4.0857E+01	4.55[illegible]E+01
RHO	1.1[illegible]6E+01	4.6124E+01	6.0046E+01
M	7.2993E+01	1.2958E+02	1.6016E+02
A	6.6103E+00	8.2433E+00	8.9405E+00
S	1.7426E+00	1.8078E+00	1.8653E+00
Z	1.8002E+0[illegible]	1.9528E+00	2.07[illegible]E+00
GAME	1.1307E+[illegible]	8.5170E-01	8.4661E-01
U	1.6440E+[illegible]	3.9387E+00	3.70[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	3.4650E-04	7.8253E-02	1.3084E-01
HE	1.1110E-01	1.0241E-01	9.6542E-02
HE+	1.9311E-12	6.1497E-06	3.3164E-05
HE++	3.0211E-47	5.0410E-23	2.9090E-20
H	8.8795E-01	7.4106E-01	6.4170E-01
H+	3.4650E-04	7.8247E-02	1.3081E-01
H2	2.[illegible]989E-04	2.2686E-05	1.5816E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4178E+02	4.1165E+03	6.0681E+03
T	3.1158E+01	4.5223E+01	4.940[illegible]E+01
RHO	9.4[illegible]0E+00	4.3363E+01	5.4849E+01
M	9.3087E+01	1.6508E+02	1.9985E+02
A	7.1355E+00	8.9431E+00	9.6697E+00
S	1.8240E+00	1.9036E+00	1.9639E+00
Z	1.8389E+00	2.0992E+00	2.23[illegible]E+00
GAME	8.8862E-01	8.4249E-01	8.4545E-01
U	1.8571E+01	4.0100E+00	3.822[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.1194E-02	1.4254E-01	1.9591E-01
HE	1.0876E-01	9.5240E-02	8.9227E-02
HE+	5.9361E-08	3.4218E-05	1.1714E-04
HE++	6.5965E-31	2.5465E-20	2.78[illegible]E-18
H	8.4884E-01	6.1967E-01	5.1895E-01
H+	2.1194E-02	1.4251E-01	1.9579E-01
H2	1.9270E-05	1.1097E-05	7.865[illegible]E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6169E+02	3.6516E+03	5.5219E+03
T	2.5549E+01	4.2265E+01	4.6699E+01
RHO	1.0011E+01	4.3260E+01	5.5728E+01
M	7.9545E+01	1.4038E+02	1.7198E+02
A	6.9078E+00	8.4526E+00	9.1504E+00
S	1.7725E+00	1.8414E+00	1.8982E+00
Z	1.8051E+00	1.9972E+00	2.1218E+00
GAME	1.0347E+00	8.4641E-01	8.4501E-01
U	1.7011E+01	3.9392E+00	3.7253E+00

SPECIES	MOLE FRACTIONS		
E-	2.8932E-03	9.8755E-02	1.5100E-01
HE	1.1000E-01	1.0013E-01	9.4209E-02
HE+	3.8955E-10	1.1346E-05	4.9902E-05
HE++	7.8170E-39	4.5028E-22	1.2350E-19
N	8.8335E-01	7.0234E-01	6.0294E-01
N+	2.8932E-03	9.8743E-02	1.5103E-01
N2	6.8197E-05	1.7209E-05	1.2227E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8633E+02	4.5110E+03	6.5860E+03
T	3.3043E+01	4.6734E+01	5.0905E+01
RHO	9.5146E+00	4.6773E+01	5.6167E+01
M	1.0120E+02	1.7880E+02	2.1555E+02
A	7.2916E+00	9.2133E+00	9.9052E+00
S	1.8483E+00	1.9339E+00	1.9904E+00
Z	1.8650E+00	2.1559E+00	2.3034E+00
GAME	8.6276E-01	8.4249E-01	8.4691E-01
U	1.9120E+01	4.0640E+00	3.8959E+00

SPECIES	MOLE FRACTIONS		
E-	3.4856E-02	1.6509E-01	2.1856E-01
HE	1.0724E-01	9.2713E-02	8.6049E-02
HE+	2.1731E-07	5.6243E-05	1.7842E-04
HE++	7.6358E-29	1.6285E-19	1.3203E-17
N	8.2303E-01	5.7710E-01	4.7623E-01
N+	3.4856E-02	1.6503E-01	2.1838E-01
N2	1.3779E-05	9.1372E-06	6.3705E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0003E+02	3.8140E+03	5.6853E+03
T	2.9759E+01	4.3722E+01	4.7994E+01
RHO	9.5628E+00	4.2634E+01	5.4369E+01
M	8.6442E+01	1.5222E+02	1.8528E+02
A	7.0089E+00	8.6873E+00	9.3968E+00
S	1.7991E+00	1.8730E+00	1.9316E+00
Z	1.8182E+00	2.0461E+00	2.1781E+00
GAME	8.3947E-01	8.4361E-01	8.4473E-01
U	1.7053E+01	3.9643E+00	3.7687E+00

SPECIES	MOLE FRACTIONS		
E-	1.0031E-02	1.2028E-01	1.7359E-01
HE	1.1000E-01	9.7728E-02	9.1748E-02
HE+	8.8271E-09	2.0059E-05	7.6500E-05
HE++	6.7089E-34	3.5531E-21	5.7931E-19
N	8.6991E-01	6.6169E-01	5.6100E-01
N+	1.0031E-02	1.2026E-01	1.7351E-01
N2	3.1187E-05	1.3641E-05	9.7220E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3330E+02	4.9701E+03	7.2018E+03
T	3.4614E+01	4.8239E+01	5.2452E+01
RHO	9.6564E+00	4.6502E+01	5.7895E+01
M	1.0916E+02	1.9324E+02	2.3218E+02
A	7.4600E+00	9.4937E+00	1.0270E+01
S	1.8723E+00	1.9642E+00	2.0292E+00
Z	1.8947E+00	2.2156E+00	2.3710E+00
GAME	8.4857E-01	8.4329E-01	8.4894E-01
U	1.9889E+01	4.1310E+00	3.9765E+00

SPECIES	MOLE FRACTIONS		
E-	5.0014E-02	1.8758E-01	2.4103E-01
HE	1.0555E-01	9.0180E-02	8.4063E-02
HE+	5.7205E-07	8.9263E-05	2.6833E-04
HE++	2.0153E-27	9.1158E-19	5.9927E-17
N	7.9441E-01	5.3465E-01	4.3386E-01
N+	5.0013E-02	1.8749E-01	2.4076E-01
N2	1.0632E-05	7.5522E-06	5.1370E-06

Table II. - Continued

p_1 = 10 N/m^2

P1 = 1.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8247E+02	5.4819E+03	7.8939E+03
T	3.5980E+01	4.9739E+01	5.4038E+01
RHO	9.8414E+00	4.8383E+01	5.9806E+01
H	1.1737E+02	2.0834E+02	2.4906E+02
A	7.6333E+00	9.7828E+00	1.0601E+01
S	1.8962E+00	1.9948E+00	2.0622E+00
Z	1.9274E+00	2.2779E+00	2.4426E+00
GAME	8.4023E-01	8.4468E-01	8.5145E-01
U	2.0670E+01	4.2054E+00	4.0692E+00

SPECIES	MOLE FRACTIONS		
E-	6.6087E-02	2.0981E-01	2.6309E-01
HE	1.0377E-01	8.7662E-02	8.1480E-02
HE+	1.2354E-06	1.3756E-04	3.9870E-04
HE++	4.3562E-26	4.5618E-18	2.6010E-16
H	7.6405E-01	4.9270E-01	3.9233E-01
H+	6.6086E-02	2.0968E-01	2.6270E-01
H2	8.5647E-06	6.2335E-06	4.1039E-06

P1 = 1.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9921E+02	7.9500E+03	1.1271E+04
T	4.0385E+01	5.5798E+01	6.0907E+01
RHO	1.0711E+01	5.5904E+01	6.7334E+01
H	1.5324E+02	2.7483E+02	3.2721E+02
A	8.3420E+00	1.1023E+01	1.2057E+01
S	1.9937E+00	2.1199E+00	2.1978E+00
Z	2.0787E+00	2.5486E+00	2.7484E+00
GAME	8.2894E-01	8.5439E-01	8.6559E-01
U	2.3839E+01	4.5686E+00	4.5091E+00

SPECIES	MOLE FRACTIONS		
E-	1.3408E-01	2.9373E-01	3.4508E-01
HE	9.6204E-02	7.7835E-02	7.0950E-02
HE+	1.0211E-05	6.3938E-04	1.8187E-03
HE++	1.0654E-22	1.3776E-15	6.9223E-14
H	6.3563E-01	3.3470E-01	2.3889E-01
H+	1.3467E-01	2.9309E-01	3.4320E-01
H2	4.3148E-06	2.6661E-06	1.4066E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3364E+02	6.0388E+03	8.65[illegible]E+03
T	3.7208E+01	5.1236E+01	5.5665E+01
RHO	1.0049E+01	5.0313E+01	6.17[illegible]E+01
M	1.2588E+02	2.2406E+02	2.67[illegible]E+02
A	7.8086E+00	1.0080E+01	1.0939E+01
S	1.9203E+00	2.0256E+00	2.0956E+00
Z	1.9623E+00	2.3426E+00	2.5161E+00
GAME	8.3512E-01	8.4654E-01	8.5459E-01
U	2.1457E+01	4.2864E+00	4.1674E+00

SPECIES	MOLE FRACTIONS		
E-	8.2725E-02	2.3163E-01	2.8401E-01
HE	1.0192E-01	8.5169E-02	7.8901E-02
HE+	2.3442E-06	2.0690E-04	5.8053E-04
HE++	4.6345E-25	2.0895E-17	1.0883E-15
H	7.3263E-01	4.5158E-01	3.5187E-01
H+	8.2722E-02	2.3142E-01	2.8403E-01
H2	7.0803E-06	5.1182E-06	3.2352E-06

P1 = 1.00E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0194E+03	9.3961E+03	1.3282E+04
T	4.2259E+01	5.8994E+01	6.4872E+01
RHO	1.1141E+01	5.9134E+01	7.0384E+01
M	1.7291E+02	3.1150E+02	3.7001E+02
A	8.7049E+00	[illegible].1699E+01	1.4847E+01
S	2.0441E+00	2.1840E+00	2.2674E+00
Z	2.1644E+00	2.6934E+00	2.9085E+00
GAME	8.2845E-01	8.6130E-01	8.7462E-01
U	2.5429E+01	4.7917E+00	4.7817E+00

SPECIES	MOLE FRACTIONS		
E-	1.0[illegible]E-01	3.3170E-01	3.6122E-01
HE	9.2381E-02	7.2956E-02	6.4877E-02
HE+	2.1929E-05	1.2991E-03	5.8030E-03
HE++	1.8131E-21	1.8601E-14	1.0999E-12
H	5.7086E-01	2.6364E-01	1.7209E-01
H+	1.0836E-01	3.3040E-01	3.7755E-01
H2	3.1745E-06	1.5971E-06	7.0000E-07

P1 = 1.00E+01 N/SQ-M, US1= 3 00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8695E+02	6.5388E+03	9.4694E+03
T	3.8335E+01	5.2741E+01	5.7344E+01
RHO	1.0268E+01	5.2242E+01	6.3713E+01
M	1.3470E+02	2.4041E+02	2.8694E+02
A	7.9852E+00	1.0486E+01	1.1291E+01
S	1.9465E+00	2.0568E+00	2.1293E+00
Z	1.9993E+00	2.4095E+00	2.5918E+00
GAME	8.3195E-01	8.4880E-01	8.5774E-01
U	2.2250E+01	4.3740E+00	4.2752E+00

SPECIES	MOLE FRACTIONS		
E-	9.9703E-02	2.5295E-01	3.0554E-01
HE	1.0003E-01	8.2701E-02	7.6307E-02
HE+	4.0662E-06	3.0549E-04	8.5736E-04
HE++	3.5248E-24	8.9210E-17	4.4145E-15
H	7.0056E-01	4.1140E-01	3.1266E-01
H+	9.9699E-02	2.5264E-01	3.0460E-01
H2	5.9498E-06	4.1672E-06	2.5003E-06

P1 = 1.00E+01 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1461E+03	1.0959E+04	1.5490E+04
T	4.4030E+01	6.2433E+01	6.9627E+01
RHO	1.1539E+01	6.1780E+01	7.2720E+01
M	1.9391E+02	3.5036E+02	4.1717E+02
A	9.0705E+00	1.2419E+01	1.3787E+01
S	2.0950E+00	2.2487E+00	2.3370E+00
Z	2.2259E+00	2.8413E+00	3.0604E+00
GAME	8.2940E-01	8.6940E-01	8.8356E-01
U	2.7016E+01	5.0470E+00	5.0952E+00

SPECIES	MOLE FRACTIONS		
E-	2.0209E-01	3.6650E-01	4.1331E-01
HE	8.8614E-02	6.7768E-02	5.6898E-02
HE+	5.2052E-05	2.6214E-03	8.3391E-03
HE++	2.1504E-20	2.3945E-13	1.6366E-11
H	5.0720E-01	1.9924E-01	1.1053E-01
H+	2.0205E-01	3.6388E-01	4.0497E-01
H2	2.3327E-06	8.7390E-07	2.9895E-07

Table II. - Continued

p_1 = 10 N/m^2

P1 = 1.00E+01 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2807E+03	1.2625E+04	1.7800E+04
T	4.5748E+01	6.6251E+01	7.4729E+01
RHO	1.1399E+01	6.3756E+01	7.4346E+01
M	2.3604E+02	3.9140E+02	4.6696E+02
A	9.4591E+00	1.3185E+01	1.4641E+01
S	2.1482E+00	2.3137E+00	2.4078E+00
Z	2.3526E+00	2.9888E+00	3.2192E+00
GAME	8.3135E-01	8.7796E-01	8.9104E-01
U	2.8601E+01	5.3391E+00	5.4493E+00

SPECIES	MOLE FRACTIONS		
E-	2.3489E-01	3.9776E-01	4.4086E-01
HE	8.4935E-02	6.1599E-02	4.5065E-02
HE+	7.7999E-05	5.3170E-03	1.7042E-02
HE++	1.9958E-19	3.1416E-12	3.1034E-10
H	4.4529E-01	1.4288E-01	7.3197E-02
H+	2.3481E-01	3.9244E-01	4.2382E-01
H2	1.6943E-06	4.2520E-07	1.0891E-07

P1 = 1.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7266E+03	1.7999E+04	2.6331E+04
T	5.0950E+01	8.1154E+01	1.0483E+02
RHO	1.2094E+01	6.5588E+01	7.0480E+01
M	2.8952E+02	5.2672E+02	6.4411E+02
A	1.0702E+01	1.5801E+01	2.0074E+01
S	2.3124E+00	2.5048E+00	2.6100E+00
Z	2.6695E+00	3.3816E+00	3.5042E+00
GAME	8.4213E-01	9.0977E-01	1.0784E+00
U	3.3307E+01	6.4478E+00	7.3152E+00

SPECIES	MOLE FRACTIONS		
E-	3.2571E-01	4.6771E-01	4.9502E-01
HE	7.4521E-02	2.7024E-02	2.7204E-03
HE+	4.0012E-04	3.2119E-02	5.3384E-02
HE++	7.8047E-17	6.4211E-09	4.5743E-06
H	2.7406E-01	3.7546E-02	7.2451E-03
H+	3.2531E-01	4.3560E-01	4.4163E-01
H2	5.5115E-07	2.2765E-08	6.4779E-10

P1 = 1.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4223E+03	1.4367E+04	2.0453E+04
T	4.7449E+01	7.0567E+01	8.1024E+01
RHO	1.2814E+01	6.5030E+01	7.5173E+01
H	2.3935E+02	4.3449E+02	5.2012E+02
A	9.8554E+00	1.3986E+01	1.5708E+01
S	2.2020E+00	2.3783E+00	2.4774E+00
Z	2.4541E+00	3.1307E+00	3.3508E+00
GAME	8.3412E-01	8.8538E-01	9.0697E-01
U	3.0177E+01	5.6692E+00	5.8549E+00

SPECIES	MOLE FRACTIONS		
E-	2.6653E-01	4.2504E-01	4.6396E-01
HE	8.1360E-02	5.3243E-02	2.9330E-02
HE+	1.3088E-04	1.0641E-02	3.0230E-02
HE++	1.5890E-18	4.2270E-11	5.1220E-09
H	3.8558E-01	9.6668E-02	4.2750E-02
H+	2.6639E-01	4.1440E-01	4.3373E-01
H2	1.2052E-06	1.8141E-07	3.3682E-08

P1 = 1.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8890E+03	1.9780E+04	2.9862E+04
T	5.2834E+01	8.8450E+01	1.2949E+02
RHO	1.2851E+01	6.4196E+01	6.4186E+01
H	3.1043E+02	5.7547E+02	7.2136E+02
A	1.1162E+01	1.7165E+01	2.2289E+01
S	2.3686E+00	2.5654E+00	2.6835E+00
Z	2.7820E+00	3.4836E+00	3.5929E+00
GAME	8.4768E-01	9.5628E-01	1.1265E+00
U	3.4657E+01	6.9847E+00	8.7215E+00

SPECIES	MOLE FRACTIONS		
E-	3.5299E-01	4.8329E-01	4.9901E-01
HE	7.1203E-02	1.3073E-02	4.0327E-04
HE+	6.8700E-04	4.4340E-02	5.4942E-02
HE++	5.4542E-16	8.2244E-08	3.1949E-04
H	2.2282E-01	2.0353E-02	1.8934E-03
H+	3.5230E-01	4.3895E-01	4.4343E-01
H2	3.4542E-07	5.8303E-09	3.1886E-11

P1 = 1.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5710E+03	1.6169E+04	2.3228E+04
T	4.9171E+01	7.5466E+01	8.9648E+01
RHO	1.2481E+01	6.5673E+01	7.4438E+01
H	2.6380E+02	4.7963E+02	5.7796E+02
A	1.0208E+01	1.4825E+01	1.7296E+01
S	2.2367E+00	2.4422E+00	2.5472E+00
Z	2.5599E+00	3.2624E+00	3.4808E+00
GAME	8.3768E-01	8.9268E-01	9.5845E-01
U	3.1740E+01	6.0344E+00	8.3991E+00

SPECIES	MOLE FRACTIONS		
E-	2.9865E-01	4.4826E-01	4.8680E-01
HE	7.7893E-02	4.1502E-02	1.2976E-02
HE+	2.3488E-04	1.9803E-02	4.4552E-02
HE++	1.1400E-17	5.4338E-10	9.9993E-08
H	3.2841E-01	6.1980E-02	2.1311E-02
H+	2.9661E-01	4.2846E-01	4.3835E-01
H2	8.3193E-07	6.8490E-08	7.2490E-09

P1 = 1.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0580E+03	2.1376E+04	3.3320E+04
T	5.4886E+01	9.9266E+01	1.5252E+02
RHO	1.2946E+01	6.0590E+01	6.0459E+01
H	3.4448E+02	6.2525E+02	7.9893E+02
A	1.1650E+01	1.9249E+01	2.3623E+01
S	2.4254E+00	2.6231E+00	2.7378E+00
Z	2.8904E+00	3.5541E+00	3.6134E+00
GAME	8.5458E-01	1.0503E+00	1.0170E+00
U	3.6395E+01	7.7808E+00	9.9100E+00

SPECIES	MOLE FRACTIONS		
E-	3.7854E-01	4.9354E-01	5.0183E-01
HE	6.7844E-02	4.0305E-03	1.2733E-04
HE+	1.2075E-03	5.2241E-02	5.0028E-02
HE++	4.0002E-15	1.5655E-06	4.5943E-03
H	1.7508E-01	8.8839E-03	7.6266E-04
H+	3.7733E-01	4.4130E-01	4.4203E-01
H2	2.0085E-07	8.9914E-10	4.2439E-12

Table II. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M. US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.233[illegible]E+03	2.2703E+04	3.6423[illegible]E+04
T	5.71[illegible]E+01	1.1416E+02	1.6791[illegible]E+02
RHO	1.297[illegible]E+01	5.5483E+01	5.9400[illegible]E+01
M	3.73[illegible]E+02	6.7558E+02	8.71[illegible]E+02
A	1.21[illegible]E+01	2.1453E+01	2.41[illegible]E+01
S	2.48[illegible]E+00	2.6746E+00	2.78[illegible]E+00
Z	3.01[illegible]E+00	3.5845E+00	3.651[illegible]E+00
GAME	8.63[illegible]E-01	1.1247E+00	9.47[illegible]E-01
U	3.79[illegible]E+01	8.8693E+00	1.06[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.02[illegible]E-01	4.9783E-01	5.07[illegible]E-01
HE	6.42[illegible]E-02	9.7843E-04	6.47[illegible]E-03
HE+	2.20[illegible]E-03	5.4783E-02	3.99[illegible]E-02
HE++	3.2918E-14	3.4533E-05	1.47[illegible]E-02
H	1.31[illegible]E-01	3.3868E-03	4.8[illegible]E-04
H+	3.99[illegible]E-01	4.4298E-01	4.37[illegible]E-01
H2	1.05[illegible]E-07	1.0076E-10	1.5457[illegible]E-14

P1 = 1.00E+01 N/SQ-M. US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7952E+03	2.6229E+04	4.487[illegible]E+04
T	6.6533E+01	1.5962E+02	2.131[illegible]E+02
RHO	1.2644E+01	4.5188E+01	5.57[illegible]E+01
M	4.6838E+02	8.3604E+02	1.101[illegible]E+03
A	1.3968E+01	2.3588E+01	2.9095E+01
S	2.8502E+00	2.8023E+00	2.907[illegible]E+00
Z	3.3227E+00	3.6364E+00	3.775[illegible]E+00
GAME	8.8250E-01	9.5795E-01	1.051[illegible]E+00
U	4.2376E+01	1.1854E+01	1.243[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.5827E-01	5.0500E-01	5.232[illegible]E-01
HE	4.4149E-02	6.7689E-05	4.7[illegible]E-04
HE+	1.6043E-02	4.4405E-02	6.2284E-03
HE++	4.2920E-11	1.0528E-02	4.673[illegible]E-02
H	3.9303E-02	4.8173E-04	1.679[illegible]E-04
H+	4.4223E-01	4.3954E-01	4.235[illegible]E-01
H2	7.0186E-09	1.1221E-12	1.59506-13

P1 = 1.00E+01 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4147E+03	2.3841E+04	3.9281E+04
T	5.9835E+01	1.3105E+02	1.8063E+02
RHO	1.2919E+01	5.0593E+01	5.8814E+01
H	4.0461E+02	7.2680E+02	9.4361E+02
A	1.2769E+01	2.2964E+01	2.5095E+01
S	2.5390E+00	2.7208E+00	2.8244E+00
Z	3.1225E+00	3.5057E+00	3.6976E+00
GAME	8.7249E-01	1.1190E+00	9.4206E-01
U	3.9421E+01	1.0061E+01	1.1097E+01

SPECIES	MOLE FRACTIONS		
E-	4.2353E-01	4.9940E-01	5.1320E-01
NE	5.9804E-02	2.9112E-04	3.4096E-05
NE+	4.2479E-03	5.4832E-02	2.7272E-02
NE++	3.21[illegible]E-13	4.9908E-04	2.6782E-02
H	9.3127E-02	1.4011E-03	3.4659E-04
H+	4.1929E-01	4.4357E-01	4.3436E-01
H2	4.8821E-08	1.3578E-11	7.0833E-13

P1 = 1.00E+01 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9944E+03	2.7609E+04	4.7891E+04
T	7.0530E+01	1.7031E+02	2.4603E+02
RHO	1.4951E+01	4.4129E+01	5.2808E+01
H	5.0220E+02	8.9510E+02	1.1935E+03
A	1.4631E+01	2.4196E+01	3.2025E+01
S	2.7049E+00	2.8405E+00	2.9495E+00
Z	3.4099E+00	3.6735E+00	3.7927E+00
GAME	8.9006E-01	9.3571E-01	1.1200E+00
U	4.3832E+01	1.2355E+01	1.3504E+01

SPECIES	MOLE FRACTIONS		
E-	4.7212E-01	5.1001E-01	5.2541E-01
NE	3.1001E-02	3.9148E-05	9.7956E-07
NE+	2.7052E-02	3.4010E-02	1.8106E-03
NE++	4.5024E-10	2.0394E-02	5.0915E-02
H	2.4101E-02	3.3644E-04	1.0122E-04
H+	9.4507E-01	4.3521E-01	4.2176E-01
H2	2.3659E-09	5.6093E-13	5.2499E-14

P1 = 1.00E+01 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6019E+03	2.4942E+04	4.2047E+04
T	6.2981E+01	1.4689E+02	1.9437E+02
RHO	1.2800E+01	4.7048E+01	5.7787E+01
H	4.3500E+02	7.7980E+02	1.0188E+03
A	1.3370E+01	2.3370E+01	2.6646E+01
S	2.5951E+00	2.7629E+00	2.8651E+00
Z	3.2276E+00	3.6092E+00	3.7415E+00
GAME	8.7959E-01	1.0302E+00	9.7635E-01
U	4.0900E+01	1.1131E+01	1.1637E+01

SPECIES	MOLE FRACTIONS		
E-	4.4226E-01	5.0127E-01	5.1891E-01
NE	5.3553E-02	1.2420E-04	1.5261E-05
NE+	6.4339E-03	5.1913E-02	1.5300E-02
NE++	3.6822E-12	3.3778E-03	3.8006E-02
H	6.1907E-02	7.1784E-04	2.5143E-04
H+	4.3384E-01	4.4260E-01	4.2736E-01
H2	1.9440E-08	2.9957E-12	3.8498E-13

P1 = 1.00E+01 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1987E+03	2.8881E+04	5.0836E+04
T	7.5200E+01	1.8051E+02	2.7217E+02
RHO	1.4200E+01	4.3096E+01	4.9101E+01
H	5.3729E+02	9.5591E+02	1.2947E+03
A	1.5507E+01	2.5162E+01	3.4535E+01
S	2.7512E+00	2.8774E+00	2.9847E+00
Z	3.4864E+00	3.7126E+00	3.7977E+00
GAME	9.1721E-01	9.4472E-01	1.1541E+00
U	4.5263E+01	1.2806E+01	1.4939E+01

SPECIES	MOLE FRACTIONS		
E-	4.4837E-01	5.1517E-01	5.2003E-01
NE	1.8359E-02	2.1500E-05	2.0096E-07
NE+	3.8973E-02	2.3230E-02	5.3271E-04
NE++	9.4975E-09	3.0618E-02	5.2130E-02
H	1.4200E-02	2.5575E-04	6.0886E-05
H+	4.4473E-01	4.3070E-01	4.2149E-01
H2	7.1365E-10	3.0792E-13	1.6042E-14

Table II. - Continued

p_1 = 10 N/m^2

P1 = 1.00E+01 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4047E+03	2.9605E+04	5.2994E+04
T	8.1426E+01	1.9190E+02	3.0667E+02
RHO	1.1791E+01	4.1153E+01	4.5486E+01
M	5.7336E+02	1.0165E+03	1.3944E+03
A	1.6658E+01	2.6568E+01	3.6774E+01
S	2.8059E+00	2.9159E+00	3.0287E+00
Z	3.5462E+00	3.7487E+00	3.7991E+00
GAME	9.8674E-01	9.8116E-01	1.1601E+00
U	4.8625E+01	1.3366E+01	1.6326E+01

SPECIES	POLE FRACTIONS		
E-	4.9242E-01	5.1984E-01	5.2621E-01
NE	7.7701E-03	9.9368E-06	4.8055E-06
NE+	4.4628E-02	1.3463E-02	1.8653E-04
NE++	5.3705E-06	3.9878E-04	5.2497E-02
N	7.3928E-03	1.8931E-04	3.7800E-05
N+	4.4379E-01	4.2662E-01	4.2111E-01
N2	1.6541E-10	1.5683E-13	5.8774E-15

P1 = 1.00E+01 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0060E+03	2.7510E+04	5.1649E+04
T	1.1071E+02	2.3775E+02	4.0334E+02
RHO	9.5374E+00	3.0487E+01	3.3725E+01
M	6.8087E+02	1.1833E+03	1.6810E+03
A	2.1781E+01	3.2042E+01	4.2219E+01
S	2.9334E+00	3.0300E+00	3.1394E+00
Z	3.5968E+00	3.7953E+00	3.7995E+00
GAME	1.1295E+00	1.1378E+00	1.1630E+00
U	5.0021E+01	1.5642E+01	1.9720E+01

SPECIES	POLE FRACTIONS		
E-	4.9983E-01	5.2573E-01	5.2830E-01
NE	1.3998E-04	3.7596E-07	2.1479E-09
NE+	5.2124E-02	1.1764E-03	2.5052E-05
NE++	3.1025E-04	5.1520E-02	5.2808E-02
N	5.1485E-04	6.0809E-05	1.2349E-05
N+	4.4608E-01	4.2151E-01	4.2108E-01
N2	3.9161E-13	1.0967E-14	4.4931E-16

P1 = 1.00E+01 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6054E+03	2.9272E+04	5.3116E+04
T	9.1033E+01	2.0465E+02	3.3878E+02
RHO	1.1058E+01	3.7899E+01	4.1265E+01
H	6.1027E+02	1.0751E+03	1.4905E+03
A	1.8839E+01	2.8339E+01	3.8604E+01
S	2.8232E+00	2.9546E+00	3.0629E+00
Z	3.5816E+00	3.7742E+00	3.7996E+00
GAME	1.0883E+00	1.0398E+00	1.1623E+00
U	4.7831E+01	1.3965E+01	1.7500E+01

SPECIES	POLE FRACTIONS		
E-	9.9746E-01	5.2307E-01	5.2046E-01
NE	2.0480E-03	3.8352E-06	1.5134E-06
NE+	5.3784E-04	6.7049E-03	8.4959E-05
NE++	1.1223E-06	4.6283E-02	5.2223E-02
H	3.0384E-03	1.3443E-04	2.5130E-05
H+	4.4367E-01	4.2380E-01	4.2107E-01
H2	2.1965E-11	7.0834E-14	2.3154E-15

P1 = 1.00E+01 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2189E+03	2.7140E+04	5.2059E+04
T	1.2916E+02	2.5707E+02	4.3822E+02
RHO	9.0571E+00	2.7799E+01	3.1264E+01
H	7.2694E+02	1.2470E+03	1.7826E+03
A	2.2078E+01	3.3556E+01	4.4000E+01
S	2.9673E+00	3.0624E+00	3.1655E+00
Z	3.6063E+00	3.7979E+00	3.7995E+00
GAME	1.0404E+00	1.1534E+00	1.1631E+00
U	5.1174E+01	1.6662E+01	2.0859E+01

SPECIES	POLE FRACTIONS		
E-	5.0088E-01	5.2606E-01	5.2034E-01
NE	5.6098E-05	1.2333E-07	9.3972E-10
NE+	5.3317E-02	5.0656E-04	1.6447E-05
NE++	2.0843E-03	5.2154E-02	5.2016E-02
H	2.7328E-04	4.1829E-05	9.1170E-06
H+	4.4339E-01	4.2124E-01	4.2102E-01
H2	9.4105E-14	4.6054E-15	2.2998E-16

P1 = 1.00E+01 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8095E+03	2.8388E+04	5.2944E+04
T	1.0322E+02	2.2055E+02	3.7142E+02
RHO	1.0255E+01	3.3970E+01	3.7155E+01
H	6.4808E+02	1.1317E+03	1.5803E+03
A	2.0500E+01	3.0350E+01	4.0512E+01
S	2.8955E+00	2.9943E+00	3.1023E+00
Z	3.5744E+00	3.7890E+00	3.7998E+00
GAME	1.1403E+00	1.1022E+00	1.1626E+00
U	4.8943E+01	1.4762E+01	1.8600E+01

SPECIES	POLE FRACTIONS		
E-	9.9917E-01	5.2495E-01	5.2047E-01
NE	4.8724E-04	1.1909E-06	5.2932E-09
NE+	5.5138E-02	2.8005E-03	4.3344E-05
NE++	2.2749E-05	4.9982E-02	5.2591E-02
H	1.1925E-03	8.9896E-05	1.8207E-05
H+	4.4339E-01	4.2218E-01	4.2100E-01
H2	2.2248E-12	2.7504E-14	9.0086E-16

Table II. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6294E+01	6.5018E+01
T	3.1753E+00	3.9838E+00	5.6877E+00
RHO	3.9601E+00	6.6010E+00	1.1427E+01
M	3.2467E+00	4.1057E+00	6.0112E+00
A	1.7739E+00	1.9769E+00	2.3236E+00
S	1.0532E+00	1.0548E+00	1.0701E+00
Z	1.0000E+00	1.0000E+00	1.0003E+00
GAME	9.9100E-01	9.8103E-01	9.4899E-01
U	2.4570E+00	1.4729E+00	1.3045E+00

SPECIES	MOLE FRACTIONS		
E-	1.3968E-49	7.8338E-37	2.9960E-21
HE	2.0000E-01	2.0000E-01	1.9994E-01
HE+	5.0386E-65	1.0125E-57	1.9347E-46
HE++	0.	0.	0.
H	2.7357E-09	8.8405E-07	6.1902E-04
H+	7.2402E-20	7.2402E-20	7.5376E-20
H2	8.0000E-01	8.0000E-01	7.994[illegible]E-01

P1 = 2.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9934E+01	1.6199E+02	2.6811E+02
T	7.0764E+00	8.7431E+00	9.4967E+00
RHO	5.5925E+00	1.7612E+01	2.5848E+01
M	6.1140E+00	1.2571E+01	1.5807E+01
A	2.4660E+00	2.7211E+00	2.8806E+00
S	1.1329E+00	1.1478E+00	1.1723E+00
Z	1.0099E+00	1.0520E+00	1.0923E+00
GAME	8.5166E-01	8.0506E-01	8.0003E-01
U	4.7238E+00	1.4994E+00	1.3040E+00

SPECIES	MOLE FRACTIONS		
E-	5.3885E-16	8.5892E-13	1.0143E-11
HE	1.9822E-01	1.9012E-01	1.8310E-01
HE+	1.2450E-39	2.0173E-32	9.9551E-31
HE++	0.	0.	0.
H	1.7765E-02	9.8813E-02	1.6899E-01
H+	5.3892E-16	8.5892E-13	1.0143E-11
H2	7.8401E-01	7.1107E-01	6.4791E-01

P1 = 2.00E+01 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9812E+01	5.2317E+01	1.13[illegible]E+02
T	4.40[illegible]3E+00	5.8836E+00	7.5199E+00
RHO	4.4961E+00	8.8[illegible]1E+00	1.4960[illegible]+01
M	4.5641E+00	6.2517E+00	8.7780E+00
A	2.0728E+00	2.3517E+00	2.53[illegible]E+00
S	1.0807E+00	1.0844E+00	1.101[illegible]E+00
Z	1.0000E+00	1.0005E+00	1.0114E+00
GAME	9.7[illegible]12E-01	9.3944E-01	8.4709E-01
U	3.19[illegible]E+00	1.6163E+00	1.3714E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.2041E-33	8.5289E-20	3.105[illegible]E-15
HE	2.0000E-01	1.9988E-01	1.9775E-01
HE+	8.5761E-56	5.7218E-47	1.08[illegible]E-37
HE++	0.	0.	0.
H	1.1361E-05	1.2001E-03	2.2494E-02
H+	7.2402E-20	1.5765E-19	3.1051E-15
H2	7.9999E-01	7.9892E-01	7.797[illegible]E-01

P1 = 2.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3469E+01	2.6892E+02	4.12[illegible]E+02
T	7.9[illegible]0E+00	9.6428E+00	1.03[illegible]E+01
RHO	6.5443E+00	2.5208E+01	3.45[illegible]E+01
M	1.03[illegible]E+01	1.6802E+01	2.0484E+01
A	2.5[illegible]43E+00	2.9197E+00	3.08[illegible]E+00
S	1.1601E+00	1.1859E+00	1.2146E+00
Z	1.0[illegible]9E+00	1.1065E+00	1.15[illegible]E+00
GAME	8.1106E-01	7.9896E-01	7.99[illegible]E-01
U	5.57[illegible]E+00	1.4455E+00	1.30[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.45[illegible]9E-14	1.6294E-11	1.03[illegible]E-10
HE	1.9400E-01	1.8075E-01	1.7[illegible]0E-01
HE+	3.01[illegible]E-30	8.3584E-30	1.44[illegible]E-27
HE++	0.	0.	0.
H	2.9960E-02	1.9252E-01	2.7[illegible]0E-01
H+	4.45[illegible]9E-14	1.6294E-11	1.03[illegible]E-10
H2	7.4[illegible]4E-01	6.2673E-01	5.50[illegible]E-01

P1 = 2.00E+01 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDINC SHOCK	REFLECTED SHOCK
P	2.87[illegible]E+01	9.3991E+01	1.75[illegible]E+02
T	5.81[illegible]E+00	7.6051E+00	8.63[illegible]E+00
RHO	4.9467E+00	1.2185E+01	1.95[illegible]E+01
M	6.1787E+00	9.0506E+00	1.19[illegible]E+01
A	2.[illegible]358E+00	[illegible].5422E+00	2.6[illegible]E+00
S	1.1070E+00	1.1144E+00	1.13[illegible]E+00
Z	1.0000[illegible]E+00	1.0144E+00	1.04[illegible]E+00
GAME	9.[illegible]731E-01	8.3779E-01	8.08[illegible]E-01
U	3.9340E+00	1.5959E+00	1.33[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.6962E-20	4.9162E-15	5.1[illegible]E-13
HE	1.9987E-01	1.9717E-01	1.91[illegible]E-01
HE+	1.[illegible]72E-40	1.0266E-30	8.45[illegible]E-33
HE++	0.	0.	0.
H	1.3[illegible]4E-03	2.8343E-02	8.33[illegible]E-02
H+	2.[illegible]93E-20	4.9162E-15	5.1[illegible]E-13
H2	7.9883E-01	7.7449E-01	7.24[illegible]E-01

P1 = 2.00E+01 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9[illegible]5E+01	4.1832E+02	8.10[illegible]E+02
T	8.[illegible]95E+00	1.0442E+01	1.10[illegible]E+01
RHO	7.[illegible]1E+00	3.4166E+01	4.47[illegible]E+01
M	1.[illegible]38E+01	2.1647E+01	2.58[illegible]E+01
A	2.[illegible]2E+00	3.1306E+00	3.31[illegible]E+00
S	1.[illegible]9E+00	1.2285E+00	1.2[illegible]E+00
Z	1.[illegible]0E+00	1.1735E+00	1.23[illegible]E+00
GAME	7.97[illegible]E-01	7.9989E-01	8.03[illegible]E-01
U	6.[illegible]0E+00	1.4313E+00	1.31[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.[illegible]9E-13	1.4524E-10	6.[illegible]E-10
HE	1.[illegible]E-01	1.7044E-01	1.6[illegible]E-01
HE+	4.[illegible]E-33	6.9642E-28	1.1051[illegible]-25
HE++	0.	0.	0.
H	1.1[illegible]E-01	2.9563E-01	3.7[illegible]E-01
H+	7.[illegible]9E-13	1.4524E-10	6.[illegible]E-10
H2	6.[illegible]4E-01	5.3393E-01	4.6[illegible]E-01

Table II. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6600E+01	6.1335E+02	8.6574E+02
T	9.0618E+00	1.1197E+01	1.1852E+01
RHO	8.6744E+00	4.3780E+01	5.5319E+01
M	1.5798E+01	2.7077E+01	3.1905E+01
A	2.8141E+00	3.3560E+00	3.5586E+00
S	1.2225E+00	1.2754E+00	1.3124E+00
Z	1.1017E+00	1.2512E+00	1.3203E+00
GAME	7.9325E-01	8.0390E-01	8.0926E-01
U	7.2700E+00	1.4408E+00	1.3521E+00

SPECIES	MOLE FRACTIONS		
E-	4.8106E-12	8.5068E-10	3.1103E-09
HE	1.8154E-01	1.5985E-01	1.5148E-01
HE+	3.2186E-31	1.6888E-25	4.6871E-24
HE++	0.	0.	2.3513E-88
H	1.8460E-01	4.0148E-01	4.8518E-01
H+	4.8106E-12	8.5068E-10	3.1103E-09
H2	6.3386E-01	4.3867E-01	3.6333E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5041E+02	1.4732E+03	1.9938E+03
T	1.0338E+01	1.3503E+01	1.4786E+01
RHO	1.1599E+01	7.0460E+01	8.2340E+01
M	2.6157E+01	4.6747E+01	5.4207E+01
A	3.2113E+00	4.1716E+00	4.5504E+00
S	1.3357E+00	1.4348E+00	1.4896E+00
Z	1.2546E+00	1.5371E+00	1.6376E+00
GAME	7.9527E-01	8.3229E-01	8.5732E-01
U	9.7012E+00	1.6072E+00	1.6019E+00

SPECIES	MOLE FRACTIONS		
E-	2.2351E-10	5.7768E-08	2.6391E-07
HE	1.3941E-01	1.3011E-01	1.2178E-01
HE+	1.8903E-27	4.9099E-21	2.1097E-19
HE++	0.	1.3604E-77	6.6956E-71
H	4.0591E-01	6.9887E-01	7.8017E-01
H+	2.2351E-10	5.7768E-08	2.6391E-07
H2	4.3460E-01	1.7102E-01	9.7840E-02

P1 = 2.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0602E+02	8.5502E+02	1.1801E+03
T	9.5144E+00	1.1946E+01	1.2663E+01
RHO	9.7133E+00	5.3476E+01	6.5703E+01
M	1.8955E+01	3.3077E+01	3.8624E+01
A	2.9407E+00	3.5990E+00	3.8327E+00
S	1.2578E+00	1.3259E+00	1.3676E+00
Z	1.1470E+00	1.3385E+00	1.4163E+00
GAME	7.9236E-01	8.1012E-01	8.1792E-01
U	8.1067E+00	1.4736E+00	1.4006E+00

SPECIES	MOLE FRACTIONS		
E-	2.1260E-11	3.7888E-07	1.3128E-06
HE	1.7436E-01	1.4942E-01	1.4104E-01
HE+	7.2078E-30	6.2281E-24	1.5252E-22
HE++	0.	1.0558E-88	9.8417E-83
H	2.5039E-01	5.0579E-01	5.8990E-01
H+	2.1260E-11	3.7888E-09	1.3128E-08
H2	5.6925E-01	3.4479E-01	2.6960E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7535E+02	1.8406E+03	2.5006E+03
T	1.0733E+01	1.4712E+01	1.6936E+01
RHO	1.2411E+01	7.6140E+01	8.4648E+01
M	3.0204E+01	5.4393E+01	6.3591E+01
A	3.3504E+00	4.5527E+00	5.2889E+00
S	1.3780E+00	1.4913E+00	1.5408E+00
Z	1.3103E+00	1.6431E+00	1.7488E+00
GAME	7.9017E-01	8.5742E-01	9.4457E-01
U	1.0577E+01	1.7245E+00	1.8170E+00

SPECIES	MOLE FRACTIONS		
E-	6.0637E-10	2.5704E-07	2.8205E-06
HE	1.5194E-01	1.2172E-01	1.1430E-01
HE+	2.0741E-26	1.9258E-19	7.9854E-17
HE++	0.	8.5168E-72	6.1994E-62
H	4.8058E-01	7.8278E-01	8.5020E-01
H+	6.0637E-10	2.5704E-07	2.8205E-06
H2	3.6748E-01	9.5500E-02	2.9413E-02

P1 = 2.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2729E+02	1.1424E+03	1.5591E+03
T	9.9336E+00	1.2727E+01	1.4578E+01
RHO	1.0896E+01	6.2567E+01	7.5076E+01
M	2.2408E+01	3.9634E+01	4.6047E+01
A	3.0726E+00	3.8668E+00	4.1496E+00
S	1.2955E+00	1.3794E+00	1.4247E+00
Z	1.1981E+00	1.4346E+00	1.5256E+00
GAME	7.9323E-01	8.1892E-01	8.3130E-01
U	8.9382E+00	1.5284E+00	1.4846E+00

SPECIES	MOLE FRACTIONS		
E-	7.3457E-11	1.4927E-08	5.3633E-08
HE	1.6093E-01	1.3942E-01	1.3110E-01
HE+	7.9138E-29	1.7506E-22	4.3004E-21
HE++	0.	2.3659E-83	6.6414E-78
H	5.3073E-01	6.0584E-01	6.8903E-01
H+	7.3457E-11	1.4927E-08	5.3633E-08
H2	5.0234E-01	2.5474E-01	1.7908E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0211E+02	2.2278E+03	3.1506E+03
T	1.1135E+01	1.6511E+01	2.3440E+01
RHO	1.3126E+01	7.7531E+01	7.4943E+01
M	3.4549E+01	6.2521E+01	7.5567E+01
A	3.5143E+00	5.1651E+00	6.8905E+00
S	1.4223E+00	1.5468E+00	1.6059E+00
Z	1.3628E+00	1.7403E+00	1.7972E+00
GAME	8.0212E-01	9.2842E-01	1.1207E+00
U	1.1367E+01	1.9281E+00	2.4136E+00

SPECIES	MOLE FRACTIONS		
E-	1.5201E-09	1.9441E-06	2.8111E-06
HE	1.4464E-01	1.1492E-01	1.1160E-01
HE+	1.6993E-25	2.8809E-17	8.4462E-16
HE++	0.	1.3559E-63	5.8010E-44
H	5.5364E-01	8.5079E-01	8.8633E-01
H+	1.5201E-09	1.9441E-06	2.8111E-06
H2	3.0172E-01	3.4288E-02	1.8240E-03

Table II. - Continued

p_1 = 20 N/m^2

P1 = 2.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3064E+02	2.5852E+03	3.8856E+03
T	1.1558E+01	2.0419E+01	3.1369E+01
RHO	1.3727E+01	7.0677E+01	6.8426E+01
M	3.9190E+01	7.0946E+01	8.8740E+01
A	3.0032E+00	6.3476E+00	7.5592E+00
S	1.4082E+00	1.5969E+00	1.6577E+00
Z	1.4538E+00	1.7913E+00	1.8105E+00
GAME	8.0738E-01	1.1016E+00	1.0061E+00
U	1.2189E+01	2.3690E+00	3.0550E+00

SPECIES	MOLE FRACTIONS		
E-	3.7001E-09	4.9862E-05	6.0701E-03
HE	1.3757E-01	1.1165E-01	1.1047E-01
HE+	1.2019E-24	1.0052E-13	1.8345E-08
HE++	7.8879E-90	4.4331E-51	8.3009E-32
H	8.2427E-01	8.8336F-01	8.7711E-01
H+	3.7001E-09	4.9862E-05	6.0701E-03
H2	2.3816E-01	4.8878E-03	2.8300E-04

P1 = 2.00E+01 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2625E+02	3.5732E+03	5.8542E+03
T	1.3321E+01	3.5282E+01	4.2686E+01
RHO	1.4538E+01	5.5333E+01	7.1457E+01
M	5.4885E+01	9.8597E+01	1.2582E+02
A	4.3694E+00	7.7407E+00	8.4480E+00
S	1.6127E+00	1.7024E+00	1.7559E+00
Z	1.6847E+00	1.8337E+00	1.9193E+00
GAME	8.5073E-01	9.2739E-01	8.7114E-01
U	1.4539E+01	3.8176E+00	3.7130E+00

SPECIES	MOLE FRACTIONS		
E-	8.6124E-08	1.8525E-02	6.2204E-02
HE	1.1867E-01	1.0907E-01	1.0420E-01
HE+	3.0160E-21	2.3623E-07	7.4827E-06
HE++	1.1108E-78	1.4266E-28	2.4651E-22
H	8.1284E-01	8.5375E-01	7.7133E-01
H+	8.6124E-08	1.8525E-02	6.2195E-02
H2	6.8443E-02	1.3487E-04	6.3539E-05

P1 = 2.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6091E+02	2.9005E+03	4.5869E+03
T	1.2025E+01	2.6117E+01	3.6428E+01
RHO	1.4193E+01	3.[illegible]E+01	6.8474E+01
M	4.4128E+01	7.9593E+01	1.0115E+02
A	3.8703E+00	7.2018E+00	7.8516E+00
S	1.5136E+00	1.6378E+00	1.6936E+00
Z	1.5287E+00	1.8006E+00	1.8385E+00
GAME	8.1484E-01	1.1030E+00	9.2046E-01
U	1.[illegible]85E+01	2.9894E+00	3.3933E+00

SPECIES	POLE FRACTIONS		
E-	9.2299E-09	1.0497E-03	2.1100E-02
NE	1.3083E-01	1.1108E-01	1.0678E-01
NE+	1.0002E-23	2.0337E-10	4.3066E-07
NE++	8.3811E-80	6.0921E-39	7.4826E-27
N	8.9172E-01	8.8609E-01	8.4889E-01
N+	9.2299E-09	1.0497E-03	2.1100E-02
N2	1.7742E-01	7.3359E-04	1.3293E-04

P1 = 2.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6050E+02	3.8364E+03	6.2427E+03
T	1.4570E+01	3.8312E+01	4.4894E+01
RHO	1.4099E+01	5.3780E+01	7.0741E+01
M	6.0888E+01	1.0892E+02	1.3825E+02
A	4.8467E+00	7.9816E+00	8.7272E+00
S	1.8605E+00	1.7336E+00	1.7880E+00
Z	1.7552E+00	1.8651E+00	1.9657E+00
GAME	9.1931E-01	8.9258E-01	8.6306E-01
U	1.5269E+01	4.0003E+00	3.8008E+00

SPECIES	POLE FRACTIONS		
E-	5.0224E-07	3.5001E-02	8.4344E-02
NE	1.1395E-01	1.0723E-01	1.0173E-01
NE+	2.1947E-19	1.2498E-06	1.7141E-05
NE++	8.9942E-71	8.7794E-46	4.9936E-41
N	8.6049E-01	8.2268E-01	7.2934E-01
N+	5.0224E-07	3.5000E-02	8.4327E-02
N2	2.2255E-02	8.5095E-05	4.8165E-05

P1 = 2.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9284E+02	3.2298E+03	5.2508E+03
T	1.2579E+01	3.1281E+01	3.9946E+01
RHO	1.4491E+01	5.7005E+01	7.0133E+01
M	4.9301E+01	8.8759E+01	1.1343E+02
A	4.0875E+00	7.5254E+00	8.1513E+00
S	1.5644E+00	1.6714E+00	1.7249E+00
Z	1.6068E+00	1.8113E+00	1.8762E+00
GAME	8.2679E-01	9.9952E-01	8.8658E-01
U	1.3776E+01	3.4983E+00	3.5806E+00

SPECIES	POLE FRACTIONS		
E-	2.5184E-08	6.4774E-03	4.0701E-02
NE	1.2449E-01	1.1042E-01	1.0060E-01
NE+	1.2415E-22	1.8836E-08	2.3924E-06
NE++	1.8850E-62	7.8687E-32	3.8497E-24
N	7.5510E-01	8.7639E-01	8.1191E-01
N+	2.5184E-08	6.4774E-03	4.0699E-02
N2	1.2041E-01	2.3903E-04	8.6820E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9402E+02	3.8058E+03	6.0937E+03
T	1.7324E+01	4.0572E+01	4.8478E+01
RHO	1.2684E+01	4.9343E+01	6.5103E+01
M	6.4728E+01	1.1914E+02	1.4997E+02
A	5.0314E+00	8.1997E+00	8.9594E+00
S	1.7044E+00	1.7682E+00	1.8232E+00
Z	1.7931E+00	1.9010E+00	2.0122E+00
GAME	1.0947E+00	8.7172E-01	8.5802E-01
U	1.5893E+01	4.0845E+00	3.8426E+00

SPECIES	POLE FRACTIONS		
E-	1.0549E-05	5.3191E-02	1.0269E-01
NE	1.1134E-01	1.0520E-01	9.9341E-02
NE+	5.0354E-16	3.7510E-06	3.0710E-05
NE++	2.4306E-60	1.5082E-23	3.9499E-20
N	8.8954E-01	7.8836E-01	6.8924E-01
N+	1.0549E-05	5.3187E-02	1.0260E-01
N2	3.8541E-03	5.4930E-05	3.6066E-05

Table II. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2600E+02	3.6327E+03	5.6977E+03
T	2.1508E+01	4.2257E+01	4.7801E+01
RHO	1.1827E+01	4.4305E+01	5.8045E+01
M	7.2991E+01	1.2928E+02	1.6116E+02
A	6.6295E+00	8.4024E+00	9.1585E+00
S	1.7410E+00	1.8039E+00	1.8601E+00
Z	1.7995E+00	1.9403E+00	2.0596E+00
GAME	1.1355E+00	8.6106E-01	8.5495E-01
U	1.6938E+01	4.0947E+00	3.8550E+00

SPECIES	MOLE FRACTIONS		
E-	2.5119E-04	7.2362E-02	1.2005E-01
HE	1.1114E-01	1.0307E-01	9.7601E-02
HE+	1.4549E-12	7.9769E-06	4.7635E-05
HE++	2.4693E-17	2.1417E-22	1.8006E-19
H	8.8785E-01	7.5217E-01	6.5081E-01
H+	2.5119E-04	7.2354E-02	1.2000E-01
H2	5.1120E-04	3.9303E-05	2.6995E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4046E+02	3.9843E+03	5.9666E+03
T	3.1817E+01	4.6990E+01	5.1744E+01
RHO	9.2637E+00	4.0741E+01	5.1888E+01
M	9.3044E+01	1.6438E+02	2.0063E+02
A	7.2652E+00	9.1166E+00	9.9025E+00
S	1.8237E+00	1.8991E+00	1.9600E+00
Z	1.8337E+00	2.0812E+00	2.2223E+00
GAME	9.0472E-01	8.4986E-01	8.5277E-01
U	1.8327E+01	4.1701E+00	3.9783E+00

SPECIES	MOLE FRACTIONS		
E-	1.0388E-02	1.3512E-01	1.9005E-01
HE	1.0907E-01	9.6054E-02	8.9832E-02
HE+	6.8257E-08	4.5657E-05	1.6556E-04
HE++	1.8943E-30	1.1766E-19	1.5780E-17
H	8.9412E-01	6.3368E-01	5.3009E-01
H+	1.0388E-02	1.3508E-01	1.8987E-01
H2	3.4251E-05	1.9010E-05	1.3404E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6139E+02	3.5898E+03	5.521[illegible]
T	2.5711E+01	4.3788E+01	4.89[illegible]
RHO	9.9492E+00	4.1350E+01	5.35[illegible]
M	7.9536E+01	1.40C1E+02	1.73[illegible]
A	7.0046E+00	8.6148E+00	9.3743E+00
S	1.7716E+00	1.8371E+00	1.8949E+00
Z	1.8037E+00	1.9826E+00	2.1092E+00
GAME	1.0580E+00	8.5488E-01	8.52[illegible]
U	1.7000E+01	4.0928E+00	3.87[illegible]

SPECIES	MOLE FRACTIONS		
E-	2.2011E-03	9.2122E-02	1.4001E-01
HE	1.1088E-01	1.0086E-01	9.4[illegible]
HE+	3.2938E-10	1.4895E-05	7.1[illegible]
HE++	6.2110E-39	1.9872E-21	7.5[illegible]
H	8.8459E-01	7.1486E-01	6.1[illegible]
H+	2.2011E-03	9.2107E-02	1.4003E-01
H2	1.3045E-04	2.9763E-05	2.0[illegible]

P1 = 2.00E+01 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8461E+02	4.3446E+03	6.4474E+03
T	3.3902E+01	4.8620E+01	5.33[illegible]
RHO	9.2806E+00	4.1837E+01	5.2851E+01
M	1.0121E+02	1.7795E+02	2.1653E+02
A	7.4231E+00	9.3929E+00	1.0208E+01
S	1.8479E+00	1.9289E+00	1.9922E+00
Z	1.8581E+00	2.1359E+00	2.2859E+00
GAME	8.7487E-01	8.4960E-01	8.5415E-01
U	1.9064E+01	4.2325E+00	4.0619E+00

SPECIES	MOLE FRACTIONS		
E-	3.1261E-02	1.5727E-01	2.1457E-01
HE	1.0764E-01	9.3563E-02	8.7242E-02
HE+	2.6952E-07	7.5171E-05	2.5133E-04
HE++	2.7957E-28	7.4837E-19	7.4045E-17
H	8.2978E-01	5.9188E-01	4.8701E-01
H+	3.1260E-02	1.5720E-01	2.1232E-01
H2	2.4084E-05	1.5661E-05	1.0803E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9921E+02	3.7169E+03	5.63[illegible]
T	2.9173E+01	4.5376E+01	5.02[illegible]
RHO	9.4269E+00	4.0351E+01	5.1835E+01
M	8.6913E+01	1.5168E+02	1.8610E+02
A	7.1360E+00	8.8558E+00	9.623[illegible]
S	1.7986E+00	1.8689E+00	1.9279E+00
Z	1.8148E+00	2.0300E+00	2.1634E+00
GAME	9.0101E-01	8.5139E-01	8.5219E-01
U	1.7630E+01	4.1221E+00	3.92[illegible]

SPECIES	MOLE FRACTIONS		
E-	8.2385E-03	1.1334F-01	1.6799E-01
HE	1.1026E-01	9.8493F-02	9.2359E-02
HE+	8.9528E-09	2.6678E-05	1.0867E-04
HE++	1.1767E-33	1.6462F-20	3.3935E-18
H	8.7526E-01	6.7480E-01	5.7107E-01
H+	8.2385E-03	1.1332F-01	1.6788E-01
H2	5.7108E-05	2.3410E-05	1.6572E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3125E+02	4.7717E+03	7.0265E+03
T	3.5636E+01	5.0252E+01	5.5[illegible]
RHO	9.3899E+00	4.3282E+01	5.42[illegible]
M	1.0909E+02	1.9228E+02	2.32[illegible]
A	7.5900E+00	9.6818E+00	1.0526E+01
S	1.8718E+00	1.9587E+00	2.023[illegible]
Z	1.8803E+00	2.1939E+00	2.351[illegible]
GAME	8.5042E-01	8.5023E-01	8.561[illegible]
U	1.9025E+01	4.3022E+00	4.1434[illegible]

SPECIES	MOLE FRACTIONS		
E-	4.3850E-02	1.7955E-01	2.3463E-01
HE	1.0002E-01	9.1043E-02	8.4000E-02
HE+	7.4358E-07	1.1961F-04	3.7[illegible]
HE++	1.1430E-26	4.2075E-18	3.2[illegible]
H	8.0225E-01	5.4984E-01	4.4607E-01
H+	4.3855E-02	1.7943E-01	2.3[illegible]
H2	1.8403E-05	1.2962E-05	8.81[illegible]

Table II. - Continued

p_1 = 20 N/m^2

P1 = 2.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8012E+02	5.2512E+03	7.6806E+03
T	3.7141E+01	5.1869E+01	5.6739E+01
RHO	9.3480E+00	4.4915E+01	5.5912E+01
M	1.1729E+02	2.0728E+02	2.5034E+02
A	7.7755E+00	9.9777E+00	1.0806E+01
S	1.8955E+00	1.9884E+00	2.0561E+00
Z	1.9179E+00	2.2540E+00	2.4216E+00
GAME	8.4875E-01	8.5152E-01	8.5857E-01
U	2.0539E+01	4.3799E+00	4.2392E+00

SPECIES	MOLE FRACTIONS		
E-	6.1478E-02	2.0144E-01	2.5051E-01
HE	1.0428E-01	8.8546E-02	9.2050E-02
HE+	1.6555E-06	1.8392E-04	5.5251E-04
HE++	2.1349E-25	2.0929E-17	1.3746E-15
H	7.7275E-01	5.0856E-01	4.0491E-01
H+	6.1476E-02	2.0126E-01	2.5390E-01
H2	1.4742E-05	1.0753E-05	7.0886E-06

P1 = 2.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9587E+02	7.5746E+03	1.0905E+04
T	4.1970E+01	5.8401E+01	6.4104E+01
RHO	1.0336E+01	5.1539E+01	6.2588E+01
M	1.5314E+02	2.7339E+02	3.2803E+02
A	8.5098E+00	1.1248E+01	1.2326E+01
S	1.9915E+00	2.1099E+00	2.1870E+00
Z	2.0051E+00	2.5166E+00	2.7179E+00
GAME	8.3554E-01	8.6088E-01	8.7196E-01
U	2.3750E+01	4.7643E+00	4.7016E+00

SPECIES	MOLE FRACTIONS		
E-	1.2837E-01	2.8474E-01	3.3773E-01
HE	9.0834E-02	7.8636E-02	7.1200E-02
HE+	1.4433E-05	8.3747E-04	2.3002E-03
HE++	6.2120E-22	5.8760E-15	3.0557E-13
H	6.4042E-01	3.5187E-01	2.5334E-01
H+	1.2835E-01	2.8391E-01	3.3334E-01
H2	7.3923E-06	4.7553E-06	2.5731E-06

P1 = 2.00E+01 N/SQ-M. US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3110E+02	5.7750E+03	8.4018E+03
T	3.8489E+01	5.3488E+01	5.8497E+01
RHO	9.7323E+00	4.6603E+01	5.7620E+01
M	1.2580E+02	2.2291E+02	2.6800E+02
A	7.9570E+00	1.0283E+01	1.1200E+01
S	1.9192E+00	2.0184E+00	2.0887E+00
Z	1.9517E+00	2.3168E+00	2.4927E+00
GAME	8.4282E-01	8.5330E-01	8.6194E-01
U	2.1382E+01	4.4662E+00	4.3434E+00

SPECIES	MOLE FRACTIONS		
E-	7.7757E-02	2.2306E-01	2.7789E-01
HE	1.0247E-01	8.6051E-02	7.9429E-02
HE+	3.2074E-06	2.7606E-04	8.0001E-04
HE++	2.3992E-24	9.5023E-17	5.5679E-15
H	7.4200E-01	4.6781E-01	3.6479E-01
H+	7.7754E-02	2.2279E-01	2.7708E-01
H2	1.2151E-05	8.8784E-06	5.6357E-06

P1 = 2.00E+01 N/SQ-M. US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0152E+03	8.9388E+03	1.2827E+04
T	4.4018E+01	6.1814E+01	6.8318E+01
RHO	1.0733E+01	5.4424E+01	6.5305E+01
M	1.7287E+02	3.0987E+02	3.7154E+02
A	8.8860E+00	1.1936E+01	1.3140E+01
S	2.0409E+00	2.1721E+00	2.2537E+00
Z	2.1460E+00	2.6571E+00	2.8729E+00
GAME	8.3480E-01	8.6739E-01	8.7998E-01
U	2.5334E+01	4.9972E+00	4.9866E+00

SPECIES	MOLE FRACTIONS		
E-	1.6235E-01	3.2256E-01	3.7401E-01
HE	9.3042E-02	7.3610E-02	6.4665E-02
HE+	5.1281E-05	1.6610E-03	4.8096E-03
HE++	1.0915E-20	7.3527E-14	4.2247E-12
H	5.8226E-01	2.8126E-01	1.8730E-01
H+	1.6232E-01	3.2090E-01	3.6914E-01
H2	5.4531E-06	2.9390E-06	1.3450E-06

P1 = 2.00E+01 N/SQ-M. US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8414E+02	6.3391E+03	9.1837E+03
T	3.9726E+01	5.5112E+01	6.0309E+01
RHO	9.9304E+00	4.8296E+01	5.9333E+01
M	1.3461E+02	2.3916E+02	2.8700E+02
A	8.1400E+00	1.0597E+01	1.1569E+01
S	1.9431E+00	2.0487E+00	2.1210E+00
Z	1.9877E+00	2.3816E+00	2.5605E+00
GAME	8.3914E-01	8.5549E-01	8.6467E-01
U	2.2170E+01	4.5620E+00	4.4530E+00

SPECIES	MOLE FRACTIONS		
E-	9.4443E-02	2.4422E-01	2.9867E-01
HE	1.0061E-01	8.3570E-02	7.6761E-02
HE+	5.6458E-06	4.0591E-04	1.1000E-03
HE++	1.9394E-23	3.9950E-16	2.1802E-14
H	7.1049E-01	4.2798E-01	3.2590E-01
H+	9.4437E-02	2.4381E-01	2.9750E-01
H2	1.0194E-05	7.2810E-06	4.4140E-06

P1 = 2.00E+01 N/SQ-M. US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1419E+03	1.0415E+04	1.4936E+04
T	4.6295E+01	6.5443E+01	7.3015E+01
RHO	1.1102E+01	5.6821E+01	6.7494E+01
M	1.9379E+02	3.4855E+02	4.1805E+02
A	9.2708E+00	1.2662E+01	1.4019E+01
S	2.0913E+00	2.2347E+00	2.3257E+00
Z	2.2383E+00	2.8007E+00	3.0307E+00
GAME	8.3565E-01	8.7469E-01	8.8724E-01
U	2.6913E+01	5.2602E+00	5.2984E+00

SPECIES	MOLE FRACTIONS		
E-	1.9582E-01	3.5731E-01	4.6008E-01
HE	8.9249E-02	6.8185E-02	5.6300E-02
HE+	8.1115E-05	3.2257E-03	9.6884E-03
HE++	1.3009E-19	8.4239E-13	5.7331E-11
H	5.1900E-01	2.1720E-01	1.3154E-01
H+	1.9276E-01	3.5408E-01	3.9639E-01
H2	4.0260E-06	1.6873E-06	6.2949E-07

Table II. - Continued

p_1 = 20 N/m^2

P1 = 2.00E+01 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.275uE+03	1.1985E+04	1.7218E+04
T	4.7821E+01	6.9392E+01	7.8373E+01
RHO	1.1436E+01	5.8661E+01	6.9083E+01
M	2.1591E+02	3.8937E+02	4.6776E+02
A	9.6666E+00	1.3425E+01	1.493uE+01
S	2.1428E+00	2.2977E+00	2.3919E+00
Z	2.3329E+00	2.9443E+00	3.1801E+00
GAME	8.3759E-01	8.8208E-01	8.952uE-01
U	2.8492E+01	5.5558E+00	5.652uE+00

SPECIES	MOLE FRACTIONS		
E-	2.2844E-01	3.8865E-01	4.3399E-01
HE	8.5618E-02	6.1753E-02	4.4748E-02
HE+	1.1159E-04	6.1749E-03	1.8142E-02
HE++	1.2096E-18	9.3012E-12	7.4630E-10
H	4.2750E-01	1.6095E-01	8.7274E-02
H+	2.2833E-01	3.8247E-01	4.1585E-01
H2	2.9454E-06	8.8401E-07	2.5961E-07

P1 = 2.00E+01 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7203E+03	1.7084E+04	2.522uE+04
T	5.3454E+01	8.4253E+01	1.060uE+02
RHO	1.2177E+01	6.0754E+01	6.6773E+01
M	2.8939E+02	5.2418E+02	6.4309E+02
A	1.0948E+01	1.6011F+01	1.9934E+01
S	2.3027E+00	2.4839E+00	2.5954E+00
Z	2.6430E+00	3.3375F+00	3.5423E+00
GAME	8.4832E-01	9.1161E-01	1.0521E+00
U	3.3180E+01	6.6526E+00	7.3992E+00

SPECIES	MOLE FRACTIONS		
E-	3.1695E-01	4.6067E-01	4.9165E-01
HE	7.5113E-02	2.8919E-02	4.2014E-03
HE+	5.5857E-04	3.1006F-02	5.2290E-02
HE++	4.3951E-16	9.4521E-09	3.4402E-06
H	2.8698E-01	4.9736E-02	1.2095E-02
H+	3.1839E-01	4.2967E-01	4.3959E-01
H2	9.9709E-07	6.8359E-08	3.3254E-09

P1 = 2.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4169E+03	1.3633E+04	1.9668E+04
T	4.9670E+01	7.3762E+01	8.4673E+01
RHO	1.1729E+01	5.9935E+01	6.9960E+01
M	2.3921E+02	4.3227E+02	5.2087E+02
A	1.0076E+01	1.4218E+01	1.6063E+01
S	2.1952E+00	2.3604E+00	2.4597E+00
Z	2.9323E+00	3.0839E+00	3.3201E+00
GAME	8.4037E-01	8.8875E-01	9.1093E-01
U	3.0063E+01	5.8843E+00	6.0580E+00

SPECIES	MOLE FRACTIONS		
E-	2.5995E-01	4.1632E-01	4.5780E-01
HE	8.2033E-02	5.3372E-02	3.0074E-02
HE+	1.9503E-04	1.1482E-02	3.0166E-02
HE++	9.4959E-18	9.9700E-11	9.2128E-09
H	3.9807E-01	1.1399E-01	5.4249E-02
H+	2.5975E-01	4.0484E-01	4.2707E-01
H2	2.1154E-06	4.1859E-07	9.2403E-08

P1 = 2.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5652E+03	1.5345E+04	2.2304E+04
T	5.1535E+01	7.8651E+01	9.2983E+01
RHO	1.1977E+01	6.0670E+01	6.9604E+01
M	2.6371E+02	4.7727E+02	5.7830E+02
A	1.0502E+01	1.5056E+01	1.7481E+01
S	2.2400E+00	2.4227E+00	2.5273E+00
Z	2.5350E+00	3.2158E+00	3.4404E+00
GAME	8.4393E-01	8.9623E-01	9.5329E-01
U	3.1630E+01	6.2455E+00	6.5733E+00

SPECIES	MOLE FRACTIONS		
E-	2.9017E-01	4.4027E-01	4.7169E-01
HE	7.8538E-02	4.2246E-02	1.4900E-02
HE+	3.3204E-04	1.9946E-02	4.3120E-02
HE++	8.8513E-17	1.0067E-09	1.2961E-07
H	3.4112E-01	7.7211E-02	2.9710E-02
H+	2.8984E-01	4.2033E-01	4.3430E-01
H2	1.4794E-06	1.7927E-07	2.4049E-08

P1 = 2.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8820E+03	1.8778E+04	2.8504E+04
T	5.5482E+01	9.1243E+01	1.2934E+02
RHO	1.2318E+01	5.9735E+01	6.1470E+01
M	3.1025E+02	5.7274E+02	7.1836E+02
A	1.1421E+01	1.7269E+01	2.2853E+01
S	2.3378E+00	2.5439E+00	2.6619E+00
Z	2.7538E+00	3.4453E+00	3.5848E+00
GAME	8.5367E-01	9.4862E-01	1.1264E+00
U	3.4728E+01	7.1629E+00	8.7001E+00

SPECIES	MOLE FRACTIONS		
E-	3.4036E-01	4.7755E-01	4.9788E-01
HE	7.1684E-02	1.5668E-02	7.7428E-04
HE+	9.4373E-04	4.2382E-02	5.4853E-02
HE++	2.8904E-15	9.3800E-08	1.6389E-04
H	2.3501E-01	2.9226E-02	3.6313E-03
H+	3.4341E-01	4.3517E-01	4.4276E-01
H2	6.3085E-07	2.1067E-08	2.2388E-10

P1 = 2.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0530E+03	2.0373E+04	3.1680E+04
T	5.7044E+01	1.0088E+02	1.5376E+02
RHO	1.2417E+01	5.7272E+01	5.7535E+01
M	3.4430E+02	6.2267E+02	7.9706E+02
A	1.1917E+01	1.9067E+01	2.4121E+01
S	2.4126E+00	2.6001E+00	2.7179E+00
Z	2.8649E+00	3.5264E+00	3.6043E+00
GAME	8.6002E-01	1.0220E+00	1.0499E+00
U	3.8266E+01	7.8701E+00	9.9708E+00

SPECIES	MOLE FRACTIONS		
E-	3.7170E-01	4.8957E-01	5.0000E-01
HE	6.8204E-02	6.1135E-03	2.3933E-04
HE+	1.6064E-03	5.0600E-02	5.2409E-02
HE++	1.9214E-14	1.1713E-06	2.8900E-03
H	1.8839E-01	1.4754E-02	1.3941E-03
H+	3.7010E-01	4.3896E-01	4.4251E-01
H2	3.8674E-07	4.5488E-09	2.6277E-11

Table II. - Continued

p_1 = 20 N/m^2

P1 = 2.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2255E+03	2.1725E+04	3.4966E+04
T	6.0093E+01	1.1455E+02	1.7131E+02
RHO	1.2491E+01	5.3108E+01	5.6104E+01
H	3.7352E+02	6.7321E+02	8.7101E+02
A	1.2452E+01	2.1247E+01	2.4552E+01
S	2.4679E+00	2.6527E+00	2.7646E+00
Z	2.9769E+00	3.5713E+00	3.6378E+00
GAME	8.6746E-01	1.1036E+00	9.6732E-01
U	3.7786E+01	8.8599E+00	1.0761E+01

SPECIES	MOLE FRACTIONS		
E-	3.9535E-01	4.9598E-01	5.0526E-01
HE	6.4371E-02	1.7833E-03	1.2414E-04
HE+	2.8118E-03	5.4200E-02	4.3517E-02
HE++	1.3902E-13	1.9246E-05	1.1339E-04
H	1.4493E-01	6.2856E-03	8.2450E-04
H+	3.9254E-01	4.4174E-01	4.3900E-01
H2	2.1484E-07	6.5925E-10	8.4455E-14

P1 = 2.00E+01 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7869E+03	2.5143E+04	4.3266E+04
T	6.9329E+01	1.6195E+02	2.1629E+02
RHO	1.2225E+01	4.2847E+01	5.3277E+01
H	4.6911E+02	9.3247E+02	1.1009E+03
A	1.4207E+01	2.4060E+01	2.8914E+01
S	2.6318E+00	2.7830E+00	2.9875E+00
Z	3.2883E+00	3.6234E+00	3.7634E+00
GAME	9.8536E-01	9.8651E-01	1.0271E+00
U	4.2251E+01	1.2046E+01	1.2577E+01

SPECIES	MOLE FRACTIONS		
E-	4.5261E-01	5.0323E-01	5.2173E-01
HE	4.4555E-02	1.2809E-04	1.3010E-05
HE+	1.6226E-02	4.7658E-02	9.4083E-03
HE++	8.7629E-11	7.4133E-03	4.3723E-02
H	5.0183E-02	9.1399E-04	3.0222E-04
H+	4.3638E-01	4.4076E-01	4.2485E-01
H2	2.0039E-09	6.5171E-12	9.7707E-13

P1 = 2.00E+01 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4666E+03	2.2867E+04	3.7831E+04
T	6.2747E+01	1.3113E+02	1.8535E+02
RHO	1.2427E+01	4.8583E+01	5.5431E+01
M	4.0391E+02	7.2438E+02	9.4479E+02
A	1.3016E+01	2.3028E+01	2.5400E+01
S	2.5229E+00	2.7004E+00	2.8076E+00
Z	3.0864E+00	3.5894E+00	3.6822E+00
GAME	8.7504E-01	1.1266E+00	9.4974E-01
U	3.9279E+01	1.0045E+01	1.1344E+01

SPECIES	MOLE FRACTIONS		
E-	4.1681E-01	4.9852E-01	5.1116E-01
HE	5.9744E-02	5.5552E-04	6.7493E-05
HE+	5.0536E-03	5.4901E-02	3.1248E-02
HE++	1.1078E-12	2.6379E-04	2.2987E-02
H	1.0603E-01	2.6699E-03	5.8119E-04
H+	4.1175E-01	4.4309E-01	4.3396E-01
H2	1.0812E-07	9.4474E-11	3.9914E-12

P1 = 2.00E+01 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5936E+03	2.3932E+04	4.0503E+04
T	6.5806E+01	1.4767E+02	1.9904E+02
RHO	1.2338E+01	4.5060F+01	5.4684E+01
M	4.3594E+02	7.7762E+02	1.0200E+03
A	1.3611E+01	2.3835E+01	2.6824E+01
S	2.5781E+00	2.7431E+00	2.8469E+00
Z	3.1419E+00	3.6015E+00	3.7230E+00
GAME	8.8123E-01	1.0682E+00	9.7035E-01
U	4.0775E+01	1.1174E+01	1.1866E+01

SPECIES	MOLE FRACTIONS		
E-	4.3807E-01	5.0021E-01	5.1000E-01
HE	5.9460E-02	2.3583E-04	3.3791E-05
HE+	9.2585E-03	5.3316E-02	1.9417E-02
HE++	9.9121E-12	1.9810E-03	3.4227E-02
H	7.4456E-02	1.3320E-03	4.2923E-04
H+	4.2648E-01	4.4293F-01	4.2901E-01
H2	6.8335E-08	1.9602E-11	2.0873E-12

P1 = 2.00E+01 N/SQ-M, US1= 5.90F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5860E+03	2.6489E+04	4.6372E+04
T	7.3214E+01	1.7360E+02	2.4113E+02
RHO	1.2077E+01	4.1734F+01	5.0786F+01
M	5.0205E+02	8.9093F+02	1.1913E+03
A	1.4859E+01	2.4552F+01	3.1760E+01
S	2.6847E+00	2.8206F+00	2.9300F+00
Z	3.3773E+00	3.6563F+00	3.7869E+00
GAME	8.9306E-01	9.4971F-01	1.1044E+00
U	4.3709E+01	1.2639E+01	1.3645F+01

SPECIES	MOLE FRACTIONS		
E-	4.6658F-01	5.0769E-01	5.2468E-01
HE	3.3261E-02	7.7290F-05	3.3440E-06
HE+	2.5963E-02	3.9577F-02	1.2594F-03
HE++	7.2751F-10	1.6047F-02	4.9551E-02
H	3.2776E-02	5.9049E-04	1.9197F-04
H+	4.4132E-01	4.3702E-01	4.2232E-01
H2	7.7503E-09	3.1031F-12	3.6139F-13

P1 = 2.00E+01 N/SQ-M, US1= 6.00F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1904E+03	2.7749E+04	4.9292E+04
T	7.7794E+01	1.9429E+02	2.7192E+02
RHO	1.1861E+01	4.0763E+01	4.7767F+01
M	5.3707E+02	9.5143F+02	1.2891E+03
A	1.5692E+01	2.5390F+01	3.4387F+01
S	2.7369E+00	2.8576E+00	2.9705E+00
Z	3.4576E+00	3.6946F+00	3.7956E+00
GAME	9.1088E-01	9.4700F-01	1.1461E+00
U	4.5140E+01	1.3138E+01	1.4925F+01

SPECIES	MOLE FRACTIONS		
E-	4.7941E-01	5.1273E-01	5.2577E-01
HE	2.0829E-02	4.5519F-05	7.6084E-07
HE+	3.7014E-02	2.9159F-02	1.0362E-03
HE++	5.9717E-09	2.5937E-02	5.1655E-02
H	2.0345E-02	4.3971E-04	1.1936F-04
H+	4.4240F-01	4.3269F-01	4.2142F-01
H2	2.6702E-09	1.6915E-12	1.2437E-13

Table II. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.03E+01 N/SQ-M, US1= 6.29E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.397JE+03	2.8639E+04	5.1530E+04
T	8.370EE+31	1.9553F+02	3.0445E+02
RHO	1.1515E+01	3.9253F+01	4.4562F+01
H	5.7315E+02	1.0125F+03	1.3894E+03
A	1.6859E+01	2.6600F+01	3.6596F+01
S	2.7861F+00	2.8957F+00	3.0093E+00
Z	3.5242F+00	3.7314E+0C	3.7982F+00
GAME	9.6809E-01	9.6979E-01	1.1581E+00
U	4.6519F+01	1.3834F+01	1.6188E+01

SPECIES	MOLE FRACTIONS		
E-	4.8925E-31	5.1760F-01	5.2610E-01
HE	1.0059E-07	2.3763E-05	2.6022F-07
HE+	4.6652E-02	1.8014F-02	3.8471E-04
HE++	5.6341F-08	3.5562F-02	5.2271E-02
H	1.1451F-02	3.3224F-04	7.5799E-05
H+	4.4255F-01	4.2847E-01	4.2117E-01
H2	7.3413F-10	9.0771E-13	4.6351F-14

P1 = 2.0CE+01 N/SQ-M, US1= 6.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0065E+03	2.7508E+04	5.1748E+04
T	1.1671E+02	2.3944E+02	4.0352E+02
RHO	9.5468E+00	3.0431E+01	3.3750E+01
H	6.9689E+02	1.1991E+03	1.6813E+03
A	2.1853E+01	3.1806E+01	4.2225E+01
S	2.9135E+00	3.0078E+00	3.1167E+00
Z	3.5959E+00	3.7911E+0C	3.7997E+00
GAME	1.1379E+00	1.1191E+00	1.1628E+00
U	5.0028E+01	1.5688F+01	1.9732E+01

SPECIES	MOLE FRACTIONS		
E-	4.9942E-01	5.2520E-01	5.2628E-01
HE	2.8006E-04	1.4115E-06	8.5668E-09
HE+	5.5184E-02	2.2321E-03	5.1204E-05
HE++	1.5540E-04	5.0522E-02	5.2584E-02
H	1.0296E-03	1.1999E-04	2.4683E-05
H+	4.4393E-01	4.2192E-01	4.2106E-01
H2	3.1269E-12	9.5036E-14	3.5926E-15

P1 = 2.00E+01 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6012E+03	2.8740E+04	5.2450E+04
T	9.2329E+01	2.0755E+02	3.3949E+02
RHO	1.0930E+01	3.6822E+01	4.0788E+01
H	6.4313E+02	1.0725E+03	1.4998E+03
A	1.8677E+01	2.8134E+01	3.8647E+01
S	2.8330E+00	2.9331E+00	3.0467E+00
Z	3.5689E+00	3.7606E+00	3.7992E+00
GAME	1.0587E+00	1.0141E+00	1.1615E+00
U	4.7775E+01	1.4177E+01	1.7512E+01

SPECIES	MOLE FRACTIONS		
E-	4.9564E-01	5.2136E-01	5.2621E-01
HE	3.3387E-03	1.0836E-05	5.9539E-08
HE+	5.2706E-02	1.0199E-02	1.6668E-04
HE++	7.9049E-07	4.2974E-02	5.2476E-02
H	5.3762E-03	2.4592E-04	4.9907E-05
H+	4.4296E-01	4.2521E-01	4.2109E-01
H2	1.3208E-13	4.5572E-13	1.7991E-14

P1 = 2.00E+01 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2148E+03	2.6929E+04	5.1558E+04
T	1.3020E+02	2.5684E+02	4.3678E+02
RHO	8.9866E+00	2.7621E+01	3.1065E+01
H	7.2690E+02	1.2460E+03	1.7795E+03
A	2.2535E+01	3.3403E+01	4.3934E+01
S	2.9498E+00	3.0418E+00	3.1478E+00
Z	3.6022E+00	3.7959E+00	3.7998E+00
GAME	1.0828E+00	1.1444E+00	1.1630E+00
U	5.1125E+01	1.6624E+01	2.0787E+01

SPECIES	MOLE FRACTIONS		
E-	5.0030E-01	5.2580E-01	5.2629E-01
HE	1.0755E-04	4.8659E-07	3.8058E-09
HE+	5.4181E-02	1.0047E-03	3.3118E-05
HE++	1.2329E-03	5.1684E-02	5.2601E-02
H	5.1793E-04	9.3331E-05	1.8278E-05
H+	4.4366E-01	4.2143E-01	4.2106E-01
H2	6.6464E-13	3.6312E-14	1.8089E-15

P1 = 2.00E+01 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8029E+03	2.8162E+04	5.2217E+04
T	1.0374E+02	2.2227E+02	3.7160E+02
RHO	1.0215E+01	3.3511E+01	3.6983E+01
H	6.4803E+02	1.1303E+03	1.5857E+03
A	2.0476E+01	3.0038E+01	4.0514E+01
S	2.8753E+00	2.9725E+00	3.0935E+00
Z	3.5886E+00	3.7809E+00	3.7995E+00
GAME	1.1262E+00	1.0736E+00	1.1625E+00
U	4.9923E+01	1.4908E+01	1.9683E+01

SPECIES	MOLE FRACTIONS		
E-	4.9840E-01	5.2393E-01	5.2626E-01
HE	9.1353E-04	3.9837E-06	2.0887E-08
HE+	5.4917E-02	4.8597E-03	8.5967E-05
HE++	1.2730E-05	4.8033E-02	5.2552E-02
H	2.2996E-03	1.7176E-04	3.4210E-05
H+	4.4357E-01	4.2300E-01	4.2107E-01
H2	1.9144E-11	1.9700E-13	7.6070E-15

Table II. - Continued

p_1 = 50 N/m^2

P1 = 5.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.4294E+01	6.5038E+01
T	3.1752E+00	3.9838E+00	5.6944E+00
RHO	3.9401E+00	6.6009E+00	1.1419E+01
H	3.2447E+00	4.1057E+00	6.0130E+00
A	1.7739E+00	1.9769E+00	2.3294E+00
S	1.0553E+00	1.0559E+00	1.0729E+00
Z	1.0000E+00	1.0000E+00	1.0002E+00
GAME	9.9130E-01	9.8105E-01	9.5283E-01
U	2.4570E+00	1.4729E+00	1.2059E+00

SPECIES	MOLE FRACTIONS		
E-	3.5338E-50	1.9822E-37	9.4889E-22
HE	2.0000E-01	2.0000E-01	1.9994E-01
HE+	7.9668E-65	1.4011E-57	2.9875E-48
HE++	0.	0.	0.
H	1.7394E-09	5.5913E-07	2.9935E-04
H+	7.2402E-20	7.2402E-20	7.2354E-20
H2	8.0000E-01	8.0000E-01	7.9964E-01

P1 = 5.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9809E+01	1.5714E+02	2.4531E+02
T	7.1765E+00	9.0014E+00	9.8608E+00
RHO	5.5108E+00	1.4732E+01	2.4752E+01
H	9.1027E+00	1.2684E+01	1.5825E+01
A	3.5018E+00	7.2765E+00	2.9227E+00
S	1.1327E+00	1.2510E+00	1.1768E+00
Z	1.0048E+00	1.0251E+00	1.0849E+00
GAME	9.6652E-01	9.1234E-01	8.7602E-01
U	4.2986E+00	1.5523E+00	1.2683E+00

SPECIES	MOLE FRACTIONS		
E-	6.8250E-14	1.2052E-12	1.8285E-11
HE	1.0845E-01	1.0139E-01	1.8635E-01
HE+	2.2656E-20	1.0132E-21	1.7830E-20
HE++	0.	0.	0.
H	1.2677E-22	8.4212E-02	1.6448E-01
H+	6.8264E-14	1.2052E-12	1.8285E-11
H2	7.8787E-01	7.7221E-01	6.5014E-01

P1 = 5.00E+01 N/SQ-M,   US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2220E+01	1.1432E+02
T	4.4064E+00	5.9911E+00	7.6626E+00
RHO	4.4959E+00	8.8587E+00	1.4784E+01
H	4.5641E+00	6.2683E+00	8.8132E+00
A	2.0730E+00	2.3607E+00	2.5787E+00
S	1.0838E+00	1.0877E+00	1.1058E+00
Z	1.0000E+00	1.0004E+00	1.0090E+00
GAME	9.7528E-01	9.4546E-01	8.6003E-01
U	3.1953E+00	1.6299E+00	1.2958E+00

SPECIES	------------	MOLE FRACTIONS	------------
E-	8.1355E-26	3.8717E-20	4.0882E-15
HE	2.0000E-01	1.9992E-01	1.9822E-01
HE+	1.0430E-55	5.6132E-47	1.4255E-36
HE++	0.	0.	0.
H	7.1856E-06	7.7604E-04	1.7785E-02
H+	7.2402E-20	1.1109E-19	4.0892E-15
H2	7.9999E-01	7.9970E-01	7.8390E-01

P1 = 5.00E+01 N/SQ-M,   US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8778E+01	9.2608E+01	1.7634E+02
T	5.9276E+00	7.7208E+00	8.9177E+00
RHO	4.9366E+00	1.1848E+01	1.9657E+01
H	6.1778E+00	9.0145E+00	1.2012E+01
A	2.3466E+00	2.5705E+00	2.7480E+00
S	1.1111E+00	1.1186E+00	1.1294E+00
Z	1.0006E+00	1.0111E+00	1.0385E+00
GAME	9.4477E-01	8.5122E-01	8.1460E-01
U	3.9215E+00	1.6346E+00	1.2720E+00

SPECIES	------------	MOLE FRACTIONS	------------
E-	2.8855E-20	5.6036E-15	7.8521E-13
HE	1.9992E-01	1.9790E-01	1.9258E-01
HE+	1.0106E-44	8.1604E-37	1.7006E-33
HE++	0.	0.	0.
H	2.6710E-04	2.1077E-02	7.6100E-02
H+	6.3014E-20	5.6077E-15	7.8521E-13
H2	7.9946E-01	7.8077E-01	7.3232E-01

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

P1 = 5.00E+01 N/SQ-M,   US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	[illegible]
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAME	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	------------	MOLE FRACTIONS	------------
E-	[illegible]	[illegible]	[illegible]
HE	[illegible]	[illegible]	[illegible]
HE+	[illegible]	[illegible]	[illegible]
HE++	0.	0.	0.
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	[illegible]	[illegible]	[illegible]

P1 = 5.00E+01 N/SQ-M,   US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	[illegible]
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAME	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	------------	MOLE FRACTIONS	------------
E-	[illegible]	[illegible]	[illegible]
HE	[illegible]	[illegible]	[illegible]
HE+	[illegible]	[illegible]	[illegible]
HE++	0.	0.	[illegible]
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	[illegible]	[illegible]	[illegible]

Table II. - Continued

p_1 = 50 N/m^2

P1 = 5.005E+01 N/SQ-M, US1= 1.005E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6207E+01	5.8626E+02	8.2748E+02
T	2.4071E+00	1.1717E+01	1.2675E+01
RHO	8.3782E+00	4.0226E+01	5.1264E+01
H	1.5784E+01	2.6914E+01	3.1951E+01
A	2.8848E+00	3.4267E+00	3.6461E+00
S	1.2272E+00	1.2772E+00	1.2147E+00
Z	1.0932E+00	1.2746E+00	1.3068E+00
GAME	7.9971E-01	8.2590E-01	8.1551E-01
U	7.2364E+00	1.5728E+00	1.4106E+00

SPECIES	MOLE FRACTIONS		
E-	8.6558E-12	1.6014E-09	6.2090E-09
HE	1.8284E-01	1.5174E-01	1.5304E-01
HE+	1.0425E-20	1.2581E-24	5.9422E-23
HE++	0.	2.5648E-80	2.3455E-84
H	1.7162E-01	3.8256E-01	4.6959E-01
H+	8.6558E-12	1.6014E-09	6.2090E-09
H2	6.4558E-01	4.5560E-01	3.7727E-01

P1 = 5.005E+01 N/SQ-M, US1= 1.305E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6581E+02	1.2655E+02	1.9173E+02
T	1.0827E+01	1.4351E+01	1.5658E+01
RHO	1.1126E+01	6.4170E+01	7.5557E+01
H	2.6161E+01	4.6602E+01	5.4284E+01
A	2.2826E+00	4.2712E+00	4.6830E+00
S	1.3351E+00	1.4223E+00	1.4830E+00
Z	1.2432E+00	1.5152E+00	1.6206E+00
GAME	8.0062E-01	8.2980E-01	8.6423E-01
U	9.7217E+00	1.6866E+00	1.4793E+00

SPECIES	MOLE FRACTIONS		
E-	4.6566E-10	1.0778E-07	4.0644E-07
HE	1.6087E-01	1.2198E-01	1.2361E-01
HE+	2.7407E-24	4.8229E-20	2.1444E-19
HE++	0.	4.2546E-76	1.6481E-67
H	3.0130E-01	6.8015E-01	7.6589E-01
H+	4.6566E-10	1.0778E-07	4.0644E-07
H2	6.4782E-01	1.8786E-01	1.1070E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.05E+02	8.12E+02	1.13E+03
T	9.91E+00	1.75E+01	1.33E+01
RHO	9.35E+00	6.90E+01	6.07E+01
H	1.89E+01	3.78E+01	3.84E+01
P	2.89E+00	3.67E+00	3.93E+00
S	1.26E+00	1.32E+00	1.76E+00
Z	1.12E+00	1.32E+00	1.40E+00
GAMF	7.97E-01	8.16E-01	8.24E-01
U	8.07E+00	1.56E+00	1.47E+00

SPECIES	MOLE FRACTIONS		
E-	4.12E-11	7.30E-09	2.67E-08
HF	1.77E-01	1.61E-01	1.42E-01
HF+	5.71E-20	7.76E-22	1.89E-21
HF++	0.	2.64E-84	9.67E-79
H	2.67E-01	4.84E-01	5.76E-01
H+	4.12E-11	7.30E-09	2.67E-08
H2	5.81E-01	3.42E-01	2.82E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.74E+02	1.74E+03	2.40E+03
T	1.12E+01	1.55E+01	1.77E+01
RHO	1.18E+01	6.93E+01	7.81E+01
H	3.01E+01	5.41E+01	6.27E+01
P	3.63E+00	4.65E+00	5.36E+00
S	1.38E+00	1.48E+00	1.54E+00
Z	1.33E+00	1.51E+00	1.72E+00
GAMF	9.03E-01	9.42E-01	9.57E-01
U	1.05E+01	1.80E+00	1.89E+00

SPECIES	MOLE FRACTIONS		
E-	1.27E-09	4.63E-07	4.08E-06
HF	1.53E-01	1.23E-01	1.15E-01
HF+	2.03E-25	1.50E-18	4.09E-16
HF++	0.	1.54E-67	2.57E-59
H	4.46E-01	7.54E-01	8.84E-01
H+	1.27E-09	4.63E-07	4.08E-06
H2	3.80E-01	1.11E-01	4.01E-02

P1 = 5.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.24E+02	1.08E+03	1.49E+03
T	1.03E+01	1.34E+01	1.63E+01
RHO	1.02E+01	6.71E+01	6.90E+01
H	2.33E+01	3.04E+01	4.41E+01
P	3.13E+00	3.85E+00	4.26E+00
S	1.23E+00	1.37E+00	1.47E+00
Z	1.18E+00	1.41E+00	1.50E+00
GAMF	7.98E-01	8.25E-01	8.38E-01
U	8.99E+00	1.40E+00	1.55E+00

SPECIES	MOLE FRACTIONS		
E-	1.50E-10	2.85E-08	1.07E-07
HF	1.68E-01	1.41E-01	1.33E-01
HF+	1.47E-23	1.77E-21	5.20E-20
HF++	0.	4.77E-78	1.15E-72
H	3.14E-01	5.98E-01	6.76E-01
H+	1.50E-10	2.85E-08	1.07E-07
H2	5.15E-01	2.72E-01	1.93E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.01E+02	2.10E+03	3.00E+03
T	1.17E+01	1.77E+01	2.36E+01
RHO	1.26E+01	7.11E+01	7.15E+01
H	3.48E+01	4.77E+01	7.52E+01
P	3.80E+00	5.31E+00	6.86E+00
S	1.42E+00	1.56E+00	1.60E+00
Z	1.34E+00	1.71E+00	1.70E+00
GAMF	9.07E-01	9.18E-01	9.32E-01
U	1.13E+01	2.00E+00	2.61E+00

SPECIES	MOLE FRACTIONS		
E-	3.23E-08	3.62E-06	1.81E-06
HF	1.46E-01	1.16E-01	9.11E-02
HF+	3.55E-24	1.23E-21	5.47E-12
HF++	9.16E-68	6.09E-61	2.76E-56
H	5.39E-01	8.35E-01	8.83E-01
H+	3.23E-08	2.62E-06	1.81E-06
H2	3.17E-01	4.80E-02	4.33E-02

Table II. - Continued

p_1 = 50 N/m^2

P1 = 5.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2990E+02	2.6570E+03	3.7055E+03
T	1.2179E+01	2.0638E+01	3.1701E+01
RHO	1.3113E+01	6.4936E+01	6.4696E+01
H	2.9170E+01	7.0648E+01	9.8583E+01
A	3.7755E+00	6.2695E+00	7.7071E+00
S	1.6401E+00	1.5015E+00	1.6548E+00
Z	1.4390E+00	1.7815E+00	1.8067E+00
GAME	8.1942E-01	1.0426E+00	1.0271E+00
U	1.2145E+01	2.2946E+00	2.0865E+00

SPECIES	MOLE FRACTIONS		
E-	7.9151E-08	3.7376E-05	4.3543E-03
HE	1.3898E-01	1.1226E-01	1.1070E-01
HE+	2.0557E-23	6.5618E-14	1.5159E-08
HE++	1.6086E-86	1.2640E-50	8.3106E-32
H	4.1018E-01	8.7726E-01	8.7096E-01
H+	7.9151E-08	3.7376E-05	4.3543E-03
H2	2.5986E-01	1.0690E-02	4.2705E-04

P1 = 5.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2811E+02	2.3717E+03	5.6133E+03
T	1.6071E+01	2.5098E+01	4.4444E+01
RHO	1.3981E+01	5.1310E+01	6.5507E+01
H	5.6863E+01	9.8074E+01	1.2635E+02
A	4.6726E+00	7.0176E+00	8.4838E+00
S	1.4103E+00	1.7701E+00	1.7548E+00
Z	1.6665E+00	1.8254E+00	1.9069E+00
GAME	8.5474E-01	9.5610E-01	8.9539E-01
U	1.6489E+01	2.0154E+00	2.0633E+00

SPECIES	MOLE FRACTIONS		
E-	1.5965E-07	1.4203E-03	5.6184E-03
HE	1.1550E-01	1.0256E-01	1.0487E-01
HE+	2.5619E-20	2.6448E-07	1.0450E-05
HE++	1.0154E-72	1.0500AE-27	1.5813E-21
H	8.8014E-01	8.6417E-01	7.8242E-01
H+	1.5965E-07	1.4203E-03	5.6178E-03
H2	7.0875E-02	2.7007E-04	1.2752E-04

P1 = 5.00E+01 N/SQ-M, US1= 1.70E+06 M/SEC

	MOVING SHOCK	STANDING SHOCK	DEFLECTED SHOCK
P	2.3957E+02	2.7621E+02	6.2819E+02
T	1.2698E+01	2.6068E+01	3.7676E+01
RHO	1.3562E+01	5.8576E+01	6.3856E+01
H	4.6107E+01	7.0222E+01	1.0128E+02
A	2.9702E+00	7.2262E+00	8.0679E+00
S	1.5156E+00	1.6235E+00	1.5017E+00
Z	1.5129E+00	1.7590E+00	1.8213E+00
GAME	8.2117E-01	1.1150E+00	9.6381E-01
U	1.7024E+01	2.5722E+00	2.6757E+00

SPECIES	----------- MOLE	FRACTIONS	-----------
E-	1.0556E-08	6.6321E-06	1.7756E-02
HE	1.3220E-01	1.1126E-01	1.0021E-01
HE+	1.7766E-22	1.2271E-10	4.8055E-07
HE++	2.8070E-33	1.3362E-20	2.3665E-26
H	4.7705E-01	8.8547E-01	8.5589E-01
H+	1.0506E-08	6.6021E-06	1.7352E-02
H2	1.8086E-01	1.7785E-02	2.7795E-06

P1 = 5.00E+01 N/SQ-M, US1= 1.80E+06 M/SEC

	MOVING SHOCK	STANDING SHOCK	DEFLECTED SHOCK
P	2.0170E+02	2.3626E+02	5.0282E+02
T	1.3386E+01	3.1517E+01	4.1518E+01
RHO	1.2820E+01	5.2748E+01	6.4899E+01
H	5.0338E+01	8.8356E+01	1.1278E+02
A	6.1546E+00	7.6700E+00	8.2680E+00
S	1.5627E+00	1.6695E+00	1.7260E+00
Z	1.5855E+00	1.8077E+00	1.8641E+00
GAME	8.2258E-01	1.0222E+00	9.0277E-01
U	1.2226E+01	3.5221E+00	2.7126E+00

SPECIES	----------- MOLE	FRACTIONS	-----------
E-	5.1808E-08	[illegible]	3.6516E-02
HE	1.2083E-01	1.1047E-01	1.0717E-01
HE+	1.0072E-21	1.6511E-08	2.1210E-06
HE++	[illegible]	[illegible]	1.5655E-22
H	2.6174E-01	7.7573E-01	8.7142E-01
H+	5.1808E-08	[illegible]	3.5611E-02
H2	1.2264E-01	[illegible]	1.7621E-06

P1 = 5.00E+01 N/SQ-M, US1= 2.00E+06 M/SEC

	MOVING SHOCK	STANDING SHOCK	DEFLECTED SHOCK
P	2.5047E+02	2.6265E+02	6.0375E+03
T	1.5266E+01	3.5692E+01	4.7224E+01
RHO	1.3562E+01	4.9705E+01	6.5514E+01
H	5.0664E+01	1.2822E+02	1.3898E+02
A	4.9070E+00	9.1657E+00	9.9841E+00
S	1.6572E+00	1.7310E+00	1.7862E+00
Z	1.7285E+00	1.8530E+00	1.0514E+00
GAME	9.0852E-01	9.1160E-01	8.7583E-01
U	1.5222E+01	4.1527E+00	3.9694E+00

SPECIES	----------- MOLE	FRACTIONS	-----------
E-	7.6767E-07	2.8791E-02	7.7704E-02
HE	1.1587E-01	1.0703E-01	1.0246E-01
HE+	1.3095E-10	1.4440E-06	2.5022E-05
HE++	1.2050E-40	6.5925E-15	3.7545E-20
H	8.4066E-01	8.3632E-01	7.4293E-01
H+	7.6767E-07	2.8705E-02	7.7470E-02
H2	1.5310E-02	1.7097E-06	9.6473E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.10E+06 M/SEC

	MOVING SHOCK	STANDING SHOCK	DEFLECTED SHOCK
P	2.0260E+02	2.7006E+02	6.0471E+02
T	1.7606E+01	4.2156E+01	4.9190E+01
RHO	1.2522E+01	6.6521E+01	5.1744E+01
H	4.6717E+01	1.1857E+02	1.5123E+02
A	5.7632E+00	9.4062E+00	9.2655E+00
S	1.7908E+00	1.7661E+00	1.8203E+00
Z	1.7252E+00	1.8845E+00	1.0976E+00
GAME	1.0516E+00	9.9810E-01	8.7010E-01
U	1.5872E+01	4.7584E+00	4.0230E+00

SPECIES	----------- MOLE	FRACTIONS	-----------
E-	9.6300E-06	4.5095E-02	9.4902E-02
HE	1.1000E-01	1.0601E-01	1.0007E-01
HE+	5.1051E-14	6.7763E-06	4.7250E-05
HE++	2.0511E-50	7.0666E-33	2.6286E-19
H	8.7056E-01	8.3106E-01	7.0187E-01
H+	9.6300E-06	4.5984E-02	9.8045E-02
H2	8.0107E-03	1.1506E-06	7.2261E-05

Table II. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.005E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	[illegible]
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
M	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAMF	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	[illegible]	[illegible]
HE	[illegible]	[illegible]	[illegible]
HE+	[illegible]	[illegible]	[illegible]
HE++	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	[illegible]	[illegible]	[illegible]

P1 = 5.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.287E+02	2.8181E+03	5.8504E+03
T	1.2452E+01	6.5458E+01	5.5099E+01
RHO	9.0307E+00	3.7539E+01	4.8289E+01
M	9.2586E+01	1.6342E+02	2.0180E+02
A	7.4443E+00	9.3560E+00	1.0227E+01
S	1.8225E+00	1.8934E+00	1.9547E+00
Z	1.8271E+00	2.0545E+00	2.1988E+00
GAMF	9.2893E-01	8.4054E-01	8.6330E-01
U	1.8248E+01	4.3962E+00	4.2004E+00

SPECIES	MOLE FRACTIONS		
E-	1.4901E-02	1.2474E-01	1.8141E-01
HE	1.0946E-01	9.7188E-02	9.0702E-02
HE+	7.7448E-08	6.5143E-05	2.5502E-04
HE++	4.3280E-20	8.0934E-10	1.4548E-16
H	8.9066E-01	6.5324E-01	5.4648E-01
H+	1.4901E-02	1.2469E-01	1.8115E-01
H2	7.4244E-05	2.9055E-05	2.7409E-05

P1 = 5.00E+01 N/SQ-M, US1 = 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6955E+02	3.5057E+02	5.5264E+02
T	2.5596E+01	4.5643E+01	5.1564E+01
RHO	9.4735E+00	3.3843E+01	5.0854E+01
H	7.6526E+01	1.2047E+02	1.7649E+02
A	7.1157E+00	8.8659E+00	9.6891E+00
S	1.7764E+00	1.9330E+00	1.9555E+00
Z	1.8074E+00	1.0446E+00	2.0513E+00
GAMMA	1.0841E+00	8.6731E-01	8.5284E-01
U	1.6984E+01	4.3167E+00	4.0035E+00

SPECIES	------------- MOLE	FRACTIONS	-------------
F-	1.5193E-02	8.2747E-02	1.3035E-01
HE	1.1053E-01	1.3170E-01	5.5519E-02
HE+	2.7756E-13	2.1142E-05	1.1374E-04
HE++	6.8306E-36	1.3452E-20	7.1527E-18
H	8.8540E-01	7.3052E-01	6.2576E-01
H+	1.5193E-02	8.2766E-02	1.3024E-01
H2	3.0856E-06	1.1277E-05	4.2524E-05

P1 = 5.00E+01 N/SQ-M, US1 = 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9227E+02	6.1244E+02	6.2770E+03
T	3.5028E+01	6.1267E+01	5.6896E+01
RHO	8.0015E+00	2.8249E+01	4.8815E+01
H	1.0112E+02	1.7681E+02	2.1737E+02
A	7.6065E+00	9.6412E+00	1.0543E+01
S	1.8677E+00	1.0227E+00	1.9863E+00
Z	1.8591E+00	2.1094E+00	2.2601E+00
GAMMA	8.9322E-01	8.5593E-01	8.6450E-01
U	1.8900E+01	4.4442E+00	4.2836E+00

SPECIES	------------- MOLE	FRACTIONS	-------------
F-	2.4594E-02	1.4433E-01	2.0359E-01
HE	1.0816E-01	9.4749E-02	8.8107E-02
HE+	2.6171E-07	1.0775E-04	3.8577E-04
HE++	1.3451E-27	5.1843E-18	6.6900E-16
H	8.1860E-01	6.1257E-01	5.0470E-01
H+	2.4594E-02	1.4421E-01	2.0320E-01
H2	5.0095E-05	3.2178E-05	2.2275E-05

P1 = [illegible] N/SQ-M, US1 = 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9835E+02	3.5590E+02	5.5833E+02
T	3.0656E+01	4.7576E+01	5.2445E+01
RHO	5.7783E+00	3.7590E+01	4.8774E+01
H	8.6386E+01	1.5074E+02	1.9752E+02
A	7.3060E+00	9.5033E+00	5.9444E+00
S	1.7609E+00	1.8839E+00	1.0234E+00
Z	1.9100E+00	2.0087E+00	2.1633E+00
GAMMA	9.3264E-01	8.6346E-01	8.6755E-01
U	1.7657E+01	4.3457E+00	4.1363E+00

SPECIES	------------- MOLE	FRACTIONS	-------------
F-	[illegible]	[illegible]	[illegible]
HE	[illegible]	[illegible]	[illegible]
HE+	[illegible]	[illegible]	[illegible]
HE++	[illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
H+	[illegible]	[illegible]	[illegible]
H2	1.7927E-05	[illegible]	[illegible]

P1 = [illegible] N/SQ-M, US1 = 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2955E+02	6.5219E+02	6.8069E+02
T	3.7008E+01	5.3075E+01	5.8743E+01
RHO	9.0552E+00	3.0170E+01	4.9849E+01
H	1.1900E+02	1.9057E+02	2.3392E+02
A	7.7855E+00	9.5288E+00	1.0875E+01
S	1.9714E+00	1.9515E+00	2.0174E+00
Z	1.9756E+00	2.1636E+00	2.3239E+00
GAMMA	8.7331E-01	8.6024E-01	8.6633E-01
U	1.9730E+01	4.5247E+00	4.3770E+00

SPECIES	------------- MOLE	FRACTIONS	-------------
F-	4.0260E-02	1.6093E-01	2.2565E-01
HE	1.0664E-01	9.2274E-02	8.5492E-02
HE+	1.0117E-06	1.7152E-04	5.7122E-04
HE++	4.5246E-25	2.8038E-17	2.8212E-1[illegible]
H	8.1270E-01	5.7144E-01	4.6350E-01
H+	4.0269E-02	1.6735E-01	2.2488E-0[illegible]
H2	2.8356E-05	2.6728E-05	1.8154E-05

Table II. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7493E+02	4.9557E+03	7.4120E+03
T	3.8724E+01	5.4876E+01	6.0444E+01
RHO	6.1765E-00	4.0663E+01	5.1129E+01
M	1.1719E+02	2.0579E+02	2.5137E+02
A	7.9722E+00	1.0244E+01	1.1222E+01
S	1.8949E+00	1.9904E+00	2.0486E+00
Z	1.9051E+00	2.2219E+00	2.3905E+00
GAME	8.4115E-01	8.4132E-01	8.4864E-01
U	2.0502E+01	4.6300E+00	6.4815E+00

SPECIES	MOLE FRACTIONS		
E-	5.5182E-03	1.8957E-01	2.4702E-01
NE	1.0498E-01	8.9788E-02	8.2872E-02
NE+	2.3950E-06	2.6387E-06	8.3603E-06
NE++	1.5327E-26	1.4356E-24	1.1492E-24
N	7.8662E-01	5.2105E-01	4.2311E-01
N+	5.5180E-03	1.8931E-01	2.4619E-01
N2	3.0493E-05	2.2248E-05	1.4727E-05

P1 = 5.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9122E+02	7.0201E+03	1.0433E+04
T	4.6190E+01	6.2105E+01	6.9788E+01
RHO	8.8546E+00	6.4384E+01	8.4455E+01
M	1.3790E+02	2.7133E+02	3.3610E+02
A	8.7428E+00	1.1557E+01	1.2734E+01
S	1.9800E+00	2.0875E+00	2.1758E+00
Z	2.0546E+00	2.4710E+00	2.6771E+00
GAME	8.4518E-01	8.4003E-01	8.4984E-01
U	2.3627E+01	5.0643E+00	6.9761E+00

SPECIES	MOLE FRACTIONS		
E-	1.2022E-01	2.2182E-01	2.7746E-01
NE	9.7722E-02	7.5728E-02	7.1774E-02
NE+	2.2201E-05	1.1706E-03	2.2222E-03
NE++	5.8408E-21	2.4707E-14	2.0757E-13
N	6.6162E-01	3.7465E-01	3.7222E-01
N+	1.2020E-01	2.2044E-01	2.2427E-01
N2	1.5149E-05	1.0222E-05	5.2065E-06

P1 = 5.00E+01 N/SQ-M; US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.27E+02	5.63E+03	8.08E+03
T	4.03E+01	8.46E+01	6.29E+01
RHO	9.32E+00	4.70E+01	5.78E+01
H	1.28E+02	2.21E+02	2.60E+02
A	8.18E+00	1.05E+01	1.15E+01
S	1.91E+00	2.00E+00	2.08E+00
Z	1.93E+00	2.28E+00	2.45E+00
GAME	8.54E-01	8.62E-01	8.71E-01
U	2.12E+01	4.72E+00	4.59E+00

SPECIES	MOLE FRACTIONS		
E-	7.08E-07	2.10E-01	2.68E-01
HE	1.92E-01	8.72E-02	8.01E-02
HE+	4.71E-06	3.94E-06	1.20E-05
HE++	1.93E-12	4.66E-13	4.43E-13
H	7.56E-01	4.99E-01	3.85E-01
H+	7.08E-02	2.19E-01	2.65E-01
H2	2.50E-05	1.85E-05	1.18E-05

P1 = 5.00E+01 N/SQ-M; US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.89E+02	5.87E+03	8.81E+03
T	4.24E+01	8.87E+01	6.45E+01
RHO	9.49E+00	4.78E+01	5.30E+01
H	1.36E+02	2.37E+02	2.88E+02
A	8.35E+00	1.08E+01	1.19E+01
S	1.94E+00	2.03E+00	2.11E+00
Z	1.97E+00	2.34E+00	2.52E+00
GAME	8.69E-01	8.64E-01	8.76E-01
U	2.30E+01	4.83E+00	4.71E+00

SPECIES	MOLE FRACTIONS		
E-	8.71E-07	2.22E-01	2.88E-01
HE	1.91E-01	8.47E-02	7.73E-02
HE+	8.68E-06	7.77E-06	1.7E
HE++	1.44E-12	4.65E-13	1.4
H	7.36E-01	4.61E-01	3.6E-1
H+	8.71E-02	2.31E-01	2.84E-1
H2	2.95E-05	1.53E-05	9.43E-06

P1 = 5.00E+01 N/SQ-M; US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.00E+02	9.26E+03	1.20E+04
T	4.55E+01	4.59E+01	7.33E+01
RHO	1.03E+01	4.84E+01	5.08E+01
H	1.72E+02	2.07E+02	3.32E+02
A	9.13E+00	1.23E+01	1.38E+01
S	2.03E+00	2.15E+00	2.36E+00
Z	2.13E+00	2.41E+00	2.80E+00
GAME	8.65E-01	8.37E-01	8.87E-01
U	2.52E+01	5.38E+00	5.29E+00

SPECIES	MOLE FRACTIONS		
E-	1.55E-01	3.00E-01	3.43E-01
HE	5.30E-02	7.66E-02	6.63E-02
HE+	6.00E-06	7.25E-06	6.63E-06
HE++	1.08E-12	4.13E-13	4.27E-13
H	5.58E-01	3.04E-01	2.08E-01
H+	1.73E-01	3.07E-01	3.58E-01
H2	1.12E-05	4.41E-06	2.21E-06

P1 = 5.00E+01 N/SQ-M; US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.13E+03	9.77E+03	1.47E+04
T	4.84E+01	4.92E+01	7.92E+01
RHO	1.05E+01	4.99E+01	5.13E+01
H	1.92E+02	2.67E+02	4.16E+02
A	9.66E+00	1.30E+01	1.46E+01
S	2.08E+00	2.22E+00	2.39E+00
Z	2.21E+00	2.76E+00	3.30E+00
GAME	8.58E-01	8.22E-01	8.78E-01
U	2.67E+01	5.61E+00	5.57E+00

SPECIES	MOLE FRACTIONS		
E-	1.84E-01	3.64E-01	3.95E-01
HE	9.03E-02	8.57E-02	8.61E-02
HE+	6.43E-06	7.17E-06	1.17E-05
HE++	1.21E-12	4.34E-13	3.68E-13
H	5.34E-01	2.63E-01	1.82E-01
H+	1.91E-01	3.23E-01	3.72E-01
H2	9.36E-06	4.03E-06	1.65E-06

Table II. - Continued

p_1 = 50 N/m^2

P1 = 5.000E+01 N/SQ-M, US1= 7.805E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.265[illegible]E+07	1.115[illegible]E+06	1.426[illegible]E+06
T	5.[illegible]E+01	7.[illegible]E+01	8.[illegible]E+01
RHO	1.[illegible]E+01	5.[illegible]E+01	6.[illegible]E+01
H	7.[illegible]E+07	3.[illegible]E+07	4.[illegible]E+07
A	9.[illegible]E+00	1.[illegible]E+01	1.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	2.30[illegible]E+00	2.[illegible]E+00	3.[illegible]E+00
GAME	8.[illegible]E-01	8.[illegible]E-01	9.[illegible]E-01
U	7.[illegible]E+01	5.[illegible]E+00	5.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.[illegible]E-01	2.[illegible]E-01	4.[illegible]E-01
HE	8.[illegible]E-01	6.[illegible]E-01	4.[illegible]E-01
HE+	1.[illegible]E-06	2.[illegible]E-01	1.[illegible]E-01
HE++	1.[illegible]E-17	2.[illegible]E-11	2.[illegible]E-09
H	4.[illegible]E-01	1.[illegible]E-01	1.[illegible]E-01
H+	2.[illegible]E-01	3.[illegible]E-01	4.[illegible]E-01
H2	4.[illegible]E-06	2.[illegible]E-06	7.[illegible]E-07

P1 = 5.000E+01 N/ [illegible]-M, US1= 6.[illegible]E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.[illegible]E+07	1.[illegible]E+06	2.[illegible]E+06
T	5.[illegible]E+01	8.[illegible]E+01	1.[illegible]E+02
RHO	1.[illegible]E+01	5.[illegible]E+01	6.[illegible]E+01
H	7.[illegible]E+07	5.[illegible]E+07	6.[illegible]E+07
A	1.[illegible]E+01	1.[illegible]E+01	1.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	2.[illegible]E+00	2.[illegible]E+00	3.[illegible]E+00
GAME	8.[illegible]E-01	8.[illegible]E-01	1.[illegible]E+00
U	7.[illegible]E+01	6.[illegible]E+00	7.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	3.[illegible]E-01	6.[illegible]E-01	6.[illegible]E-01
HE	7.[illegible]E-02	3.[illegible]E-02	4.[illegible]E-02
HE+	8.[illegible]E-06	3.[illegible]E-02	5.[illegible]E-02
HE++	3.[illegible]E-15	1.[illegible]E-08	2.[illegible]E-06
H	3.[illegible]E-0	6.[illegible]E-02	2.[illegible]E-02
H+	3.[illegible]E-01	6.[illegible]E-01	6.[illegible]E-01
H2	3.[illegible]E-06	2.[illegible]E-07	3.[illegible]E-08

P1 = 5.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4095E+03	1.2692E+04	1.8659E+04
T	5.2862E+01	7.8633E+01	9.0153E+01
RHO	1.1102E+01	5.3427E+01	6.3416E+01
H	2.3901E+02	4.2015E+02	5.2198E+02
A	1.0383E+01	1.4548E+01	1.6628E+01
S	2.1866E+00	2.3374E+00	2.4766E+00
Z	2.5315E+00	3.0176E+00	3.2637E+00
GAMF	8.4929E-01	8.9630E-01	9.1725E-01
U	2.9976E+01	4.1931E+00	4.3652E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	2.5066E-01	4.0350E-01	4.4847E-01
HE	8.3977E-02	5.3681E-02	3.0729E-02
HE+	3.0573E-06	1.2796E-02	2.0542E-02
HE++	9.3777E-17	3.1413E-10	2.1275E-08
H	4.1619E-01	1.3951E-01	7.2319E-02
H+	2.5316E-01	3.9070E-01	4.1793E-01
H2	4.4850E-06	1.2200E-06	3.3063E-07

P1 = 5.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5560E+03	1.4278E+04	2.1118E+04
T	5.4063E+01	8.3358E+01	9.8747E+01
RHO	1.1377E+01	5.4400E+01	6.3249E+01
H	2.4369E+02	4.7383E+02	5.7001E+02
A	1.0827E+01	1.5384E+01	1.7814E+01
S	2.2381E+00	2.3577E+00	2.5017E+00
Z	2.5917E+00	3.1491E+00	3.3931E+00
GAMF	8.5280E-01	9.0176E-01	9.5103E-01
U	3.1463E+01	4.5523E+00	4.8429E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	2.8050E-01	4.2833E-01	4.4651E-01
HE	7.9539E-02	4.3034E-02	1.7132E-02
HE+	5.1455E-06	2.0536E-02	4.1811E-02
HE++	4.3470E-16	3.4070E-09	3.0858E-07
H	3.3057E-01	1.0053E-01	4.2848E-02
H+	2.7598E-01	4.0771E-01	4.2770E-01
H2	3.1932E-06	6.0110E-07	1.1092E-07

P1 = 5.00E+01 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8722E+03	1.7502E+04	2.5816E+04
T	5.9287E+01	9.5578E+01	1.2000E+02
RHO	1.1645E+01	5.6171E+01	5.7861E+01
H	3.1600E+02	5.6885E+02	7.1493E+02
A	1.1772E+01	1.7459E+01	2.2648E+01
S	2.3470E+00	2.5142E+00	2.6318E+00
Z	2.7115E+00	3.3035E+00	3.6550E+00
GAMF	8.6159E-01	9.6352E-01	1.1087E+00
U	3.3550E+01	7.6397E+00	8.7166E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	3.2627E-01	4.4802E-01	4.5529E-01
HE	7.3350E-02	1.9558E-02	1.7185E-02
HE+	1.3985E-02	4.0152E-02	5.6306E-02
HE++	2.3023E-14	1.2663E-07	7.6785E-05
H	2.5513E-01	4.5042E-02	8.1780E-03
H+	3.2687E-01	4.2785E-01	4.4963E-01
H2	1.6461E-06	1.0376E-07	2.6425E-09

P1 = 5.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0601E+03	1.9022E+04	2.9068E+04
T	6.1440E+01	1.0434E+02	1.5446E+02
RHO	1.1774E+01	5.2499E+01	5.4031E+01
H	3.4503E+02	6.1369E+02	7.3773E+02
A	1.2281E+01	1.9005E+01	2.4310E+01
S	2.3955E+00	2.5701E+00	2.4808E+00
Z	2.9201E+00	3.5771E+00	3.5015E+00
GAMF	8.4742E-01	9.0423E-01	1.0055E+00
U	2.6278E+01	3.0712E+00	1.0019E+01

SPECIES	------------ MOLE FRACTIONS	------------	
E-	3.6172E-01	4.8022E-01	4.9882E-01
HE	6.8610E-02	9.2151E-03	5.5448E-06
HE+	3.3064E-02	4.3303E-02	5.2767E-02
HE++	1.4346E-13	1.3395E-06	1.2626E-03
H	3.0752E-01	2.4122E-02	3.1500E-03
H+	3.5643E-01	4.2635E-01	4.4223E-01
H2	9.3546E-07	3.3320E-08	3.1782E-10

Table II. - Continued

p_1 = 50 N/m^2

P1 = 5.000E+01 N/SQ-M, US1= 5.000E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2143E+03	2.6436E+04	3.3069E+04
T	6.6188E+01	1.1409E+02	1.7851E+02
RHO	1.1779E+01	4.9648E+01	5.2017E+01
M	3.7223E+02	4.6947E+02	8.7085E+02
P	1.2814E+01	2.0584E+01	2.5217E+01
S	2.4491E+00	3.4222E+00	3.7390E+00
Z	3.9287E+00	3.5404E+00	3.4200E+00
GAME	8.7373E-01	1.0686E+00	1.0088E+00
U	3.7804E+01	8.9769E+00	1.0999E+01

SPECIES	MOLE FRACTIONS		
E-	3.8539E-01	4.0143E-01	5.0274E-01
HE	4.4476E-02	3.5401E-02	2.7891E-04
HE+	3.8135E-02	5.2077E-02	4.7671E-02
HE++	8.8222E-13	1.0440E-05	7.4981E-03
H	1.4474E-01	1.2227E-02	1.7004E-03
H+	3.8158E-01	4.3847E-01	4.4029E-01
H2	5.6998E-07	6.6599E-09	8.1574E-11

P1 = 5.000E+01 N/SQ-M, US1= 5.405E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3744E+03	2.8741E+04	4.1362E+04
T	7.3527E+01	1.4600E+02	2.2279E+02
RHO	1.1468E+01	4.9145E+01	4.9715E+01
M	4.0784E+02	5.2784E+02	1.1018E+03
P	1.4553E+01	2.4724E+01	2.8954E+01
S	2.4076E+00	3.2555E+00	2.8439E+00
Z	3.9771E+00	3.6077E+00	3.7438E+00
GAME	8.8074E-01	1.0335E+00	1.0071E+00
U	4.2964E+01	1.2190E+01	1.2892E+01

SPECIES	MOLE FRACTIONS		
E-	4.6354E-01	5.0100E-01	5.1920E-01
HE	4.4853E-02	3.0154E-04	4.2604E-05
HE+	1.4033E-02	5.1046E-02	1.4301E-02
HE++	2.4564E-10	4.0544E-03	3.0078E-02
H	4.7745E-02	1.7857E-03	6.2934E-04
H+	4.2701E-01	4.4177E-01	4.7675E-01
H2	7.4733E-09	7.2520E-11	9.7079E-12

P1 = 5.00E+01 N/SQ-M,   US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2948E+02	2.1586E+04	3.5878E+04
T	6.6985E+01	1.2135E+02	1.9125E+02
RHO	1.1777E+01	4.5994E+01	5.1240E+01
H	4.0361E+02	7.2088E+02	9.4595E+02
A	1.3375E+01	2.2902E+01	2.5987E+01
S	2.5023E+00	2.6709E+00	2.7819E+00
Z	2.3358E+00	2.5737E+00	2.6596E+00
GAMF	8.7975E-01	1.1173E+00	9.4685E-01
U	2.9098E+01	1.0010E+01	1.1651E+01

SPECIES	------------ MOLE FRACTIONS ------------		
F-	4.0707E-01	4.9437E-01	5.0814E-01
HE	5.9515E-02	1.2794E-02	1.6341E-04
HE+	4.3664E-02	5.6560E-02	3.6868E-02
HE++	5.6625E-12	1.1517E-04	1.7415E-02
H	1.2674E-01	6.1825E-03	1.1465E-02
H+	6.0072E-01	4.4153E-01	4.3606E-01
H2	3.9622E-07	1.1915E-09	2.6276E-11

P1 = 5.00E+01 N/SQ-M,   US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5814E+02	2.3453E+04	3.8618E+04
T	7.0980E+01	1.4817E+02	2.0571E+02
RHO	1.1734E+01	4.2995E+01	5.0699E+01
H	4.3515E+02	7.7731E+02	1.0214E+03
A	1.3054E+01	2.4335E+01	2.7190E+01
S	2.5551E+00	2.7146E+00	2.8322E+00
Z	2.1302E+00	2.5092E+00	2.7027E+00
GAMF	8.9462E-01	1.1324E+00	9.4584E-01
U	4.0808E+01	1.1176E+01	1.2279E+01

SPECIES	------------ MOLE FRACTIONS ------------		
F-	4.2640E-01	4.9847E-01	5.1287E-01
HE	5.3162E-02	5.5835E-06	6.1402E-05
HE+	1.0546E-02	5.4256E-02	2.5221E-02
HE++	2.3303E-11	3.9092E-06	2.8722E-02
H	2.3462E-02	3.3320E-03	8.6260E-04
H+	6.1504E-01	4.6759E-01	4.3125E-01
H2	1.5531E-07	2.6705E-10	1.3127E-11

P1 = 5.00E+01 N/SQ-M,   US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9737E+02	2.5026E+04	4.4222E+04
T	7.7256E+01	1.7731E+02	2.4235E+02
RHO	1.1550E+01	3.8816E+01	4.8158E+01
H	5.0173E+02	9.8538E+02	1.1891E+03
A	1.5206E+01	2.5106E+01	3.1339E+01
S	2.4580E+00	2.7930E+00	2.9024E+00
Z	2.3284E+00	2.6236E+00	2.7735E+00
GAMF	9.0780E-01	9.7831E-01	1.0695E+00
U	4.3530E+01	1.2966E+01	1.3728E+01

SPECIES	------------ MOLE FRACTIONS ------------		
F-	4.5970E-01	5.0462E-01	5.2299E-01
HE	3.4481E-02	1.8915E-04	1.5500E-05
HE+	2.5408E-02	4.4706E-02	6.5547E-03
HE++	1.5555E-06	1.0549E-02	4.6431E-02
H	6.4013E-03	1.7184E-03	4.3822E-04
H+	4.3390E-01	4.3913E-01	4.2357E-01
H2	3.3613E-08	3.1155E-11	4.4337E-12

P1 = 5.00E+01 N/SQ-M,   US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1783E+02	2.6241E+04	4.7096E+04
T	8.1700E+01	1.8317E+02	2.7110E+02
RHO	1.1338E+01	3.7850E+01	4.5817E+01
H	5.3474E+02	9.4537E+02	1.2879E+03
A	1.5937E+01	2.5785E+01	3.4021E+01
S	2.7062E+00	2.8300E+00	2.9677E+00
Z	2.4126E+00	2.6478E+00	2.7896E+00
GAMF	9.1580E-01	9.8535E-01	1.1262E+00
U	4.4670E+01	1.3516E+01	1.4843E+01

SPECIES	------------ MOLE FRACTIONS ------------		
F-	4.3361E-01	5.0525E-01	5.2501E-01
HE	2.3580E-02	1.1970E-06	4.2458E-06
HE+	2.5020E-02	3.4880E-02	2.6626E-03
HE++	9.3585E-06	1.5733E-02	5.0310E-02
H	3.1609E-03	9.0416E-04	2.8540E-04
H+	4.3778E-01	4.3535E-01	4.2193E-01
H2	1.3740E-08	1.6300E-11	1.7763E-12

Table II. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.39[illegible]E+03	2.72[illegible]E+04	4.96[illegible]E+04
T	8.73[illegible]E+01	2.70[illegible]E+02	3.03[illegible]E+02
RHO	1.11[illegible]E+01	3.47[illegible]E+01	4.20[illegible]E+01
H	5.73[illegible]E+02	1.00[illegible]E+03	1.28[illegible]E+03
A	1.70[illegible]E+01	3.47[illegible]E+01	3.46[illegible]E+01
S	2.75[illegible]E+00	2.86[illegible]E+00	2.98[illegible]E+00
Z	3.69[illegible]E+00	3.70[illegible]E+00	3.79[illegible]E+00
GAMF	9.[illegible]E-01	9.66[illegible]E-01	1.15[illegible]E+00
U	4.63[illegible]E+01	1.60[illegible]E+01	1.61[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.83[illegible]E-01	5.16[illegible]E-01	5.25[illegible]E-01
HE	1.23[illegible]E-02	7.13[illegible]E-05	1.17[illegible]E-04
HE+	4.41[illegible]E-02	2.50[illegible]E-02	9.36[illegible]E-04
HE++	4.37[illegible]E-04	2.89[illegible]E-02	5.17[illegible]E-02
H	1.[illegible]E-02	4.[illegible]E-04	1.84[illegible]E-04
H+	4.[illegible]E-01	4.[illegible]E-01	4.[illegible]E-01
H2	4.[illegible]E-02	0.[illegible]E-12	6.[illegible]E-12

P1 = 5.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.00[illegible]E+03	2.71[illegible]E+04	5.12[illegible]E+04
T	1.17[illegible]E+02	2.64[illegible]E+02	4.02[illegible]E+02
RHO	9.67[illegible]E+00	2.98[illegible]E+01	3.34[illegible]E+01
H	8.84[illegible]E+02	1.18[illegible]E+03	1.47[illegible]E+03
A	2.18[illegible]E+01	3.16[illegible]E+01	4.21[illegible]E+01
S	2.88[illegible]E+00	2.97[illegible]E+00	3.09[illegible]E+00
Z	3.58[illegible]E+00	3.78[illegible]E+00	3.79[illegible]E+00
GAMF	1.13[illegible]E+00	1.08[illegible]E+00	1.16[illegible]E+00
U	4.99[illegible]E+01	1.58[illegible]E+01	1.97[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	4.99[illegible]E-01	5.23[illegible]E-01	5.26[illegible]E-01
HE	4.38[illegible]E-04	7.17[illegible]E-06	5.25[illegible]E-08
HE+	5.50[illegible]E-03	4.74[illegible]E-03	1.27[illegible]E-04
HE++	7.44[illegible]E-05	4.81[illegible]E-02	5.25[illegible]E-02
H	2.60[illegible]E-03	2.84[illegible]E-04	6.13[illegible]E-08
H+	4.62[illegible]E-01	4.72[illegible]E-01	4.21[illegible]E-01
H2	4.19[illegible]E-11	1.16[illegible]E-12	5.50[illegible]E-14

P1 = [illegible] N/SQ-M, US1= [illegible] M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	[illegible]
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
M	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAMMA	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	---------- MOLE FRACTIONS ----------		
E-	[illegible]	[illegible]	[illegible]
HE	[illegible]	[illegible]	[illegible]
HE+	[illegible]	[illegible]	[illegible]
HE++	[illegible]	[illegible]	[illegible]
N	[illegible]	[illegible]	[illegible]
N+	[illegible]	[illegible]	[illegible]
N2	[illegible]	[illegible]	[illegible]

P1 = 5.000E+01 N/SQ-M, US1= 7.000E+06 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2133E+03	2.6777E+04	5.1426E+04
T	1.3072E+03	2.5787E+02	4.3747E+02
RHO	8.9410E+00	2.7396E+01	2.0038E+01
M	7.2478E+02	1.2467E+02	1.7798E+02
A	2.2918E+01	3.2164E+01	4.2963E+01
S	2.9226E+00	3.0130E+00	3.1236E+00
Z	3.5065E+00	3.7906E+00	3.7995E+00
GAMMA	1.1172E+00	1.1240E+00	1.1628E+00
U	6.1106E+01	1.6726E+01	2.0829E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.3991E-01	5.2811E-01	5.2624E-01
HE	2.6284E-04	2.7712E-04	2.7277E-04
HE+	5.6800E-03	7.2353E-03	8.1844E-03
HE++	5.7830E-04	5.0427E-02	5.2456E-02
N	1.2591E-03	2.0324E-04	4.8712E-05
N+	4.6367E-01	4.2192E-01	4.2104E-01
N2	5.7706E-13	5.3511E-13	2.7477E-14

P1 = 5.000E+01 N/SQ-M, US1= 5.600E+06 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	[illegible]	[illegible]
T	[illegible]	[illegible]	[illegible]
RHO	[illegible]	[illegible]	[illegible]
M	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
S	[illegible]	[illegible]	[illegible]
Z	[illegible]	[illegible]	[illegible]
GAMMA	[illegible]	[illegible]	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	---------- MOLE FRACTIONS ----------		
E-	[illegible]	[illegible]	[illegible]
HE	[illegible]	[illegible]	[illegible]
HE+	[illegible]	[illegible]	[illegible]
HE++	[illegible]	[illegible]	[illegible]
N	[illegible]	[illegible]	[illegible]
N+	[illegible]	[illegible]	[illegible]
N2	[illegible]	[illegible]	[illegible]

Table II. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6294E+01	6.5048E+01
T	3.1753E+00	3.9838E+00	5.6980E+00
RHO	3.9601E+00	6.6009E+00	1.1414E+01
M	3.2467E+00	4.1057E+00	4.0138E+00
A	1.7739E+00	1.9749E+00	2.3227E+00
S	1.0564E+00	1.0587E+00	1.0751E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.9100E-01	9.8106E-01	9.5488E-01
U	2.4570E+00	1.4729E+00	1.3067E+00

SPECIES	MOLE FRACTIONS		
E-	1.2494E-50	7.0286E-28	3.7595E-22
HE	2.0000E-01	2.0000E-01	1.9997E-01
HE+	1.1267E-44	2.2446E-57	4.2698E-48
HE++	0.	0.	0.
H	1.2371E-08	3.9537E-07	2.8530E-06
H+	7.2402E-20	7.2402E-20	7.2748E-20
H2	8.0000E-01	8.0000E-01	7.9974E-01

P1 = 1.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9778E+01	1.5389E+02	2.4230E+02
T	7.2337E+00	9.1043E+00	1.0166E+01
RHO	5.6507E+00	1.6037E+01	2.4003E+01
M	8.1026E+00	1.2662E+01	1.5896E+01
A	2.6527E+00	2.7589E+00	2.9826E+00
S	1.1414E+00	1.1553E+00	1.1805E+00
Z	1.0056E+00	1.0220E+00	1.0291E+00
GAME	8.7703E-01	8.1877E-01	8.1003E-01
U	6.4598E+00	1.5633E+00	1.3832E+00

SPECIES	MOLE FRACTIONS		
E-	3.4424E-16	1.4546E-12	2.8726E-11
HE	1.9997E-01	1.9222E-01	1.8536E-01
HE+	1.1446E-28	6.7145E-21	2.8274E-28
HE++	0.	0.	0.
H	1.0696E-02	7.6891E-02	1.4662E-01
H+	3.4422E-16	1.4465E-12	2.8726E-11
H2	7.9328E-01	7.3098E-01	6.8934E-01

P1 = 1.00E+02 N/SQ-M,   US1= 5.00E+02 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2170E+01	1.1465E+02
T	4.4064E+00	5.8950E+00	7.7580E+00
RHO	4.4955E+00	8.8455E+00	1.4667E+01
H	4.5641E+00	6.2466E+00	8.8350E+00
A	2.0721E+00	2.3656E+00	2.6082E+00
S	1.0863E+00	1.0803E+00	1.1091E+00
Z	1.0000E+00	1.0003E+00	1.0074E+00
GAME	9.7535E-01	9.4905E-01	8.7037E-01
U	3.1953E+00	1.6233E+00	1.4119E+00

SPECIES	------------	MOLE FRACTIONS	------------
E-	2.8814E-34	1.9244E-20	4.0282E-15
HE	2.0000E-01	1.9994E-01	1.9856E-01
HE+	1.4773E-55	5.9346E-47	2.5780E-36
HE++	0.	0.	0.
H	5.0851E-06	5.5506E-04	1.4594E-02
H+	7.2402E-20	9.1746E-20	4.0283E-15
H2	8.0000E-01	7.9950E-01	7.8487E-01

P1 = 1.00E+02 N/SQ-M,   US1= 6.00E+02 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8770E+01	9.1705E+01	1.7692E+02
T	5.8331E+00	7.8138E+00	9.1260E+00
RHO	4.9313E+00	1.1432E+01	1.8737E+01
H	6.1773E+00	8.9036E+00	1.2040E+01
A	2.3522E+00	2.4070E+00	2.7874E+00
S	1.1165E+00	1.1217E+00	1.1631E+00
Z	1.0003E+00	1.0280E+00	1.0767E+00
GAME	9.4825E-01	8.4720E-01	8.2206E-01
U	2.9308E+00	1.5640E+00	1.6022E+00

SPECIES	------------	MOLE FRACTIONS	------------
E-	1.0467E-20	5.6301E-15	1.0809E-12
HE	1.9965E-01	1.6872E-01	1.0320E-01
HE+	8.7770E-57	3.1206E-34	1.3146E-21
HE++	0.	0.	0.
H	6.0774E-04	1.7736E-02	6.7687E-02
H+	5.2738E-20	5.6302E-15	1.0800E-12
H2	7.9655E-01	7.8606E-01	7.3637E-01

P1 = 1.00E+02 N/SQ-M,   US1= 8.00E+02 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2970E+01	2.5091E+02	3.5520E+02
T	8.2863E+00	1.0775E+01	1.1174E+01
RHO	6.2583E+00	2.2347E+01	3.1205E+01
H	1.0352E+01	1.6599E+01	2.0532E+01
A	2.6491E+00	3.0097E+00	3.2027E+00
S	1.1496E+00	1.1924E+00	1.2229E+00
Z	1.0370E+00	1.0890E+00	1.1589E+00
GAME	9.3756E-01	9.0032E-01	8.0095E-01
U	5.5255E+00	1.5466E+00	1.2866E+00

SPECIES	------------	MOLE FRACTIONS	------------
E-	7.7475E-16	6.7490E-11	3.1296E-10
HE	1.9552E-01	1.9346E-01	1.7562E-01
HE+	9.2581E-35	5.2675E-28	7.5350E-26
HE++	0.	0.	6.5398E-22
H	4.4716E-02	1.4247E-01	2.4372E-01
H+	7.7475E-16	6.7400E-11	3.1296E-10
H2	7.5976E-01	6.5287E-01	5.8065E-01

P1 = 1.00E+02 N/SQ-M,   US1= 9.00E+02 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8685E+01	2.6772E+02	5.7621E+02
T	9.7754E+00	1.1231E+01	1.2053E+01
RHO	7.1555E+00	2.9837E+01	3.6665E+01
H	1.2016E+01	2.1207E+01	2.5155E+01
A	2.7764E+00	3.2356E+00	3.4473E+00
S	1.1007E+00	1.2241E+00	1.2674E+00
Z	1.0713E+00	1.1514E+00	1.2114E+00
GAME	9.2337E-01	9.0072E-01	9.1277E-01
U	6.2482E+00	1.5248E+00	1.4114E+00

SPECIES	------------	MOLE FRACTIONS	------------
E-	1.7097E-13	4.1772E-10	2.1207E-09
HE	1.9095E-01	1.7745E-01	1.6507E-01
HE+	3.1159E-31	1.6585E-25	8.6095E-24
HE++	0.	0.	7.0846E-08
H	[illegible]	[illegible]	[illegible]
H+	1.7097E-13	4.1772E-10	2.1207E-09
H2	7.1136E-01	[illegible]	6.8647E-01

Table II. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5806E+01	5.4253E+02	8.1628E+02
T	9.6812E+00	1.2136E+01	1.2981E+01
RHO	8.1568E+00	3.7851E+01	4.8520E+01
M	1.8777E+01	2.4782E+01	2.1084E+01
A	2.9079E+00	3.4782E+00	3.7156E+00
S	1.2315E+00	1.2792E+00	1.2170E+00
Z	1.0874E+00	1.2248E+00	1.2958E+00
GAMF	8.0304E-01	8.1404E-01	8.2041E-01
U	7.2100E+00	1.5540E+00	1.4572E+00

SPECIES	MOLE FRACTIONS		
E-	1.3598E-11	2.5481E-09	1.0600E-08
HE	1.8798E-01	1.6339E-01	1.5434E-01
HE+	2.3785E-20	1.0879E-13	2.8422E-22
HE++	0.	4.1113E-07	1.0833E-01
H	1.6115E-01	2.4709E-01	6.5461E-01
H+	1.3598E-11	2.5481E-09	1.0600E-08
H2	6.5464E-01	4.6942E-01	2.8005E-01

P1 = 1.00E+02 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4934E+02	1.3281E+03	1.8613E+03
T	1.1274E+01	1.4545E+01	1.4799E+01
RHO	1.0789E+01	5.9704E+01	7.0712E+01
M	2.6128E+01	2.6307E+01	5.4492E+01
A	3.2388E+00	4.2500E+00	4.7855E+00
S	1.2421E+00	1.4310E+00	1.4821E+00
Z	1.2360E+00	1.4974E+00	1.4050E+00
GAMF	8.0447E-01	8.4430E-01	8.7007E-01
U	5.4935E+00	1.7503E+00	1.7433E+00

SPECIES	MOLE FRACTIONS		
E-	7.9996E-10	1.7052E-07	7.9813E-07
HE	1.4307E-01	1.2355E-01	1.2441E-01
HE+	2.0661E-25	2.5501E-19	1.2382E-17
HE++	0.	6.9246E-12	5.4274E-45
H	2.7079E-01	4.4456E-01	7.5385E-01
H+	7.9988E-10	1.7052E-07	7.9813E-07
H2	4.5844E-01	2.0191E-01	1.2150E-01

P1 = 1.00E+02 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0521E+02	7.8141E+02	1.1083E+03
T	1.0232E+01	1.2027E+01	1.3554E+01
RHO	9.0933E+00	6.5843E+01	5.7117E+01
M	1.8928E+01	3.2741E+01	3.8747E+01
A	3.0457E+00	3.7396E+00	4.0141E+00
S	1.2461E+00	1.3275E+00	1.3405E+00
Z	1.1307E+00	1.3079E+00	1.3209E+00
GAMF	8.0158E-01	8.2095E-01	8.3043E-01
U	8.0457E+00	1.5954E+00	1.5221E+00

SPECIES	MOLE FRACTIONS		
E-	4.9330E-11	1.1778E-08	6.6439E-08
HE	1.7489E-01	1.5307E-01	1.4383E-01
HE+	8.2019E-28	6.3273E-22	1.1325E-20
HE++	0.	1.8598E-81	4.5811E-76
H	2.3119E-01	4.7708E-01	5.4170E-01
H+	4.9337E-11	1.1778E-08	6.6439E-08
H2	5.9100E-01	3.7418E-01	3.0467E-01

P1 = 1.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7414E+02	1.4478E+03	2.2204E+03
T	1.1790E+01	1.6186E+01	1.8525E+01
RHO	1.1505E+01	8.6696E+01	7.2203E+01
M	2.3117E+01	5.3866E+01	6.2776E+01
A	3.6977E+00	4.7275E+00	5.4298E+00
S	1.2831E+00	1.4844E+00	1.5609E+00
Z	1.2934E+00	1.5007E+00	1.7140E+00
GAMF	8.0803E-01	8.4486E-01	9.2192E-01
U	1.0503E+01	1.8742E+00	1.9506E+00

SPECIES	MOLE FRACTIONS		
E-	2.2008E-08	6.4806E-07	5.4543E-06
HE	1.7461E-01	1.2507E-01	1.1548E-01
HE+	2.0012E-26	7.1466E-19	1.6446E-15
HE++	6.6474E-80	6.5737E-65	6.6088E-57
H	6.5705E-01	7.6807E-01	8.2316E-01
H+	2.2008E-08	6.4806E-07	5.4543E-06
H2	1.9146E-01	1.2516E-01	5.0143E-02

P1 = 1.00E+02 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2634E+02	1.0608E+03	1.6402E+03
T	1.0742E+01	1.3851E+01	1.5042E+01
RHO	9.0775E+00	7.3317E+01	6.4770E+01
M	2.2790E+01	4.0351E+01	4.6226E+01
A	3.3187E+00	4.0944E+00	4.3591E+00
S	1.3030E+00	1.3791E+00	1.4248E+00
Z	1.1704E+00	1.2003E+00	1.4044E+00
GAMF	8.0961E-01	8.3035E-01	8.4603E-01
U	9.8731E+00	1.6400E+00	1.6163E+00

SPECIES	MOLE FRACTIONS		
E-	2.5730E-10	4.4073E-08	1.8017E-07
HE	1.6855E-01	1.6203E-01	1.5788E-01
HE+	1.5740E-24	1.0831E-20	2.2672E-18
HE++	0.	7.1977E-76	1.1907E-70
H	3.0681E-01	5.2073E-01	6.1170E-01
H+	2.5730E-10	6.4073E-08	1.8017E-07
H2	5.2605E-01	2.8476E-01	2.0467E-01

1.00E+02 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0077E+02	2.0184E+03	2.9004E+03
T	1.2182E+01	1.7893E+01	2.3589E+01
RHO	1.2134E+01	6.6660E+01	6.8835E+01
M	2.4515E+01	6.1979E+01	7.5078E+01
A	3.6663E+00	5.2696E+00	6.7892E+00
S	1.4259E+00	1.5373E+00	1.6009E+00
Z	1.3580E+00	1.6976E+00	1.7862E+00
GAMF	8.1249E-01	9.1427E-01	1.0966E+00
U	1.1310E+01	2.0858E+00	2.4184E+00

SPECIES	MOLE FRACTIONS		
E-	5.5148E-09	3.3817E-06	1.4079E-04
HE	1.4727E-01	1.1782E-01	1.1197E-01
HE+	1.8129E-22	4.0345E-16	4.7729E-12
HE++	1.2773E-84	3.4466E-69	2.0648E-44
H	8.2731E-01	8.2175E-01	8.7988E-01
H+	5.5168E-09	3.3817E-06	1.4079E-04
H2	3.2543E-01	6.0420E-02	7.8684E-02

Table II. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2912E+02	2.3585E+03	3.5688E+03
T	1.2686E+01	2.0957E+01	3.1854E+01
RHO	1.2657E+01	6.3584E+01	6.2092E+01
H	3.9154E+01	7.0428E+01	8.8390E+01
A	3.8498E+00	6.1879E+00	7.8010E+00
S	1.4702E+00	1.5875E+00	1.6524E+00
Z	1.4269E+00	1.7499E+00	1.8038E+00
GAME	8.1834E-01	1.0323E+00	1.0788E+00
U	1.2109E+01	2.4120E+00	3.0991E+00

SPECIES	MOLE FRACTIONS		
E-	1.3801E-08	3.3277E-05	3.2942E-03
HE	1.6015E-01	1.1300E-01	1.1088E-01
HE+	1.4868E-22	1.1904E-13	1.2286E-08
HE++	2.2709E-83	4.2397E-50	6.2615E-32
H	8.9841E-01	8.8987E-01	8.8134E-01
H+	1.3801E-08	3.3277E-05	3.2961E-03
H2	2.6143E-01	1.7064E-02	1.1934E-03

P1 = 1.00E+02 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2418E+03	3.2272E+03	5.4305E+03
T	1.4458E+01	2.4441E+01	4.6203E+01
RHO	1.3387E+01	4.8643E+01	6.1949E+01
H	5.4879E+01	9.7692E+01	1.2674E+02
A	4.5600E+00	8.0498E+00	8.8494E+00
S	1.4088E+00	1.6984E+00	1.7544E+00
Z	1.6521E+00	1.8199E+00	1.8973E+00
GAME	8.5845E-01	9.7711E-01	8.9739E-01
U	1.4446E+01	3.9701E+00	3.9811E+00

SPECIES	MOLE FRACTIONS		
E-	2.5493E-07	1.1401E-02	5.1505E-02
HE	1.2106E-01	1.0999E-01	1.0540E-01
HE+	1.5900E-19	2.3122E-07	1.3095E-04
HE++	1.9094E-71	2.1930E-27	5.8161E-21
H	7.8939E-01	8.6691E-01	7.9137E-01
H+	2.5493E-07	1.1401E-02	5.1492E-02
H2	8.9547E-02	4.8681E-04	2.1733E-04

P1 = 1.00E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5920E+02	2.6573E+03	4.2283E+03
T	1.3223E+01	2.6053E+01	3.8209E+01
RHO	1.3040E+01	5.6829E+01	6.0607E+01
H	4.4089E+01	7.9095E+01	1.0135E+02
A	4.0496E+00	7.2192E+00	8.1978E+00
S	1.9157E+00	1.6304E+00	1.6907E+00
Z	1.4997E+00	1.7947E+00	1.8259E+00
GAME	8.2631E-01	1.1146E+00	9.6328E-01
U	1.2899E+01	2.9655E+00	3.5426E+00

SPECIES	MOLE FRACTIONS		
E-	3.3941E-08	4.7665E-06	1.4481E-02
HE	1.3334E-01	1.1144E-01	1.0953E-01
HE+	1.2782E-21	8.9371E-11	5.1446E-07
HE++	1.0434E-79	1.1144E-39	4.6591E-26
H	4.5466E-01	8.8429E-01	8.6061E-01
H+	3.3941E-08	4.7665E-06	1.4680E-02
H2	2.0021E-01	3.4059E-02	4.9064E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5855E+02	3.4824E+03	5.8721E+03
T	1.5827E+01	4.0289E+01	4.9064E+01
RHO	1.3138E+01	6.6868E+01	6.1482E+01
H	6.0643E+01	1.0783E+02	1.3954E+02
A	4.9675E+00	8.3074E+00	9.1867E+00
S	1.6590E+00	1.7292E+00	1.7859E+00
Z	1.7243E+00	1.8444E+00	1.9402E+00
GAME	9.9421E-01	9.2878E-01	8.8450E-01
U	1.5183E+01	4.2547E+00	4.1055E+00

SPECIES	MOLE FRACTIONS		
E-	1.0329E-06	2.4377E-02	7.2437E-02
HE	1.1599E-01	1.0843E-01	1.0305E-01
HE+	2.2948E-18	1.2328E-06	3.2522E-05
HE++	1.9668E-66	1.5793E-24	1.5748E-19
H	8.4013E-01	8.4251E-01	7.8191E-01
H+	1.0329E-06	2.4375E-02	7.2404E-02
H2	4.3886E-02	2.9781E-04	1.4445E-04

P1 = 1.00E+02 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9084E+02	2.9395E+03	4.9547E+03
T	1.3864E+01	3.1628E+01	4.2702E+01
RHO	1.3920E+01	9.1511E+01	6.1199E+01
H	4.9318E+01	8.8109E+01	1.1402E+02
A	4.2788E+00	7.7628E+00	8.9370E+00
S	1.9621E+00	1.6442E+00	1.7234E+00
Z	1.9794E+00	1.8043E+00	1.8784E+00
GAME	8.9818E-01	1.0460E+00	9.1837E-01
U	1.3489E+01	3.5347E+00	3.8060E+00

SPECIES	MOLE FRACTIONS		
E-	8.7600E-08	3.3849E-02	9.1744E-02
HE	1.2499E-01	1.1087E-01	1.0761E-01
HE+	1.2639E-20	1.1413E-08	2.6853E-06
HE++	4.3947E-76	4.0993E-32	9.8251E-23
H	7.3022E-01	8.8135E-01	8.2859E-01
H+	8.7600E-08	3.3849E-02	9.1760E-02
H2	1.4353E-01	1.0283E-03	3.0362E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9298E+02	3.5920E+03	6.9966E+03
T	1.7947E+01	4.8391E+01	5.1335E+01
RHO	1.9306E+01	4.4230E+01	5.8840E+01
H	6.4702E+01	1.1402E+02	1.5205E+02
A	5.7106E+00	8.9601E+00	9.4707E+00
S	1.6994E+00	1.7615E+00	1.8186E+00
Z	1.7773E+00	1.8755E+00	1.9653E+00
GAME	1.0212E+00	9.0228E-01	8.6010E-01
U	1.5853E+01	4.4092E+00	4.1926E+00

SPECIES	MOLE FRACTIONS		
E-	8.4489E-06	4.0473E-02	9.2445E-02
HE	1.1253E-01	1.0662E-01	1.0068E-01
HE+	1.3078E-15	5.4947E-06	6.3581E-05
HE++	3.8598E-58	1.8711E-22	1.7417E-18
H	8.7449E-01	8.1722E-01	7.1231E-01
H+	9.4489E-06	4.0467E-02	9.2381E-02
H2	1.2765E-02	2.0233E-04	1.2549E-04

Table II. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, USI= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2653E+02	9.5119E+03	9.7560E+03
T	2.1474E+01	4.5609E+01	5.3017E+01
RHO	1.0958E+01	4.0300E+01	5.3471E+01
H	7.2983E+01	1.2849E+02	1.6783E+02
A	4.4214E+00	8.7921E+00	9.7096E+00
S	1.7377E+00	1.7957E+00	1.8537E+00
Z	1.7940E+00	1.9107E+00	2.0304E+00
GAME	1.1243E+00	8.8705E-01	8.7279E-01
U	1.4427E+01	4.4455E+00	4.2345E+00

SPECIES	MOLE FRACTIONS		
E-	1.2440E-04	5.8077E-02	1.1359E-01
HE	1.1134E-01	1.0466E-01	9.8397E-02
HE+	8.4414E-13	1.9203E-05	1.0391E-04
HE++	1.1299E-47	4.3003E-21	9.7552E-18
H	8.8861E-01	7.7904E-01	6.7433E-01
H+	1.2440E-04	5.8064E-02	1.1348E-01
H2	2.3789E-03	1.4413E-04	9.5121E-05

P1 = 1.00E+02 N/SQ-M, USI= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3766E+02	3.7058E+03	5.7835E+03
T	3.3226E+01	5.1434E+01	5.7912E+01
RHO	8.8797E+00	3.5363E+01	4.5780E+01
H	9.3548E+01	1.6273E+02	2.0287E+02
A	7.5834E+00	9.5466E+00	1.0496E+01
S	1.8234E+00	1.8897E+00	1.9517E+00
Z	1.8224E+00	2.0374E+00	2.1815E+00
GAME	9.4975E-01	8.6969E-01	8.7198E-01
U	1.8231E+01	4.5741E+00	4.3822E+00

SPECIES	MOLE FRACTIONS		
E-	1.2413E-02	1.1659E-01	1.7491E-01
HE	1.0975E-01	9.8080E-02	9.1328E-02
HE+	9.0976E-08	8.3660E-05	3.5400E-04
HE++	1.2248E-29	3.2322E-18	7.6531E-16
H	8.6529E-01	6.6867E-01	5.5880E-01
H+	1.2413E-02	1.1651E-01	1.7456E-01
H2	1.3526E-04	6.7817E-05	4.7188E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8064E+02	3.9856E+03	6.1611E+03
T	3.5857E+01	5.3380E+01	5.9818E+01
RHO	8.7890E+00	3.5778E+01	4.5988E+01
M	1.0107E+02	1.7589E+02	2.1829E+02
A	7.7508E+00	9.8363E+00	1.0815E+01
S	1.8478E+00	1.9183E+00	1.9824E+00
Z	1.8425E+00	2.0869E+00	2.2397E+00
GAMF	9.0935E-01	8.6853E-01	8.7297E-01
U	1.8934E+01	4.6544E+00	4.4691E+00

SPECIES	MOLE FRACTIONS		
E-	2.3139E-02	1.3753E-01	1.9636E-01
HF	1.0855E-01	9.5698E-02	8.8772E-02
HE+	3.9261E-07	1.3851E-04	5.2649E-04
HE++	3.7433E-27	2.0610E-17	3.2853E-15
H	8.4508E-01	6.2919E-01	5.1848E-01
H+	2.3138E-02	1.3739E-01	1.9583E-01
H2	9.0822E-05	5.5853E-05	3.8568E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2764E+02	3.5142E+03	5.5610E+03
T	2.9985E+01	4.9499E+01	5.4139E+01
RHO	9.1899E+00	3.5473E+01	4.4757E+01
M	8.6362E+01	1.5062E+02	1.8848E+02
A	7.4264E+00	9.2740E+00	1.0206E+01
S	1.7977E+00	1.8401E+00	1.9204E+00
Z	1.8083E+00	1.9913E+00	2.1272E+00
GAMF	1.0179E+00	8.7255E-01	8.7193E-01
U	1.7575E+01	4.5233E+00	4.3117E+00

SPECIES	MOLE FRACTIONS		
E-	4.9528E-02	9.4164E-02	1.5389E-01
HF	1.1048E-01	1.0279E-01	9.2782E-02
HE+	7.7779E-09	4.8257E-05	2.3643E-04
HE++	2.4114E-23	4.3804E-19	1.7704E-14
H	8.7645E-01	7.0722E-01	5.9838E-01
H+	4.8229E-02	9.4114E-02	1.5384E-01
H2	2.4274E-04	8.4017E-05	5.8285E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2433E+02	4.3373E+03	6.6491E+03
T	3.2951E+01	5.5338E+01	6.1814E+01
RHO	9.8[illegible]E+00	3.6433E+01	4.6742E+01
M	1.[illegible]E+02	1.8988E+02	2.2478E+02
A	7.[illegible]E+00	1.0141E+01	1.1154E+01
S	1.8[illegible]E+00	1.9466E+00	2.0128E+00
Z	1.8671E+00	2.1294E+00	2.3013E+00
GAMF	8.8622E-01	8.6855E-01	8.7644E-01
U	1.9470E+01	4.7342E+00	4.5486E+00

SPECIES	MOLE FRACTIONS		
E-	3.6014E-02	1.2874E-01	2.1787E-01
HF	1.0712E-01	9.2284E-02	8.4133E-02
HE+	1.2981E-08	2.2086E-04	7.7345E-04
HE++	2.4154E-25	1.1599E-16	1.3420E-14
H	8.2079E-01	5.8919E-01	4.7809E-01
H+	3.6014E-02	1.2874E-01	2.1710E-01
H2	4.7533E-05	4.6486E-05	2.1585E-05

Table II. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, USI= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7439E+02	4.7410E+03	7.2186E+03
T	3.9949E+01	5.7293E+01	6.3871E+01
RHO	8.9072E+00	3.7702E+01	4.7773E+01
H	1.1710E+02	2.0459E+02	2.5221E+02
A	8.1276E+00	1.0456E+01	1.1810E+01
S	1.8947E+00	1.9748E+00	2.0433E+00
Z	1.8952E+00	2.1949E+00	2.3657E+00
GAME	9.7249E-01	8.6938E-01	8.7678E-01
U	2.0429E+01	4.8288E+00	4.6779E+00

SPECIES	MOLE FRACTIONS		
F-	5.0296E-02	1.7999E-01	2.3916E-01
HF	1.0553E-01	9.0780E-02	8.3421E-02
HF+	2.9974E-06	3.4009E-04	1.1197E-03
HF++	6.1001E-24	5.7284E-16	5.3773E-14
H	7.9383E-01	5.4527E-01	4.2843E-01
H+	5.0293E-02	1.7961E-01	2.3804E-01
H2	5.3231E-05	3.8858E-05	2.5794E-05

P1 = 1.00E+02 N/SQ-M, USI= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8721E+02	6.7352E+03	1.0088E+04
T	4.5989E+01	6.5120E+01	7.2858E+01
RHO	9.5009E+00	4.2656E+01	5.2530E+01
H	1.5288E+02	2.6567E+02	3.3012E+02
A	8.9277E+00	1.1738E+01	1.3058E+01
S	1.9877E+00	2.0885E+00	2.1670E+00
Z	2.0312E+00	2.4367E+00	2.6[illegible]E+00
GAME	8.5329E-01	8.2736E-01	8.[illegible]E-01
U	2.3528E+01	5.2493E+00	5.1041E+00

SPECIES	MOLE FRACTIONS		
F-	1.1388E-01	2.6126E-01	3.1900E-01
HF	9.8437E-02	8.0065E-02	7.1380E-02
HF+	3.0[illegible]E-05	1.4821E-03	4.2879E-03
HF++	2.0992E-20	1.3788E-13	8.1915E-12
H	6.7288E-01	3.0490E-01	2.9042E-01
H+	1.1382E-01	2.5974E-01	3.1471E-01
H2	2.4274E-05	1.8819E-05	1.0532E-05

P1 = 1.00E+02 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.2471E+02	5.1881E+03	7.8765E+03
T	4.1644E+01	5.9245E+01	6.6003E+01
RHO	9.0352E+00	3.8875E+01	4.8919E+01
H	1.2559E+02	2.1997E+02	2.7052E+02
A	8.3248E+00	1.0780E+01	1.1884E+01
S	1.9179E+00	2.0031E+00	2.0744E+00
Z	1.9261E+00	2.2526E+00	2.4333E+00
GAMF	8.6401E-01	8.7082E-01	8.7930E-01
U	2.1195E+01	4.9287E+00	4.7958E+00

SPECIES	MOLE FRACTIONS		
E-	6.5498E-02	2.0094E-01	2.6028E-01
HE	1.0383E-01	8.8279E-02	8.0590E-02
HE+	6.1605E-06	5.0851E-04	1.6032E-03
HE++	8.4842E-23	2.5571E-15	2.0453E-13
H	7.6513E-01	5.0980E-01	3.9887E-01
H+	6.5492E-02	2.0044E-01	2.5868E-01
H2	4.3464E-05	3.2482E-05	2.0871E-05

P1 = 1.00E+02 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7701E+02	5.6714E+03	8.5515E+03
T	4.3192E+01	6.1194E+01	6.8174E+01
RHO	9.1822E+00	4.0283E+01	5.0128E+01
H	1.3498E+02	2.3595E+02	2.8867E+02
A	8.5242E+00	1.1112E+01	1.2267E+01
S	1.9410E+00	2.0314E+00	2.1053E+00
Z	1.9592E+00	2.3122E+00	2.5023E+00
GAMF	8.5867E-01	8.7270E-01	8.8205E-01
U	2.1969E+01	5.0385E+00	4.9280E+00

SPECIES	MOLE FRACTIONS		
E-	8.1292E-02	2.2146E-01	2.8047E-01
HE	1.0207E-01	8.5775E-02	7.7449E-02
HE+	1.1300E-05	7.6104E-04	2.2583E-03
HE++	7.8280E-22	1.0400E-14	7.3902E-13
H	7.9521E-01	4.7113E-01	3.6097E-01
H+	8.1280E-02	2.2080E-01	2.7841E-01
H2	3.6288E-05	2.7083E-05	1.6772E-05

P1 = 1.00E+02 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0056E+03	7.9158E+03	1.1808E+04
T	4.8531E+01	6.9130E+01	7.7458E+01
RHO	9.8224E+00	4.4624E+01	5.4677E+01
H	1.72[illegible]E+02	2.6546E+02	3.2277E+02
A	9.3379E+00	1.2513E+01	1.3903E+01
S	2.0367E+00	2.1440E+00	2.2297E+00
Z	2.1007E+00	2.5459E+00	2.7885E+00
GAMF	8.5145E-01	8.8272E-01	8.9270E-01
U	2.5004E+01	5.5275E+00	5.4549E+00

SPECIES	MOLE FRACTIONS		
E-	1.4482E-01	3.5805E-01	3.5449E-01
HE	9.4732E-02	7.5198E-02	6.7935E-02
HE+	4.7467E-05	2.7871E-03	7.7894E-03
HE++	5.7359E-19	1.4417E-12	8.0900E-11
H	6.1141E-01	3.2783E-01	2.2709E-01
H+	1.4677E-01	2.9571E-01	3.4470E-01
H2	1.9500E-05	1.2255E-05	4.2338E-06

P1 = 1.00E+02 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1311E+03	9.1960E+03	1.3498E+04
T	5.3920E+01	7.7290E+01	8.2441E+01
RHO	1.0172E+01	4.8493E+01	5.4674E+01
H	1.9367E+02	3.0788E+02	4.0031E+02
A	9.7644E+00	1.3256E+01	1.4770E+01
S	2.0825E+00	2.2044E+00	2.2929E+00
Z	2.1938E+00	2.6985E+00	2.9262E+00
GAMF	8.5212E-01	8.8728E-01	8.9868E-01
U	2.8660E+01	5.8107E+00	5.8233E+00

SPECIES	MOLE FRACTIONS		
E-	1.7954E-01	3.2297E-01	3.8459E-01
HE	9.1020E-02	6.9122E-02	5.6792E-02
HE+	1.3370E-04	4.9940E-03	1.2370E-02
HE++	7.0974E-18	1.2168E-11	7.0943E-10
H	5.4987E-01	2.6496E-01	1.7211E-01
H+	1.7941E-01	3.2797E-01	3.7318E-01
H2	1.6549E-05	7.7725E-06	3.6414E-06

Table II. - Continued

p_1 = 100 N/m^2

p1 = 1.00E+02 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2837E+03	1.0960E+04	1.5734E+04
T	5.3224E+01	7.7463E+01	8.8240E+01
RHO	1.0400E+01	4.8015E+01	5.7872E+01
H	2.1546E+02	3.8416E+02	4.6999E+02
A	1.0186E+01	1.4020E+01	1.5710E+01
S	2.1312E+00	2.2623E+00	2.3562E+00
Z	2.2830E+00	2.8320E+00	3.0776E+00
GAME	8.5389E-01	8.9368E-01	9.0780E-01
U	2.8222E+01	6.1178E+00	6.1829E+00

SPECIES	MOLE FRACTIONS		
F-	2.1158E-01	3.6441E-01	4.1513E-01
HF	8.7360E-02	6.2049E-02	4.3468E-02
HF+	2.4420E-04	8.5526E-03	2.1922E-02
HF++	5.5878E-17	1.0447E-10	5.6012E-09
H	4.8947E-01	2.0911E-01	1.2602E-01
H+	2.1122E-01	3.5586E-01	3.9380E-01
H2	1.0829E-05	4.6912E-06	1.7875E-06

p1 = 1.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7040E+03	1.5020E+04	2.2795E+04
T	6.0043E+01	9.2943E+01	1.1422E+02
RHO	1.1017E+01	5.0240E+01	5.7667E+01
H	2.8836E+02	5.1742E+02	6.4244E+02
A	1.1560E+01	1.4877AE+01	1.9994E+01
S	2.2812E+00	2.4359E+00	2.5460E+00
Z	2.5751E+00	3.2156E+00	3.4608E+00
GAME	8.6402E-01	9.1939E-01	1.0113E+00
U	3.2872E+01	7.2113E+00	7.7707E+00

SPECIES	MOLE FRACTIONS		
F-	3.0120E-01	4.4020E-01	4.7989E-01
HF	7.6514E-02	3.2273E-02	8.4778E-03
HF+	1.1735E-03	2.9927E-02	4.9309E-02
HF++	1.9802E-14	2.8697E-08	3.2475E-04
H	3.2149E-01	8.7335E-02	3.1742E-02
H+	2.9984E-01	4.1027E-01	4.2058E-01
H2	4.0428E-06	7.1794E-07	8.8753E-08

P1 = 1.00E+02 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4035E+03	1.2000E+04	1.7924E+04
T	5.5482E+01	8.2320E+01	9.4855E+01
RHO	1.0646E+01	4.9181E+01	5.8751E+01
H	2.3884E+02	4.2457E+02	5.2298E+02
A	1.0627E+01	1.4812E+01	1.6779E+01
S	2.1802E+00	2.320?E+00	2.4195E+00
Z	2.3743E+00	2.9640E+00	3.2143E+00
GAME	8.5?5AE-01	8.9922E-01	9.2?28E-01
U	2.9779E+01	6.451?E+00	6.?890E+00

SPECIES	MOLE FRACTIONS		
E-	2.42?3E-01	3.9272E-01	4.4039E-01
HE	8.3742E-02	5.3570E-02	3.107?E-02
HE+	4.2223E-04	1.3906E-02	?.1109E-02
HE++	4.9630E-16	7.4324E-10	4.1509E-08
H	4.?119E-01	1.4098E-01	8.822?E-02
H+	2.4211E-01	3.7882E-01	4.0924E-01
H2	7.9791E-06	2.4824E-04	8.?08AE-07

P1 = 1.00E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.854?E+03	1.?8?0E+04	2.5591E+04
T	?.2449E+01	9.9473E+01	1.3180E+02
RHO	1.114AE+01	4.996?E+01	?.4846E+01
H	?.1?79E+02	5.?862E+02	7.1279E+02
A	1.20?6E+01	1.7674E+01	2.2?39E+01
S	?.?323E+00	2.4924E+00	2.6093E+00
Z	2.?786E+00	?.3298E+00	3.?402E+00
GAME	?.68A7E-01	?.4304E-01	1.0888E+00
U	?.440?E+01	7.4799E+00	?.7720E+00

SPECIES	MOLE FRACTIONS		
E-	?.2801E-01	4.?94?E-01	4.91??E-01
HE	7.28C8E-02	2.112?E-02	2.?490E-02
HE+	1.8?79E-02	?.8938E-02	?.35?4E-02
HE++	1.1241E-13	1.7009E-07	?.1272E-05
H	?.?117E-01	6.?979E-02	1.4084E-02
H+	?.261?E-01	4.?048E-01	4.?787E-01
H2	2.7?18E-06	?.162AE-07	1.?563E-08

P1 = 1.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.?203E+03	1.?492E+04	2.0257E+04
T	?.77?6E+01	8.7351E+01	1.0201E+02
RHO	1.0849E+01	4.9944E+01	?.8812E+01
H	?.4331E+02	4.7101E+02	?.?986E+02
A	1.1088E+01	1.?649E+01	1.8120E+01
S	?.23?4E+00	2.378?E+00	2.482?E+00
Z	2.47?2E+00	3.092?E+00	3.3470E+00
GAME	?.?999E-01	9.0?A0E-01	9.?327E-01
U	3.1329E+01	6.8113E+00	7.08C6E+00

SPECIES	MOLE FRACTIONS		
E-	?.7249E-01	4.179?E-01	4.6221E-01
HE	8.0128E-02	4.3480E-02	1.8?A6E-02
HE+	7.04?5E-04	2.1109E-02	4.1190E-02
HE++	?.?913E-1?	4.7880E-09	3.2260E-07
H	?.7488E-01	1.2061E-01	?.?024E-02
H+	?.7179E-01	3.967A?E-01	4.2102E-01
H2	?.7488E-06	1.4431E-06	3.?225E-07

P1 = 1.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0?1?E+03	1.80?3E+04	2.8?31E+04
T	A.49?7E+01	1.07?8E+02	1.??40E+02
RHO	1.123?E+01	4.?8?1E+01	?.1419E+01
H	3.438CE+02	A.1?2?E+02	7.91C3E+02
P	1.2570E+01	1.9054E+01	2.4803E+01
S	2.3837E+00	?.?4A7E+00	2.A?83E+00
Z	2.7938E+00	3.42?1E+00	3.?785E+00
GAME	8.7?72E-01	9.?412E-01	1.1048E+00
U	?.?02?E+01	A.2A?E+00	1.00?EE+01

SPECIES	MOLE FRACTIONS		
E-	3.?940E-01	4.7?08E-01	4.97?0E-01
HE	A.8871E-02	1.1?2?E-02	1.02?7E-02
HE+	?.9732E-03	A.A?90E-02	?.A067E-02
HE++	A.2097E-12	1.C821E-06	?.?A17E-06
H	2.2432E-01	3.8127E-02	?.?782E-02
H+	?.?043E-01	A.2?A?E-01	A.A12?E-01
H2	1.7989E-06	1.1?A2E-07	2.00A8E-08

Table II. - Continued

p_1 = 100 N/m^2

P1 = 1.00E+02 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.20[illegible]E+03	1.9401E+04	3.1604E+04
T	6.7[illegible]E+01	1.1834E+02	1.7798E+02
RHO	1.128[illegible]E+01	4.6761E+01	4.[illegible]E+01
H	3.7299E+02	4.6623E+02	8.4930E+02
A	1.[illegible]E+01	2.0814E+01	2.5722E+01
S	2.43[illegible]E+00	2.5989E+00	2.7183E+00
Z	2.899E+00	3.50[illegible]E+00	3.60[illegible]E+00
GAME	8.7898E-01	1.0441E+00	1.0310E+00
U	3.7442E+01	9.0401E+00	1.111[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	3.770[illegible]E-01	4.86[illegible]E-01	5.0076E-01
HE	6.4473E-07	[illegible].3961E-03	[illegible].235[illegible]E-04
HE+	4.7437E-03	5.1648E-02	4.9891E-02
HE++	3.4111E-12	8.2076E-06	5.05[illegible]E-03
H	1.8142E-01	2.1561E-02	3.0056E-03
H+	3.7231E-01	4.3486E-01	4.4076E-01
H2	1.1206E-06	3.2278E-08	4.7[illegible]E-10

P1 = 1.00E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7647E+03	2.2764E+04	3.9975E+04
T	7.7120E+01	1.6478E+02	2.2751E+02
RHO	1.1224E+01	3.8431E+01	4.7046E+01
H	4.6759E+02	8.2448E+02	1.1024E+03
A	1.4838E+01	2.5157E+01	2.9091E+01
S	2.5891E+00	2.7329E+00	2.8433E+00
Z	3.1939E+00	3.5946E+00	3.7254E+00
GAME	8.9396E-01	1.0685E+00	9.9847E-01
U	4.1913E+01	1.2246E+01	1.3139E+01

SPECIES	MOLE FRACTIONS		
E-	4.3642E-01	4.9924E-01	5.[illegible]84E-01
HE	4.4847E-02	5.7929E-04	9.9966E-05
HE+	1.7772E-02	5.2678E-02	1.8730E-02
HE++	5.[illegible]242E-10	2.[illegible]92JE-03	3.4956E-02
H	8.[illegible]305E-02	3.3183E-03	1.0855E-03
H+	4.1865E-01	4.4[illegible]0E-01	4.2939E-01
H2	1.9413E-07	4.7590E-10	5.3878E-11

P1 = 1.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7853E+03	2.0594E+04	3.4614E+04
T	7.0730E+01	1.3252E+02	1.9547E+02
RHO	1.1294E+01	4.3737E+01	4.8349E+01
H	4.0335E+02	7.1779E+02	9.4565E+02
A	1.3644E+01	2.2767E+01	2.6436E+01
S	2.4870E+00	2.6487E+00	2.7618E+00
Z	2.9964E+00	3.9532E+00	3.6415E+00
GAME	8.8496E-01	1.0998E+00	9.8173E-01
U	3.8942E+01	1.0051E+01	1.1877E+01

SPECIES	MOLE FRACTIONS		
E-	3.9888E-01	4.9341E-01	5.0569E-01
HE	5.9255E-02	2.2346E-03	3.1720E-04
HE+	7.5366E-03	5.3983E-02	4.0909E-02
HE++	1.8887E-11	7.0691E-05	1.3696E-02
H	1.4299E-01	1.1020E-02	1.9943E-03
H+	3.9134E-01	4.3928E-01	4.2739E-01
H2	6.6006E-07	7.0974E-09	1.9662E-10

P1 = 1.00E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9635E+03	2.3926E+04	4.2653E+04
T	8.0908E+01	1.7951E+02	2.4711E+02
RHO	1.1168E+01	3.6850E+01	4.5914E+01
H	5.0165E+02	9.8115E+02	1.1872E+03
A	1.5484E+01	2.5580E+01	3.1196E+01
S	2.6389E+00	2.7710E+00	2.8924E+00
Z	3.2857E+00	3.6169E+00	3.7594E+00
GAME	9.0188E-01	1.0078E+00	1.0476E+00
U	4.3390E+01	1.3130E+01	1.3995E+01

SPECIES	MOLE FRACTIONS		
E-	4.5217E-01	5.0233E-01	5.2120E-01
HE	3.5489E-02	3.6578E-04	4.2900E-05
HE+	2.5391E-02	4.7730E-02	9.9301E-03
HE++	2.9242E-09	7.2010E-03	4.3227E-02
H	6.0170E-02	2.1754E-03	7.8694E-04
H+	4.2679E-01	4.4020E-01	4.2481E-01
H2	9.7097E-08	1.8624E-10	2.7009E-11

P1 = 1.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5723E+03	2.1708E+04	3.7181E+04
T	7.3643E+01	1.4872E+02	2.1109E+02
RHO	1.1284E+01	4.0799E+01	4.7815E+01
H	4.3490E+02	7.7039E+02	1.0227E+03
A	1.4232E+01	2.4328E+01	2.7933E+01
S	2.5137E+00	2.6930E+00	2.8030E+00
Z	3.0956E+00	3.5774E+00	3.6837E+00
GAME	8.8868E-01	1.1123E+00	9.7487E-01
U	4.0644E+01	1.1180E+01	1.2479E+01

SPECIES	MOLE FRACTIONS		
E-	4.1961E-01	4.9587E-01	5.1137E-01
HE	5.2908E-02	1.0342E-03	1.8960E-04
HE+	1.1712E-02	5.4344E-02	2.9721E-02
HE++	1.2204E-10	5.0496E-04	2.6383E-02
H	1.1027E-01	5.7302E-03	1.6896E-03
H+	4.0679E-01	4.4152E-01	4.3288E-01
H2	2.7122E-07	1.4238E-09	1.0126E-10

P1 = 1.00E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1676E+03	2.5102E+04	4.5407E+04
T	8.5300E+01	1.9251E+02	2.7211E+02
RHO	1.1010E+01	3.5747E+01	4.4131E+01
H	5.3645E+02	9.4027E+02	1.2795E+03
A	1.6250E+01	2.6157E+01	3.3714E+01
S	2.6987E+00	2.9096E+00	2.9214E+00
Z	3.3727E+00	3.6476E+00	3.7811E+00
GAME	9.1795E-01	9.7436E-01	1.1047E+00
U	4.4822E+01	1.3804E+01	1.4908E+01

SPECIES	MOLE FRACTIONS		
E-	4.6636E-01	5.0653E-01	5.2395E-01
HE	2.5210E-02	2.3914E-04	1.4830E-05
HE+	3.4089E-02	3.9725E-02	4.4154E-03
HE++	1.5512E-09	1.4966E-02	4.9464E-02
H	4.2182E-02	1.5718E-03	5.4200E-04
H+	4.3221E-01	4.3[illegible]7E-01	4.2261E-01
H2	4.4101E-08	9.1491E-11	1.2011E-11

Table II. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3756E+03	2.6194E+04	4.7992E+04
T	9.0602E+01	2.0443E+02	3.0321E+02
RHO	1.0799E+01	3.4783E+01	4.1742E+01
M	5.7256E+02	1.0015E+03	1.3788E+03
A	1.7220E+01	2.7007E+01	3.6224E+01
S	2.7363E+00	2.8450E+00	2.9611E+00
Z	3.4503E+00	3.6823E+00	3.7918E+00
GAME	9.4956E-01	9.6999E-01	1.1413E+00
U	4.6226E+01	1.4338E+01	1.6150E+01

SPECIES	MOLE FRACTIONS		
E-	4.7820E-01	5.1119E-01	5.2529E-01
HE	1.5477E-02	1.5291E-04	4.4329E-06
HE+	4.2490E-02	3.0441E-02	1.8056E-03
HE++	9.7232E-09	2.3719E-02	5.0936E-02
H	2.7926E-02	1.2079E-03	3.5890E-04
H+	4.3581E-01	4.3330E-01	4.2161E-01
H2	1.7602E-09	5.1237E-11	4.8629E-12

P1 = 1.00E+02 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0002E+03	2.6844E+04	5.0984E+04
T	1.1855E+02	2.4324E+02	4.0267E+02
RHO	9.4268E+00	2.9285E+01	3.3332E+01
M	6.8668E+02	1.1833E+03	1.6777E+03
A	2.1794E+01	3.1161E+01	4.2154E+01
S	2.9671E+00	2.9556E+00	3.0703E+00
Z	3.5796E+00	3.7685E+00	3.7986E+00
GAME	1.1193E+00	1.0593E+00	1.1618E+00
U	4.9948E+01	1.6091E+01	1.9688E+01

SPECIES	MOLE FRACTIONS		
E-	4.9714E-01	5.2235E-01	5.2614E-01
HE	1.1846E-03	2.2362E-05	2.1163E-07
HE+	5.4646E-02	7.7865E-03	2.5437E-04
HE++	4.2571E-05	4.5263E-02	5.2397E-02
H	4.5707E-03	5.3310E-04	1.2255E-04
H+	4.4241E-01	4.2404E-01	4.2109E-01
H2	2.9807E-10	7.9702E-12	4.3722E-13

P1 = 1.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5851E+03	2.6896E+04	4.9895E+04
T	9.7512E+01	2.1635E+02	3.3598E+02
RHO	1.0464E+01	3.3448E+01	3.9122E+01
H	6.0968E+02	1.0630E+03	1.4793E+03
A	1.8527E+01	2.9127E+01	3.8383E+01
S	2.7930E+00	2.9819E+00	2.9984E+00
Z	3.5136E+00	3.7167E+00	3.7959E+00
GAPE	1.0019E+00	9.9396E-01	1.1551E+00
U	4.7561E+01	1.4872E+01	1.7378E+01

SPECIES	MOLE FRACTIONS		
E-	4.8770E-01	5.1570E-01	5.2501E-01
HE	7.7710E-03	9.0206E-05	1.4469E-06
HE+	4.9150E-02	2.1304E-02	8.2804E-04
HE++	5.8046E-07	3.2417E-02	5.1859E-02
H	1.6820E-02	9.3528E-04	2.4402E-04
H+	4.3855E-01	4.2956E-01	4.2126E-01
H2	5.6438E-09	2.9006E-11	2.3704E-12

P1 = 1.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2090E+03	2.6486E+04	5.0953E+04
T	1.3176E+02	2.5953E+02	4.3603E+02
RHO	8.8964E+00	2.6980E+01	3.0760E+01
H	7.2660E+02	1.2427E+03	1.7765E+03
A	2.3076E+01	3.2889E+01	4.3882E+01
S	2.9044E+00	2.9909E+00	3.1034E+00
Z	3.5908E+00	3.7827E+00	3.7990E+00
GAPE	1.1255E+00	1.1018E+00	1.1625E+00
U	5.1055E+01	1.6827E+01	2.0765E+01

SPECIES	MOLE FRACTIONS		
E-	4.9872E-01	5.2415E-01	5.2619E-01
HE	4.9194E-04	9.5585E-06	9.4277E-08
HE+	5.4893E-02	4.1669E-03	1.6469E-04
HE++	3.1292E-04	4.8696E-02	5.2480E-02
H	2.3839E-03	3.9079E-04	9.0881E-05
H+	4.4320E-01	4.2259E-01	4.2107E-01
H2	6.8665E-11	3.8737E-12	2.2134E-13

P1 = 1.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7934E+03	2.7104E+04	5.0812E+04
T	1.0685E+02	2.2994E+02	3.6961E+02
RHO	9.9814E+00	3.1604E+01	3.6199E+01
H	6.4774E+02	1.1240E+03	1.5791E+03
A	2.0171E+01	2.9511E+01	4.0352E+01
S	2.8267E+00	2.9184E+00	3.0353E+00
Z	3.5567E+00	3.7461E+00	3.7977E+00
GAPE	1.0706E+00	1.0155E+00	1.1606E+00
U	4.8801E+01	1.5403E+01	1.9563E+01

SPECIES	MOLE FRACTIONS		
E-	4.9392E-01	5.1950E-01	5.2663E-01
HE	3.1491E-03	4.7999E-05	5.2057E-07
HE+	5.3077E-02	1.3579E-02	4.3059E-04
HE++	4.9501E-06	3.9762E-02	5.2232E-02
H	9.0178E-03	7.1641E-04	1.6994E-04
H+	4.4093E-01	4.2540E-01	4.2114E-01
H2	1.3835E-09	1.5811E-11	9.1871E-13

Table II. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5056E+01
T	3.1753E+00	3.9838E+00	5.7005E+00
RHO	3.9601E+00	6.6009E+00	1.1411E+01
M	3.2467E+00	4.1057E+00	6.0144E+00
A	1.7735E+00	1.9769E+00	2.3350E+00
S	1.0587E+00	1.0605E+00	1.0774E+00
Z	1.0003E+00	1.0006E+00	1.0001E+00
GAME	9.9100E-01	9.8106E-01	9.5637E-01
U	2.457CE+00	1.4729E+00	1.3072E+00

SPECIES	MOLE FRACTIONS		
E-	4.4172E-51	2.4781E-38	1.4013E-22
HE	2.0000E-01	2.0000E-01	1.9998E-01
HE+	1.5934E-64	3.2028E-57	6.1424E-48
HE++	0.	0.	0.
H	8.5117E-10	2.7930E-07	2.0323E-04
H+	7.2402E-20	7.2402E-20	7.2535E-20
H2	8.0000E-01	8.0000E-01	7.9582E-01

P1 = 2.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9659E+01	1.5097E+02	2.6208E+02
T	7.2916E+00	9.3822E+00	1.0473E+01
RHO	5.4167E+00	1.5548E+01	2.3318E+01
M	8.0585E+00	1.2393E+01	1.5942E+01
A	2.5513E+00	2.8319E+00	3.0287E+00
S	1.1459E+00	1.1591E+00	1.1847E+00
Z	1.0042E+00	1.0350E+00	1.0732E+00
GAME	8.8511E-01	8.2590E-01	8.1619E-01
U	4.6904E+00	1.6330E+00	1.4150E+00

SPECIES	MOLE FRACTIONS		
E-	2.3691E-16	1.8562E-12	4.4004E-11
HE	1.9917E-01	1.9324E-01	1.8636E-01
HE+	5.3780E-38	1.6874E-30	2.3108E-27
HE++	0.	0.	0.
H	8.3116E-03	6.7604E-02	1.3636E-01
H+	2.3694E-16	1.9562E-12	4.4004E-11
H2	7.9252E-01	7.3916E-01	6.7729E-01

P1 = 2.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5611E+01	5.2134E+01	1.1454E+02
T	4.4064E+00	5.8978E+00	7.8427E+00
RHO	4.4558E+00	8.8359E+00	1.4567E+01
H	4.5641E+00	6.4453E+00	8.8560E+00
A	2.0732E+00	2.3693E+00	2.6359E+00
S	1.0890E+00	1.0931E+00	1.1125E+00
Z	1.0000E+00	1.0002E+00	1.0059E+00
GAME	9.7541E-01	9.5157E-01	8.3067E-01
U	3.1953E+00	1.8250E+00	1.4260E+00

SPECIES	MOLE FRACTIONS		
E-	1.0201E-34	8.7250E-21	3.4677E-15
HE	2.0000E-01	1.9956E-01	1.9883E-01
HE+	2.0915E-55	6.8561E-47	3.5826E-36
HE++	0.	0.	0.
H	3.5964E-06	3.9572E-04	1.1744E-02
H+	7.2462E-20	8.1113E-20	3.4878E-15
H2	8.0000E-01	7.9964E-01	7.8543E-01

P1 = 2.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2855E+01	2.4279E+02	3.8912E+02
T	8.4252E+00	1.0557E+01	1.1507E+01
RHO	6.1502E+00	2.1258E+01	2.9908E+01
H	1.0345E+01	1.6513E+01	2.0564E+01
A	2.6803E+00	3.0491E+00	3.2562E+00
S	1.1743E+00	1.1562E+00	1.2259E+00
Z	1.0156E+00	1.0813E+00	1.1308E+00
GAME	8.3552E-01	8.1441E-01	8.1488E-01
U	5.5050E+00	1.5919E+00	1.4262E+00

SPECIES	MOLE FRACTIONS		
E-	8.8077E-14	6.0344E-11	4.8579E-10
HE	1.9615E-01	1.8497E-01	1.7687E-01
HE+	1.0700E-34	4.8359E-27	2.9145E-25
HE++	0.	0.	4.1447E-89
H	3.8466E-02	1.5034E-01	2.3131E-01
H+	8.8077E-14	6.0344E-11	4.8579E-10
H2	7.6533E-01	6.6469E-01	5.9183E-01

P1 = 2.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8765E+01	9.0530E+01	1.7756E+02
T	5.8371E+00	7.9855E+00	9.3415E+00
RHO	4.9271E+00	1.1450E+01	1.8438E+01
H	6.1765E+00	8.9735E+00	1.2109E+01
A	2.3565E+00	2.6338E+00	2.8268E+00
S	1.1180E+00	1.1252E+00	1.1472E+ 0
Z	1.0002E+00	1.0071E+00	1.0309E+00
GAME	9.5115E-01	8.7348E-01	8.2979E-01
U	3.9300E+00	1.8856E+00	1.4327E+00

SPECIES	MOLE FRACTIONS		
E-	1.2462E-20	4.9731E-15	1.5009E-12
HE	1.9555E-01	1.9860E-01	1.9401E-01
HE+	6.8543E-47	5.9928E-36	1.4118E-30
HE++	0.	0.	0.
H	4.3426E-04	1.4040E-02	5.9924E-02
H+	5.5524E-20	4.9732E-15	1.5009E-12
H2	7.9951E-01	7.8735E-01	7.4607E-01

P1 = 2.00E+02 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8231E+01	3.7249E+02	5.6681E+02
T	9.2744E+00	1.1563E+01	1.2514E+01
RHO	7.3314E+00	2.8143E+01	3.7693E+01
H	1.2903E+01	2.1284E+01	2.5465E+01
A	2.8124E+00	3.2928E+00	3.5059E+00
S	1.2039E+00	1.2372E+00	1.2711E+00
Z	1.0468E+00	1.1414E+00	1.2017E+00
GAME	8.1512E-01	8.1444E-01	8.1882E-01
U	6.3444E+00	1.5861E+00	1.4554E+00

SPECIES	MOLE FRACTIONS		
E-	2.3736E-12	6.2796E-10	3.4434E-09
HE	1.9115E-01	1.7523E-01	1.6643E-01
HE+	1.0144E-30	8.0353E-25	4.9500E-23
HE++	0.	1.1297E-93	4.1574E-85
H	8.6432E-02	2.4773E-01	3.3565E-01
H+	2.3736E-12	6.2736E-10	3.4434E-09
H2	7.2041E-01	5.7703E-01	4.9791E-01

Table II. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 1.60E+04 M/SEC

	INCIDENT SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5582E+01	5.4166E+02	7.9639E+02
T	5.5600E+00	1.2572E+01	1.3524E+01
RHO	7.9469E+00	3.5532E+01	4.5854E+01
H	1.5762E+01	2.6648E+01	3.2028E+01
A	2.9458E+00	3.5331E+00	3.7876E+00
S	1.2362E+00	1.2816E+00	1.3157E+00
Z	1.0813E+00	1.2125E+00	1.2842E+00
GAME	8.0759E-01	8.1886E-01	8.2606E-01
U	7.1835E+00	1.5080E+00	1.5061E+00

SPECIES	MOLE FRACTIONS		
E-	2.0613E-11	3.9863E-09	1.7569E-08
HE	1.8494E-01	1.6494E-01	1.5574E-01
HE+	7.3080E-25	6.4129E-23	2.3831E-21
HE++	0.	2.0510E-64	1.4229E-78
H	1.5037E-01	3.5058E-01	4.4258E-01
H+	2.0613E-11	3.9863E-09	1.7569E-08
H2	6.6466E-01	4.8448E-01	4.0168E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.30E+04 M/SEC

	INCIDENT SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4683E+02	1.2819E+03	1.8064E+03
T	1.1644E+01	1.3023E+01	1.7205E+01
RHO	1.0441E+01	5.5487E+01	6.6113E+01
H	2.6113E+01	4.6101E+01	5.4608E+01
A	3.3564E+00	4.1317E+00	4.8936E+00
S	1.3436E+00	1.4302E+00	1.4817E+00
Z	1.2243E+00	1.4787E+00	1.5861E+00
GAME	8.7921E-01	8.5038E-01	8.7644E-01
U	9.6588E+00	1.0179E+00	1.0115E+00

SPECIES	MOLE FRACTIONS		
E-	1.3454E-09	2.6818E-07	1.2745E-06
HE	1.0336E-01	1.3525E-01	1.2594E-01
HE+	1.3513E-24	1.4055E-18	6.9868E-17
HE++	3.1541E-91	1.1871E-57	9.6434E-62
H	3.6636E-01	6.4749E-01	7.4061E-01
H+	1.3454E-09	2.6818E-07	1.2745E-06
H2	4.7028E-01	2.1726E-01	1.3345E-01

P1 = 2.COF+C2 N/SC-M, USI= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0482E+02	7.5C65E+02	1.07B6E+C3
T	1.0562E+01	1.3533E+01	1.4580E+C1
RHO	8.837CE+0C	4.2870E+01	5.3720E+C1
H	1.8515E+01	3.2583E+01	3.99C2E+C1
A	3.3943E+C0	3.3033E+00	4.0980E+C0
S	1.2704E+00	1.3299E+00	1.3713E+CC
Z	1.1231E+00	1.2934E+0C	1.3770E+CC
GAMS	8.C610E-01	8.2610E-01	8.3644E-C1
U	8.0161E+0C	1.6537E+00	1.5757E+CC

SPECIES	MOLE FRACTIONS		
E-	1.C943E-1C	1.8635E-08	7.4655E-C8
HE	1.7dCdE-01	1.5463E-01	1.9524E-01
HE+	4.3157E-27	2.4051E-21	7.2517E-20
HE++	0.	4.0499E-73	5.1413E-73
H	2.1921E-C1	4.5367E-01	5.4761E-C1
H+	1.C9435-1J	1.9635E-C8	7.4655E-C8
H2	6.C271E-01	3.9172E-01	3.0715E-C1

P1 = 2.CCBE+C2 N/SC-M, LSI= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7358E+C2	1.5650E+03	2.2578E+ 3
T	1.2163C+01	1.6905E+01	1.9358E+C1
RHO	1.1125E+01	5.9783E+01	6.8755E+C1
H	3.0157E+01	5.3659E+01	6.3853E+C1
A	3.5610E+00	4.8240E+00	5.53C1E+CC
S	1.3861E+00	1.4825E+00	1.5351E+CC
Z	1.2823E+00	1.5788E+00	1.6964E+.C
GAMS	8.1276E-01	9.7122E-01	9.3128E-C1
U	1.C469E+01	1.9486E+00	2.0153E+CC

SPECIES	MOLE FRACTIONS		
E-	3.7603E-C9	1.9050E-06	7.5410E-C6
HE	1.5591E-01	1.2668E-01	1.1790E-C1
HE+	1.4311E-23	3.4974E-17	5.5184E-15
HE++	3.5692E-27	8.3435E-83	9.0420E-83
H	4.4C93E-01	7.3321E-01	8.2102E-C1
H+	3.7603E-C9	1.0053E-C5	7.5410E-C6
H2	4.C319E-C1	1.4011E-01	6.1C72E-C2

P1 = 2.70E+02 N/SC-M, USI= 1.23E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4553E+02	9.9857E+02	1.4151E+C3
T	1.1115E+01	1.5370E+01	1.5758E+C1
RHO	5.6747E+0C	4.0961E+01	6.C7C6E+C1
H	2.2366E+01	3.9071E+01	4.6311E+ 1
A	3.2407E+0C	4.3934E+00	4.4551E+CC
S	1.3670E+00	1.3799E+CC	1.4256E+CC
Z	1.1709E+00	1.3627E+00	1.4752E+CC
GAMS	8.0667E-01	9.3610E-01	8.5149E- 1
U	8.8413E+0C	1.7222E+00	1.6787E+CC

SPECIES	MOLE FRACTIONS		
E-	4.2356E-1C	7.3647E-C4	2.5618E-C7
HE	1.7C31E-01	1.4445E-01	1.3521E-C1
HE+	5.6666E-2C	6.4837E-20	1.5952E-1C
HE++	0.	9.0848E-73	3.4731E-67
H	2.5192E-01	5.5435E-01	6.4754E-C1
H+	9.2355E-1C	7.3647E-03	2.5618E-C7
H2	5.3727E-C1	3.0182E-01	2.1685E-C1

P1 = 2.CCE+C2 N/SC-M, USI= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.CCCCE+02	1.9284E+03	2.7955E+C3
T	1.2698E+01	1.8633E+01	2.3517E+C1
RHO	1.4717E+01	6.1722E+01	6.5759E+C1
H	3.4479E+01	6.1705E+01	7.4943E+ 1
A	3.7364E+CC	5.3433E+CC	6.7423E+CC
S	1.4282E+00	1.5346E+00	1.5574E+CC
Z	1.3452E+CC	1.6765E+00	1.7764E+CC
GAMS	8.1747E-01	9.1383E-01	1.0700E+ C
U	1.1273E+01	2.1437E+00	2.4413E+CC

SPECIES	MOLE FRACTIONS		
E-	4.6334E-C4	4.5566E-06	1.1566E-C4
HE	1.4837E-01	1.1928E-01	1.1259E-C1
HE+	1.2273E-22	1.4497E-15	5.2633E-14
HE++	1.5542E-83	5.4791E-57	4.5358E-44
H	5.1425E-01	8.8722E-01	9.7377E-C1
H+	9.2355E-1C	4.5566E-06	1.1566E-C4
H2	3.3724E-C2	7.3437E-C2	1.3473E-C2

Table II. - Continued

p_1 = 200 N/ m^2

P1 = 2.00E+02 N/SQ-M, USI= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2E40E+02	2.25d7E+03	3.4329E+03
T	1.3231E+01	2.1431E+01	3.19E2E+01
RHO	1.2428E+01	6.3C84E+01	5.9620E+01
H	3.913[illegible]+01	7.J1E9E+C1	8.8155E+01
A	3.9254E+03	e.1541E+00	7.8736E+C0
S	1.4717E+00	1.5837E+00	1.6458E+CC
Z	1.4145E+03	1.7541E+00	1.9004E+ C
GAMS	8.2360E-01	1.3074E+CC	1.0766E+CC
U	1.2C73E+01	2.4544E+00	3.1066E+CC

SPECIES	MOLE FRACTIONS		
E-	2.3E72E-C9	3.2360E-05	2.4613E-C3
HE	1.4144E-01	1.1402E-01	1.1109E-01
HE+	1.C755E-21	1.8314E-13	9.6576E-C5
HE++	6.5E36E-2C	4.9728E-50	4.5554E-32
H	5.E55E-01	8.5974E-01	3.8174E-01
H+	2.3872E-C8	3.2360E-05	2.4613E-03
H2	2.7303E-01	2.6173E-02	2.2475E-C3

P1 = 2.00E+02 N/SQ-M, USI= 1.93E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2313E+02	3.0872E+03	5.2468E+C3
T	1.5314E+01	3.68C2E+01	4.7760E+01
RHO	1.2255E+01	4.0228E+01	5.82C3E+ 1
H	3.4815E+01	9.73C3E+01	1.c711E+C2
A	4.6516E+0C	8.1769E+03	9.0602E+CC
S	1.6C73E+00	1.6567E+00	1.7541E+C0
Z	1.6360E+00	1.8147E+0C	1.9875E+ C
GAMS	8.5317E-01	1.0012E+00	9.1059E-C1
U	1.4402E+01	3.0153E+00	4.0956E+CC

SPECIES	MOLE FRACTIONS		
E-	4.1866E-C7	8.9744E-03	4.6713E-02
HE	1.2225E-01	1.1021E-01	1.C555E-C1
HE+	9.8C64E-15	2.0381E-07	1.5965E-05
HE++	8.3473E-69	2.3C81E-27	1.9338E 2C
H	7.7753E-01	8.7095E-01	8.0C26E-01
H+	4.1064E-07	8.9741E-03	4.6657E-C2
H2	1.C022E-01	8.9226E-04	3.7258E-C4

P1 = 2.00E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5839E+02	2.5522E+03	4.0739E+03
T	1.3821E+01	2.0130E+01	3.8867E+01
RHO	1.2584E+01	5.4588E+01	5.7573E+ 1
H	4.4C63E+01	7.3842E+01	1.0134E+02
A	4.1328E+00	7.1880E+00	8.3450E+00
S	1.5166E+03	1.6272E+00	1.6896E+00
Z	1.4857E+00	1.7893E+00	1.8205E+00
GAMF	8.3182E-01	1.1051E+00	9.8418E-01
U	1.2859E+01	2.5666E+00	3.5557E+00

SPECIES	MOLE FRACTIONS		
E-	5.8287E-08	3.5485E-04	1.2161E-02
NF	1.3462E-01	1.1178E-01	1.0596E-01
NE+	8.5565E-21	7.0139E-11	5.1397E-07
NE++	1.9462E-76	7.3605E-40	7.7467E-26
N	6.5382E-01	6.8113E-01	8.6495E-01
N+	5.8287E-08	3.5485E-04	1.2161E-02
N2	2.1156E-01	6.3632E-03	8.7557E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5754E+02	3.3325E+03	5.6991E+ 3
T	1.6476E+01	4.1016E+01	5.0965E+01
RHO	1.2702E+01	4.4247E+01	5.7562E+01
H	6.3618E+01	1.0734E+02	1.4008E+02
A	5.0403E+00	8.4519E+00	9.3957E+00
S	1.6531E+00	1.7277E+00	1.7850E+00
Z	1.7C85E+00	1.8363E+00	1.9286E+00
GAME	9.0238E-01	9.4846E-01	8.9815E-01
U	1.5140E+01	4.3443E+00	4.2438E+00

SPECIES	MOLE FRACTIONS		
E-	1.4672E-06	2.0285E-02	6.6553E-02
NF	1.17C6E-01	1.C891E-01	1.0366E-01
NE+	2.2421E-17	1.5394E-06	4.1269E-05
NE++	5.6643E-64	3.3416E-24	6.C737E-15
N	8.2935E-01	8.4998E-01	7.6215E-01
N+	1.4672E-06	2.0284E-02	6.6512E-02
N2	5.3581E-02	5.3053E-04	2.8106E-04

P1 = 2.00E+02 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9004E+02	2.8212E+03	4.6853E+03
T	1.4491E+01	3.1710E+01	4.3858E+01
RHO	1.2829E+01	4.9430E+01	5.7725E+01
H	4.9257E+01	8.7823E+01	1.1421E+02
A	4.3674E+00	7.9355E+00	8.7C90E+00
S	1.5819E+00	1.6641E+00	1.7230E+ 0
Z	1.5803E+00	1.8010E+00	1.8506E+00
GAME	8.4303E-01	1.3750E+00	9.3448E-01
U	1.3033E+01	3.3465E+00	3.8593E+00

SPECIES	MOLE FRACTIONS		
E-	1.4E3[illegible]E-07	2.5045E-03	2.7888E-02
NF	1.[illegible]91E-01	1.1103E-01	1.08C7E-01
NE+	7.9[illegible]	3.7514E-33	4.1576E-06
NE++	3.27[illegible]E-73	2.[illegible]379E-32	1.9343E-22
N	7.[illegible]	9.[illegible]	8.3563E-01
N+	1.4[illegible]E-07	2.5043E-03	2.7884E-02
N2	1.5[illegible]	1.9461E-03	5.2698E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9225E+02	3.4750E+03	5.9032E+03
T	1.5431E+01	4.4398E+01	5.3565E+01
RHO	1.2C31E+01	4.1573E+01	5.5881E+01
H	6.6E83E+01	1.1771E+02	1.5284E+02
A	5.6520E+00	8.7186E+00	9.7016E+00
S	1.6966E+00	1.7563E+00	1.8172E+00
Z	1.7EEDE+00	1.9647E+00	1.9722E+00
GAME	9.9542E-01	9.1815E-01	9.9066E-01
U	1.5E23E+01	4.5408E+00	4.3461E+00

SPECIES	MOLE FRACTIONS		
E-	8.9[illegible]E-04	3.5073E-02	8.7521E-02
NF	1.1325E-01	1.0725E-01	1.0133E-01
NE+	1.5[illegible]E-15	5.9952E-05	8.3465E-05
NE++	6.5E37E-57	4.3437E-22	7.6232E-18
N	8.6745E-01	8.2225E-01	7.2341E-01
N+	8.E[illegible]E-04	3.5067E-02	8.7438E-02
N2	1.5273E-02	3.5[illegible]E-04	2.1581E-04

Table II. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2621E+02	3.4474E+03	5.7635E+03
T	2.1921E+01	4.7350E+01	5.5553E+01
RHO	1.0895E+01	3.4613E+01	5.1450E+01
H	7.2979E+01	1.2809E+02	1.6499E+02
A	6.0581E+00	9.9660E+00	9.9636E+00
S	1.7352E+00	1.7927E+00	1.8514E+00
Z	1.7942E+00	1.9377E+00	2.0165E+00
GAME	1.1103E+00	9.0045E-01	8.8620E-01
U	1.9418E+01	4.5317E+00	4.4051E+00

SPECIES	MOLE FRACTIONS		
E-	9.6729E-05	9.1760E-02	1.0751E-01
HE	1.1177E-01	1.0537E-01	9.9043E-02
HE+	7.5577E-13	1.2552E-05	1.4063E-04
HE++	7.2814E-41	1.2866E-29	4.7736E-17
H	8.8377E-01	7.9285E-01	6.8577E-01
H+	4.0726E-03	5.1745E-02	1.0737E-01
H2	4.4417E-03	2.5484E-04	1.6497E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3661E+02	3.5969E+03	5.7275E+03
T	3.3759E+01	5.3483E+01	6.0928E+01
RHO	8.7431E+00	3.3329E+01	4.3471E+01
H	9.3511E+01	1.5199E+02	2.0404E+02
A	7.7242E+00	9.7430E+00	1.0776E+01
S	1.8235E+00	1.9861E+00	1.9487E+00
Z	1.8130E+00	2.0178E+00	2.1625E+00
GAME	9.7211E-01	8.7961E-01	8.8131E-01
U	1.8155E+01	4.7708E+00	4.5758E+00

SPECIES	MOLE FRACTIONS		
E-	1.0173E-02	1.0806E-01	1.6770E-01
HE	1.1031E-01	9.9012E-02	9.2007E-02
HE+	9.1029E-08	1.0509E-04	4.8056E-04
HE++	2.1217E-29	1.1967E-17	3.7525E-15
H	8.6540E-01	6.8474E-01	5.7252E-01
H+	1.0173E-02	1.0796E-01	1.6722E-01
H2	2.4864E-04	1.1851E-04	8.2006E-05

P1 = 2.00E+02 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6C65E+02	3.3951E+03	5.5729E+03
T	2.6C58E+01	4.9279E+01	5.7267E+01
RHO	5.8C93E+00	3.5620E+01	4.7150E+01
H	7.9513E+01	1.3865E+02	1.77C8E+C2
A	7.2222E+00	9.2088E+00	1.0212E+01
S	1.7685E+CC	1.8256E+00	1.8855E+CC
Z	1.7554E+00	1.9342E+0C	2.0620E+CC
GAME	1.11C7E+C0	8.d571E-01	8.8312E- 1
U	1.6573E+01	4.6727E+00	4.4543E+CC

SPECIES	MOLE FRACTIONS		
E-	8.262CE-C4	6.9553E-02	1.2721E-01
HE	1.1115E-01	1.0337E-01	9.6775E-C2
HE+	1.5823E-1C	3.2253E-C5	2.1633E-04
HE++	3.4139E-39	1.7185E-19	2.1571E-16
H	8.6EC3E-C1	7.5733E-01	6.4868E-01
H+	8.2620E-C4	6.9521E-02	1.2699E-C1
H2	1.1710E-C3	1.8950E-C4	1.2761E-04

P1 = 2.00E+C2 N/SC-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.79C3E+02	3.8456E+03	6.06C3E+03
T	3.6656E+C1	5.5596E+01	6.2579E+C1
RHO	8.6033E+00	3.3498E+01	4.3378E+C1
H	1.01C1E+02	1.7498E+02	2.1935E+ 2
A	7.8999E+00	1.0039E+01	1.11C1E+C1
S	1.8483E+CC	1.9143E+00	1.9788E+CC
Z	1.8361E+00	2.0649E+00	2.2184E+CC
GAME	9.2726E-01	8.7790E-01	8.82C2E-01
U	1.8882E+01	4.8481E+00	4.6668E+CC

SPECIES	MOLE FRACTIONS		
E-	1.9818E-C2	1.2839E-01	1.8867E-C1
HE	1.C893E-01	9.6682E-02	8.9447E-C2
HE+	4.3453E-C7	1.7493E-04	7.C872E-C4
HE++	9.3474E-27	7.6568E-17	1.5555E-14
H	8.5127E-C1	6.4645E-01	5.3315E-01
H+	1.5817E-C2	1.2821E-01	1.8796E-C1
H2	1.6329E-C4	9.7528E-05	6.7202E-C5

P1 = 2.00E+C2 N/SC-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9712E+02	3.4394E+03	5.5496E+C3
T	3.0233E+01	5.1383E+01	5.9014E+C1
RHO	9.1C48E+0C	3.39C7E+01	4.4563E+ 1
H	8.6345E+01	1.4588E+02	1.8552E+C2
A	7.34C6E+0C	9.4654E+00	1.0478E+ 1
S	1.7974E+CC	1.8567E+00	1.9177E+CC
Z	1.8C62E+0C	1.9741E+0C	2.1102E+C0
GAME	1.7414E+00	8.8324E-01	8.8157E- 1
U	1.7559E+01	4.7106E+00	4.5024E+CC

SPECIES	MOLE FRACTIONS		
E-	3.7553E-C3	8.8356E-02	1.4711E-C1
HE	1.1074E-01	1.0125E-01	9.4454E-02
HE+	5.7753E-09	6.0126E-05	3.2309E-C4
HE++	2.72+5E-33	1.5671E-19	8.9406E-16
H	8.8124E-01	7.2199E-01	6.1142E-C1
H+	3.7033E-C3	8.8244E-C2	1.4679E-C1
H2	4.5C14E-C4	1.4733E-04	1.C128E-C4

P1 = 2.CCE+C2 N/SC-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2424E+02	4.1644E+03	6.5072E+03
T	3.9C80E+01	5.7720E+01	6.5134E+01
RHO	8.5918E+00	3.7110E+01	4.3863E+C1
H	1.CEE5E+C2	1.d480E+02	2.3576E+ 2
A	8.C897E+00	1.0361E+01	1.1448E+ 1
S	1.8717E+CC	1.9421E+CC	2.0C87E+CC
Z	1.8589E+00	2.1151E+00	2.2776E+CC
GAME	9.3C73E-01	8.7752E-01	8.8345E-C1
U	1.9604E+01	4.9365E+00	4.7702E+CC

SPECIES	MOLE FRACTIONS		
E-	3.1759E-C3	1.4950E-01	2.C977E-C1
HE	1.0759E-01	9.4277E-02	8.6778E-C2
HE+	1.4610E-C4	2.7959E-C4	1.0324E-03
HE++	7.5113E-25	4.3296E-16	6.2357E-14
H	8.2869E-C1	6.3749E-C1	4.9364E-01
H+	3.1758E-C2	1.4880E-01	2.C873E-C1
H2	1.1573E-C4	8.1281E-05	5.5305E-C5

Table II. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, USI= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7188E+02	4.5342E+03	7.0303E+03
T	4.1190E+01	5.9839E+01	6.7363E+01
RHO	8.6520E+00	3.4951E+01	4.4656E+01
H	1.17C1E+02	2.0335E+02	2.5316E+02
A	8.2850E+00	1.0673E+01	1.1813E+01
S	1.8548E+00	1.9657E+00	2.0385E+00
Z	1.8653E+00	2.1680E+00	2.3397E+00
GAME	8.8477E-01	8.78C6E-01	8.8535E-01
U	2.0349E+01	5.0393E+00	4.8866E+00

SPECIES	MOLE FRACTIONS		
E-	4.5353E-02	1.6980E-01	2.3072E-01
HE	1.06C8E-01	9.1821E-02	8.3999E-02
HE+	3.7C71E-06	4.3058E-04	1.6810E-03
HE++	2.2189E-23	2.1397E-15	2.3839E-13
H	8.0312E-01	5.6850E-01	4.5451E-01
H+	4.5349E-02	1.6937E-01	2.2524E-01
H2	9.3569E-02	6.8164E-05	4.5473E-05

P1 = 2.00E+02 N/SQ-M, USI= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.83[illegible]E+02	6.3930E+03	9.7534E+03
T	4.78C3E+01	6.4324E+01	7.5845E+ 1
RHO	9.15E3E+00	3.8994E+01	4.8685E+ 1
H	1.5275E+02	2.6791E+02	3.3111E+02
A	9.1202E+00	1.2046E+01	1.3391E+01
S	1.9864E+00	2.08C1E+00	2.1586E+00
Z	2.0157E+00	2.3606E+00	2.6072E+ 0
GAME	9.52C9E-01	8.85L3E-01	8.55C9E-01
U	2.3426E+01	5.5045E+00	5.4265E+ 0

SPECIES	MOLE FRACTIONS		
E-	1.C7C4E-01	2.4490E-01	3.0558E-01
HE	9.9132E-02	9.1503E-02	7.1358E-02
HE+	4.C713E-05	1.8456E-03	5.3578E-03
HE++	1.4246E-19	4.8549E-13	3.0436E-11
H	6.8669E-01	4.1867E-01	3.0947E-01
H+	1.0710E-01	2.4805E-01	3.0422E-01
H2	4.5737E-05	3.3502E-05	1.9568E-05

P1 = 2.00E+02 N/SC-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.2174E+02	4.9465E+03	7.6363E+03
T	4.3C66E+01	6.1954E+01	6.9649E+C1
RHO	8.7531E+00	3.5914E+01	4.56C6E+C1
M	1.2548E+02	2.1855E+02	2.7143E+C2
A	8.4534E+00	1.10C4E+01	1.2151E+C1
S	1.9178E+00	1.9972E+00	2.0603E+CC
Z	1.9146E+00	2.2231E+00	2.404CE+CC
GAME	1.7487E-01	8.7924E-01	8.8798E-C1
U	2.1108E+01	5.1494E+00	5.01C6E+CC

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.9956E-02	1.9038E-01	2.5129E-C1
HE	1.C449E-C1	8.9322E-02	8.1104E-02
HE+	7.8545E-06	6.4253E-04	2.0901E-C3
HE++	3.4237E-22	9.4570E-15	8.6270E-13
H	7.7556E-01	5.2986E-01	4.1627E-C1
H+	5.5940E-C2	1.8974E-01	2.4920E-C1
H2	7.6014E-05	5.7276E-05	3.7244E-C5

P1 = 2.00E+C2 N/SC-M, US1= 3.40E+04 M/SEC

	MCVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0011E+03	7.4956E+03	1.13E9E+C4
T	5.C665E+C1	7.2639E+01	8.1962E+C1
RHO	9.4463E+00	4.0886E+01	5.0583E+C1
M	1.7245E+02	3.0364E+02	3.7472E+C2
A	9.5466E+00	1.2772E+01	1.4237E+C1
S	2.0325E+CC	2.1358E+CC	2.2164E+C0
Z	2.C515E+CC	2.5238E+CC	2.7471E+CC
GAME	8.5956E-01	8.8986E-01	9.0021E-C1
U	2.4582E+01	5.7760E+00	5.7365E+CC

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.3944E-01	2.8684E-01	3.4478E-C1
HE	9.5529E-C2	7.5847E-02	6.3499E-C2
HE+	9.1890E-C5	3.3979E-03	9.3C48E-C3
HE++	2.8612E-18	4.8245E-12	2.6437E-10
H	6.2555E-C1	3.5C49E-01	2.4693E-C1
H+	1.3935E-C1	2.8342E-01	3.3568E-C1
H2	3.4C45E-C5	2.2780E-05	1.2124E-C5

P1 = 2.00E+02 N/SC-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7369E+02	5.3975E+03	8.2915E+C3
T	4.4778E+01	6.4072E+01	7.1989E+C1
RHO	8.9774E+00	3.6943E+01	4.6626E+C1
M	1.3427E+02	2.3441E+02	2.9052E+C2
A	8.7005E+00	1.1345E+01	1.2561E+C1
S	1.94C6E+CC	2.0247E+00	2.C983E+CC
Z	1.9464E+00	2.2803E+00	2.47C2E+ C
GAME	8.6E58E-01	8.8390E-01	8.9001E-C1
U	2.1873E+01	5.2582E+00	5.1422E+CC

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.523EE-C2	2.1067E-01	2.7136E-C1
HE	1.C274E-01	8.6777E-02	7.8C61E-C2
HE+	1.4724E-05	9.3374E-04	2.9034E-C3
HE++	3.4C75E-21	3.8C65E-14	2.9644E-12
H	7.4668E-C1	4.9184E-01	3.7520E-C1
H+	7.5241E-C2	2.0574E-01	2.6845E-C1
H2	6.3286E-C5	4.8082E-05	3.0311E-C5

P1 = 2.00E+C2 N/SC-M, US1= 3.60E+04 M/SEC

	MCVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1266E+C3	8.0956E+03	1.3162E+C4
T	5.3259E+01	7.7C75E+01	8.7421E+C1
RHO	9.7212E+00	4.2555E+01	5.22C9E+ 1
M	1.9331E+02	3.4159E+C2	4.2135E+C2
A	9.9814E+CC	1.3521E+01	1.5124E+ 1
S	2.C764E+CC	2.1918E+00	2.28C5E+CC
Z	2.1721E+CC	2.6511E+CC	2.9881E+CC
GAME	8.6C16E-01	8.9471E-01	9.0592E- 1
U	2.6539E+01	6.0632E+00	6.0721E+CC

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.7172E-01	3.2136E-01	3.7677E-C1
HE	9.1C21E-C2	6.9537E-C2	5.4116E-C2
HE+	1.8472E-04	5.9023E-C3	1.5133E-C2
HE++	3.6179E-17	3.9644E-11	1.9E26E-C9
H	5.6449E-C1	2.8832E-01	1.9234E-C1
H+	1.7154E-01	3.1516E-C1	3.6163E-C1
H2	2.5556E-C5	1.9C13E-C5	7.1563E-06

Table II. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SC-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.25[illegible]E+03	9.9751E+03	1.5121E+04
T	5.5E29E+01	8.1684E+01	9.3360E+01
RHO	9.9726E+00	4.3931E+01	5.3452E+01
H	2.1539E+02	3.8186E+02	4.71C4E+ 2
A	1.0427E+01	1.4291E+01	1.6C77E+01
S	2.1268E+00	2.2480E+00	2.3417E+00
Z	2.2556E+00	2.7797E+00	3.0279E+00
GAME	8.6177E-01	8.9548E-01	9.1429E-01
U	2.8099E+01	6.3819E+00	4.4369E+00

SPECIES	MOLE FRACTIONS		
E-	2.0341E-01	3.5247E-01	4.0554E-01
HE	8.8179E-02	6.2234E-02	4.3205E-02
HE+	3.3405E-04	9.71C8E-03	2.2847E-02
HE++	3.3581E-16	2.7566E-10	1.3214E-08
H	5.C45dE-01	2.3282E-01	1.4572E-01
H+	2.C3C9E-01	3.4276E-01	3.8269E-01
H2	1.5169E-05	9.5291E-06	3.9791E-06

P1 = 2.00E+02 N/SC-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6963E+03	1.4168E+04	2.1814E+04
T	6.3294E+01	9.7413E+01	1.1891E+02
RHO	1.0543E+01	4.6095E+01	5.3758E+01
H	2.8E74E+02	5.1413E+02	6.4264E+02
A	1.1843E+01	1.6854E+01	2.0174E+01
S	2.2726E+00	2.4163E+00	2.5250E+00
Z	2.5429E+00	3.1553E+00	3.4124E+00
GAME	8.7143E-01	9.2412E-01	1.0030E+00
U	3.2723E+01	7.4873E+00	7.9833E+00

SPECIES	MOLE FRACTIONS		
E-	2.9215E-01	4.2553E-01	4.7251E-01
HE	7.7112E-02	3.3403E-02	1.0496E-02
HE+	1.5387E-03	2.9983E-02	4.8111E-02
HE++	9.3160E-14	4.9643E-08	3.8487E-06
H	3.3858E-01	1.C753E-01	4.4490E-02
H+	2.5061E-01	3.9955E-01	4.2439E-01
H2	7.4558E-06	1.8275E-06	3.0599E-07

P1 = 2.00E+02 N/SC-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3972E+03	1.1324E+04	1.7156E+04
T	5.8311E+01	8.5532E+01	1.0006E+02
RHO	1.0199E+01	4.5008E+01	5.4310E+01
H	2.3665E+02	4.2381E+02	5.2354E+02
A	1.0894E+01	1.5038E+01	1.7152E+01
S	2.1749E+00	2.3043E+00	2.4030E+00
Z	2.3504E+00	2.9077E+00	3.1644E+00
GAME	8.6434E-01	9.0472E-01	9.2909E-01
U	2.9644E+01	6.7187E+00	6.8422E+00

SPECIES	MOLE FRACTIONS		
E-	2.3419E-01	3.8095E-01	4.3118E-01
HE	8.4515E-02	5.3699E-02	3.1401E-02
HE+	5.7634E-04	1.5085E-02	3.1801E-02
HE++	2.5117E-15	1.7318E-09	8.1846E-08
H	4.4709E-01	1.8439E-01	1.0624E-01
H+	2.3351E-01	3.5587E-01	3.9938E-01
H2	1.4239E-05	5.8049E-06	2.0296E-06

P1 = 2.00E+02 N/SC-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5433E+03	1.2729E+04	1.9422E+04
T	6.0787E+01	9.1714E+01	1.0819E+02
RHO	1.0334E+01	4.5758E+01	5.4471E+01
H	2.6310E+02	4.6801E+02	5.8084E+02
A	1.1135E+01	1.5928E+01	1.8465E+01
S	2.2235E+00	2.3604E+00	2.4644E+00
Z	2.4450E+00	3.0333E+00	3.2955E+00
GAME	8.6761E-01	9.1202E-01	9.5628E-01
U	3.1187E+01	7.0819E+00	7.3402E+00

SPECIES	MOLE FRACTIONS		
E-	2.6383E-01	4.0658E-01	4.5380E-01
HE	8.0843E-02	4.3942E-02	1.9890E-02
HE+	9.5534E-04	2.1994E-02	4.0798E-02
HE++	1.6136E-14	9.6174E-09	5.2152E-07
H	3.5149E-01	1.4260E-01	7.2504E-02
H+	2.6247E-01	3.8459E-01	4.1300E-01
H2	1.0416E-05	3.3692E-06	8.9015E-07

P1 = 2.00E+02 N/SC-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8562E+03	1.5626E+04	2.4448E+04
T	6.5869E+01	1.0389E+02	1.3452E+02
RHO	1.0665E+01	4.5998E+01	5.4699E+01
H	3.1556E+02	5.6213E+02	7.1170E+ 2
A	1.2345E+01	1.7913E+01	2.2486E+01
S	2.3218E+00	2.4709E+00	2.5695E+00
Z	2.6426E+00	3.2699E+00	3.5051E+ 0
GAME	8.7564E-01	9.4452E-01	1.0693E+00
U	3.4252E+01	7.9452E+00	8.9086E+00

SPECIES	MOLE FRACTIONS		
E-	3.1890E-01	4.4952E-01	4.8646E-01
HE	7.3252E-02	2.3116E-02	4.4212E-03
HE+	2.4265E-03	3.8048E-02	5.2598E-02
HE++	4.9637E-13	2.4658E-07	4.0807E-05
H	2.8894E-01	7.7842E-02	2.2706E-02
H+	3.1647E-01	4.1147E-01	4.3378E-01
H2	5.2123E-06	5.0615E-07	6.5063E-08

P1 = 2.00E+02 N/SC-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0227E+03	1.7043E+04	2.7272E+04
T	6.8551E+01	1.1172E+02	1.5654E+02
RHO	1.0744E+01	4.6214E+01	4.3573E+01
H	3.4355E+02	6.8110E+02	7.8764E+02
A	1.2873E+01	1.9193E+01	2.4814E+01
S	2.3719E+00	2.5244E+00	2.6446E+00
Z	2.7432E+00	3.3740E+00	3.5576E+ 0
GAME	8.8013E-01	9.7779E-01	1.1056E+00
U	3.5771E+01	8.5052E+00	1.0061E+01

SPECIES	MOLE FRACTIONS		
E-	3.4432E-01	4.8305E-01	4.9436E-01
HE	6.9081E-02	1.4136E-02	1.9883E-03
HE+	3.7675E-03	4.7135E-02	5.3988E-02
HE++	2.5511E-12	1.2627E-06	4.6165E-04
H	2.4229E-01	5.2354E-02	1.3511E-02
H+	3.6483E-01	4.2133E-01	4.3523E-01
H2	3.5124E-06	3.8623E-07	1.2514E-08

Table II. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, USI= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1558E+03	1.8391E+04	3.0191E+04
T	7.1377E+01	1.2156E+02	1.8030E+02
RHO	1.0802E+01	4.3736E+01	4.6652E+01
H	3.7272E+02	6.6257E+02	8.0746E+ 2
A	1.3410E+01	2.0764E+01	2.6177E+01
S	2.4213E+00	2.5753E+00	2.6573E+ 0
Z	2.8478E+00	3.4551E+00	3.5853E+00
GAMF	8.8465E-01	1.0253E+00	1.0585E+00
U	3.7280E+01	9.2151E+00	1.1233E+01

SPECIES	MOLE FRACTIONS		
E-	3.6795E-01	4.7963E-01	4.9850E-01
HE	6.4358E-02	7.6162E-03	9.6832E-04
HE+	5.8305E-03	5.0195E-02	5.1455E-02
HE++	1.2632E-11	7.2934E-06	3.2988E-03
H	1.9571E-01	3.3124E-02	5.3236E-03
H+	3.6211E-01	4.2942E-01	4.4045E-01
H2	2.2852E-06	1.3650E-07	2.7547E-08

P1 = 2.00E+02 N/SQ-M, USI= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7533E+03	2.1760E+04	3.8331E+04
T	8.1103E+01	1.6570E+02	2.3285E+02
RHO	1.0768E+01	3.6725E+01	4.4465E+ 1
H	4.6723E+02	8.2098E+02	1.1024E+03
A	1.5144E+01	2.5441E+01	2.9300E+01
S	2.5710E+00	2.7103E+00	2.8224E+00
Z	3.1469E+00	3.5792E+00	3.7038E+00
GAMF	8.9855E-01	1.0913E+00	9.9543E-01
U	4.1749E+01	1.2270E+01	1.3372E+01

SPECIES	MOLE FRACTIONS		
E-	4.2801E-01	4.9709E-01	5.1401E-01
HE	4.4723E-02	1.0873E-03	2.2111E-04
HE+	1.6831E-02	5.3413E-02	2.3679E-02
HE++	1.3232E-09	1.3792E-03	3.0099E-02
H	9.9254E-02	6.1149E-03	1.8653E-03
H+	4.0919E-01	4.4092E-01	4.3013E-01
H2	4.8754E-07	3.0032E-09	2.9602E-10

P1 = 2.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3754E+03	1.9620E+04	3.2973E+04
T	7.4385E+01	1.3433E+02	1.9979E+02
RHO	1.0826E+01	4.1487E+01	4.5552E+01
H	4.0307E+02	7.1439E+02	9.4527E+02
A	1.3967E+01	2.2576E+01	2.6935E+01
S	2.4716E+00	2.6244E+00	2.7421E+ 0
Z	2.9458E+00	3.5205E+00	3.6230E+00
GAME	8.9501E-01	1.0778E+00	1.0023E+00
U	3.8780E+01	1.0114E+01	1.2063E+01

SPECIES	MOLE FRACTIONS		
E-	3.8990E-01	4.8971E-01	5.0317E-01
HE	5.8955E-02	3.7190E-03	6.0070E-04
HE+	8.8455E-03	5.3043E-02	4.4249E-02
HE++	6.1066E-11	4.7181E-05	1.0353E-02
H	1.6145E-01	1.8859E-02	3.4037E-03
H+	3.8099E-01	4.3558E-01	4.3822E-01
H2	1.4269E-06	3.8725E-08	1.0610E-09

P1 = 2.00E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9522E+03	2.2867E+04	4.1020E+04
T	8.4944E+01	1.8150E+02	2.5134E+02
RHO	1.0727E+01	3.4955E+01	4.3634E+01
H	5.0113E+02	8.7703E+02	1.1865E+03
A	1.5756E+01	2.6060E+01	3.1120E+01
S	2.6200E+00	2.7492E+00	2.8600E+00
Z	3.2395E+00	3.6002E+00	3.7404E+00
GAME	9.0669E-01	1.0393E+00	1.0302E+00
U	4.3215E+01	1.3234E+01	1.4094E+01

SPECIES	MOLE FRACTIONS		
E-	4.4442E-01	5.0003E-01	5.1876E-01
HE	3.5909E-02	6.9656E-04	1.1197E-04
HE+	2.5822E-02	5.0204E-02	1.4320E-02
HE++	5.5072E-09	4.6516E-03	3.9039E-02
H	7.5248E-02	3.9032E-03	1.3586E-03
H+	4.1860E-01	4.4052E-01	4.2637E-01
H2	2.6477E-07	1.1257E-09	1.6038E-10

P1 = 2.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5614E+03	2.0735E+04	3.5652E+04
T	7.7614E+01	1.4947E+02	2.1617E+02
RHO	1.0821E+01	3.9032E+01	4.5035E+01
H	4.3459E+02	7.9711E+02	1.0225E+03
A	1.4542E+01	2.4264E+01	2.7914E+01
S	2.5215E+00	2.6692E+00	2.7826E+00
Z	3.0459E+00	3.5565E+00	3.6621E+00
GAME	8.9334E-01	1.0074E+00	9.8423E-01
U	4.0270E+01	1.1164E+01	1.2726E+01

SPECIES	MOLE FRACTIONS		
E-	4.0582E-01	4.9354E-01	5.0648E-01
HE	5.2451E-02	1.8910E-03	3.8193E-04
HE+	1.3125E-02	5.4053E-02	3.4405E-02
HE++	2.6952E-10	2.8716E-04	1.9826E-02
H	1.2751E-01	1.0209E-02	2.4827E-03
H+	3.9069E-01	4.3932E-01	4.3442E-01
H2	3.5307E-07	1.0339E-08	5.4249E-10

P1 = 2.00E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1564E+03	2.3587E+04	4.3724E+04
T	8.0284E+01	1.9548E+02	2.7471E+02
RHO	1.0624E+01	3.8833E+01	4.2237E+01
H	5.3613E+02	9.3553E+02	1.2769E+03
A	1.6542E+01	2.6584E+01	3.3465E+01
S	2.6682E+00	2.7860E+00	2.9022E+00
Z	3.3277E+00	3.6268E+00	3.7684E+00
GAME	9.2103E-01	9.9677E-01	1.0818E+00
U	4.4665E+01	1.4028E+01	1.5000E+01

SPECIES	MOLE FRACTIONS		
E-	4.5509E-01	5.0369E-01	5.2234E-01
HE	2.6534E-02	4.7396E-04	6.5556E-05
HE+	3.3527E-02	4.4049E-02	7.2525E-03
HE++	2.6257E-06	1.2632E-02	4.5735E-02
H	5.5239E-02	2.7742E-03	1.0003E-03
H+	4.2552E-01	4.3839E-01	4.2358E-01
H2	1.3359E-07	5.3027E-10	7.7829E-11

Table II. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3644E+03	2.5066E+04	4.6283E+04
T	5.4356E+01	2.0834E+02	3.0303E+02
RHO	1.0463E+01	3.4980E+01	4.0364E+01
H	5.7223E+02	9.5610E+02	1.3732E+03
A	1.7446E+01	2.7325E+01	3.5925E+01
S	2.7131E+00	2.8226E+00	2.9387E+00
Z	3.4079E+00	3.5592E+00	3.7844E+00
GAME	9.4611E-01	9.7943E-01	1.1254E+ 0
U	4.6072E+01	1.4640E+01	1.6100E+01

SPECIES	MOLE FRACTIONS		
E-	4.7182E-01	5.0809E-01	5.2436E-01
HE	1.7347E-02	3.1833E-04	1.6075E-05
HE+	4.1143E-02	3.5745E-02	3.3928E-03
HE++	1.2116E-07	1.8559E-02	4.9439E-02
H	3.8823E-02	2.0985E-03	6.9371E-04
H+	4.3067E-01	4.3516E-01	4.2209E-01
H2	5.1127E-08	2.8778E-10	3.5072E-11

P1 = 2.00E+02 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9559E+03	2.6414E+04	5.0430E+04
T	1.2010E+02	2.4678E+02	4.0246E+02
RHO	9.3370E+00	2.8534E+01	3.3000E+01
H	6.6654E+02	1.1804E+03	1.6754E+03
A	2.1686E+01	3.0981E+01	4.2111E+01
S	2.8452E+00	2.9315E+00	3.0451E+00
Z	3.5633E+00	3.7512E+00	3.7972E+00
GAME	1.0589E+00	1.0368E+00	1.1604E+00
U	4.9854E+01	1.6312E+01	1.9665E+01

SPECIES	MOLE FRACTIONS		
E-	4.9485E-01	5.2015E-01	5.2596E-01
HE	2.0577E-03	6.3857E-05	8.2865E-07
HE+	5.4043E-02	1.1912E-02	5.0242E-04
HE++	2.7537E-05	4.1341E-02	5.2163E-02
H	8.2767E-03	9.8053E-04	2.4286E-04
H+	4.4075E-01	4.2555E-01	4.2112E-01
H2	1.8954E-05	5.2030E-11	3.3990E-12

P1 = 2.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5749E+03	2.5886E+04	4.8416E+04
T	1.CC50E+02	2.2059E+02	3.3532E+02
RHO	1.C187E+01	3.1776E+01	3.8076E+01
H	6.0538E+02	1.C577E+03	1.4744E+03
A	1.8621E+01	2.9300E+01	3.82C8E+01
S	2.7610E+00	2.8589E+00	2.9768E+00
Z	3.4779E+00	3.6930E+00	3.7921E+00
GAME	9.8813E-01	9.8314E-01	1.1481E+00
U	4.7427E+01	1.5200E+01	1.7343E+01

SPECIES	MOLE FRACTIONS		
E-	4.8243E-01	5.1263E-01	5.2532E-01
HE	9.5134E-03	2.0373E-04	5.4858E-06
HE+	4.7553E-02	2.6918E-02	1.6070E-03
HE++	6.4C88E-07	2.7034E-02	5.1129E-02
H	2.5223E-02	1.6353E-03	4.7717E-04
H+	4.3484E-01	4.3161E-01	4.2146E-01
H2	2.3314E-08	1.6594E-13	1.5399E-11

P1 = 2.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7834E+03	2.6315E+04	4.9753E+04
T	1.0545E+02	2.3321E+02	3.6086E+02
RHO	9.7558E+00	3.0292E+01	3.5538E+01
H	6.4745E+02	1.1192E+03	1.5755E+03
A	2.0103E+01	2.9525E+01	4.0247E+01
S	2.8053E+00	2.9556E+00	3.0138E+00
Z	3.5303E+00	3.7249E+00	3.7955E+00
GAME	1.0463E+00	1.0035E+00	1.1570E+00
U	4.8653E+01	1.5738E+01	1.9550E+01

SPECIES	MOLE FRACTIONS		
E-	4.9225E-01	5.1677E-01	5.2575E-01
HE	4.7125E-03	1.1931E-04	2.0237E-06
HE+	5.1923E-02	1.8639E-02	8.4788E-04
HE++	4.C572E-C5	3.4503E-02	5.1844E-02
H	1.4391E-02	1.2726E-03	3.3534E-04
H+	4.3826E-01	4.2826E-01	4.2122E-01
H2	7.1617E-09	9.4334E-11	7.0212E-12

P1 = 2.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2C59E+03	2.6195E+04	5.0617E+04
T	1.3280E+02	2.6196E+02	4.3582E+02
RHO	8.8439E+00	2.6522E+01	3.0580E+01
H	7.2649E+02	1.2404E+03	1.7753E+03
A	2.3113E+01	3.26C8E+01	4.3853E+01
S	2.8834E+00	2.9670E+00	3.0825E+00
Z	3.5812E+00	3.7704E+00	3.7981E+00
GAME	1.123UE+00	1.0765E+00	1.1618E+00
U	5.1C17E+01	1.7005E+01	2.0770E+01

SPECIES	MOLE FRACTIONS		
E-	4.9738E-01	5.2260E-01	5.2667E-01
HE	9.1765E-04	3.0928E-05	3.7276E-07
HE+	5.4748E-02	7.0506E-03	3.2704E-04
HE++	1.8091E-04	4.5963E-02	5.2331E-02
H	4.5073E-03	7.4081E-04	1.8C86E-04
H+	4.4227E-01	4.2362E-01	4.2109E-01
H2	4.83CCE-1C	2.7199E-11	1.7427E-12

Table II. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5062E+01
T	3.1753E+00	3.9838E+00	5.7028E+00
RHO	3.5601E+00	6.6009E+00	1.1408E+01
M	3.2467E+00	4.1057E+00	6.0149E+00
A	1.7739E+00	1.9769E+00	2.3371E+00
S	1.0612E+00	1.0631E+00	1.0867E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.9100E-01	9.9107E-01	9.5772E-01
U	2.4970E+00	1.4729E+00	1.3077E+00

SPECIES	MOLE FRACTIONS		
E-	1.1175E-51	5.2694E-39	3.6885E-23
HE	2.0000E-01	2.0000E-01	1.9999E-01
HE+	2.5193E-64	5.0644E-57	9.9136E-48
HE++	0.	0.	0.
H	5.6021E-10	1.7676E-07	1.2939E-04
H+	7.2402E-20	7.2402E-20	7.2434E-20
H2	8.0000E-01	8.0000E-01	7.9588E-01

P1 = 5.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9586E+01	1.4754E+02	2.6116E+02
T	7.3483E+00	9.6234E+00	1.0852E+ 1
RHO	5.3718E+00	1.4906E+01	2.2508E+01
M	8.0543E+00	1.2331E+01	1.6014E+01
A	2.5794E+00	2.8770E+00	3.0516E+00
S	1.1520E+00	1.1646E+00	1.1908E+00
Z	1.0029E+00	1.0287E+00	1.0652E+ 0
GAME	9.0284E-01	8.3617E-01	8.2381E-01
U	4.6816E+00	1.6857E+00	1.4673E+00

SPECIES	MOLE FRACTIONS		
E-	1.6738E-16	2.2175E-12	7.3251E-11
HE	1.9542E-01	1.9443E-01	1.8776E-01
HE+	5.7075E-38	2.4651E-32	2.2470E-26
HE++	0.	0.	0.
H	5.7977E-03	5.5722E-02	1.2235E-01
H+	1.6745E-16	2.2175E-12	7.3251E-11
H2	7.9478E-01	7.4985E-01	5.8589E-01

P1 = 5.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2134E+01	1.1526E+02
T	4.4065E+00	5.9013E+00	7.9373E+00
RHO	4.4958E+00	8.8315E+00	1.4459E+01
H	4.5641E+00	6.2453E+00	8.8760E+00
A	2.0732E+00	2.3728E+00	2.6691E+00
S	1.0928E+00	1.0971E+00	1.1174E+00
Z	1.0000E+00	1.0001E+00	1.0043E+00
GAME	9.7546E-01	9.3389E-01	8.9371E-01
U	3.1952E+00	1.6250E+00	1.4415E+00

SPECIES	MOLE FRACTIONS		
E-	2.5837E-35	2.6237E-21	2.2844E-15
HE	2.0000E-01	1.9997E-01	1.9915E-01
HE+	3.3101E-55	9.5452E-47	3.6552E-35
HE++	0.	0.	0.
H	2.2750E-06	2.5267E-04	8.5392E-03
H+	7.2402E-20	7.5017E-20	2.2844E-15
H2	8.0000E-01	7.9977E-01	7.9231E-01

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8769E+01	9.0044E+01	1.7844E+02
T	5.8406E+00	7.9621E+00	9.6203E+00
RHO	4.9235E+00	1.1252E+01	1.9079E+01
H	6.1766E+00	8.5499E+00	1.2172E+01
A	2.3804E+00	2.6659E+00	2.8769E+00
S	1.1230E+00	1.1303E+00	1.1530E+00
Z	1.0001E+00	1.0053E+00	1.0259E+00
GAME	9.5383E-01	8.8810E-01	8.3578E-01
U	3.9293E+00	1.7186E+00	1.4701E+00

SPECIES	MOLE FRACTIONS		
E-	5.8415E-21	3.6466E-15	2.0254E-12
HE	1.9993E-01	1.9990E-01	1.9494E-01
HE+	5.1633E-47	8.6913E-36	8.1552E-30
HE++	0.	0.	0.
H	2.7727E-04	1.0006E-02	5.0568E-02
H+	6.6550E-20	3.6466E-15	2.0294E-12
H2	7.9973E-01	7.9009E-01	7.5449E-01

P1 = 5.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2639E+01	2.3376E+02	3.3154E+02
T	8.6086E+00	1.0534E+01	1.2041E+01
RHO	6.0207E+00	1.9959E+01	2.8329E+01
H	1.0334E+01	1.6403E+01	2.0615E+01
A	2.7229E+00	3.1025E+00	3.3289E+00
S	1.1808E+00	1.2017E+00	1.2319E+00
Z	1.0156E+00	1.0710E+00	1.1197E+00
GAME	8.4757E-01	8.2151E-01	8.2151E-01
U	5.4821E+00	1.6525E+00	1.4806E+00

SPECIES	MOLE FRACTIONS		
E-	1.0585E-13	8.9195E-11	8.7720E-10
HE	1.9693E-01	1.8674E-01	1.7862E-01
HE+	4.6514E-33	2.9514E-26	4.1352E-24
HE++	0.	0.	3.7541E-24
H	3.0655E-02	1.3260E-01	2.1383E-01
H+	1.0585E-13	8.9195E-11	8.7720E-10
H2	7.7241E-01	5.8068E-01	6.0756E-01

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7901E+01	3.0591E+02	5.5152E+02
T	9.5644E+00	1.2051E+01	1.3163E+01
RHO	6.8283E+00	2.6103E+01	3.5273E+01
H	1.2884E+01	2.1135E+01	2.5992E+01
A	2.8620E+00	3.3462E+00	3.5939E+00
S	1.2108E+00	1.2421E+00	1.2764E+00
Z	1.0357E+00	1.1279E+00	1.1878E+00
GAME	8.2371E-01	8.2120E-01	8.2603E-01
U	6.3132E+00	1.8507E+00	1.5160E+00

SPECIES	MOLE FRACTIONS		
E-	3.3577E-12	1.0420E-09	6.3291E-09
HE	1.9523E-01	1.7736E-01	1.6838E-01
HE+	6.5600E-32	7.2718E-24	3.8119E-22
HE++	0.	7.3417E-24	3.8490E-22
H	7.6353E-02	2.2639E-01	3.1617E-01
H+	3.3577E-12	1.0420E-09	6.3291E-09
H2	7.3129E-01	5.9629E-01	5.1545E-01

Table II. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 1.09E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.3157E+01	5.1517E+02	7.7112E+C2
T	1.C34CE+C1	1.3143E+01	1.4297E+C1
RHO	7.6752E+00	3.2686E+01	4.2550E+C1
M	1.5743E+01	2.6464E+01	3.2C89E+C1
A	3.0C62E+CC	3.6375E+00	3.8873E+CC
S	1.2428E+CC	1.2836E+03	1.3242E+ C
Z	1.0725E+00	1.1955E+00	1.2676E+CC
GAME	8.1455E-01	8.2572E-01	8.3384E-C1
U	7.1475E+00	1.68C1E+00	1.5742E+CC

SPECIES	MOLE FRACTIONS		
E-	3.4599E-11	6.9597E-09	3.3478E-C8
HE	1.8648E-01	1.6729C-01	1.5778E-C1
HE+	1.C377E-27	5.9079E-22	2.5C87E-20
HE++	0.	7.9327E-81	4.1683E-74
H	1.3521E-C1	3.2709E-01	4.2217E-C1
H+	3.4595E-11	6.9557E-C9	3.3478E-C8
H2	6.7831E-C1	5.0562C-01	4.2CC4E-C1

P1 = 5.CCE+C2 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4816E+02	1.2092E+03	1.7356E+C3
T	1.2239E+01	1.55C7E+01	1.8381E+C1
RHO	1.0001E+01	5.7271E+01	6.0353E+ 1
M	2.6C52E+C1	4.3810E+01	5.4772E+C1
A	3.4762E+00	4.3437E+03	5.0451E+CC
S	1.3512E+00	1.43C3E+00	1.4821E+CC
Z	1.2104E+00	1.451CE+00	1.5634E+CC
GAME	8.1566E-C1	8.5833E-01	8.8570E-C1
U	5.6143E+CJ	1.9133E+00	1.9C80E+CC

SPECIES	MOLE FRACTIONS		
E-	2.6388E-C9	4.7937E-07	2.3318E-C6
HE	1.6523E-01	1.3775E-01	1.2792E-C1
HE+	1.7335E-23	1.3C89E-17	6.5483E-16
HE++	1.8374E-36	2.2918E-64	5.5C67E-58
H	3.4772E-C1	6.2246E-01	7.2076E-C1
H+	2.6389E-09	4.7937E-C7	2.3318E-C6
H2	4.E705E-C1	2.3978E-01	1.5121E-C1

P1 = 5.00E+02 N/SQ-M, USI= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0431E+02	7.1144E+02	1.0408E+03
T	1.1020E+01	1.4260E+01	1.5482E+01
RHO	8.5081E+00	3.9187E+01	4.9513E+01
H	1.8096E+01	3.2362E+01	3.8889E+01
A	3.1563E+00	3.8898E+00	4.2147E+00
S	1.2770E+00	1.3318E+00	1.3747E+00
Z	1.1125E+00	1.2731E+00	1.3578E+00
GAME	8.1254E-01	9.3339E-01	8.4502E-01
U	7.5767E+00	1.7335E+00	1.6534E+00

SPECIES	MOLE FRACTIONS		
E-	1.5612E-10	3.3375E-08	1.4430E-07
HE	1.7576E-01	1.5710E-01	1.4730E-01
HE+	4.1802E-26	2.2309E-20	7.9838E-19
HE++	0.	4.4767E-74	1.4574E-68
H	2.0239E-01	4.2904E-01	5.2698E-01
H+	1.5612E-10	3.3375E-08	1.4430E-07
H2	6.1765E-01	4.1386E-01	3.2572E-01

P1 = 5.00E+02 N/SQ-M, USI= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2533E+02	9.4414E+02	1.3624E+03
T	1.1645E+01	1.5371E+01	1.6759E+01
RHO	9.2851E+00	4.5193E+01	5.5659E+01
H	2.2347E+01	3.8318E+01	4.6435E+01
A	3.3124E+00	4.1565E+00	4.5906E+00
S	1.3131E+00	1.3802E+00	1.4275E+00
Z	1.1587E+00	1.3551E+00	1.4573E+00
GAME	8.1327E-01	9.4395E-01	9.6029E-01
U	6.7557E+00	1.4091E+00	1.7622E+00

SPECIES	MOLE FRACTIONS		
E-	8.0214E-10	1.3336E-07	5.7244E-07
HE	1.7260E-01	1.4715E-01	1.3724E-01
HE+	1.1337E-24	6.2155E-19	2.1738E-17
HE++	2.1267E-91	2.4737E-67	5.7700E-65
H	2.7395E-01	5.2943E-01	6.2157E-01
H+	8.0214E-10	1.3336E-07	5.7244E-07
H2	5.5344E-01	3.2437E-01	2.3518E-01

P1 = 5.00E+02 N/SQ-M, USI= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7279E+02	1.5020E+03	2.1647E+03
T	1.2821E+01	1.7945E+01	2.0609E+01
RHO	1.0634E+01	5.4041E+01	6.2885E+01
H	3.0135E+01	5.3325E+01	6.6085E+01
A	3.6492E+00	4.7446E+00	5.6489E+00
S	1.3909E+00	1.4875E+00	1.5377E+00
Z	1.2674E+00	1.5498E+00	1.6704E+00
GAMS	6.1551E-01	8.7944E-01	9.3358E-01
U	1.0422E+01	2.0511E+00	2.1224E+00

SPECIES	MOLE FRACTIONS		
E-	7.5333E-09	1.7055E-06	1.1818E-05
HE	1.5780E-01	1.2913E-01	1.1573E-01
HE+	1.8598E-22	2.7795E-16	3.4062E-14
HE++	1.0702E-82	2.0594E-59	4.3894E-52
H	4.2195E-01	7.0969E-01	9.0263E-01
H+	7.5339E-09	1.7055E-06	1.1818E-05
H2	4.2024E-01	1.6213E-01	7.7617E-02

P1 = 5.00E+02 N/SQ-M, USI= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9529E+02	1.8137E+03	2.6647E+03
T	1.3427E+01	1.9052E+01	2.4682E+01
RHO	1.1178E+01	5.5916E+01	6.1429E+01
H	3.4474E+01	6.1332E+01	7.4880E+01
A	3.3334E+00	5.4729E+00	6.7192E+00
S	1.4321E+00	1.5305E+00	1.5937E+00
Z	1.3292E+00	1.6442E+00	1.7575E+00
GAMS	8.2453E-01	9.1459E-01	1.0408E+00
U	1.1222E+01	2.2472E+00	2.4540E+00

SPECIES	MOLE FRACTIONS		
E-	1.5559E-08	6.5721E-06	1.1239E-04
HE	1.5047E-01	1.2164E-01	1.1397E-01
HE+	1.6943E-21	7.6641E-15	3.8200E-12
HE++	2.7937E-79	4.3923E-54	6.0547E-43
H	4.5531E-01	7.3350E-01	8.6157E-01
H+	1.5530E-08	6.5721E-06	1.1239E-04
H2	3.5422E-01	9.4742E-02	2.4303E-02

Table II. - Continued

$p_1 = 500$ N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2736E+02	2.1208E+03	3.2564E+03
T	1.4015E+01	2.2236E+01	3.2140E+01
RHO	1.1620E+01	5.5225E+01	5.6484E+01
H	3.91C9E+01	6.9753E+01	8.7813E+01
A	4.0316E+00	6.1576E+00	7.9264E+00
S	1.4746E+00	1.5751E+00	1.6462E+00
Z	1.3554E+00	1.7272E+00	1.7938E+00
GAME	8.3112E-01	9.85C1E-01	1.09C3E+00
U	1.2015E+01	2.5314E+01	3.1168E+01

SPECIES	MOLE FRACTIONS		
E-	4.6127E-04	3.5048E-05	1.6728E-03
HE	1.4333E-01	1.1579E-01	1.1153E-01
HE+	1.3022E-20	4.4765E-13	7.05C6E-09
HE++	1.1495E-74	1.6116E-47	2.8739E-32
H	5.6669E-01	8.4159E-01	8.8CC0E-01
H+	4.8127E-06	3.5048E-05	1.6728E-03
H2	2.8558E-01	4.2163E-02	5.1534E-03

P1 = 5.0CE+02 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.217dE+02	2.9110E+03	5.0C33E+03
T	1.6279E+01	3.7177E+01	4.9821E+01
RHO	1.2256E+01	4.3312E+01	5.3566E+01
H	5.47a1E+01	9.6792E+01	1.2753E+02
A	4.7752E+00	8.3290E+00	9.3165E+00
S	1.6C71E+00	1.6947E+00	1.7542E+00
Z	1.6128E+00	1.8C79E+00	1.8741E+00
GAME	8.6558E-01	1.0322E+00	9.30C2E-01
U	1.4339E+01	4.0564E+00	4.2523E+00

SPECIES	MOLE FRACTIONS		
E-	7.5088E-07	6.3732E-03	4.0298E-02
HE	1.24v1E-01	1.1C63E-01	1.CC70E-01
HE+	9.5745E-13	1.6262E-07	1.9796E-05
HE++	1.6323E-65	1.9669E-27	8.0732E-20
H	7.5550E-01	8.7462E-01	8.1194E-01
H+	7.5088E-07	6.3730E-03	4.0278E-02
H2	1.1605E-01	2.01C7E-03	7.6732E-04

P1 = 5.06E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5725E+02	2.4132E+03	3.87C0E+C
T	1.4668E+01	2.6432E+01	3.9616E+C1
RHO	1.1569E+01	5.1399E+01	5.3875E+C1
H	4.4C4CE+01	7.8467E+01	1.0122E+C2
A	4.2484E+00	7.1230E+00	8.52SCE+CC
S	1.5182E+0C	1.6230E+00	1.6880E+C0
Z	1.4654E+C0	1.7763E+00	1.8132E+CC
GAME	8.3569E-01	1.C8C6E+0C	1.0127E+CC
U	1.2902E+01	2.9820E+00	3.6537E+ C

SPECIES	MOLE FRACTIONS		
E-	1.1637E-C7	2.6129E-C4	9.2C29E-C3
HE	1.3648E-01	1.1259E-01	1.1030E-C1
HE+	1.C544E-15	6.3127E-11	4.7838E-C7
HE++	4.8636E-72	7.5777E-40	1.1683E-25
H	6.3521E-C1	8.7329E-01	8.6538E-C1
H+	1.1637E-C7	2.6129E-04	9.2C24E-C3
H2	2.2831E-C1	1.3592E-02	1.9C94E-C3

P1 = 5.0CE+C2 N/SC-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.56C5E+02	3.1387E+03	5.46C9E+C3
T	1.7443E+01	4.1841E+01	5.3539E+C1
RHO	1.2114E+01	4.1079E+01	5.3331E+C1
H	6.C581E+01	1.0668E+02	1.4074E+ 2
A	5.1515E+CC	8.6407E+00	9.68C6E+ C
S	1.6512E+CC	1.7260E+00	1.7849E+C0
Z	1.6E49E+00	1.8261E+00	1.9126E+CC
GAME	9.0296E-01	9.7718E-01	9.1520E- 1
U	1.5C76E+01	4.4434E+00	4.4300E+ 0

SPECIES	MOLE FRACTIONS		
E-	2.3827E-C6	1.5447E-02	5.9428E-02
HE	1.1870E-01	1.0552E-01	1.0452E-C1
HE+	1.581CE-16	1.4338E-06	5.4280E-C5
HE++	1.3654E-60	5.0197E-24	3.0E54E-18
H	8.1298E-C1	8.5843E-01	7.7605E-C1
H+	2.3827E-C6	1.5445E-02	5.9373E-C2
H2	6.8313E-02	1.1585E-03	5.7548E-C4

P1 = 5.0CE+C2 N/SC-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8875E+02	2.6682E+03	4.4575E+C3
T	1.54C1E+01	3.1824E+01	4.5313E+C1
RHO	1.2187E+01	4.6710E+01	5.3457E+C1
H	4.9265E+01	8.7423E+01	1.1436E+C2
A	4.4920E+00	7.8924E+00	8.9378E+CC
S	1.5625E+0C	1.6612E+CC	1.7225E+CC
Z	1.5384E+CC	1.7950E+00	1.E4C2E+ C
GAME	8.5163E-01	1.09C5E+00	9.58C3E-C1
U	1.3577E+01	3.5416E+00	4.C048E+CC

SPECIES	MOLE FRACTIONS		
E-	2.E771E-C7	1.6840E-03	2.2932E-02
HE	1.3CC0E-C1	1.1142E-01	1.CE68E-C1
HE+	9.4723E-15	6.2129E-09	4.6585E-C6
HE++	8.1612E-69	1.6143E-32	4.4534E-22
H	6.5559E-C1	8.8072E-01	8.4435E-C1
H+	2.E771E-C7	1.6840E-03	2.2927E-C
H2	1.7CC1E-C1	4.4889E-03	1.1056E-C3

P1 = 5.00E+C2 N/SC-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.91C1E+02	3.3045E+C3	5.7423E+03
T	1.9226E+01	4.5733E+01	5.6638E+C1
RHO	1.1644E+01	3.9039E+01	5.1EE6E+ 1
H	6.6651E+01	1.1700E+02	1.53E7E+C2
A	5.7122E+0C	8.9293E+00	1.0017E+C1
S	1.6538E+C0	1.7570E+C0	1.81E2E+CC
Z	1.7465E+0C	1.8509E+0C	1.9540E+CC
GAME	9.7171E-01	9.4189E-01	9.0668E- 1
U	1.5773E+01	4.7023E+C0	4.56C8E+CC

SPECIES	MOLE FRACTIONS		
E-	1.C563E-C5	2.8248E-02	7.9277E-C2
HE	1.1451E-C1	1.C805E-01	1.C224E-C1
HE+	6.1192E-15	6.3479E-06	1.1513E-C4
HE++	9.1443E-5C	1.0341E-21	4.6211E-17
H	8.5485E-01	8.3464E-01	7.3E76E-C1
H+	1.C563E-C5	2.8241E-C2	7.9162E-C2
H2	3.C620E-C2	7.6912E-04	4.4396E-C4

Table II. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SC-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2572E+02	3.3434E+03	5.7416E+03
T	2.2204E+01	4.8856E+01	5.9112E+01
RHO	1.0752E+01	3.6358E+01	4.8641E+01
H	7.2960E+01	1.2745E+02	1.6653E+02
A	9.3395E+00	9.2306E+00	1.0314E+ 1
S	1.7330E+00	1.7858E+00	1.8452E+00
Z	1.7832E+00	1.8807E+00	1.9569E+00
GAME	1.0787E+00	9.2054E-01	9.0122E-01
U	1.6356E+01	4.8430E+00	4.6485E+00

SPECIES	MOLE FRACTIONS		
E-	7.6223E-03	4.3443E-02	9.8537E-02
HE	1.1211E-01	1.0033E-01	9.9554E-02
HE+	8.4156E-13	1.8207E-05	2.0270E-04
HE++	4.6043E-47	4.4102E-20	3.4399E-16
H	8.7321E-01	8.0624E-01	7.0183E-01
H+	7.6223E-03	4.3427E-02	9.8734E-02
H2	9.4773E-03	5.4603E-04	3.4336E-04

P1 = 5.00E+02 N/SC-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3530E+02	3.4630E+03	5.6736E+03
T	3.4382E+01	5.6295E+01	6.5280E+01
RHO	8.5887E+00	3.0891E+01	4.0692E+01
H	9.3464E+01	1.5099E+02	2.0576E+02
A	7.9071E+00	1.0012E+01	1.1169E+01
S	1.8238E+00	1.8818E+00	1.9452E+00
Z	1.8128E+00	1.9914E+00	2.1358E+00
GAME	1.0031E+00	8.9424E-01	8.9464E-01
U	1.8151E+01	5.0451E+00	4.8509E+00

SPECIES	MOLE FRACTIONS		
E-	7.6049E-03	9.6351E-02	1.5741E-01
HE	1.1033E-01	1.0030E-01	9.2538E-02
HE+	7.6044E-08	1.3705E-04	7.0230E-04
HE++	3.4776E-29	5.8818E-17	2.8048E-14
H	8.7390E-01	7.0675E-01	5.9207E-01
H+	7.6048E-03	9.6214E-02	1.5671E-01
H2	5.6466E-04	2.5056E-04	1.7215E-04

P1 = 5.00E+02 N/SC-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0036E+02	3.3163E+03	5.5982E+03
T	2.6277E+01	5.1528E+01	6.1165E+01
RHO	5.7544E+00	3.3620E+01	4.4852E+01
H	7.9504E+01	1.3804E+02	1.7885E+02
A	7.2533E+00	9.4600E+00	1.0584E+01
S	1.7873E+00	1.8217E+00	1.8825E+00
Z	1.7562E+00	1.9141E+00	2.0406E+00
GAMF	1.1148E+00	9.0733E-01	8.5755E-01
U	1.6562E+01	4.9173E+00	4.7090E+00

SPECIES	MOLE FRACTIONS		
E-	5.6410E-04	6.0036E-02	1.1819E-01
HE	1.1136E-01	1.0445E-01	9.7691E-02
HE+	1.2138E-10	4.0181E-05	3.1788E-04
HE++	2.5426E-35	7.3068E-19	1.6648E-15
H	8.8474E-01	7.7508E-01	6.6567E-01
H+	5.6410E-04	5.9994E-02	1.1787E-01
H2	2.7757E-03	4.0473E-04	2.6728E-04

P1 = 5.00E+02 N/SC-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7705E+02	3.6727E+03	5.9457E+03
T	3.7647E+01	5.8663E+01	6.7552E+ 1
RHO	8.3847E+00	3.0762E+01	4.0242E+01
H	1.0054E+02	1.7376E+02	2.2095E+02
A	8.1020E+00	1.0317E+01	1.1502E+01
S	1.8487E+00	1.9097E+00	1.9748E+00
Z	1.8291E+00	2.0352E+00	2.1866E+00
GAME	9.5378E-01	8.9162E-01	8.9488E-01
U	1.8817E+01	5.1240E+00	4.9478E+00

SPECIES	MOLE FRACTIONS		
E-	1.5733E-02	1.1575E-01	1.7771E-01
HE	1.0940E-01	9.8042E-02	9.0357E-02
HE+	4.6689E-07	2.3048E-04	1.0252E-03
HE++	2.4554E-26	3.9007E-16	1.1139E-13
H	8.5877E-01	6.7025E-01	5.5409E-01
H+	1.5732E-02	1.1552E-01	1.7668E-01
H2	3.5586E-04	2.0582E-04	1.4159E-04

P1 = 5.00E+02 N/SC-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5642E+02	3.3369E+03	5.5440E+03
T	3.0576E+01	5.3927E+01	6.3175E+01
RHO	6.6054E+00	3.1716E+01	4.2048E+ 1
H	8.6321E+01	1.4909E+02	1.9162E+02
A	7.6729E+00	9.7263E+00	1.0865E+01
S	1.7974E+00	1.8527E+00	1.9150E+00
Z	1.8629E+00	1.9510E+00	2.0871E+00
GAME	1.0668E+00	8.9911E-01	8.9540E-01
U	1.7531E+01	4.9759E+00	4.7807E+00

SPECIES	MOLE FRACTIONS		
E-	2.6594E-03	7.7693E-02	1.3776E-01
HE	1.1053E-01	1.0244E-01	9.5330E-02
HE+	5.8263E-06	7.7054E-05	4.7774E-04
HE++	4.9318E-33	7.4224E-18	7.0186E-15
H	8.8453E-01	7.4187E-01	6.2891E-01
H+	2.6594E-03	7.7616E-02	1.3729E-01
H2	1.0732E-03	3.1257E-04	2.1163E-04

P1 = 5.00E+02 N/SC-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2153E+02	3.5470E+03	6.3381E+03
T	4.0435E+01	6.1030E+01	6.9937E+01
RHO	8.3159E+00	3.1064E+01	4.0376E+01
H	1.0873E+02	1.8732E+02	2.3724E+02
A	8.3026E+00	1.0637E+01	1.1859E+01
S	1.9726E+00	1.9369E+00	2.0040E+00
Z	1.9484E+00	2.0819E+00	2.2445E+00
GAME	9.2243E-01	8.9054E-01	8.9584E-01
U	1.9519E+01	5.2217E+00	5.0588E+00

SPECIES	MOLE FRACTIONS		
E-	2.6453E-02	1.3559E-01	1.9817E-01
HE	1.0823E-01	9.5655E-02	8.7630E-02
HE+	1.7358E-06	3.6591E-04	1.4749E-03
HE++	2.8428E-24	2.2069E-15	4.2582E-13
H	8.3854E-01	6.3295E-01	5.1591E-01
H+	2.6448E-02	1.3522E-01	1.9670E-01
H2	2.5803E-04	1.7169E-04	1.1719E-04

Table II. - Continued

p_1 = 500 N/m^2

P1 = 5.CCE+C2 N/SC-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6857E+02	4.2773E+03	6.8200E+C3
T	4.2832E+01	6.3411E+01	7.2417E+C1
RHO	8.3365E+0C	3.1645E+01	4.0893E+ 1
H	1.1689E+02	2.0165E+02	2.5457E+C2
A	8.5111E+00	1.C971E+C1	1.2234E+C1
S	1.8555E+0C	1.9639E+00	2.0328E+0C
Z	1.8723E+CC	2.1316E+00	2.3032E+0C
GAME	5.0329E-01	8.9354E-01	8.9730E-01
U	2.0249E+01	5.3299E+00	5.1821E+0C

SPECIES	MOLE FRACTIONS		
E-	3.8814E-C2	1.5570E-01	2.1857E-C1
HE	1.0682E-01	9.3255E-02	8.4174E-C2
HE+	4.6855E-C6	5.7214E-C4	2.0883E-C3
HE++	1.0325E-22	1.1019E-14	1.5532E-12
H	8.1536E-C1	5.9520E-01	4.7802E-C1
H+	3.8809E-02	1.5513E-01	2.1648E-C1
H2	1.9552E-C4	1.4442E-04	9.7286E-C5

P1 = 5.00E+C2 N/SC-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7813E+02	5.3557E+03	9.3265E+03
T	5.0483E+01	7.2852E+01	8.2911E+01
RHO	8.7223E+00	3.4808E+01	4.4C13E+C1
H	1.5256E+C2	2.6539E+02	3.3244E+ 2
A	9.3862E+00	1.2381E+01	1.3848E+C1
S	1.9854E+C0	2.07C3E+C0	2.1484E+ C
Z	1.9944E+00	2.3496E+00	2.3588E+0C
GAME	8.7EC9E-01	8.95HCE-01	9.05C0E-.1
U	2.3291E+01	5.9315E+00	5.7527E+ C

SPECIES	MOLE FRACTIONS		
E-	9.7[illegible]E-C2	2.3366E-C1	2.9576E-C1
HE	1.0022E-C1	8.2763E-02	7.1209E-C2
HE+	5.6C22E-[illegible]	2.3578E-03	6.9869E-03
HE++	9.9[illegible]E-[illegible]	2.3C67E-12	1.5585E-1C
H	7.C437E-C1	4.45E5E-C1	3.3716E-C1
H+	9.7463E-C2	2.3120E-01	2.8878E-C1
H2	9.6153E-[illegible]	7.3447E-C3	4.4835E-C5

P1 = 5.0CE+C2 N/SC-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.1786E+02	4.6473E+03	7.3671E+03
T	4.4983E+01	6.5765E+01	7.4558E+01
RHO	8.4C18E+00	3.2371E+01	4.1576E+01
H	1.2534E+02	2.1665E+02	2.7280E+02
A	8.7258E+CC	1.1312E+01	1.2622E+01
S	1.9182E+00	1.99C3E+00	2.0617E+CC
Z	1.8554E+00	2.1830E+00	2.3640E+CC
GAME	8.9114E-01	8.9128E-01	8.99C5E-01
U	2.0554E+01	5.4470E+00	5.3141E+CC

SPECIES	MOLE FRACTIONS		
E-	5.2487E-02	1.7556E-01	2.3865E-01
HE	1.0529E-01	9.0766E-02	8.1702E-02
HE+	1.C356E-05	8.5155E-04	2.9C20E-03
HE++	1.8705E-21	4.8098E-14	5.3421E-12
H	7.8958E-01	5.5799E-01	4.4C52CE-01
H+	5.2477E-02	1.7471E-01	2.3575E-01
H2	1.6CC3E-04	1.2225E-04	8.0658E-05

P1 = 5.0CE+C2 N/SC-M, US1= 3.43E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5486E+02	6.2527E+03	1.0856E+04
T	5.3598E+01	7.7523E+01	8.6511E+01
RHO	8.9884E+00	3.6301E+01	4.5639E+01
H	1.7222E+02	3.0CE0E+02	3.7612E+02
A	9.8355E+00	1.3122E+01	1.4711E+01
S	2.0303E+00	2.1233E+00	2.2CC6E+00
Z	2.0665E+00	2.3655E+00	2.6886E+CC
GAME	8.7207E-01	8.9576E-01	9.C935E-01
U	2.4826E+01	6.1202E+00	6.C757E+00

SPECIES	MOLE FRACTIONS		
E-	1.2903E-01	2.6895E-01	3.3C54E-01
HE	9.6648E-02	7.0814E-02	5.2912E-02
HE+	1.3335E-04	4.3006E-03	1.1476E-02
HE++	2.1503E-17	2.1180E-11	1.1551E-09
H	6.4522E-01	3.8313E-01	2.7555E-01
H+	1.2340E-01	2.6504E-01	3.1906E-01
H2	7.1739E-05	5.2301E-05	2.9360E-05

P1 = 5.00E+C2 N/SC-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6529E+02	5.0544C+03	7.9716E+03
T	4.6545E+01	6.8128E+01	7.7576E+01
RHO	8.4950E+00	3.3170E+01	4.2336E+01
H	1.3411E+02	2.3230E+02	2.9188E+02
A	8.9439E+00	1.1662E+01	1.3025E+01
S	1.94C8E+00	2.0169E+00	2.0909E+CC
Z	1.9293E+00	2.2366C+00	2.4272E+ C
GAME	8.8334E-01	8.9253E-01	9.CC57E-01
U	2.1750E+01	5.5C49E+00	5.4537E+ C

SPECIES	MOLE FRACTIONS		
E-	6.7CC6E-02	1.9532E-01	2.5648E-01
HE	1.C366E-01	8.8184E-02	7.8429E-02
HE+	2.C133E-05	1.2330E-03	3.5704E-03
HE++	2.C793E-20	1.9077E-13	1.7525E-11
H	7.8219E-01	5.2100E-01	4.0455E-01
H+	6.6536E-02	1.9403E-01	2.5451E-01
H2	1.3333E-04	1.0351E-04	5.6494E-05

P1 = 5.0CE+C2 N/SC-M, US1= 3.CCE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1128E+03	8.0547E+03	1.2527E+04
T	5.8676E+01	8.2469E+01	9.4411E+ 1
RHO	9.2062E+00	3.7777E+01	4.7005E+01
H	1.9306E+02	3.3435E+02	4.2278E+ 2
A	1.0203E+01	1.3381E+01	1.5E15E+01
S	2.0781E+00	2.1768E+00	2.2650E+CC
Z	2.1442E+00	2.5655E+00	2.8227E+CC
GAME	8.7178E-01	9.0368E-01	9.1455E-01
U	2.6371E+01	6.9320E+00	6.4225E+CC

SPECIES	MOLE FRACTIONS		
E-	1.6C79E-01	3.0384E-01	3.6234E-01
HE	9.3CC2E-02	7.1132E-02	5.3333E-02
HE+	2.6830E-04	7.1333E-03	1.7520E-02
HE++	2.6671E-13	1.5976E-10	7.2376E-09
H	5.9878E-01	3.2213E-01	2.2197E-01
H+	1.6232E-01	2.5664E-01	3.4432E-01
H2	3.4234E-05	3.9363E-05	1.6554E-05

Table II. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.25C0E+03	9.2255E+03	1.4338E+04
T	5.9552E+01	9.7466E+01	1.0076E+02
RHO	9.4258E+00	3.3956E+01	4.8121E+ 1
H	2.1513E+02	3.78C5E+02	4.7252E+ 2
A	1.0760E+01	1.4662E+01	1.6550E+01
S	2.1218E+00	2.23C7E+00	2.3236E+00
Z	2.2268E+00	2.7C75E+0C	2.9569E+00
GAME	6.73C8E-01	9.0777E-01	9.2371E- 1
U	2.7514E+01	6.7596E+00	6.7556E+00

SPECIES	MOLE FRACTIONS		
E-	1.9170E-01	3.3521E-01	3.9127E-01
HE	8.9323E-02	6.2553E-02	4.2783E-02
HE+	4.9259E-04	1.1315E-02	2.4856E-02
HE++	2.6231E-15	9.6546E-10	3.9655E-08
H	5.2723E-01	2.6700E-01	1.7467E-01
H+	1.9121E-01	3.2390E-01	3.6641E-01
H2	4.1054E-05	2.4094E-05	1.1247E-05

P1 = 5.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6856E+03	1.3089E+04	2.0550E+ 4
T	6.7565E+01	1.0399E+02	1.2675E+02
RHO	9.9305E+00	4.1029E+01	4.8643E+01
H	2.3841E+02	5.0955E+02	6.4373E+02
A	1.2234E+01	1.7236E+01	2.0568E+ 1
S	2.2622E+00	2.3908E+00	2.4557E+00
Z	2.4575E+00	3.0677E+00	3.3394E+00
GAME	8.8174E-01	9.3124E-01	9.9545E-01
U	3.2517E+01	7.8721E+00	8.3400E+00

SPECIES	MOLE FRACTIONS		
E-	2.7929E-01	4.1325E-01	4.6055E-01
HE	7.7886E-02	3.4974E-02	1.3120E-02
HE+	2.1953E-03	3.0220E-02	4.6765E-02
HE++	6.5741E-13	1.0392E-07	5.6570E-06
H	3.6352E-01	1.3E51E-01	6.4511E-02
H+	2.7709E-01	3.8303E-01	4.1421E-01
H2	1.6529E-05	5.9951E-06	1.3459E-06

P1 = 5.00E+02 N/SC-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3882E+03	1.3466E+04	1.6279E+04
T	6.2363E+01	9.2630E+01	1.0764E+02
RHO	5.6213E+00	3.9943E+01	4.8858E+01
H	2.3837E+02	4.1587E+02	5.2549E+02
A	1.1238E+01	1.5465E+01	1.7681E+01
S	2.1681E+00	2.2840E+00	2.3822E+00
Z	2.3136E+00	2.8288E+00	3.0855E+ 0
GAME	8.7538E-01	9.1273E-01	9.3822E-01
U	2.9453E+01	7.0565E+00	7.2172E+00

SPECIES	MOLE FRACTIONS		
E-	2.2202E-01	3.6370E-01	4.1740E-01
HE	8.5ECCE-02	5.4023E-02	3.1528E-02
HE+	8.4603E-04	1.6679E-02	3.2EC6E-02
HE++	1.9326E-14	5.1030E-09	2.0270E-07
H	4.7033E-01	2.1850E-01	1.3327E-01
H+	2.2117E-01	3.4702E-01	3.8459E-01
H2	3.0502E-05	1.5800E-05	6.3489E-06

P1 = 5.00E+02 N/SC-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5334E+03	1.1758E+04	1.8357E+ 4
T	6.5155E+01	9.3089E+01	1.1619E+02
RHO	5.7859E+00	4.0640E+01	4.9C85E+01
H	2.6280E+02	4.6369E+02	5.8229E+02
A	1.1729E+01	1.6314E+01	1.8970E+01
S	2.2149E+00	2.3376E+00	2.4410E+00
Z	2.4040E+00	2.9494E+00	3.2187E+00
GAME	8.7835E-01	9.1994E-01	9.6227E-01
U	3.0587E+01	7.4665E+00	7.7158E+ 0

SPECIES	MOLE FRACTIONS		
E-	2.5127E-01	3.8972E-01	4.4C79E-01
HE	8.1EC9E-02	4.4668E-02	2.1686E-02
HE+	1.3848E-03	2.3141E-02	4.0449E-02
HE++	1.2C11E-13	2.4C34E-08	1.0277E-06
H	4.1562E-01	1.7589E-01	9.6755E-02
H+	2.4598E-01	3.6659E-01	4.0C33E-01
H2	2.3072E-05	9.9752E-06	3.1999E-06

P1 = 5.00E+02 N/SC-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8443E+03	1.4428E+04	2.2985E+04
T	7.0825E+01	1.1055E+02	1.4084E+02
RHO	1.0C42E+01	4.1022E+01	4.7431E+01
H	3.1520E+02	5.5703E+02	7.1061E+02
A	1.2752E+01	1.9267E+01	2.2545E+01
S	2.3C94E+00	2.4434E+00	2.5573E+00
Z	2.5533E+00	3.1815E+00	3.44C7E+00
GAME	8.8539E-01	9.4879E-01	1.0469E+00
U	3.4033E+01	8.3370E+00	9.1369E+00

SPECIES	MOLE FRACTIONS		
E-	3.0591E-01	4.3424E-01	4.7685E-01
HE	7.3741E-02	2.5646E-02	7.1464E-03
HE+	3.3915E-03	3.7217E-02	5.0944E-02
HE++	3.2714E-12	4.2787E-07	3.6809E-05
H	5.1443E-01	1.0589E-01	3.9183E-02
H+	3.0253E-01	3.5702E-01	4.2584E-01
H2	1.2182E-05	3.3589E-06	4.4458E-07

P1 = 5.00E+02 N/SC-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0059E+03	1.5763E+04	2.5595E+04
T	7.3759E+01	1.1817E+02	1.6024E+02
RHO	1.0125E+01	4.0572E+01	4.5455E+01
H	3.4317E+02	6.0628E+02	7.6470E+02
A	1.3265E+01	1.9459E+01	2.4759E+01
S	2.3571E+00	2.4949E+00	2.6145E+00
Z	2.6907E+00	3.2879E+00	3.5140E+ 0
GAME	8.8511E-01	9.7462E-01	1.0922E+ 0
U	3.5543E+01	8.8730E+00	1.0193E+01

SPECIES	MOLE FRACTIONS		
E-	3.3103E-01	4.5254E-01	4.8777E-01
HE	6.5239E-02	1.7408E-02	3.7194E-03
HE+	5.0913E-03	4.3419E-02	5.2912E-02
HE++	1.5135E-11	1.7674E-06	2.8283E-04
H	2.5868E-01	7.7506E-02	2.1025E-02
H+	3.4554E-01	4.0912E-01	4.3429E-01
H2	3.5678E-06	1.7003E-06	1.1274E-07

Table II. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.0CE+C2 N/SQ-M, USI= 5.0JE+04 M/SEC

	MCVING SHCCK	STANDING SHOCK	REFLECTEC SHCCK
P	2.1823E+03	1.7071E+04	2.8344E+04
T	7.6d3JE+01	1.2739E+02	1.8319E+02
RHO	1.0185E+01	3.9624E+01	4.3479E+01
M	3.7232E+02	6.5713E+02	8.6376E+02
A	1.3631E+01	2.0863E+01	2.6577E+01
S	2.4C49E+00	2.5450E+00	2.6672E+ C
Z	2.7685E+00	3.3821E+03	3.5585E+0C
GAME	8.9281E-01	1.01C3E+00	1.0835E+0C
U	3.7C51E+01	9.5151E+00	1.1332E+01

SPECIES	MOLE FRACTICNS		
E-	3.5459E-C1	4.6779E-01	4.9418E-C1
HE	6.4209E-C2	1.0903E-02	2.1336E-C3
HE+	7.5C37E-C3	4.8224E-02	5.2268E-C2
HE++	6.6156E-11	7.6781E-C6	1.8CC9E-C3
H	2.2661E-C1	5.3523E-02	1.1316E-C2
H+	3.4708E-01	4.1955E-01	4.3831E-C1
H2	5.8722E-C6	7.51C9E-C7	2.8882E-C8

P1 = 5.CCE+C2 N/SQ-M, USI= 5.60E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7392E+03	2.0479E+04	3.6332E+04
T	8.7041E+01	1.6762E+02	2.4106E+02
RHO	1.0217E+01	3.4444E+01	4.1047E+01
M	4.6682E+02	8.1586E+02	1.1034E+03
A	1.5582E+01	2.5562E+01	2.975RE+01
S	2.5478E+00	2.6794E+00	2.7956E+00
Z	3.0789E+00	3.5470E+00	3.6719E+00
GAME	9.0598E-01	1.0990E+00	1.0004E+00
U	4.1512E+01	1.2320E+01	1.3764E+01

SPECIES	MOLE FRACTIONS		
E-	4.1538E-01	4.9254E-01	5.0979E-01
HE	4.4463E-02	2.3805E-03	5.8590E-04
HE+	2.0495E-02	5.3301E-02	2.9981E-02
HE++	4.1770E-09	7.0350E-C4	2.3901E-02
H	1.2478E-01	1.3252E-02	3.7407E-03
H+	3.9498E-01	4.3793E-01	4.3200E-01
H2	1.5820E-06	3.3157E-C8	2.6887E-09

P1 = 5.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3611E+03	1.9296E+04	3.1069E+ 4
T	8.0036E+01	1.3866E+02	2.0483E+02
RHO	1.0219E+01	3.8162E+01	4.2209E+01
H	4.0265E+02	7.0905E+02	9.4354E+ 2
A	1.4393E+01	2.2459E+01	2.7583E+01
S	2.4527E+00	2.5927E+00	2.7138E+00
Z	2.8869E+00	3.4576E+00	3.5935E+00
GAME	8.9653E-01	1.0521E+00	1.0336E+00
U	3.8547E+01	1.0316E+01	1.2313E+01

SPECIES	MOLE FRACTIONS		
E-	3.7653E-01	4.7541E-01	4.9510E-01
HE	5.8476E-02	6.4621E-03	1.3769E-03
HE+	1.0833E-02	5.1346E-02	4.7701E-02
HE++	2.7513E-10	3.5234E-05	6.5781E-03
H	1.8852E-01	3.4746E-02	7.0069E-03
H+	3.6573E-01	4.2809E-01	4.3824E-01
H2	3.9134E-06	2.8697E-07	1.0199E-08

P1 = 5.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5463E+03	1.9422E+04	3.3721E+04
T	8.3424E+01	1.5235E+02	2.2346E+02
RHO	1.0230E+01	3.5295E+01	4.1557E+01
H	4.3415E+02	7.8119E+02	1.0229E+03
A	1.4973E+01	2.4130E+01	2.8528E+01
S	2.5004E+00	2.6380E+00	2.7556E+00
Z	2.9339E+00	3.5120E+00	3.6313E+00
GAME	9.2062E-01	1.0882E+00	1.0030E+00
U	4.3034E+01	1.1275E+01	1.3089E+01

SPECIES	MOLE FRACTIONS		
E-	3.9578E-01	4.8747E-01	5.0430E-01
HE	5.1869E-02	5.7941E-03	9.1561E-04
HE+	1.9124E-02	5.2942E-02	3.9662E-02
HE++	1.0596E-09	1.6663E-04	1.4495E-02
H	1.5458E-01	2.1413E-02	4.9664E-03
H+	3.8161E-01	4.3415E-01	4.3565E-01
H2	2.5339E-06	5.7141E-08	4.8926E-09

P1 = 5.00E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9359E+03	2.1513E+04	3.8911E+04
T	9.0967E+01	1.8371E+02	2.5892E+02
RHO	1.0177E+01	3.2777E+01	4.0511E+01
H	5.0065E+02	8.7138E+02	1.1863E+03
A	1.6238E+01	2.6549E+01	3.1289E+01
S	2.5949E+00	2.7187E+00	2.8329E+00
Z	3.1712E+00	3.5726E+00	3.7097E+00
GAME	9.1403E-01	1.0740E+00	1.0492E+00
U	4.2976E+01	1.3335E+01	1.4427E+01

SPECIES	MOLE FRACTIONS		
E-	4.3240E-01	4.9617E-01	5.1479E-01
HE	3.6342E-02	1.5960E-03	3.4616E-04
HE+	2.6724E-02	5.1942E-02	2.0755E-02
HE++	1.5469E-08	2.4430E-03	3.2812E-02
H	9.8855E-02	8.5137E-03	2.8888E-03
H+	4.0568E-01	4.3934E-01	4.2941E-01
H2	9.4936E-07	1.2352E-08	1.5597E-09

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1390E+03	2.2522E+04	4.1484E+04
T	9.5336E+01	1.9924E+02	2.7998E+02
RHO	1.0100E+01	3.1419E+01	3.9585E+01
H	5.3561E+02	9.2963E+02	1.2744E+03
A	1.6972E+01	2.7195E+01	3.3261E+01
S	2.6414E+00	2.7569E+00	2.9710E+00
Z	3.2559E+00	3.5979E+00	3.7430E+00
GAME	9.2682E-01	1.0317E+00	1.0557E+00
U	4.4418E+01	1.4266E+01	1.5231E+01

SPECIES	MOLE FRACTIONS		
E-	4.4783E-01	4.9971E-01	5.1913E-01
HE	2.7935E-02	1.1187E-03	1.7527E-04
HE+	3.3417E-02	4.8073E-02	1.2697E-02
HE++	5.6699E-08	6.3961E-03	4.0561E-02
H	7.6408E-02	5.9636E-03	2.1778E-03
H+	4.1441E-01	4.3884E-01	4.2529E-01
H2	5.3890E-07	5.4001E-09	8.5420E-10

Table II. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3474E+03	2.3542E+04	4.4008E+04
T	1.6038E+02	2.1331E+02	3.0588E+02
RHO	9.5749E+00	3.0432E+01	3.8189E+01
H	5.7172E+02	9.8835E+02	1.3687E+03
A	1.7829E+01	2.7849E+01	3.5595E+01
S	2.6871E+00	2.7930E+00	2.9098E+00
Z	3.3431E+00	3.6267E+00	3.7675E+00
GAME	9.4708E-01	1.0025E+00	1.0995E+00
U	4.5846E+01	1.5017E+01	1.6218E+01

SPECIES	MOLE FRACTIONS		
E-	4.6158E-01	5.0369E-01	5.2222E-01
HE	1.9825E-02	7.9628E-04	7.4924E-05
HE+	3.9959E-02	4.1829E-02	6.9669E-03
HE++	2.1253E-07	1.2521E-02	4.6104E-02
H	5.7007E-02	4.3604E-03	1.5823E-03
H+	4.2159E-01	4.3691E-01	4.2311E-01
H2	2.8222E-07	2.8172E-09	4.2882E-10

P1 = 5.00E+02 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9864E+03	2.5558E+04	4.9313E+04
T	1.2346E+02	2.5257E+02	4.0155E+02
RHO	9.1545E+00	2.7198E+01	3.2377E+01
H	6.8622E+02	1.1743E+03	1.6709E+03
A	2.1569E+01	3.0936E+01	4.1972E+01
S	2.8149E+00	2.8992E+00	3.0191E+00
Z	3.5273E+00	3.7206E+00	3.7930E+00
GAME	1.0684E+00	1.0184E+00	1.1566E+00
U	4.9777E+01	1.6740E+01	1.9640E+01

SPECIES	MOLE FRACTIONS		
E-	4.8969E-01	5.1621E-01	5.2545E-01
HE	3.8506E-03	2.2379E-04	4.5945E-06
HE+	5.2832E-02	1.8767E-02	1.2273E-03
HE++	1.8803E-05	3.4764E-02	5.1496E-02
H	1.6791E-02	2.1274E-03	5.9838E-04
H+	4.3682E-01	4.2791E-01	4.2123E-01
H2	1.8406E-08	5.7425E-10	5.0563E-11

P1 = 5.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5589E+03	2.4472E+04	4.6256E+04
T	1.0645E+02	2.2620E+02	3.3550E+02
RHO	9.7809E+00	2.9577E+01	3.6458E+01
H	6.0888E+02	1.0499E+03	1.4671E+03
A	1.8864E+01	2.9660E+01	3.7895E+01
S	2.7316E+00	2.8277E+00	2.9472E+00
Z	3.4182E+00	3.6579E+00	3.7816E+00
GAME	9.7798E-01	9.9274E-01	1.1318E+00
U	4.7213E+01	1.5608E+01	1.7313E+01

SPECIES	MOLE FRACTIONS		
E-	4.7341E-01	5.0792E-01	5.2401E-01
HE	1.2729E-02	5.5775E-04	2.9772E-05
HE+	4.5780E-02	3.4319E-02	3.6681E-03
HE++	9.5527E-07	1.9799E-02	4.9190E-02
H	4.0449E-02	3.4097E-03	1.1357E-03
H+	4.2763E-01	4.3403E-01	4.2196E-01
H2	1.3170E-07	1.6447E-09	2.0823E-10

P1 = 5.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2004E+03	2.5674E+04	5.0017E+04
T	1.3487E+02	2.6684E+02	4.3519E+02
RHO	8.7545E+00	2.5697E+01	3.0284E+01
H	7.2630E+02	1.2360E+03	1.7722E+03
A	2.3024E+01	3.2359E+01	4.3769E+01
S	2.8531E+00	2.9342E+00	3.0528E+00
Z	3.5575E+00	3.7456E+00	3.7952E+00
GAME	1.1048E+00	1.0477E+00	1.1599E+00
U	5.0951E+01	1.7354E+01	2.0734E+01

SPECIES	MOLE FRACTIONS		
E-	4.9402E-01	5.1943E-01	5.2572E-01
HE	1.9901E-03	1.2665E-04	2.2853E-06
HE+	5.4134E-02	1.2605E-02	8.0653E-04
HE++	9.5695E-05	4.0665E-02	5.1889E-02
H	1.0061E-02	1.6683E-03	4.4894E-04
H+	4.3970E-01	4.2550E-01	4.2113E-01
H2	5.8285E-09	3.2993E-10	2.6565E-11

P1 = 5.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7719E+03	2.5128E+04	4.7986E+04
T	1.1412E+02	2.3915E+02	3.6746E+02
RHO	9.4935E+00	2.8470E+01	3.4465E+01
H	6.4703E+02	1.1120E+03	1.5679E+03
A	2.0165E+01	2.9692E+01	3.9995E+01
S	2.7751E+00	2.8637E+00	2.9835E+00
Z	3.4817E+00	3.6905E+00	3.7890E+00
GAME	1.0214E+00	9.9898E-01	1.1488E+00
U	4.8524E+01	1.6171E+01	1.8458E+01

SPECIES	MOLE FRACTIONS		
E-	4.8361E-01	5.1226E-01	5.2495E-01
HE	7.2509E-03	3.6603E-04	1.1961E-05
HE+	5.0189E-02	2.6248E-02	2.0484E-03
HE++	3.9957E-06	2.7579E-02	5.0723E-02
H	2.6738E-02	2.6908E-03	8.1989E-04
H+	4.3291E-01	4.3055E-01	4.2145E-01
H2	5.2208E-08	9.7273E-10	1.0163E-11

Table II. - Continued

p_1 = 1 kN/ m^2

P1 = 1.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5066E+01
T	3.1753E+00	3.9839E+00	5.7039E+00
RHO	3.9601E+00	6.6009E+00	1.1406E+01
H	3.2467E+00	4.1057E+00	6.0152E+00
A	1.7739E+00	1.9769E+00	2.3382E+00
S	1.0639E+00	1.0652E+00	1.0934E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9109E-01	9.9107E-01	9.5942E-01
U	2.4570E+00	1.4729E+00	1.3079E+00

SPECIES	MOLE FRACTIONS		
E-	3.9509E-52	2.2166E-39	1.3279E-23
HE	2.0000E-01	2.0000E-01	1.9999E-01
HE+	3.5629E-64	7.1624E-57	1.4186E-47
HE++	0.	0.	0.
H	3.9520E-10	1.2501E-07	9.1903E-05
H+	7.2402E-20	7.2402E-20	7.2412E-20
H2	8.0000E-01	8.0000E-01	7.9992E-01

P1 = 1.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9543E+01	1.4529E+02	2.6094E+02
T	7.3811E+00	9.7963E+00	1.1217E+01
RHO	5.3463E+00	1.4481E+01	2.1966E+01
H	8.0913E+00	1.2289E+01	1.6073E+01
A	2.5972E+00	2.9110E+00	3.1403E+00
S	1.1570E+00	1.1694E+00	1.1960E+00
Z	1.0022E+00	1.0242E+00	1.0590E+00
GAME	9.1193E-01	8.4463E-01	8.3015E-01
U	4.6764E+00	1.7207E+00	1.5039E+00

SPECIES	MOLE FRACTIONS		
E-	1.2930E-16	2.5311E-12	1.6193E-10
HE	1.9957E-01	1.9529E-01	1.8885E-01
HE+	4.3P93E-04	2.2355E-20	9.7142E-26
HE++	0.	0.	0.
H	4.3304E-03	4.7166E-02	1.1149E-01
H+	1.2937E-16	2.5311E-12	1.6193E-10
H2	7.9606E-01	7.5755E-01	6.9906E-01

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2117E+01	1.1549E+02
T	4.4065E+00	5.9626E+00	7.9976E+00
RHO	4.4956E+00	8.8271E+00	1.4395E+01
H	4.5641E+00	6.2449E+00	8.9941E+00
A	2.0733E+00	2.3745E+00	2.6913E+00
S	1.0959E+00	1.1003E+00	1.1214E+00
Z	1.0000E+00	1.0001E+00	1.0033E+00
GAME	9.7548E-01	9.5510E-01	9.4274E-01
U	3.1952E+00	1.6258E+00	1.4529E+00

SPECIES	MOLE FRACTIONS		
E-	9.1401E-36	9.7767E-22	8.3339E-16
HE	2.3010E-01	1.9998E-01	1.9934E-01
HE+	4.6435E-35	1.3031E-46	2.7707E-34
HE++	0.	0.	0.
H	1.6087E-36	1.7933E-04	6.5505E-03
H+	7.2402E-23	7.3373E-20	8.3346E-16
H2	8.3003E-01	7.9984E-01	7.9408E-01

P1 = 1.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8757E+01	9.9540E+01	1.7910E+02
T	5.8427E+00	8.0091E+00	9.9229E+00
RHO	4.9217E+00	1.1139E+01	1.7836E+01
H	6.1764E+00	8.9362E+00	1.2219E+01
A	2.3625E+00	2.6872E+00	2.9192E+00
S	1.1272E+00	1.1346E+00	1.1579E+00
Z	1.0031E+00	1.0038E+00	1.0223E+00
GAME	9.5522E-01	8.9831E-01	9.4823E-01
U	3.9296E+00	1.7353E+00	1.4973E+00

SPECIES	MOLE FRACTIONS		
E-	2.9723E-21	2.6572E-15	2.3393E-12
HE	1.9948E-01	1.9924E-01	1.9563E-01
HE+	4.2178E-47	9.9133E-36	1.0938E-29
HE++	0.	0.	0.
H	1.9732E-34	7.5907E-23	4.3695E-22
H+	6.9523E-23	2.6573E-15	2.3093E-12
H2	7.9932E-01	7.9317E-01	7.6067E-01

P1 = 1.00E+03 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2465E+01	2.2773E+02	3.7750E+02
T	8.7300E+00	1.1220E+01	1.2468E+01
RHO	5.9306E+00	1.9097E+01	2.7253E+01
H	1.0832E+01	1.6323E+01	2.0263E+01
A	2.7545E+00	3.1434E+00	3.3959E+00
S	1.1863E+00	1.2065E+00	1.2371E+00
Z	1.0412E+00	1.0533E+00	1.1112E+00
GAME	8.5781E-01	9.2955E-01	P.2764E-01
U	5.4665E+00	1.9995E+00	1.5239E+00

SPECIES	MOLE FRACTIONS		
E-	1.6552E-13	1.1115E-10	1.3307E-09
HE	1.9747E-01	1.9839E-01	1.9032E-01
HE+	9.9143E-33	3.0764E-26	2.9265E-23
HE++	0.	1.4915E-06	1.4259E-04
H	2.5372E-02	1.1939E-01	1.3984E-01
H+	1.0528E-13	1.1114E-10	1.3367E-09
H2	7.7746E-01	6.9282E-01	6.2715E-01

P1 = 1.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7655E+01	3.4403E+02	5.6097E+02
T	9.7634E+00	1.2481E+01	1.3691E+01
RHO	6.6945E+00	2.4693E+01	3.3579E+01
H	1.2677E+01	2.1321E+01	2.6037E+01
A	2.8907E+00	3.3948E+00	3.6637E+00
S	1.2167E+00	1.2405E+00	1.2812E+00
Z	1.0334E+00	1.1164E+00	1.1765E+00
GAME	8.3044E-01	9.2573E-01	P.3189E-01
U	6.6456E+00	2.7019E+00	1.5643E+00

SPECIES	MOLE FRACTIONS		
E-	4.2745E-14	1.4721E-10	9.9502E-09
HE	1.9742E-01	1.7926E-01	1.6908E-01
HE+	2.3604E-29	3.3523E-23	2.9945E-21
HE++	0.	1.4765E-08	1.4241E-06
H	5.7216E-02	2.0964E-01	2.0022E-01
H+	4.2769E-12	1.4721E-10	9.9502E-09
H2	7.8556E-01	5.1156E-01	5.2088E-01

Table II. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4829E+01	4.9563E+02	7.5266E+02
T	1.0635E+01	1.3668E+01	1.4929E+01
RHO	7.4931E+00	3.0677E+01	4.0234E+01
H	1.5730E+01	2.6317E+01	3.2139E+01
A	3.0502E+00	3.6[illegible]8E+00	3.9060E+00
S	1.2487E+00	1.2894E+00	1.3283E+00
Z	1.0655E+00	1.1820E+00	1.2541E+00
GAME	8.2072E-01	8.3127E-01	8.4016E-01
U	7.1155E+00	1.7394E+00	1.6284E+00

SPECIES	MOLE FRACTIONS		
E-	4.9165E-11	1.0270E-08	5.3731E-09
HE	1.9764E-01	1.6923E-01	1.5948E-01
HE+	5.3510E-27	2.9153E-21	1.5106E-19
HE++	0.	4.9161E-77	7.7167E-72
H	1.2364E-01	3.0799E-01	4.0519E-01
H+	4.9165E-11	1.0270E-08	5.3731E-08
H2	6.8873E-01	5.2281E-01	4.3534E-01

P1 = 1.30E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4762E+02	1.1558E+03	1.6839E+03
T	1.2719E+01	1.7340E+01	1.9366E+01
RHO	9.6782E+00	4.6613E+01	5.6354E+01
H	2.0375E+01	4.5576E+01	5.4907E+01
A	3.5397E+00	4.6314E+00	5.1666E+00
S	1.3561E+00	1.4307E+00	1.4831E+00
Z	1.1993E+00	1.4300E+00	1.5429E+00
GAME	8.2037E-01	8.6502E-01	8.9336E-01
U	9.5788E+00	1.9893E+00	1.9961E+00

SPECIES	MOLE FRACTIONS		
E-	4.2635E-09	7.3029E-07	3.6350E-06
HE	1.6676E-01	1.3986E-01	1.2962E-01
HE+	1.0993E-22	6.6792E-17	3.4052E-15
HE++	1.9879E-83	1.4882E-61	7.4429E-56
H	3.3239E-01	6.0143E-01	7.0376E-01
H+	4.2855E-09	7.3029E-07	3.6350E-06
H2	5.0096E-01	2.5971E-01	1.6681E-01

P1 = 1.C0E+C3 N/SQ-M, US1= 1.10F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0391E+02	6.8283E+02	1.0133E+03
T	1.1391E+01	1.4943E+01	1.6226E+01
RHO	8.2683E+00	3.6603E+01	4.6539E+01
H	1.8892E+01	3.2199E+01	3.9959E+01
A	3.2060E+00	3.9569E+00	4.3072E+00
S	1.2927E+00	1.3348E+00	1.3780E+00
Z	1.1043E+00	1.2569E+00	1.3419E+00
GAME	9.1782E-01	8.3929E-01	8.5201E-01
U	7.9459E+00	1.7962E+00	1.7148E+00

SPECIES	MOLE FRACTIONS		
E-	2.C8E7E-10	5.0854E-08	2.3406E-07
HE	1.8111E-01	1.5912E-01	1.4904E-01
HE+	2.6976E-25	1.2103E-19	4.8486E-18
HE++	6.9994E-92	3.3887E-72	3.1313E-68
H	1.9889E-01	4.0875E-01	5.0961E-01
H+	2.9867E-10	5.0954E-08	2.3406E-07
H2	6.3000E-01	4.3212E-01	3.4135E-01

P1 = 1.0GE+03 N/SQ-M, US1= 1.40F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7217E+02	1.4331E+03	2.0958E+03
T	1.3356E+01	1.9805E+01	2.1670F+01
RHO	1.0272E+01	4.9997E+01	5.8686E+01
H	3.0117E+01	5.3055E+01	6.4223F+01
A	3.7180E+00	5.0389E+00	5.7849E+00
S	1.3952E+00	1.4799F+00	1.5373E+00
Z	1.2545E+00	1.5243F+00	1.6490E+00
GAME	8.2502E-01	8.8576F-01	9.3706E-01
U	1.0394E+01	2.1339E+00	2.2320E+00

SPECIES	MOLE FRACTIONS		
E-	1.2473E-08	2.5139E-06	1.6665E-05
HE	1.5938E-01	1.3121E-01	1.2136E-01
HE+	1.2449E-21	1.2859E-15	1.3687E-13
HE++	1.3899E-79	9.8986E-57	5.3769E-50
H	4.0623E-01	6.8790E-01	7.8638E-01
H+	1.2473E-08	2.5139E-06	1.6665E-05
H2	4.3443E-01	1.8089F-01	9.2229E-02

P1 = .CJE+03 N/SQ-M, US1= 1.2CE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2487E+02	9.0430E+02	1.3241E+03
T	1.2065E+01	1.6049E+01	1.7651F+01
RHO	9.0072E+00	4.2046E+01	5.2097E+01
H	2.2331E+01	3.9619E+01	4.6537E+01
A	3.3684E+00	4.2765F+00	4.6585E+00
S	1.3195E+00	1.3921E+00	1.4298E+00
Z	1.1490E+00	1.3401F+00	1.4391E+00
GAME	9.1935E-01	9.5030E-01	9.6956E-01
U	8.7665E+00	1.9784E+00	1.8320F+00

SPECIES	MOLE FRACTIONS		
E-	1.2621E-09	2.0415E-07	9.2437F-07
HE	1.7407E-01	1.4924E-01	1.3897E-01
HE+	6.3604E-24	3.1677E-18	1.2858E-16
HE++	5.8096E-87	3.7370E-66	1.5393E-60
H	2.5933E-01	5.0761E-01	6.1026F-01
H+	1.2621E-09	2.0415E-07	9.2437E-07
H2	5.6661E-01	3.4315E-01	2.5077F-01

P1 = 1.00E+03 N/SQ-M, US1= 1.50F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9845E+02	1.7278E+03	2.3714E+03
T	1.3997E+01	2.0608E+01	2.5520E+01
RHO	1.0781E+01	5.1806F+01	5.7953E+01
H	3.4454E+01	6.1021E+01	7.4914E+01
A	3.9100E+00	5.5338E+00	6.7429E+00
S	1.4359E+00	1.5299E+00	1.5917E+00
Z	1.3153E+00	1.6183E+00	1.7386E+00
GAME	9.5041E-01	9.1924E-01	1.0247F+00
U	1.1182E+01	2.3293E+00	2.5542E+00

SPECIES	MOLE FRACTIONS		
E-	3.27C9E-08	9.1234E-06	1.1806E-04
HE	1.5206E-01	1.2359F-01	1.1503E-01
HE+	1.3670E-20	2.8384E-14	1.0892E-11
HE++	4.7307E-75	2.9443E-52	1.5941E-41
H	4.7992E-01	7.6411E-01	8.4932E-01
H+	3.27C9E-08	9.1234E-06	1.1806E-04
H2	3.0842E-01	1.1229E-01	3.5412E-02

Table II. - Continued

p_1 = 1 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.265?E+02	2.0261E+03	3.1270E+03
T	1.4662E+01	2.3101E+01	3.2397E+01
RHO	1.1497E+01	5.1513E+01	5.4056E+01
H	3.9087E+01	6.9418E+01	8.7555E+01
A	4.1159E+00	6.1934E+00	7.9442E+00
S	1.4776E+00	1.5762E+00	1.6438E+00
Z	1.3821E+00	1.7026E+00	1.7356E+00
GAME	8.372?E-01	9.7524E-01	1.0910E+00
U	1.1972E+01	2.6043E+00	3.1267E+00

SPECIES	MOLE FRACTIONS		
E-	8.0926E-08	3.9746E-05	1.2973E-03
HE	1.4492E-01	1.1747E-01	1.1201E-01
HE+	8.8714E-20	1.0243E-12	6.1352E-09
HE++	3.3598E-72	2.1196E-46	2.9758E-32
H	5.5082E-01	8.2520E-01	8.7605E-01
H+	9.3926E-09	3.9746E-05	1.2973E-03
H2	3.0426E-01	5.7251E-02	9.3539E-03

P1 = 1.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2061E+02	2.7917E+03	4.8156E+03
T	1.7082E+01	3.7411E+01	5.1352E+01
RHO	1.1774E+01	4.1261E+01	5.0320E+01
H	5.4751E+01	9.6399E+01	1.2778E+02
A	4.9846E+00	8.4236E+00	9.5166E+00
S	1.6075E+00	1.6933E+00	1.7545E+00
Z	1.5939E+00	1.9020E+00	1.9636E+00
GAME	8.7596E-01	1.0525E+00	9.4624E-01
U	1.4298E+01	4.0754E+00	4.3634E+00

SPECIES	MOLE FRACTIONS		
E-	1.2083E-06	9.8589E-03	3.5463E-02
HE	1.2549E-01	1.1039E-01	1.0730E-01
HE+	5.4723E-17	1.3354E-07	2.2390E-05
HE++	2.8228E-62	1.6018E-27	2.3479E-19
H	7.4914E-01	8.7557E-01	8.2044E-01
H+	1.2083E-06	4.9589E-03	3.5441E-02
H2	1.2937E-01	3.7263E-03	1.3352E-03

P1 = 1.00E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.563_E+02	2.3046E+03	3.7168F+03
T	1.5368E+01	2.6895E+01	4.0111E+01
RHO	1.1512E+01	4.9663E+01	5.1281E+01
H	4.4015E+01	7.8125E+01	1.0108E+02
A	4.3404F+0_	7.0921E+0C	9.6536E+00
S	1.5203E+00	1.6204E+00	1.6869F+00
Z	1.4487E+00	1.7609E+00	1.9070E+00
GAME	8.461_E-01	1.0591E+00	1.0332E+00
U	1.2755E+01	3.0197F+00	3.6933E+00

SPECIES	MOLE FRACTIONS		
E-	1.9539E-07	2.2785E-04	7.3239E-03
HE	1.3905E-01	1.1358E-01	1.1068E-01
HE+	7.2557E-19	7.4373E-11	4.3551F-07
HE++	3.9966E-59	2.9587F-39	1.3828E-25
H	6.1949E-01	8.6354E-01	8.7121E-01
H+	1.9529E-07	2.2795F-04	7.3234E-03
H2	2.4246E-01	2.2426E-02	3.4641E-03

P1 = 1.00E+03 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5481E+02	2.9975F+03	5.2787E+03
T	1.9265E+01	4.2371E+01	5.5546E+01
RHO	1.1667F+01	3.8901E+01	5.0010E+01
H	6.3547E+01	1.3619E+02	1.4124E+02
A	5.246HE+00	9.777oF+00	9.9042E+00
S	1.6504F+00	1.725_E+00	1.7556E+00
Z	1.6653E+00	1.8186E+00	1.9003E+00
GAME	9.052CE-01	9.9999E-01	9.2932E-01
U	1.5025E+01	4.5637E+00	4.5776E+00

SPECIES	MOLE FRACTIONS		
E-	3.4702E-06	1.2313F-02	5.3757E-02
HE	1.2012F-01	1.0999F-01	1.0518E-01
HE+	6.9712E-16	1.2908F-06	6.5072E-05
HE++	8.2052E-59	3.7165E-24	9.6122E-18
H	7.9974E-01	8.6329E-01	7.9631F-01
H+	3.4702E-06	1.2312E-02	5.3692E-02
H2	9.1_6E-02	2.1092E-03	9.9364F-04

P1 = 1.00F+03 N/SQ-M, US1= 1.80F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8769E+02	2.5539E+03	4.2868E+03
T	1.6155E+01	3.1992F+01	4.6356F+01
RHO	1.1713E+01	4.467FE+01	5.0478E+01
H	4.9237E+01	9.7CRAF+01	1.1444F+02
A	4.591_E+00	7.9029E+00	9.1097E+00
S	1.5634F+0_	1.6589E+00	1.7225F+00
Z	1.5204E+00	1.7375E+00	1.832CF+00
GAME	8.5817E-01	1.0025F+00	9.7717F-01
U	1.3527F+01	3.5459E+00	4.0P71F+00

SPECIES	MOLE FRACTIONS		
E-	4.7_94F-07	1.2730E-03	1.9436E-02
HE	1.3155E-01	1.1149E-01	1.0916E-01
HE+	5.6022E-13	5.0891E-09	4.9129F-05
HE++	2.0147E-65	1.7627E-32	8.5900E-22
H	6.8451E-01	8.7729E-01	8.5021E-01
H+	4.7344F-07	1.2730E-03	1.9431F-02
H2	1.6_3_F-01	9.2755F-03	1.9511F-03

P1 = 1.00E+03 N/SQ-M, US1= 2.10F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8499E+02	3.1702E+03	5.5972E+03
T	1.99_F+01	4.664JE+01	5.9033F+01
RHO	1.1297E+01	3.6928F+01	4.8892F+01
H	6.662_E+01	1.1643E+02	1.5458E+02
A	5.75P4E+00	9.0869E+00	1.0262E+01
S	1.6923E+0_	1.7558F+00	1.8162E+00
Z	1.7295F+00	1.9437F+00	1.9396F+00
GAME	9.6375E-01	9.6183E-01	9.1_7GE-01
U	1.572_E+01	4.9067E+00	4.7252F+00

SPECIES	MOLE FRACTIONS		
E-	1.29_3E-05	2.3475E-02	7.2732E-02
HE	1.1570F-01	1.0865E-01	1.0297E-01
HE+	1.7_75E-14	6.2991F-06	1.4214E-04
HE++	5.9955E-53	1.6522E-21	1.5956E-14
H	8.4292E-01	9.4332E-01	7.5079E-01
H+	1.2903E-05	2.3469E-02	7.2590E-02
H2	4.134PE-02	1.3822F-03	7.6973E-04

Table II. - Continued

p_1 = 1 kN/ m^2

P1 = 1.00E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2503E+02	3.2493E+03	5.6901E+03
T	2.2637E+01	5.0212E+01	6.1929E+01
RHO	1.0581E+01	3.4636E+01	4.6382E+01
H	7.2946E+01	1.2091E+02	1.6763E+02
A	6.5003E+00	9.3777E+00	1.0587E+01
S	1.7315E+00	1.7373E+00	1.9492E+00
Z	1.7723E+00	1.8079E+00	1.9813E+00
GAME	1.0524E+00	9.3764E-01	9.1355E-01
U	1.6366E+01	4.9994E+00	4.8368E+00

SPECIES	MOLE FRACTIONS		
E-	6.9754E-05	3.7326E-02	9.1965E-02
HE	1.1285E-01	1.0705E-01	1.0070E-01
HE+	1.1464E-12	1.9537E-05	2.5996E-04
HE++	2.4513E-46	9.3774E-20	1.2490E-15
H	9.7149E-01	9.1732E-01	7.1477E-01
H+	6.9754E-05	3.7306E-02	9.1706E-02
H2	1.5717E-02	9.7705E-04	6.0033E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3446E+02	3.3709E+03	5.6499E+03
T	3.4796E+01	5.8491E+01	6.8875E+01
RHO	8.4912E+00	2.9237E+01	3.8793E+01
H	9.3435E+01	1.6025E+02	2.0725E+02
A	8.0375E+00	1.0224E+01	1.1484E+01
S	1.8245E+00	1.8790E+00	1.9430E+00
Z	1.8395E+00	1.9712E+00	2.1146E+00
GAME	1.0263E+00	9.0659E-01	9.0548E-01
U	1.9124E+01	5.2613E+00	5.0739E+00

SPECIES	MOLE FRACTIONS		
E-	5.9917E-03	8.7288E-02	1.4909E-01
HE	1.1056E-01	1.0130E-01	9.3662E-02
HE+	6.5464E-08	1.6280E-04	9.1728E-04
HE++	4.3134E-29	1.7759E-16	1.1946E-13
H	8.7639E-01	7.2368E-01	6.0786E-01
H+	5.9916E-03	8.7125E-02	1.4817E-01
H2	1.0602E-03	4.4512E-04	3.0426E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6000E+02	3.2498E+03	5.6100E+03
T	2.6499E+01	5.3192E+01	6.4333E+01
RHO	9.6945E+00	3.2184E+01	4.3094E+01
H	7.9493E+01	1.3753E+02	1.9036E+02
A	7.2535E+00	9.6512E+00	1.0886E+01
S	1.7654E+00	1.9199E+00	1.9916E+00
Z	1.7914E+00	1.8987E+00	2.0235E+00
GAME	1.1094E+00	9.2246E-01	9.0939E-01
U	1.6950E+01	5.1027E+00	4.9205E+00

SPECIES	MOLE FRACTIONS		
E-	4.3555E-04	5.2699E-02	1.1094E-01
HE	1.1174E-01	1.0529E-01	9.8422E-02
HE+	1.0715E-10	4.5234E-05	4.1522E-04
HE++	2.8761E-39	1.8433E-18	7.1372E-15
H	9.8228E-01	7.9859E-01	6.7923E-01
H+	4.3555E-04	5.2653E-02	1.1052E-01
H2	5.2091E-03	7.2567E-04	4.7018E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7564E+02	3.5476E+03	5.8787E+03
T	3.8359E+01	6.1065E+01	7.1323E+01
RHO	8.2339E+00	2.8872E+01	3.8075E+01
H	1.0098E+02	1.7279E+02	2.2230E+02
A	8.2573E+00	1.0534E+01	1.1822E+01
S	1.8497E+00	1.9068E+00	1.9723E+00
Z	1.8225E+00	2.0122E+00	2.1648E+00
GAME	9.7529E-01	9.0310E-01	9.0523E-01
U	1.8771E+01	5.3511E+00	5.1748E+00

SPECIES	MOLE FRACTIONS		
E-	1.3010E-02	1.0582E-01	1.6876E-01
HE	1.0574E-01	9.9118E-02	9.1061E-02
HE+	4.7558E-07	2.7589E-04	1.3269E-03
HE++	4.4735E-26	1.1981E-15	4.5711E-13
H	8.6358E-01	6.8887E-01	5.7116E-01
H+	1.3010E-02	1.0555E-01	1.6744E-01
H2	8.5920E-04	3.6485E-04	2.5080E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9611E+02	3.2723E+03	5.5610E+03
T	3.0782E+01	5.5901E+01	6.6565E+01
RHO	8.9614E+00	3.0279E+01	4.0435E+01
H	8.6312E+01	1.4854E+02	1.9334E+02
A	7.7474E+00	9.9315E+00	1.1171E+01
S	1.7969E+00	1.8550E+00	1.9127E+00
Z	1.7993E+00	1.9334E+00	2.0070E+00
GAME	1.0941E+00	9.1261E-01	9.0477E-01
U	1.7525E+01	5.1931E+00	4.9989E+00

SPECIES	MOLE FRACTIONS		
E-	1.9942E-03	6.9375E-02	1.2932E-01
HE	1.1112E-01	1.0335E-01	9.6104E-02
HE+	4.5520E-09	9.6200E-05	6.2472E-04
HE++	2.4426E-33	2.1495E-17	3.0199E-14
H	8.6283E-01	7.3694E-01	6.4388E-01
H+	1.9942E-03	6.9495E-02	1.2920E-01
H2	2.3629E-07	5.5747E-04	3.7460E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.1963E+02	3.7965E+03	6.2336E+03
T	4.1394E+01	6.3653E+01	7.3917E+01
RHO	8.1343E+00	2.9006E+01	3.8021E+01
H	1.0869E+02	1.9618E+02	2.3954E+02
A	8.4674E+00	1.0962E+01	1.2186E+01
S	1.8734E+00	1.9335E+00	2.0009E+00
Z	1.8935E+00	2.0563E+00	2.2181E+00
GAME	9.4121E-01	9.0137E-01	9.0575E-01
U	1.9459E+01	5.4529E+00	5.2921E+00

SPECIES	MOLE FRACTIONS		
E-	2.2479E-02	1.2493E-01	1.8869E-01
HE	1.0866E-01	9.6819E-02	8.8276E-02
HE+	1.9782E-06	4.4573E-04	1.8930E-03
HE++	6.3794E-24	6.9043E-15	1.6936E-12
H	8.4501E-01	6.5302E-01	5.3413E-01
H+	2.2479E-02	1.2448E-01	1.8683E-01
H2	4.0778E-04	3.0469E-04	2.0879E-04

Table II. - Continued

p_1 = 1 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.661JE+02	4.0923E+03	6.6701E+03
T	4.4067E+01	6.6230E+01	7.6595E+01
RHO	8.1151E+00	2.9394E+01	3.8297E+01
H	1.168CE+02	2.0031E+02	2.5577E+02
A	8.6859E+00	1.1201E+01	1.2567E+01
S	1.8966E+00	1.9599E+00	2.0292E+00
Z	1.8627E+00	2.1029E+00	2.2738E+00
GAME	9.1914E-01	9.0093E-01	9.0673E-01
U	2.0174E+01	5.5684E+00	5.4203E+00

SPECIES	MOLE FRACTIONS		
E-	3.39C7E-02	1.4428E-01	2.0856E-01
HE	1.0737E-01	9.4420E-02	8.5309E-02
HE+	5.3980E-06	6.8934E-04	2.6491E-03
HE++	2.8967E-22	3.4272E-14	5.9267E-12
H	9.2428E-01	6.1677E-01	4.9739E-01
H+	3.3951E-02	1.4359E-01	2.0591E-01
H2	3.5672E-04	2.5711E-04	1.7448E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.73C5E+02	5.8393E+03	9.0211E+03
T	5.2547E+01	7.6506E+01	8.7941E+01
RHO	8.4054E+00	3.1931E+01	4.0796E+01
H	1.5246E+02	2.6337E+02	3.3353E+02
A	9.5961E+00	1.2639E+01	1.4206E+01
S	1.9859E+00	2.0632E+00	2.1415E+00
Z	1.9779E+00	2.3096E+00	2.5145E+00
GAME	9.86CCE-01	9.0459E-01	9.1265E-01
U	2.3106E+01	6.0392E+00	6.0140E+00

SPECIES	MOLE FRACTIONS		
E-	9.0049E-02	2.2345E-01	2.8424E-01
HE	1.0116E-01	8.3774E-02	7.1196E-02
HE+	7.3961E-05	2.9576E-03	8.3430E-03
HE++	3.9375E-18	6.4932E-12	4.9544E-10
H	7.1859E-01	4.7520E-01	3.6025E-01
H+	8.9974E-02	2.1759E-01	2.7599E-01
H2	1.6992E-04	1.3513E-04	9.4573E-05

P1 = 1.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.1491E+02	4.4324E+03	7.1806E+03
T	4.6446E+01	6.8805E+01	7.9355E+01
RHO	8.1535E+00	2.9939E+01	3.8805E+01
H	1.2523E+02	2.1514E+02	2.7398E+02
A	8.9085E+00	1.1556E+01	1.2962E+01
S	1.9191E+00	1.9858E+00	2.0574E+00
Z	1.8878E+00	2.1517E+00	2.3318E+00
GAME	9.0511E-01	9.0112E-01	9.0802E-01
U	2.0909E+01	5.6899E+00	5.5618E+00

SPECIES	MOLE FRACTIONS		
E-	4.6801E-01	1.6367E-01	2.2922E-01
HE	1.0593E-01	9.1921E-02	8.2131E-02
HE+	1.2415E-05	1.0283E-03	3.6385E-03
HE++	5.9399E-21	1.5036E-13	1.9632E-11
H	8.0018E-01	5.8052E-01	4.6128E-01
H+	4.6789E-02	1.6264E-01	2.2459E-01
H2	2.8593E-04	2.1839E-04	1.4598E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8934E+02	6.5732E+03	1.0461E+04
T	5.6094E+01	8.1650E+01	9.3944E+01
RHO	9.6200E+00	3.3273E+01	4.2163E+01
H	1.7204E+02	2.9344E+02	3.7716E+02
A	1.0064E+01	1.3390E+01	1.5080E+01
S	2.0329E+00	2.1149E+00	2.1979E+00
Z	2.0467E+00	2.4195E+00	2.6411E+00
GAME	8.9214E-01	9.0755E-01	9.1653E-01
U	2.4695E+01	6.3971E+00	6.3466E+00

SPECIES	MOLE FRACTIONS		
E-	1.2506E-01	2.5615E-01	3.1851E-01
HE	9.7545E-02	7.7632E-02	4.2564E-02
HE+	1.7360E-04	5.6237E-03	1.3163E-02
HE++	9.0838E-17	5.9771E-11	3.2741E-09
H	6.6103E-01	4.0997E-01	3.0035E-01
H+	1.2349E-01	2.5112E-01	3.0535E-01
H2	1.2695E-04	9.7467E-05	5.7571E-05

P1 = 1.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6589E+02	4.9056E+03	7.7454E+03
T	4.9624E+01	7.1372E+01	8.2161E+01
RHO	8.2222E+00	3.0571E+01	3.9421E+01
H	1.3399E+02	2.3661E+02	2.9306E+02
A	9.1354E+00	1.1907E+01	1.3367E+01
S	1.9414E+00	2.0117E+00	2.0854E+00
Z	1.9157E+00	2.2024E+00	2.3914E+00
GAME	9.9595E-01	9.0194E-01	9.0946E-01
U	2.1654E+01	5.8193E+00	5.7039E+00

SPECIES	MOLE FRACTIONS		
E-	6.0620E-02	1.8291E-01	2.4741E-01
HE	1.0438E-01	8.9323E-02	7.8742E-02
HE+	2.4736E-05	1.4951E-03	4.8925E-03
HE++	7.2830E-20	5.9025E-13	6.0922E-11
H	7.7415E-01	5.4466E-01	4.2631E-01
H+	6.0596E-02	1.9143E-01	2.4254E-01
H2	2.3635E-04	1.3604E-04	1.2206E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+03	7.5743E+03	1.2047E+04
T	5.9411E+01	8.6864E+01	1.0025E+02
RHO	8.6311E+00	3.4537E+01	4.3390E+01
H	1.9284E+02	3.3573E+02	4.2387E+02
A	1.0539E+01	1.4159E+01	1.6001E+01
S	2.0741E+00	2.1664E+00	2.2543E+00
Z	2.1213E+00	2.5336E+00	2.7596E+00
GAME	8.8136E-01	9.1070E-01	9.2220E-01
U	2.6234E+01	6.7035E+00	6.7064E+00

SPECIES	MOLE FRACTIONS		
E-	1.2156E-01	2.9962E-01	3.5013E-01
HE	9.3921E-02	7.0735E-02	5.2945E-02
HE+	3.5242E-04	8.2037E-03	1.9267E-02
HE++	1.2138E-15	4.0931E-10	1.9215E-08
H	6.6248E-01	3.4095E-01	2.4076E-01
H+	1.5120E-01	2.9142E-01	3.3096E-01
H2	5.6493E-05	5.6502E-05	3.8194E-05

Table II. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.03E+03 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2435E+03	9.6899E+03	1.3767E+04
T	6.2584E+01	9.2134E+01	1.3700E+02
RHO	9.0293E+00	3.5577E+01	4.4396E+01
H	2.1491E+02	3.7518E+02	4.7367E+02
A	1.1024E+01	1.4344E+01	1.6996E+01
S	2.1198E+00	2.2182E+00	2.3108E+00
Z	2.2306E+00	2.6695E+00	2.8988E+00
GAME	9.8234E-01	9.1439E-01	9.3133E-01
U	2.7769E+01	7.0429E+00	7.0936E+00

SPECIES	MOLE FRACTIONS		
E-	1.9213E-01	3.2068E-01	3.7909E-01
HE	9.0236E-02	6.2589E-02	4.2746E-02
HE+	6.4674E-04	1.2437E-02	2.6247E-02
HE++	1.1455E-14	2.3113E-09	8.8712E-09
H	5.4544E-01	2.9560E-01	1.9906E-01
H+	1.8148E-01	3.0818E-01	3.5284E-01
H2	7.3594E-05	4.9579E-05	2.4390E-05

P1 = 1.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6764E+03	1.2301E+04	1.9702E+04
T	7.1823E+01	1.0953E+02	1.3372E+02
RHO	9.4867E+00	3.7479E+01	4.4992E+01
H	2.8813E+02	5.0564E+02	6.4483E+02
A	1.2542E+01	1.7539E+01	2.0924E+01
S	2.2547E+00	2.3729E+00	2.4813E+00
Z	2.4603E+00	2.9966E+00	3.2753E+00
GAME	8.8996E-01	9.3724E-01	9.9996E-01
U	5.2346E+01	8.1839E+00	8.6494E+00

SPECIES	MOLE FRACTIONS		
E-	2.6959E-01	3.9934E-01	4.5043E-01
HE	7.8400E-02	3.6290E-02	1.5392E-02
HE+	2.9116E-03	3.6451E-02	4.5674E-02
HE++	2.6653E-12	1.9267E-07	8.0563E-06
H	3.9403E-01	1.6501E-01	8.3759E-02
H+	2.6578E-01	3.6889E-01	4.0474E-01
H2	3.1707E-05	1.4203E-05	3.8547E-06

P1 = 1.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.381GE+03	9.8454E+03	1.5612E+04
T	6.568oE+01	9.7662E+01	1.1441E+02
RHO	9.2345E+00	3.6448E+01	4.5085E+01
H	2.3813E+02	4.1667E+02	5.2676F+02
A	1.1519E+01	1.5757E+01	1.8097E+01
S	2.163RE+00	2.2699E+00	2.3670E+00
Z	2.2941E+00	2.7659E+00	3.0267E+00
GAME	8.8434E-01	9.191PE-01	9.4577E-01
U	2.930oE+01	7.3966F+00	7.5250E+00

SPECIES	MOLE FRACTIONS		
E-	2.1199E-01	3.4926E-01	4.0530E-01
HE	9.6455E-02	5.4466F-02	3.2671E-02
HE+	1.1073E-03	1.7842E-02	3.3408E-02
HE++	9.361JE-14	1.111 9F-09	3.9390E-07
H	4.8950E-01	2.4698F-01	1.5672E-01
H+	2.1099E-01	3.3142E-01	3.7199E-01
H2	5.6135E-05	3.3294E-05	1.4763E-05

P1 = 1.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.934oE+03	1.3571E+04	2.1962E+04
T	7.4931E+01	1.1620E+02	1.4709E+02
RHO	9.5919E+00	3.7596E+01	4.4164E+01
H	3.149CE+02	5.5296E+02	7.1079E+02
A	1.3077E+01	1.955CE+01	2.2743E+01
S	2.300cE+00	2.4230E+00	2.5366E+00
Z	2.5530E+00	3.1071E+00	3.3809E+00
GAME	8.9311E-01	9.5301E-01	1.0401E+00
U	3.395oE+01	9.6417E+00	9.3903E+00

SPECIES	MOLE FRACTIONS		
E-	2.9497E-01	4.2070E-01	4.6759E-01
HE	7.4089E-02	2.7707E-02	9.6350E-03
HE+	4.2505E-03	3.666CE-02	4.9482E-02
HE++	1.2567E-11	6.6141F-07	4.0123E-05
H	3.3595E-01	1.3385E-01	5.5273E-02
H+	2.9072E-01	3.8404E-01	4.1903E-01
H2	2.3350E-05	8.5550F-06	1.5571E-06

P1 = 1.00F+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5254E+03	1.1055F+04	1.7591E+04
T	6.8752E+01	1.0340E+02	1.2307F+02
RHO	9.3577E+00	3.7103E+01	4.5294E+01
H	2.6254E+02	4.6019F+02	5.8342F+02
A	1.2024E+01	1.6614F+01	1.9384F+01
S	2.2091E+00	2.3215E+00	2.4241E+00
Z	2.3710E+00	2.8820E+00	3.1543E+00
GAME	8.8697E-01	9.2636F-01	9.6806E-01
U	3.0826E+01	7.7701F+00	8.0194E+00

SPECIES	MOLE FRACTIONS		
E-	2.4088E-01	3.7545E-01	4.2930F-01
HE	8.2551E-02	4.5422E-02	2.3270E-02
HE+	1.8001E-03	2.3976F-02	4.3140E-02
HE++	5.0655E-13	4.7169E-09	1.7383E-06
H	4.3565E-01	2.0366E-01	1.1813E-01
H+	2.3906E-01	3.5147E-01	3.8915E-01
H2	4.2432E-05	2.2188E-05	8.0877E-06

P1 = 1.00E+03 N/SQ-M, US1= 4.80F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.999HE+03	1.4840E+04	2.4417F+04
T	7.91o5E+01	1.2397F+02	1.6493E+02
RHO	9.6739E+00	3.7273E+01	4.2716E+01
H	3.4295E+02	6.0197E+02	7.8346E+02
A	1.3612E+01	1.9706F+01	2.4841E+01
S	2.3667E+00	2.4734E+00	2.5922E+00
Z	2.6667E+00	3.2143E+00	3.4659E+00
GAME	9.963JE-01	9.7535E-01	1.3795E+00
U	3.5360E+01	9.1737E+00	1.0362E+01

SPECIES	MOLE FRACTIONS		
E-	3.1992E-01	4.4300F-01	4.9066F-01
HE	6.9321E-02	1.9982E-02	5.8377F-03
HE+	6.2448F-03	4.2239E-02	5.1639F-02
HE++	5.42o6E-11	2.3994E-06	2.2909E-04
H	2.9091F-01	1.0001E-01	3.3091E-02
H+	3.1368E-01	3.9776F-01	4.2856E-01
H2	1.6906E-05	4.9279E-06	5.0659E-07

Table II. - Continued

p_1 = 1 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1714E+03	1.6378E+04	2.7001E+04
T	8.1374E+01	1.3287E+02	1.8617E+02
RHO	9.7341E+00	3.6529E+01	4.1171E+01
H	3.7198E+02	6.5244E+02	8.6089E+02
A	1.4165E+01	2.1033E+01	2.6720E+01
S	2.3929E+00	2.5229E+00	2.6434E+00
Z	2.7413E+00	3.3127E+00	3.5227E+00
GAME	8.9951E-01	1.0048E+00	1.0886E+00
U	3.0866E+01	9.8200E+00	1.1421E+01

SPECIES	MOLE FRACTIONS		
E-	3.4338E-01	4.5664E-01	4.8902E-01
HE	6.4030E-02	1.3673E-02	3.7243E-03
HE+	8.9289E-03	4.6692E-02	5.1866E-02
HE++	2.1774E-10	8.8911E-06	1.1855E-03
H	2.4920E-01	7.3055E-02	1.9419E-02
H+	3.3445E-01	4.0993E-01	4.3478E-01
H2	1.2009E-05	2.4227E-06	1.5790E-07

P1 = 1.00F+03 N/SQ-M, US1= 5.60F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7253E+03	1.9491E+04	3.4799E+04
T	9.2081E+01	1.7331E+02	2.4702E+02
RHO	9.7937E+00	3.2623E+01	3.8694F+01
H	4.6642E+02	8.1148E+02	1.102PE+03
A	1.5937E+01	2.5542F+01	3.0134F+01
S	2.5313E+00	2.6555E+00	2.7732E+00
Z	3.0231E+00	3.5081E+00	3.6417E+00
GAME	9.1242E-01	1.0919E+00	1.0094E+00
U	4.1317E+01	1.2392F+01	1.4016E+01

SPECIES	MOLE FRACTIONS		
E-	4.0457E-01	4.8696E-01	5.0573E-01
HE	4.4275E-02	4.0710F-03	1.1889E-03
HE+	2.1884E-02	5.2473E-02	3.4717E-02
HE++	9.9411E-09	4.6685E-04	1.9313E-02
H	1.4659E-01	2.2587F-02	6.3638E-03
H+	3.8276E-01	4.3350E-01	4.2299E-01
H2	3.7574E-06	1.7849E-07	1.4404F-09

P1 = 1.06E+03 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3496E+03	1.7297E+04	2.9649E+04
T	8.4767E+01	1.4337E+02	2.0954E+02
RHO	9.7739E+00	3.5514E+01	3.9991E+01
H	4.0229E+02	7.0436E+02	9.4138E+02
A	1.4733E+01	2.2496E+01	2.9005E+01
S	2.4390E+00	2.5692E+00	2.6910E+00
Z	2.8359E+00	3.3956E+00	3.5646E+00
GAME	9.0291E-01	1.0397E+00	1.0552E+00
U	3.8359E+01	1.0553E+01	1.2459E+01

SPECIES	MOLE FRACTIONS		
E-	3.6553E-01	4.6981E-01	4.9495E-01
HE	5.9118E-02	9.1166E-03	2.5115E-03
HE+	1.2416E-02	4.9743E-02	4.9118E-02
HE++	8.2065E-16	3.3033E-05	4.4877E-03
H	2.1128E-01	5.1291E-02	1.2079E-02
H+	3.5298E-01	4.1999E-01	4.3696E-01
H2	8.3541E-06	1.1395E-06	5.6312E-08

P1 = 1.00E+03 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9224E+03	2.0472E+04	3.7326E+04
T	9.6124E+01	1.8624E+02	2.6554E+02
RHO	9.7631E+00	3.1025E+01	3.8184E+01
H	5.0023E+02	9.6649E+02	1.1962E+03
A	1.6599E+01	2.6769E+01	3.1550E+01
S	2.5760E+00	2.6963E+00	2.9119E+00
Z	3.1144E+00	3.5429E+00	3.6812E+00
GAME	9.2045E-01	1.0852E+00	1.0193E+00
U	4.2779E+01	1.3455E+01	1.4708E+01

SPECIES	MOLE FRACTIONS		
E-	4.2147E-01	4.9154E-01	5.1103E-01
HE	3.6613E-02	2.8453E-03	7.5474E-04
HE+	2.7613E-02	5.2034E-02	2.5935E-02
HE++	3.2691E-08	1.5679E-03	2.7740E-02
H	1.1945E-01	1.4949E-02	4.9263E-03
H+	3.9525E-01	4.3676E-01	4.2971E-01
H2	2.4031E-06	6.2950E-09	9.4173E-09

P1 = 1.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5342E+03	1.8411E+04	3.2240E+04
T	8.8315E+01	1.5592E+02	2.2970E+02
RHO	9.7936E+00	3.4122E+01	3.9136E+01
H	4.0337E+02	7.5727E+02	1.0216E+03
A	1.5326E+01	2.4649E+01	2.9501E+01
S	2.4851E+00	2.6138E+00	2.7339E+00
Z	2.9301E+00	3.4437E+00	3.6024E+00
GAME	9.3695E-01	1.0719E+00	1.0209E+00
U	3.9846E+01	1.1444E+01	1.2291E+01

SPECIES	MOLE FRACTIONS		
E-	3.8826E-01	4.7597E-01	5.0033E-01
HE	5.1546E-02	6.0119E-03	1.7445E-03
HE+	1.6736E-02	5.1674E-02	4.2933E-02
HE++	2.5224E-09	2.2456E-04	1.0941E-02
H	4.7726E-01	9.4377E-02	9.4292E-03
H+	3.0693E-01	4.2796E-01	4.3572E-01
H2	5.6738E-06	4.5512E-07	2.0075E-08

P1 = 1.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1254E+03	2.1431E+04	3.9791E+04
T	1.0062E+02	2.0174E+02	2.8595E+02
RHO	9.8945E+00	2.9753E+01	3.7426E+01
H	5.3517E+02	9.2331E+02	1.2733E+03
A	1.7327E+01	2.7598E+01	3.3314E+01
S	2.6223E+00	2.7336E+00	2.8497E+00
Z	3.2033E+00	3.5736E+00	3.7176E+00
GAME	9.3241E-01	1.0567E+00	1.0439E+00
U	4.4211E+01	1.4420E+01	1.5469E+01

SPECIES	MOLE FRACTIONS		
E-	4.3919E-01	4.9594E-01	5.1581E-01
HE	2.8472E-02	2.0954E-03	4.2915E-04
HE+	3.3648E-02	4.9306E-02	1.7519E-02
HE++	1.3716E-07	4.1255E-03	3.5951E-02
H	9.5395E-02	1.6362E-02	3.7970E-03
H+	4.0440E-01	4.2778E-01	4.2659E-01
H2	1.4577E-06	3.1497E-09	4.9499E-09

Table II. - Continued

p_1 = 1 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9754E+03	2.4703E+04	4.8065E+04
T	1.2733E+02	2.5755E+02	4.0132E+02
RHO	8.9523E+00	2.5992E+01	3.1654E+01
H	6.9595E+02	1.1693E+03	1.6654E+03
A	2.1583E+01	3.1044E+01	4.1805E+01
S	2.7925E+03	2.8747E+00	2.9959E+00
Z	3.4875E+00	3.6916E+00	3.7865E+00
GAME	1.6491E+00	1.0136E+00	1.1539E+00
U	4.9639E+01	1.7088E+01	1.9603E+01

SPECIES	MOLE FRACTIONS		
E-	4.9387E-01	5.1241E-01	5.2463E-01
HE	5.6497E-03	5.2688E-04	1.8791E-05
HE+	5.1692E-02	2.4561E-02	2.3590E-03
HE++	1.6943E-05	2.9089E-02	5.0442E-02
H	2.6634E-02	3.7504E-03	1.1713E-03
H+	4.3215E-01	4.2967E-01	4.2138E-01
H2	8.6696E-09	3.3613E-08	3.7799E-10

P1 = 1.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9754E+03	2.4703E+04	4.8065E+04
T	1.2733E+02	2.5755E+02	4.0132E+02
RHO	8.9523E+00	2.5992E+01	3.1654E+01
H	6.9595E+02	1.1693E+03	1.6654E+03
A	2.1583E+01	3.1044E+01	4.1805E+01
S	2.7925E+03	2.8747E+00	2.9959E+00
Z	3.4875E+00	3.6916E+00	3.7865E+00
GAME	1.6491E+00	1.0136E+00	1.1539E+00
U	4.9639E+01	1.7088E+01	1.9603E+01

SPECIES	MOLE FRACTIONS		
E-	4.9387E-01	5.1241E-01	5.2463E-01
HE	5.6497E-03	5.2688E-04	1.8791E-05
HE+	5.1692E-02	2.4561E-02	2.3590E-03
HE++	1.6943E-05	2.9089E-02	5.0442E-02
H	2.6634E-02	3.7504E-03	1.1713E-03
H+	4.3215E-01	4.2967E-01	4.2138E-01
H2	8.6696E-09	3.3613E-08	3.7799E-10

P1 = 1.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5644E+03	2.5349E+04	4.4536E+04
T	1.1152E+02	2.3645E+02	3.3736E+02
RHO	9.4493E+00	2.7926E+01	3.5374E+01
H	6.3843E+02	1.2433E+03	1.4622E+03
A	1.9127E+01	2.9119E+01	3.7623E+01
S	2.7396E+00	2.9042E+00	2.9239E+00
Z	3.3541E+00	3.6293E+00	3.7670E+00
GAME	9.7515E-01	1.0371E+00	1.1146E+00
U	4.7327E+01	1.5921E+01	1.7355E+01

SPECIES	MOLE FRACTIONS		
E-	4.5493E-01	5.0388E-01	5.2216E-01
HE	1.4778E-02	1.1314E-03	9.9336E-05
HE+	4.4572E-02	3.9188E-02	6.4298E-03
HE++	1.1742E-06	1.4912E-02	4.6565E-02
H	5.5324E-02	5.9190E-03	2.1415E-03
H+	4.2226E-01	4.3509E-01	4.2260E-01
H2	4.4259E-07	9.2117E-09	1.4193E-09

P1 = 1.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1922E+03	2.5020E+04	4.9162E+04
T	1.3779E+02	2.7148E+02	4.3495E+02
RHO	8.6245E+00	2.4777E+01	2.9918E+01
H	7.2602E+02	1.2307E+03	1.7682E+03
A	2.2974E+01	3.2306E+01	4.3676E+01
S	2.8302E+00	2.9091E+00	3.0299E+00
Z	3.5278E+00	3.7196E+00	3.7936E+00
GAME	1.0859E+00	1.0335E+00	1.1570E+00
U	5.0851E+01	1.7768E+01	2.0709E+01

SPECIES	MOLE FRACTIONS		
E-	4.9976E-01	5.1638E-01	5.2515E-01
HE	3.2934E-03	3.2984E-04	8.7396E-06
HE+	5.3330E-02	1.7954E-02	1.5667E-03
HE++	6.9915E-05	3.5486E-02	5.1186E-02
H	1.7251E-02	3.0341E-03	8.8349E-04
H+	4.3029E-01	4.2715E-01	4.2121E-01
H2	3.2914E-09	2.0392E-09	2.0235E-10

P1 = 1.00E+03 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7593E+03	2.4134E+04	4.6501E+04
T	1.1903E+02	2.4411E+02	3.6937E+02
RHO	9.2327E+00	2.7039E+01	3.3429E+01
H	6.4664E+02	1.1955E+03	1.5623E+03
A	2.0263E+01	2.9951E+01	3.9794E+01
S	2.7517E+00	2.9399E+00	2.9604E+00
Z	3.4322E+00	3.6033E+00	3.7794E+00
GAME	1.0096E+00	1.0339E+00	1.1394E+00
U	4.8362E+01	1.6517E+01	1.8441E+01

SPECIES	MOLE FRACTIONS		
E-	4.7556E-01	5.0827E-01	5.2373E-01
HE	9.4479E-03	7.9051E-04	4.2503E-05
HE+	4.9819E-02	3.1844E-02	3.7909E-03
HE++	4.2528E-06	2.2033E-02	4.9685E-02
H	3.9436E-02	4.6774E-03	1.5763E-03
H+	4.2673E-01	4.3242E-01	4.2177E-01
H2	2.0919E-07	5.4896E-09	7.2673E-10

Table 11. - Continued

p_1 = 2 kN/ m^2

P1 = 2.03E+03 N/SQ-M, US1= 4.03E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5068E+01
T	3.1753E+00	3.9838E+00	5.7047E+00
RHO	3.9601E+00	6.6009E+00	1.1405E+01
H	3.2467E+00	4.1057E+00	6.0154E+00
A	1.7735E+00	1.9769E+00	2.3389E+00
S	1.0655E+00	1.0674E+00	1.0863E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9100E-01	9.9137E-01	9.5892E-01
U	2.4570E+00	1.4729E+00	1.3091E+00

SPECIES	MOLE FRACTIONS		
E-	1.3968E-32	7.9371E-40	4.7529E-24
HE	2.0000E-01	2.0000E-01	1.9999E-01
HE+	5.0397E-04	1.3130E-56	2.3237E-47
HE++	0.	0.	0.
H	2.7337E-10	9.9402E-09	6.5071E-05
H+	7.2402E-20	7.2402E-20	7.2404E-20
H2	6.0000E-01	8.0000E-01	7.9994E-01

P1 = 2.06E+03 N/SQ-M, US1= 7.03E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9513E+01	1.4324E+02	4.5136E+02
T	7.4307E+00	9.9550E+00	1.1565E+01
RHO	5.3261E+00	1.4130E+01	2.1477E+01
H	8.0894E+00	1.2249E+01	1.6137E+01
A	2.6123E+00	2.9463E+00	3.1996E+00
S	1.1622E+00	1.1749E+00	1.2019E+00
Z	1.0010E+00	1.0230E+00	1.0529E+00
GAME	9.1907E-01	8.5372E-01	8.3935E-01
U	4.6727E+00	1.7635E+00	1.5405E+00

SPECIES	MOLE FRACTIONS		
E-	9.5133E-17	2.6547E-12	1.3450E-10
HE	1.9969E-01	1.9639E-01	1.9996E-01
HE+	2.8321E-38	7.5479E-29	2.6522E-25
HE++	0.	0.	1.0559E-99
H	3.2022E-03	3.4191E-02	1.0343E-01
H+	5.5239E-17	2.6547E-12	1.3490E-10
H2	7.9712E-01	7.8474E-01	7.0961E-01

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2105E+01	1.1564E+02
T	4.4065E+00	5.9035E+00	8.0439E+00
RHO	4.4958E+00	9.8240E+00	1.43[illegible]E+01
H	4.5641E+00	6.2443E+00	8.9047E+00
A	2.0733E+00	2.3757E+00	2.7101E+00
S	1.0992E+00	1.1038E+00	1.1257E+00
Z	1.0000E+00	1.0001E+00	1.0025E+00
GAME	9.7550E-01	9.5597E-01	9.1085E-01
U	3.1952E+00	1.6263E+00	1.4603E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.2328E-36	3.5375E-22	4.2789E-16
HE	2.0000E-01	1.9999E-01	1.9950E-01
HE+	6.6257E-55	1.9224E-46	3.[illegible]966E-34
HE++	0.	0.	0.
H	1.1376E-06	.2714E-04	4.9697E-03
H+	7.2402E-20	7.2751E-20	4.2796E-16
H2	8.0000E-01	7.9989E-01	7.9553E-01

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8755E+01	8.9141E+01	1.7975E+02
T	5.8438E+00	8.0445E+00	1.0016E+01
RHO	4.9205E+00	1.1050E+01	1.7614E+01
H	6.1763E+00	8.9254E+00	1.2262E+01
A	2.3640E+00	2.7056E+00	2.9567E+00
S	1.1316E+00	1.1391E+00	1.1632E+00
Z	1.0001E+00	1.0029E+00	1.018[illegible]E+00
GAME	9.5622E-01	9.0741E-01	8.5561E-01
U	3.9297E+00	1.7497E+00	1.5226E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.2488E-21	1.7743E-15	2.643[illegible]E-12
HE	1.9999E-01	1.9943E-01	1.962[illegible]E-01
HE+	3.7184E-47	7.1975E-36	7.953[illegible]E-29
HE++	0.	0.	0.
H	1.3990E-04	5.6699E-03	3.7082E-02
H+	7.1149E-20	1.7744E-15	2.6435E-12
H2	7.9987E-01	7.9490E-01	7.6663E-01

P1 = 2.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2382E+01	2.2211E+02	3.7393E+02
T	9.8401E+00	1.1504E+01	1.2912E+01
RHO	5.8629E+00	1.9291E+01	2.6277E+01
H	1.0315E+01	1.2245E+01	2.0719E+01
A	2.7845E+00	3.1844E+00	3.6444E+00
S	1.1924E+00	1.2118E+00	1.2429E+00
Z	1.0105E+00	1.0557E+00	1.1021E+00
GAME	9.6809E-01	9.3501E-01	8.3377E-01
U	5.4527E+00	1.7472E+00	1.5671E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	9.1065E-14	1.3483E-10	1.9[illegible]9E-09
HE	1.9795E-01	1.8945E-01	1.9148E-01
HE+	9.0660E-33	2.6417E-26	1.7[illegible]84E-22
HE++	0.	4.6348E-89	4.9137E-82
H	2.0472E-02	1.9549E-01	1.9522E-01
H+	9.1065E-14	1.3483E-10	1.9[illegible]9E-09
H2	7.9158E-01	7.8705E-01	6.3311E-01

P1 = 2.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7421E+01	3.3693E+02	5.3133E+02
T	9.9999E+00	1.2973E+01	1.4249E+01
RHO	6.5536E+00	2.3374E+01	3.2013E+01
H	1.2960E+01	2.0905E+01	2.6096E+01
A	2.9375E+00	3.4439E+00	3.7957E+00
S	1.2230E+00	1.2516E+00	1.2967E+00
Z	1.0300E+00	1.1041E+00	1.1650E+00
GAME	9.3854E-01	9.3265E-01	8.3912E-01
U	6.2679E+00	1.7566E+00	1.6140E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.9469E-12	2.0022E-09	1.5459E-08
HE	1.9417E-01	1.8382E-01	1.7168E-01
HE+	5.9746E-29	1.3550E-22	1.7411E-20
HE++	0.	7.9684E-82	4.4402E-75
H	5.8335E-02	1.9179E-01	2.0322E-01
H+	4.9469E-12	2.0020E-09	1.5459E-08
H2	7.4750E-01	6.2739E-01	5.4512E-01

Table II. - Continued

p_1 = 2 kN/m^2

P1 = 2.00E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4505E+01	4.7751E+02	7.3560E+02
T	1.0930E+01	1.4175E+01	1.5603E+01
RHO	7.2997E+00	2.9839E+01	3.9029E+01
H	1.5716E+01	2.6173E+01	3.2197E+01
A	3.0942E+00	3.7231E+00	4.0475E+00
S	1.2556E+00	1.2939E+00	1.3333E+00
Z	1.0591E+00	1.1681E+00	1.2397E+00
GAME	8.2703E-01	8.3717E-01	8.4690E-01
U	7.0925E+00	1.7942E+00	1.6850E+00

SPECIES	MOLE FRACTIONS		
E-	6.5725E-11	1.4836E-08	8.4743E-08
HE	1.8983E-01	1.7122E-01	1.6132E-01
HE+	1.7464E-26	1.3585E-20	9.8581E-19
HE++	0.	4.9863E-75	1.2586E-68
H	1.1168E-01	2.8782E-01	3.8677E-01
H+	6.5725E-11	1.4836E-08	8.4740E-08
H2	6.9949E-01	5.4096E-01	4.5191E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4706E+02	1.1037E+03	1.6338E+03
T	1.3224E+01	1.8187E+01	2.0442E+01
RHO	9.3642E+00	4.3183E+01	5.2559E+01
H	2.6057E+01	4.5329E+01	5.5051E+01
A	3.6029E+00	4.7212E+00	5.2941E+00
S	1.3617E+00	1.4322E+00	1.4849E+00
Z	1.1878E+00	1.4068E+00	1.5207E+00
GAME	8.2666E-01	8.7213E-01	9.0163E-01
U	9.5422E+00	2.0712E+00	2.0688E+00

SPECIES	MOLE FRACTIONS		
E-	6.8226E-09	1.0905E-06	5.6073E-06
HE	1.6841E-01	1.4216E-01	1.3152E-01
HE+	6.6130E-22	3.2074E-16	1.7553E-14
HE++	1.7551E-80	4.9962E-59	8.9942E-53
H	3.1598E-01	5.7837E-01	5.8476E-01
H+	6.8226E-09	1.0905E-06	5.6073E-06
H2	5.1570E-01	2.7947E-01	1.8371E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0351E+02	6.5526E+02	9.8707E+02
T	1.1753E+01	1.5455E+01	1.7027E+01
RHO	8.0371E+00	3.4194E+01	4.3753E+01
H	1.8866E+01	3.2010E+01	3.9035F+01
A	3.2565E+00	4.0252E+00	4.4033E+00
S	1.2890E+00	1.3385E+00	1.3821E+00
Z	1.0957E+00	1.2399E+00	1.3250E+00
GAME	8.2347E-01	8.4550E-01	8.5946E-01
U	7.9145E+00	1.8612E+00	1.7792E+00

SPECIES	MOLE FRACTIONS		
E-	4.4047E-10	7.5659E-08	3.7335E-07
HE	1.8252E-01	1.6131E-01	1.5095F-01
HE+	1.5210E-24	6.1405E-19	2.8452E-17
HE++	2.5779E-90	3.7890E-69	6.5737E-63
H	1.7476E-01	3.8694E-01	4.8054E-01
H+	4.4047E-10	7.5659E-08	3.7335E-07
H2	6.4272E-01	4.5175E-01	3.4851E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7153E+02	1.3661F+03	2.0290E+03
T	1.3625E+01	1.9733E+01	2.2853E+01
RHO	9.9211E+00	4.6210E+01	5.4706E+01
H	3.0397E+01	5.2771F+01	6.4396E+01
A	3.7902E+00	5.1368E+00	5.9123E+00
S	1.4004E+00	1.4801E+00	1.5377E+00
Z	1.2416E+00	1.4981E+00	1.6237E+00
GAME	8.3090E-01	8.9261F-01	9.4207E-01
U	1.0345E+01	2.2231E+00	2.2906E+00

SPECIES	MOLE FRACTIONS		
E-	2.0267E-08	3.6555E-06	2.3636E-05
HE	1.6109E-01	1.3350E-01	1.2318E-01
HE+	7.7970E-21	5.7093E-15	5.6254E-13
HE++	1.3102E-76	2.3674E-54	5.2721E-47
H	3.8917E-01	6.6495E-01	7.6814E-01
H+	2.0267E-08	3.6555E-06	2.3636E-05
H2	4.4975E-01	2.0154E-01	1.0963E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2437E+02	8.6537E+02	1.2856E+03
T	1.2506E+01	1.6768E+01	1.8596E+01
RHO	8.7328E+00	3.9085E+01	4.8741E+01
H	2.2315E+01	3.9401E+01	4.6639E+01
A	3.4255E+00	4.3552E+00	4.8106E+00
S	1.3246E+00	1.3847E+00	1.4329E+00
Z	1.1388E+00	1.3200E+00	1.4194E+00
GAME	8.2391E-01	8.5699E-01	8.7672E-01
U	8.7315E+00	1.9524E+00	1.9053E+00

SPECIES	MOLE FRACTIONS		
E-	1.9446E-09	3.0623E-07	1.4059E-06
HE	1.7562E-01	1.5152E-01	1.4090E-01
HE+	3.6040E-23	1.5712E-17	7.2254E-16
HE++	1.2161E-93	1.3233F-63	1.2596E-57
H	2.4376E-01	4.8484E-01	5.9099E-01
H+	1.9446E-09	3.0623E-07	1.4659E-06
H2	5.8062E-01	3.6365E-01	2.6812F-01

P1 = 2.00E+03 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9774E+02	1.6444E+03	2.4926E+03
T	1.4629E+01	2.1604E+01	2.4569E+01
RHO	1.0354E+01	4.7979F+01	5.4441E+01
H	3.4432E+01	6.0693E+01	7.4999F+01
A	3.9895E+00	5.6290E+00	6.7999E+00
S	1.4403E+00	1.5277E+00	1.5906E+00
Z	1.3005F+00	1.5999E+00	1.7159F+00
GAME	8.3661E-01	9.2257F-01	1.0142F+00
U	1.1140E+01	2.4203E+00	2.6278E+00

SPECIES	MOLE FRACTIONS		
E-	5.3841E-08	1.2406E-06	1.3340E-04
HE	1.5379E-01	1.2581E-01	1.1656F-01
HE+	6.9847E-20	1.0517E-13	3.6097E-11
HE++	2.8146E-72	3.6276E-50	4.4110E-40
H	4.6210E-01	7.4190E-01	8.3404E-01
H+	5.3841E-08	1.2406E-06	1.3340E-04
H2	3.8413E-01	1.3227F-01	4.9135F-02

Table II. - Continued

p_1 = 2 kN/m^2

P1 = 2.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2569E+02	1.9276E+03	3.0033E+03
T	1.5355E+01	2.4355E+01	3.2856E+01
RHO	1.0778E+01	4.7857E+01	5.1553E+01
H	3.9363E+01	6.9055E+01	9.7359E+01
A	4.2036E+00	6.2513E+00	7.9471E+00
S	1.4813E+00	1.5741E+00	1.6417E+00
Z	1.3637E+00	1.6744E+00	1.7731E+00
GAME	8.4386E-01	9.7020E-01	1.0941E+00
U	1.1927E+01	2.6877E+00	3.1519E+00

SPECIES	MOLE FRACTIONS		
E-	1.3440E-07	4.6921E-05	1.0023E-03
HE	1.4606E-01	1.1944E-01	1.1280E-01
HE+	5.9940E-19	2.6292E-12	6.1356E-09
HE++	2.3937E-69	9.4274E-45	4.8595E-32
H	5.3340E-01	8.0543E-01	8.6892E-01
H+	1.3440E-07	4.6921E-05	1.0622E-03
H2	3.1994E-01	7.5331E-02	1.6261E-02

P1 = 2.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1939E+02	2.6397E+03	4.6333E+03
T	1.7956E+01	3.7663E+01	5.2448E+01
RHO	1.1312E+01	5.9341E+01	4.7323E+01
H	5.4718E+01	9.5987E+01	1.2795E+02
A	4.9912E+00	8.4941E+00	9.7136E+00
S	1.6381E+00	1.6920E+00	1.7551E+00
Z	1.5724E+00	1.7944E+00	1.9527E+00
GAME	8.8236E-01	1.0476E+00	9.6368E-01
U	1.4234E+01	4.0965E+00	4.4496E+00

SPECIES	MOLE FRACTIONS		
E-	1.8526E-06	3.7134E-03	3.0759E-02
HE	1.2719E-01	1.1146E-01	1.0793E-01
HE+	3.0141E-16	1.1072E-07	2.4493E-05
HE++	2.8956E-59	1.3721E-27	4.5999E-19
H	7.2928E-11	8.7426E-01	8.2821E-01
H+	1.8926E-06	3.7133E-03	3.0735E-02
H2	1.4473E-01	6.8584E-03	2.3386E-03

P1 = 2.00E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5533E+02	2.1996E+03	3.567CE+03
T	1.6125E+01	2.7539E+01	4.0620E+01
RHO	1.1067E+01	4.5997E+01	4.9906E+01
H	4.3985E+01	7.7761E+01	1.0090F+02
A	4.4363E+00	7.0556E+00	9.7620E+00
S	1.5231E+00	1.6176E+00	1.6860E+00
Z	1.4309E+00	1.7394E+00	1.7992E+00
GAME	8.5306E-01	1.0393E+00	1.0505E+00
U	1.27C0E+01	3.0652E+00	3.7290E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.2119E-07	2.1158E-04	5.8271E-03
HE	1.3979E-01	1.1499E-01	1.1116E-01
HE+	4.4176E-18	1.0285E-10	3.9787E-07
HE++	1.1386E-65	1.1256E-38	1.6480E-25
H	6.0214E-01	8.4951E-01	8.7094E-01
H+	3.2119E-07	2.1158E-04	5.8267E-03
H2	2.5807E-01	3.5080E-02	6.2481E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5352E+02	2.9639E+03	5.0950F+03
T	1.9161E+01	4.2842F+01	5.7508F+01
RHO	1.1233E+01	3.6920E+01	4.6954E+01
H	6.0514E+01	1.0569E+02	1.4160E+02
A	5.3476E+00	8.9035E+00	1.0125F+01
S	1.6499E+00	1.7241F+00	1.7860F+00
Z	1.6425F+00	1.8106E+00	1.9969F+00
GAME	9.0867F-01	1.0223F+00	9.4479E-01
U	1.4976E+01	4.5519F+00	4.7078F+00

SPECIES	---------- MOLL FRACTIONS ----------		
E-	5.0536F-06	9.6822F-03	4.7774E-02
HE	1.2177E-01	1.1046E-01	1.0592F-01
HE+	3.1840E-15	1.1403E-06	7.4704E-05
HE++	1.4786E-55	5.9516E-24	2.5567E-17
H	7.8202E-01	8.6632E-01	7.9680E-01
H+	5.0534E-06	9.6810E-03	4.7699E-02
H2	9.5904E-02	3.9551F-03	1.7337E-03

P1 = 2.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9659E+02	2.4403E+03	4.1169E+03
T	1.6974E+01	3.2290E+01	4.7327E+01
RHO	1.1256E+01	4.2562F+01	4.7710E+01
H	4.9208E+01	8.6724E+01	1.1442E+02
A	4.6949E+00	7.9914F+00	9.2750E+00
S	1.5655E+00	1.6569E+00	1.7225E+00
Z	1.5306E+00	1.7578F+00	1.8232E+00
GAME	8.6523E-01	1.0861E+00	9.9696E-01
U	1.3475E+01	3.5606E+00	4.1569E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.6805E-07	1.0038E-03	1.6203F-02
HE	1.3326E-01	1.1263E-01	1.0969E-01
HE+	3.5366E-17	4.5894E-09	4.9474E-06
HE++	9.5519F-63	1.3334E-32	1.4450F-21
H	6.6737E-01	8.7065E-01	8.5444F-01
H+	7.6635F-07	1.0039E-03	1.6199F-02
H2	1.9936E-01	1.4737F-02	3.4639E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9961E+02	3.0333E+03	5.4363E+03
T	2.0826E+01	4.7456E+01	6.1474E+01
RHO	1.0927E+01	3.4919F+01	4.5953E+01
H	6.0658E+01	1.1583E+02	1.5522E+02
A	5.9209E+00	9.2406F+00	1.0510E+01
S	1.6914E+00	1.7551F+00	1.8167E+00
Z	1.7374E+00	1.9365F+00	1.9244E+00
GAME	9.5466E-01	9.8296F-01	9.3370E-01
U	1.5676E+01	4.9039F+00	4.9896E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.6389E-05	1.9175F-02	6.6030E-02
HE	1.1711F-01	1.0925E-01	1.0376E-01
HE+	5.5465E-14	6.0075F-06	1.7040E-04
HE++	2.6549E-51	2.2970F-21	4.9495E-16
H	8.2862F-01	8.4990E-01	7.6290F-01
H+	1.6399E-05	1.9169E-02	6.5929E-02
H2	5.6034E-02	2.4963F-03	1.3402F-03

Table II. - Continued

$p_1 = 2$ kN/m^2

P1 = 2.03E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2603E+02	3.1345E+03	5.5966E+03
T	2.8312E+01	5.1428E+01	6.4914E+01
RHO	1.0335E+01	3.2855E+01	4.3962E+01
H	7.2911E+01	1.2528E+02	1.6861E+02
A	6.4986E+02	9.5517E+02	1.1962E+03
S	1.7307E+00	1.7861E+00	1.8490E+00
Z	1.7577E+00	1.8552E+00	1.9541E+00
GAME	1.0331E+00	9.5630E-01	9.2669E-01
U	1.6331E+01	5.1397E+00	5.0262E+00

SPECIES	MOLE FRACTIONS		
E-	7.6376E-05	3.1500E-02	8.4610E-02
HE	1.1581E-01	1.0779E-01	1.0151E-01
HE+	2.0014E-12	2.0047E-05	3.2067E-04
HE++	2.8345E-45	1.6858E-19	4.7998E-15
H	8.6179E-01	9.2746E-01	7.2922E-01
H+	7.0376E-05	3.1480E-02	8.4290E-02
H2	2.4276E-02	1.7579E-03	1.0520E-03

P1 = 2.06E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3377E+02	3.2826E+03	5.6372E+03
T	3.5191E+01	6.0742E+01	7.2734E+01
RHO	8.4065E+00	2.7696E+01	3.7042E+01
H	9.3409E+01	1.5947E+02	2.0995E+02
A	8.1553E+00	1.0443E+01	1.1812E+01
S	1.8249E+00	1.9771E+00	1.9414E+00
Z	1.8348E+00	1.9512E+00	2.0923E+00
GAME	1.0475E+00	9.2009E-01	9.1689E-01
U	1.6099E+01	5.4910E+00	5.3089E+00

SPECIES	MOLE FRACTIONS		
E-	4.6694E-03	7.8299E-02	1.4025E-01
HE	1.1081E-01	1.0231E-01	9.4414E-02
HE+	6.1922E-08	1.8895E-04	1.1736E-03
HE++	4.9908E-29	4.9245E-16	4.7197E-13
H	8.7785E-01	7.4033E-01	6.2455E-01
H+	4.6684E-03	7.8110E-02	1.3907E-01
H2	1.9994E-03	7.9418E-04	5.4187E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.595[illegible]E+02	3.172[illegible]E+03	5.6313E+03
T	2.681[illegible]E+01	5.4832E+01	6.7645E+01
RHO	9.605[illegible]E+00	3.6717E+01	4.1296E+01
H	7.947[illegible]E+01	1.3594E+02	1.8175E+02
A	7.237[illegible]E+00	9.8477E+00	1.1183E+01
S	1.766[illegible]E+00	1.8172E+00	1.8799E+00
Z	1.783[illegible]E+00	1.8838E+00	2.0052E+00
GAME	1.095[illegible]E+00	9.3886E-01	9.2195E-01
U	1.695[illegible]E+01	5.2902E+00	5.1298E+00

SPECIES	MOLE FRACTIONS		
E-	3.5277E-04	4.5790E-02	1.0315E-01
HE	1.1212E-01	1.0612E-01	9.9215E-02
HE+	1.0776E-10	4.9602E-05	5.2686E-04
HE++	5.5095E-33	4.2351E-18	2.7432E-14
H	8.7775E-01	8.0100E-01	6.9365E-01
H+	3.5277E-04	4.5741E-02	1.0262E-01
H2	9.42[illegible]E-03	1.3012E-03	8.3172E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7445E+02	3.4376E+03	5.8333E+03
T	3.8976E+01	6.3541E+01	7.5403E+01
RHO	9.1135E+00	2.7199E+01	3.6152E+01
H	1.0084E+02	1.7185E+02	2.2385E+02
A	9.4069E+00	1.0759E+01	1.2159E+01
S	1.8505E+00	1.9043E+00	1.9704E+00
Z	1.9169E+00	1.9991E+00	2.1399E+00
GAME	9.9824E-01	9.1566E-01	9.1606E-01
U	1.8732E+01	5.5944E+00	5.4161E+00

SPECIES	MOLE FRACTIONS		
E-	1.0477E-02	9.5719E-02	1.5929E-01
HE	1.1008E-01	1.0023E-01	9.1776E-02
HE+	4.5532E-07	3.2244E-04	1.6865E-03
HE++	6.5119E-26	3.3709E-15	1.7595E-12
H	8.6774E-01	7.0768E-01	5.8920E-01
H+	1.0477E-02	9.5396E-02	1.5760E-01
H2	1.2261E-03	6.5186E-04	4.4828E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9574E+02	3.2010E+03	5.5707E+03
T	3.1016E+01	5.7954E+01	7.0199E+01
RHO	8.5027E+00	2.9881E+01	3.8761E+01
H	9.6299E+01	1.4791E+02	1.9494E+02
A	7.6025E+00	1.0139E+01	1.1491E+01
S	1.7953E+00	1.8479E+00	1.9113E+00
Z	1.7957E+00	1.9158E+00	2.0476E+00
GAME	1.0938E+00	9.2747E-01	9.1977E-01
U	1.7507E+01	5.3945E+00	5.2159E+00

SPECIES	MOLE FRACTIONS		
E-	1.5249E-03	5.1421E-02	1.2159E-01
HE	1.1138E-01	1.0430E-01	9.6874E-02
HE+	3.9463E-09	1.0226E-04	8.0091E-04
HE++	2.4868E-33	5.4639E-17	1.2350E-13
H	8.9166E-01	7.7196E-01	6.5929E-01
H+	1.5248E-03	6.1319E-02	1.2079E-01
H2	3.9179E-03	1.0302E-03	6.6534E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.1791E+02	3.6535E+03	6.1419E+03
T	4.2306E+01	6.6355E+01	7.8202E+01
RHO	7.9670E+00	2.7120E+01	3.5858E+01
H	1.0961E+02	1.9502E+02	2.3996E+02
A	8.6348E+00	1.1091E+01	1.2526E+01
S	1.9746E+00	1.9309E+00	1.9995E+00
Z	1.8336E+00	2.0302E+00	2.1903E+00
GAME	9.6149E-01	9.1311E-01	9.1597E-01
U	1.9402E+01	5.6968E+00	5.5379E+00

SPECIES	MOLE FRACTIONS		
E-	1.9940E-02	1.1394E-01	1.7852E-01
HE	1.0911E-01	9.7998E-02	8.8934E-02
HE+	1.9632E-06	5.2375E-04	2.3799E-03
HE++	1.2699E-23	1.9700E-14	6.2572E-12
H	9.5236E-01	6.7359E-01	5.5359E-01
H+	1.8838E-02	1.1342E-01	1.7617E-01
H2	8.5367E-04	5.4420E-04	3.7493E-04

Table II. - Continued

$p_1 = 2$ kN/ m^2

P1 = 2.00E+03 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6373E+02	3.9199E+03	6.5397E+03
T	4.5255E+01	6.9164E+01	8.1105E+01
RHO	7.9153E+00	2.7328E+01	3.5949E+01
H	1.1670E+02	1.9894E+02	2.5711E+02
A	8.8634E+00	1.1437E+01	1.2912E+01
S	1.8978E+00	1.9566E+00	2.0263E+00
Z	1.8530E+00	2.0739E+00	2.2430E+00
GAME	9.3683E-01	9.1189E-01	9.1637E-01
U	2.0102E+01	5.8195E+00	5.6718E+00

SPECIES	MOLE FRACTIONS		
E-	2.9247E-02	1.3252E-01	1.9783E-01
HE	1.0793E-01	9.5625E-02	8.5872E-02
HE+	5.9593E-06	8.1299E-04	3.2926E-03
HE++	6.9688E-22	9.8537E-14	2.1357E-11
H	8.3294E-01	6.3887E-01	5.1815E-01
H+	2.9241E-02	1.3171E-01	1.9454E-01
H2	6.4450E-04	4.6026E-04	3.1560E-04

P1 = 2.00E+03 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.696[illegible]E+02	5.338[illegible]E+03	8.7307E+03
T	5.468[illegible]E+01	8.0313E+01	9.3372E+01
RHO	8.1107E+00	2.9322E+01	3.7844E+01
H	1.5224E+02	2.6127E+02	3.3467E+02
A	9.8131E+00	1.2996E+01	1.4571E+01
S	1.9866E+00	2.0573E+00	2.1755E+00
Z	1.9604E+00	2.2873E+00	2.4708E+00
GAME	8.9814E-01	9.1341E-01	9.2026E-01
U	2.3054E+01	6.3737E+00	6.2945E+00

SPECIES	MOLE FRACTIONS		
E-	8.2304E-02	2.0624E-01	2.7164E-01
HE	1.0191E-01	8.4997E-02	7.1196E-02
HE+	9.1655E-05	3.3259E-03	9.7493E-03
HE++	1.4169E-17	1.9882E-11	1.4624E-09
H	7.3319E-01	5.0237E-01	3.8533E-01
H+	8.7212E-02	2.0232E-01	2.6191E-01
H2	3.0191E-04	2.4491E-04	1.6060E-04

P1 = 2.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.1206E+02	4.2271E+03	7.0091E+03
T	4.7932E+01	7.1966E+01	8.4086E+01
RHO	7.9218E+00	2.7713E+01	3.6271E+01
H	1.2512E+02	2.1356E+02	2.7521E+02
A	9.0964E+00	1.1792E+01	1.3311E+01
S	1.9203E+00	1.9821E+00	2.0537E+00
Z	1.8763E+00	2.1197E+00	2.2978E+00
GAME	9.2063E-01	9.1159E-01	9.1707E-01
U	2.6822E+01	5.9505E+00	5.9152E+00

SPECIES	MOLE FRACTIONS		
E-	4.1169E-02	1.5123E-01	2.1692E-01
HE	1.0658E-01	9.3138E-02	8.2579E-02
HE+	1.4349E-05	1.2130E-03	4.4603E-03
HE++	1.6757E-20	4.3156E-13	6.6673E-11
H	8.1057E-01	6.0401E-01	4.8332E-01
H+	4.1154E-02	1.5002E-01	2.1246E-01
H2	5.1227E-04	3.9245E-04	2.6652E-04

P1 = 2.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8464E+02	6.2379E+03	1.0396E+04
T	5.8596E+01	8.5920E+01	9.9841E+01
RHO	9.2951E+00	3.0457E+01	3.9030E+01
H	1.7185E+02	2.9602E+02	3.7827E+02
A	1.0297E+01	1.3453E+01	1.5958E+01
S	2.0291E+00	2.1373E+00	2.1899E+00
Z	2.0259E+00	2.3723E+00	2.5909E+00
GAME	8.9324E-01	9.1553E-01	9.2381E-01
U	2.4571E+01	6.4463E+00	6.0241E+00

SPECIES	MOLE FRACTIONS		
E-	1.1168E-01	2.4141E-01	3.6534E-01
HE	9.9559E-02	7.8534E-02	6.2396E-02
HE+	2.1905E-04	5.7721E-03	1.4810E-02
HE++	3.4277E-19	1.5760E-12	9.7961E-11
H	6.7771E-01	4.3346E-01	3.2582E-01
H+	1.1148E-01	2.3564E-01	2.9053E-01
H2	2.2673E-04	1.8335E-04	1.1336E-04

P1 = 2.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6257E+02	4.5727E+03	7.5422E+03
T	5.0294E+01	7.4749E+01	8.7142E+01
RHO	7.9722E+00	2.8216E+01	3.6762E+01
H	1.3376E+02	2.2996E+02	2.9425E+02
A	9.3301E+00	1.2157E+01	1.3723E+01
S	1.9421E+00	2.0073E+00	2.0910E+00
Z	1.9019E+00	2.1675E+00	2.3543E+00
GAME	9.1009E-01	9.1199E-01	9.1799E-01
U	2.1560E+01	6.0896E+00	5.9671E+00

SPECIES	MOLE FRACTIONS		
E-	5.3999E-02	1.6990E-01	2.3568E-01
HE	1.0513E-01	9.0521E-02	7.9032E-02
HE+	2.9248E-05	1.7536E-03	5.9128E-03
HE++	2.2231E-19	1.6874E-12	1.0997E-10
H	7.8645E-01	5.6935E-01	4.4939E-01
H+	5.3969E-02	1.6814E-01	2.2976E-01
H2	4.2239E-04	3.3640E-04	2.2541E-04

P1 = 2.00E+03 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1069E+03	7.1507E+03	1.1585E+04
T	6.2297E+01	9.1500E+01	1.0459E+02
RHO	9.4713E+00	3.1523E+01	4.0062E+01
H	1.5266E+02	3.3295E+02	4.2494E+02
A	1.0795E+01	1.4431E+01	1.6396E+01
S	2.0726E+00	2.1569E+00	2.2446E+00
Z	2.0974E+00	2.4794E+00	2.7133E+00
GAME	8.9176E-01	9.1795E-01	9.2964E-01
U	2.6099E+01	7.0306E+00	6.3959E+00

SPECIES	MOLE FRACTIONS		
E-	1.4159E-01	2.7614E-01	3.8662E-01
HE	9.4903E-02	7.1494E-02	5.2875E-02
HE+	4.5143E-04	9.1715E-03	2.0843E-02
HE++	4.8676E-15	9.0791E-10	4.3329E-09
H	6.2055E-01	3.8309E-01	2.7382E-01
H+	1.4153E-01	2.6497E-01	3.1577E-01
H2	1.7274E-04	1.3471E-04	7.8348E-05

Table II. - Continued

$p_1 = 2$ kN/m^2

P1 = 2.00E+03 N/SQ-M, US1= 7.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2366E+03	9.1679E+03	1.3216E+04
T	6.5816E+01	9.7217E+01	1.1382E+02
RHO	8.6452E-06	3.2443E-05	4.0930E-05
H	2.1467E+02	3.7275E+02	4.7485E+02
A	1.1297E+01	1.5228E+01	1.7414E+01
S	2.1164E+00	2.2070E+00	2.2991E+00
Z	2.1733E+00	2.5897E+00	2.9369E+00
GAME	8.9224E-01	9.2111E-01	9.3921E-01
U	2.7615E+01	7.3545E+00	7.4611E+00

SPECIES	MOLE FRACTIONS		
E-	1.7191E-01	3.0503E-01	3.6555E-01
HE	9.1194E-02	6.3616E-02	4.3105E-02
HE+	9.3171E-04	1.3613E-02	2.7304E-02
HE++	4.6299E-14	5.2445E-09	1.8977E-07
H	5.6496E-01	3.2622E-01	2.2574E-01
H+	1.7107E-01	2.9142E-01	3.3816E-01
H2	1.3361E-04	9.7450E-05	5.2451E-05

P1 = 2.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6676E+03	1.1540E+04	1.8838E+04
T	7.5979E+01	1.1560E+02	1.4144E+02
RHO	9.0604E-06	3.4161E-05	4.1596E-05
H	2.8792E+02	5.0151E+02	6.4551E+02
A	1.2866E+01	1.7854E+01	2.1304E+01
S	2.2492E+00	2.3565E+00	2.4629E+00
Z	2.4224E+00	2.9223E+00	3.2019E+00
GAME	9.0955E-01	9.4365E-01	1.0321E+00
U	3.2166E+01	8.5286E+00	8.9467E+00

SPECIES	MOLE FRACTIONS		
E-	2.5720E-01	3.9409E-01	4.3785E-01
HE	7.9033E-02	3.7823E-02	1.8145E-02
HE+	3.5207E-03	3.0616E-02	4.4306E-02
HE++	1.0048E-11	3.1954E-07	1.1454E-05
H	4.3691E-01	1.9399E-01	1.0615E-01
H+	2.5347E-01	3.5346E-01	3.9352E-01
H2	5.9796E-05	3.2703E-05	1.0621E-05

P1 = 2.00E+03 P/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3732E+03	9.2445E+03	1.4961E+04
T	6.9237E+01	1.0335E+02	1.2172E+02
RHO	9.8023E-00	3.3225E+01	4.1514E+01
H	2.3786E+02	4.1318E+02	5.2787E+02
A	1.1909E+01	1.6050E+01	1.8546E+01
S	2.1601E+00	2.2569E+00	2.3537E+00
Z	2.2532E+00	2.7003E+00	2.9606E+00
GAME	8.9381E-01	9.2578E-01	9.5379E-01
U	2.9135E+01	7.7152E+00	7.9396E+00

SPECIES	MOLE FRACTIONS		
E-	2.0123E-01	3.3347E-01	3.9206E-01
HE	9.7344E-02	5.5191E-02	3.3724E-02
HE+	1.4200E-03	1.9876E-02	3.3828E-02
HE++	3.3507E-13	2.3141E-08	7.5940E-07
H	5.1010E-01	2.7779E-01	1.9213E-01
H+	1.9981E-01	3.1460E-01	3.5823E-01
H2	1.0245E-04	6.9584E-05	3.3480E-05

P1 = 2.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8250E+03	1.2738E+04	2.1035E+04
T	7.9351E+01	1.2259E+02	1.5468E+02
RHO	9.1625E+00	3.4287E+01	4.1013E+01
H	3.1458E+02	5.4851E+02	7.1160E+02
A	1.3397E+01	1.8871E+01	2.3303E+01
S	2.2923E+00	2.4055E+00	2.5170E+00
Z	2.5101E+00	3.0300E+00	3.3111E+00
GAME	9.0112E-01	9.5854E-01	1.0356E+00
U	3.3677E+01	8.9963E+00	9.6994E+00

SPECIES	MOLE FRACTIONS		
E-	2.8234E-01	4.0609E-01	4.5639E-01
HE	7.4448E-02	2.9803E-02	1.2637E-02
HE+	5.2239E-03	3.6190E-02	4.7719E-02
HE++	4.4705E-11	1.0587E-06	4.7397E-05
H	3.5962E-01	1.5902E-01	7.4639E-02
H+	2.7771E-01	3.6988E-01	4.0857E-01
H2	4.5109E-05	2.1145E-05	4.9659E-06

P1 = 2.00E+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5169E+03	1.0376E+04	1.6937E+04
T	7.2605E+01	1.0912E+02	1.3075E+02
RHO	8.9429E+00	3.3924E+01	4.1764E+01
H	2.6225E+02	4.5638E+02	5.8465E+02
A	1.2328E+01	1.6917E+01	1.9922E+01
S	2.2039E+00	2.3066E+00	2.4084E+00
Z	2.3362E+00	2.8112E+00	3.0835E+00
GA	8.9600E-01	9.3296E-01	9.7458E-01
U	3.0653E+01	9.1004E+00	8.3491E+00

SPECIES	MOLE FRACTIONS		
E-	2.2959E-01	3.5974E-01	4.1627E-01
HE	8.3322E-02	4.6474E-02	2.5244E-02
HE+	2.2976E-03	2.4671E-02	3.9615E-02
HE++	1.9759E-12	8.9973E-08	2.9324E-06
H	4.5741E-01	2.3399E-01	1.4221E-01
H+	2.2731E-01	3.3507E-01	3.7664E-01
H2	7.8636E-05	4.9592E-05	1.9859E-05

P1 = 2.00E+03 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9895E+03	1.3932E+04	2.3286E+04
T	8.2795E+01	1.3034E+02	1.7113E+02
RHO	9.2384E+00	3.4392E+01	3.9996E+01
H	3.4255E+02	5.9716E+02	7.8234E+02
A	1.3945E+01	1.9993E+01	2.4946E+01
S	2.3371E+00	2.4539E+00	2.5699E+00
Z	2.6003E+00	3.1352E+00	3.4036E+00
GAME	9.0381E-01	9.7817E-01	1.0686E+00
U	3.5175E+01	9.5281E+00	1.0560E+01

SPECIES	MOLE FRACTIONS		
E-	3.0780E-01	4.2598E-01	4.7106E-01
HE	6.9396E-02	2.2726E-02	8.7294E-03
HE+	7.5184E-03	4.1063E-02	4.5836E-02
HE++	1.8197E-10	3.3993E-06	2.0588E-04
H	3.1497E-01	1.2553E-01	4.9354E-02
H+	3.0629E-01	3.9491E-01	4.2291E-01
H2	3.3503E-05	1.2871E-05	2.0198E-06

Table II. - Continued

$p_1 = 2$ kN/m^2

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.15[illegible]E+03	1.5132E+04	2.5735E+04
T	8.631[illegible]E+01	1.3908E+02	1.9119E+02
RHO	9.2994E+03	3.3664E+01	3.8756E+01
M	3.7161E+02	6.4752E+02	9.5996E+02
A	1.4511E+01	2.1226E+01	2.6844E+01
S	2.3816E+00	2.5033E+00	2.6209E+00
Z	2.69[illegible]E+00	3.2320E+00	3.4731E+00
GAME	9.[illegible]46E-01	1.0323E+00	1.0853E+00
U	3.867[illegible]E+01	1.0123E+01	1.1576E+01

SPECIES	MOLE FRACTIONS		
E-	3.3112E-01	4.4307E-01	4.8174E-01
HE	6.3868E-02	1.6915E-02	6.1092E-03
HE+	1.0455E-02	4.4956E-02	5.0592E-02
HE++	6.7578E-10	1.0645E-05	8.9461E-04
H	2.7399E-01	9.6952E-02	3.1302E-02
H+	3.2366E-01	3.9809E-01	4.2939E-01
H2	2.4591E-05	7.3497E-06	7.4988E-07

P1 = 2.00E+03 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.711[illegible]E+03	1.8476E+04	3.3283E+04
T	9.7635E+01	1.7429E+02	2.5351E+02
RHO	9.3727E+00	3.0704E+01	3.6437E+01
M	4.6598E+02	8.0632E+02	1.1019E+03
A	1.[illegible]31[illegible]E+01	2.5499E+01	3.0567E+01
S	2.5150E+00	2.6312E+00	2.7510E+00
Z	2.9631E+00	3.4525E+00	3.6061E+00
GAME	9.1947E-01	1.0805E+00	1.0220E+00
U	4.1109E+01	1.2555E+01	1.4269E+01

SPECIES	MOLE FRACTIONS		
E-	3.9254E-01	4.7964E-01	5.0084E-01
HE	4.4190E-02	6.5916E-03	2.2919E-03
HE+	2.3307E-02	5.0996E-02	3.8497E-02
HE++	2.3305E-08	3.4200E-04	1.4673E-02
H	1.7072E-01	3.6478E-02	1.0697E-02
H+	3.6924E-01	4.2696E-01	4.3300E-01
H2	8.7678E-06	8.4904E-07	7.5252E-08

P1 = 2.00F+03 N/SQ-M, US1= 5.20F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3373E+03	1.6295E+04	2.9265E+04
T	8.9926E+01	1.4923E+02	2.1307E+02
RHO	9.3426E+00	3.2852E+01	3.7644E+01
H	4.0185E+02	6.9922E+02	9.3996E+02
A	1.5087E+01	2.2592F+01	2.8336F+01
S	2.4262E+00	2.5662E+00	2.6693E+00
Z	2.7826E+00	3.3108F+00	3.5240F+00
GAME	9.3981E-01	1.0303F+00	1.0693E+00
U	3.8158E+01	1.6935E+01	1.2599E+01

SPECIES	MOLE FRACTIONS		
E-	3.5330E-01	4.5790E-01	4.9921E-01
HE	5.7756E-02	1.2329E-02	4.3900E-03
HE+	1.4364E-02	4.7992F-02	4.9246F-02
HE++	2.3326E-09	3.4000E-05	3.1181F-03
H	2.3618F-01	7.2107E-02	2.0305F-02
H+	3.3991E-01	4.3985F-01	4.3373E-01
H2	1.7774F-05	3.8364F-06	2.9395E-07

P1 = 2.00E+03 N/SQ-M, US1= 5.80F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9608E+03	1.9666E+04	3.5747E+04
T	1.0185E+02	1.8933E+02	2.7305E+02
RHO	9.3547E+00	2.9392E+01	3.5995E+01
H	4.5976E+02	8.6145F+02	1.1856E+03
A	1.6970E+01	2.6833E+01	3.1912E+01
S	2.5596E+00	2.6716E+00	2.7904E+00
Z	3.0521E+00	3.4980F+00	3.6472E+00
GAME	9.2746E-01	1.0872E+00	1.0226E+00
U	4.2567E+01	1.3549E+01	1.4985E+01

SPECIES	MOLE FRACTIONS		
E-	4.8326E-01	4.9542E-01	5.0647E-01
HE	3.6953E-02	4.9078E-03	1.5428E-03
HE+	2.8576E-02	5.1737E-02	3.0529E-02
HE++	6.9158E-08	1.0299F-03	2.2765E-02
H	1.4254E-01	2.5274E-02	9.2758E-03
H+	3.8167E-01	4.3213E-01	4.3041E-01
H2	5.9239E-06	3.7551F-07	4.3894E-08

P1 = 2.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5213E+03	1.7416E+04	3.2792E+04
T	9.3684E+01	1.6131E+02	2.3619E+02
RHO	9.3672E+00	3.1849E+01	3.6868E+01
H	4.3335E+02	7.5222E+02	1.0199E+03
A	1.5688E+01	2.4253E+01	2.9459E+01
S	2.4734E+00	2.5930E+00	2.7117F+00
Z	2.8724E+00	3.3942F+00	3.5561E+00
GAME	9.1399E-01	1.0597F+00	1.0391E+00
U	3.9638E+01	1.4643E+01	1.3492F+01

SPECIES	MOLE FRACTIONS		
E-	3.7347E-01	4.5969E-01	4.9525E-01
HE	5.1232E-02	8.9464E-03	3.1907E-03
HE+	1.9414F-02	4.9969E-02	4.5036E-02
HE++	7.5541E-09	1.3959E-04	7.8963E-03
H	2.0195E-01	7.1792E-02	1.4193E-02
H+	3.5536E-01	4.1960E-01	4.3447E-01
H2	1.2623E-05	1.9467E-06	1.3659E-07

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1101E+03	2.0420E+04	3.8182E+04
T	1.0644E+02	2.0494E+02	2.9309E+02
RHO	9.3096E+00	2.9196E+01	3.5351E+01
H	5.3465E+02	9.1804E+02	1.2726E+03
A	1.7769E+01	2.7874F+01	3.3490E+01
S	2.6027E+00	2.7098E+00	2.8276E+00
Z	3.1391E+00	3.5331E+00	3.6951E+00
GAME	9.3863E-01	1.0728E+00	1.0384E+00
U	4.4009E+01	1.4521E+01	1.5739F+01

SPECIES	MOLE FRACTIONS		
E-	4.2658E-01	4.9053E-01	5.1155E-01
HE	2.9764E-02	3.7324E-03	9.7320E-04
HE+	3.3950E-02	5.0173E-02	2.2711E-02
HE++	2.0094E-07	2.7019E-03	3.0588E-02
H	1.1766E-01	1.7905E-02	6.5182E-03
H+	3.9263E-01	4.3495E-01	4.2766E-01
H2	3.8570E-06	1.7490E-07	2.6605E-08

Table II. - Continued

p_1 = 2 kN/m^2

P1 = 2.00E+03 N/SQ-M, US1= 6.23E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3176E+03	2.1363E+04	4.0553E+04
T	1.1152E+02	2.2030E+02	3.1501E+02
RHO	9.2316E+00	2.7213E+01	3.4628E+01
H	5.7375E+02	9.7653E+02	1.3629E+03
A	1.8517E+01	2.8671E+01	3.5315E+01
S	2.6454E+00	2.7459E+00	2.8635E+00
Z	3.2225E+00	3.5635E+00	3.7177E+00
GAPE	9.5412E-01	1.0471E+00	1.0649E+00
U	4.5437E+01	1.5404E+01	1.6527E+01

SPECIES	MOLE FRACTIONS		
E-	4.4142E-01	4.9489E-01	5.1583E-01
HE	2.2379E-02	2.8697E-03	5.6418E-04
HE+	3.9085E-02	4.7375E-02	1.5886E-02
HE++	5.9005E-07	5.8792E-03	3.7346E-02
H	9.4176E-02	1.3238E-02	5.1196E-03
H+	4.0234E-01	4.3575E-01	4.2525E-01
H2	2.3970E-06	8.9916E-08	1.5974E-08

P1 = 2.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9618E+03	2.3745E+04	4.6641E+04
T	1.3228E+02	2.6292E+02	4.0193E+02
RHO	8.7185E+00	2.4696E+01	3.0751E+01
H	6.8537E+02	1.1612E+03	1.6594E+03
A	2.1682E+01	3.1256E+01	4.1618E+01
S	2.7685E+00	2.8499E+00	2.9722E+00
Z	3.4353E+00	3.6570E+00	3.7746E+00
GAPE	1.0346E+00	1.0161E+00	1.1419E+00
U	4.9469E+01	1.7459E+01	1.9590E+01

SPECIES	MOLE FRACTIONS		
E-	4.7603E-01	5.0779E-01	5.2313E-01
HE	7.8520E-03	1.1556E-03	6.6362E-05
HE+	5.0350E-02	3.0276E-02	4.3430E-03
HE++	1.7174E-05	2.3259E-02	4.8576E-02
H	4.0107E-02	6.5301E-03	2.2501E-03
H+	4.2564E-01	4.3099E-01	4.2163E-01
H2	3.6304E-07	1.9065E-09	2.7029E-09

C-5

P1 = 2.00E+03 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5290E+03	2.2251E+04	4.2795E+04
T	1.1738E+02	2.3499E+02	3.4083E+02
RHO	9.1052E+00	2.6347E+01	3.3534E+01
H	6.0799E+02	1.0367E+03	1.4583E+03
A	1.9442E+01	2.9425E+01	3.7413E+01
S	2.6879E+00	2.7810E+00	2.9006E+00
Z	3.3015E+00	3.5940E+00	3.7443E+00
GAME	9.7529E-01	1.0252E+00	1.0969E+00
U	4.6817E+01	1.6165E+01	1.7466E+01

SPECIES	MOLE FRACTIONS		
E-	4.5486E-01	4.9916E-01	5.1927E-01
HE	1.6837E-02	2.1834E-03	2.9053E-04
HE+	4.3732E-02	4.2771E-02	1.0379E-02
HE++	1.7259E-06	1.0695E-02	4.2745E-02
H	7.3435E-02	1.0185E-02	3.9211E-03
H+	4.1111E-01	4.3500E-01	4.2340E-01
H2	1.3865E-06	5.0582E-08	9.0211E-09

P1 = 2.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1812E+03	2.4250E+04	4.8[illegible]E+04
T	1.4193E+02	2.7697E+02	4.3466E+02
RHO	9.4527E+00	2.3747E+01	2.9213E+01
H	7.2560E+02	1.2246E+03	1.7622E+03
A	2.2980E+01	3.2391E+01	4.3511E+01
S	2.8068E+00	2.8838E+00	3.0058E+00
Z	3.4951E+00	3.6870E+00	3.7819E+00
GAME	1.0075E+00	1.0274E+00	1.1517E+00
U	5.0717E+01	1.8047E+01	2.0651E+01

SPECIES	MOLE FRACTIONS		
E-	4.9352E-01	5.1180E-01	5.2405E-01
HE	5.1135E-03	7.8488E-04	3.2576E-05
HE+	5.2215E-02	2.3766E-02	2.9857E-03
HE++	5.8487E-05	2.9693E-02	4.9865E-02
H	2.7903E-02	5.3058E-03	1.7272E-03
H+	4.3119E-01	4.2865E-01	4.2134E-01
H2	1.6182E-07	1.2019E-08	1.5119E-09

P1 = 2.00E+03 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7442E+03	2.3059E+04	4.4836E+04
T	1.2421E+02	2.4909E+02	3.6944E+02
RHO	8.9356E+00	2.5535E+01	3.2256E+01
H	6.4612E+02	1.0984E+03	1.5566E+03
A	2.0498E+01	3.0272E+01	3.9521E+01
S	2.7291E+00	2.8157E+00	2.9361E+00
Z	3.3739E+00	3.6254E+00	3.7625E+00
GAME	1.0025E+00	1.0148E+00	1.1237E+00
U	4.8169E+01	1.6849E+01	1.8464E+01

SPECIES	MOLE FRACTIONS		
E-	4.6647E-01	5.0351E-01	5.2159E-01
HE	1.1739E-02	1.6188E-03	1.4206E-04
HE+	4.7537E-02	3.6830E-02	6.7016E-03
HE++	5.3220E-06	1.6716E-02	4.6313E-02
H	5.5322E-02	9.0916E-03	2.9972E-03
H+	4.1892E-01	4.3324E-01	4.2226E-01
H2	7.4129E-07	3.0473E-09	5.0122E-09

Table II. - Continued

p_1 = 5 kN/ m^2

P1 = 5.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.507[illegible]E+01
T	3.1753E+00	3.9838E+00	5.70[illegible]E+00
RHO	3.9601E+00	6.6009E+00	1.14[illegible]E+01
M	3.2407E+00	4.1057E+00	6.01[illegible]E+00
A	1.7739E+00	1.9770E+00	2.3396E+00
S	1.0660E+00	1.0707E+00	1.0904E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9100E-01	9.8108E-01	9.5936E-01
U	2.4570E+00	1.4729E+00	1.30[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	3.5338E-53	1.9827E-40	1.2152E-24
HE	2.0000E-01	2.0000E-01	2.0000E-01
HE+	7.9668E-04	1.6017E-56	3.2251E-47
HE++	0.	0.	0.
H	1.7369E-10	5.5913E-08	4.1[illegible]E-03
H+	7.2402E-20	7.2402E-20	7.2402E-20
H2	8.0000E-01	8.0000E-01	7.9990E-01

P1 = 5.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9979E+01	1.4104E+02	2.01[illegible]E+02
T	7.4310E+00	1.0142E+01	1.19[illegible]E+01
RHO	5.3077E+00	1.3E99E+01	2.09[illegible]E+01
M	8.0081E+00	1.2203E+01	1.62[illegible]E+01
A	2.6270E+00	2.9866E+00	3.25[illegible]E+00
S	1.1701E+00	1.1821E+00	1.21[illegible]E+00
Z	1.0011E+00	1.0151E+00	1.04[illegible]E+00
GAME	9.2770E-01	8.6640E-01	8.46[illegible]E-01
U	4.0685E+00	1.8078E+00	1.59[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	5.0692E-17	2.4347E-12	1.91[illegible]E-10
HE	1.9979E-01	1.9702E-01	1.9[illegible]E-01
HE+	1.2926E-38	1.7841F-28	2.7[illegible]E-24
HE++	0.	0.	8.44[illegible]E-09
H	2.1112E-03	2.9790E-02	8.57[illegible]E-02
H+	5.8704E-17	2.4347E-12	1.91[illegible]E-10
H2	7.9810E-01	7.7314F-01	7.22[illegible]E-01

P1 = 5.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2095E+01	1.15[illegible]E+02
T	4.4065E+00	5.9043E+00	8.09[illegible]E+00
RHO	4.4957E+00	8.8212E+00	1.42[illegible]E+01
M	4.5641E+00	6.2440E+00	8.915[illegible]E+00
A	2.0733E+00	2.3768E+00	2.73[illegible]E+00
S	1.1039E+00	1.1087E+00	1.1317E+00
Z	1.0000E+00	1.0000E+00	1.0017E+00
GAME	9.7552E-01	9.5675E-01	9.1974E-01
U	3.1952E+00	1.6268E+00	1.4679E+00

SPECIES	MOLE FRACTIONS		
E-	8.1814E-37	9.0637E-23	2.83[illegible]E-10
NE	2.0000E-01	1.9999E-01	1.99[illegible]E-01
NE+	1.0479E-54	2.8751E-46	3.52[illegible]E-34
NE++	0.	0.	0.
N	7.1957E-07	8.0603E-05	3.3[illegible]E-03
N+	7.2402E-20	7.2490E-20	2.84[illegible]E-10
N2	8.0000E-01	7.9993E-01	7.96[illegible]E-01

P1 = 5.00E+03 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4215E+01	2.1563E+02	3.70[illegible]E+02
T	6.9031E+00	1.1871E+01	1.35[illegible]E+01
RHO	5.7826E+00	1.7367E+01	2.51[illegible]E+01
M	1.0311E+01	1.6150E+01	2.08[illegible]E+01
A	2.8210E+00	3.2384E+00	3.52[illegible]E+00
S	1.2012E+00	1.2198E+00	1.25[illegible]E+00
Z	1.0076E+00	1.0459E+00	1.08[illegible]E+00
GAME	8.8159E-01	8.4464E-01	8.42[illegible]E-01
U	5.4376E+00	1.8093E+00	1.62[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	7.0714E-14	1.7245E-10	3.13[illegible]E-09
NE	1.9982E-01	1.9122E-01	1.83[illegible]E-01
NE+	1.4128E-32	1.7234E-24	1.33[illegible]E-21
NE++	0.	3.2029E-90	4.45[illegible]E-79
N	1.9987E-02	8.7750E-02	1.62[illegible]E-01
N+	7.0713E-14	1.7245E-10	3.13[illegible]E-09
N2	7.8051E-01	7.2102E-01	6.51[illegible]E-01

P1 = 5.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8753E+01	8.8746E+01	1.80[illegible]E+02
T	5.8449E+00	8.0801E+00	1.02[illegible]E+01
RHO	4.9193E+00	1.0963E+01	1.73[illegible]E+01
M	6.1762E+00	8.9145E+00	1.23[illegible]E+01
A	2.3653E+00	2.7252E+00	3.00[illegible]E+00
S	1.1379E+00	1.1457E+00	1.17[illegible]E+00
Z	1.0000E+00	1.0019E+00	1.01[illegible]E+00
GAME	9.5712E-01	9.1738E-01	8.68[illegible]E-01
U	3.9265E+00	1.7620E+00	1.55[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	3.5771E-22	9.4540E-16	2.8[illegible]E-12
NE	1.9999E-01	1.9962E-01	1.97[illegible]E-01
NE+	3.9592E-47	4.7958E-35	3.17[illegible]E-28
NE++	0.	0.	0.
N	8.8690E-05	3.7809E-03	2.9[illegible]E-02
N+	7.2041E-20	9.4547E-16	2.8[illegible]E-12
N2	7.9992E-01	7.9660E-01	7.73[illegible]E-01

P1 = 5.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7114E+01	3.1924E+02	5.19[illegible]E+02
T	1.0250E+01	1.3410E+01	1.50[illegible]E+01
RHO	6.5938E+00	2.1810E+01	3.01[illegible]E+01
M	1.2831E+01	2.0754E+01	2.61[illegible]E+01
A	2.9867E+00	3.5087E+00	3.82[illegible]E+00
S	1.2522E+00	1.2594E+00	1.29[illegible]E+00
Z	1.0241E+00	1.0915E+00	1.14[illegible]E+00
GAME	8.4983E-01	8.4106E-01	8.46[illegible]E-01
U	6.2369E+00	1.8280E+00	1.68[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	5.8257E-12	2.8577E-09	2.60[illegible]E-08
NE	1.9530E-01	1.8323E-01	1.74[illegible]E-01
NE+	4.0101E-28	8.8922E-22	1.49[illegible]E-19
NE++	0.	8.8245E-80	3.31[illegible]E-71
N	4.7049E-02	1.6771E-01	2.58[illegible]E-01
N+	5.8257E-12	2.8577E-09	2.60[illegible]E-08
N2	7.5766E-01	6.4906E-01	5.66[illegible]E-01

Table II. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.000E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4081E+01	4.5459E+02	7.1400E+02
T	1.1320E+01	1.4870E+01	1.6206E+01
RHO	7.0724E+00	2.6508E+01	3.5306E+01
H	1.5698E+01	2.5976E+01	3.2280E+01
A	3.1327E+00	3.8008E+00	4.1602E+00
S	1.2048E+00	1.3012E+00	1.3413E+00
L	1.0502E+00	1.1491E+00	1.2199E+00
GAME	8.3008E-01	8.4546E-01	8.5643E-01
U	7.0208E+00	1.8744E+00	1.7024E+00

SPECIES	MOLE FRACTIONS		
E-	9.3128E-11	2.3014E-08	1.4983E-07
HE	1.0044E-01	1.7405E-01	1.6399E-01
HE+	1.5096E-23	1.0108E-19	8.3591E-18
HE++	0.	5.3330E-72	6.0047E-65
H	9.5031E-02	2.5945E-01	3.6046E-01
H+	9.3128E-11	2.3014E-08	1.4983E-07
H2	7.1393E-01	5.6649E-01	4.7250E-01

P1 = 5.000E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4627E+02	1.0374E+03	1.5698E+03
T	1.3932E+01	1.9347E+01	2.2017E+01
RHO	8.9049E+00	3.9023E+01	4.7900E+01
H	2.0031E+01	4.4981E+01	5.3249E+01
A	3.6902E+00	4.8424E+00	5.4700E+00
S	1.3705E+00	1.4356E+00	1.4808E+00
L	1.1711E+00	1.3740E+00	1.4882E+00
GAME	8.3400E-01	8.8207E-01	9.1344E-01
U	9.4900E+00	2.1816E+00	2.1640E+00

SPECIES	MOLE FRACTIONS		
E-	1.2147E-08	1.7958E-06	9.7187E-06
HE	1.7078E-01	1.4556E-01	1.3439E-01
HE+	6.0864E-21	2.3845E-15	1.4647E-13
HE++	9.3084E-77	5.0944E-56	8.1710E-49
H	2.9222E-01	5.4444E-01	6.5093E-01
H+	1.2147E-08	1.7958E-06	9.7187E-06
H2	5.3700E-01	3.1001E-01	2.0950E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0297E+02	6.2064E+02	9.5430E+02
T	1.2250E+01	1.6311E+01	1.8179E+01
RHO	8.7488E+00	3.1283E+01	4.0303E+01
M	1.8845E+01	3.1767E+01	3.9144E+01
A	3.3442E+00	4.1168E+00	4.5357E+00
S	1.2986E+00	1.3447E+00	1.3869E+00
Z	1.0842E+00	1.2163E+00	1.3008E+00
GAME	8.3162E-01	8.5424E-01	8.7031E-01
U	1.8728E+00	1.9508E+00	1.8003E+00

SPECIES	MOLE FRACTIONS		
E-	6.9145E-10	1.2228E-07	6.6901E-07
NE	1.6447E-01	1.6443E-01	1.5375E-01
NE+	1.1970E-23	4.5738E-18	2.6944E-16
NE++	8.3487E-87	2.2827E-65	2.0425E-57
N	1.5526E-01	3.5573E-01	4.6240E-01
N+	6.9145E-10	1.2228E-07	6.6901E-07
N2	6.8027E-01	4.7984E-01	3.8379E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7062E+02	1.2804E+03	1.9435E+03
T	1.4731E+01	2.1069E+01	2.4611E+01
RHO	9.4724E+00	4.1603E+01	4.9784E+01
M	2.0000E+01	5.2366E+01	6.4634E+01
A	3.8681E+00	5.2701E+00	6.0941E+00
S	1.4385E+00	1.4819E+00	1.5398E+00
Z	1.2228E+00	1.4607E+00	1.5870E+00
GAME	8.3425E-01	9.0243E-01	9.5049E-01
U	1.8290E+01	2.3443E+00	2.4100E+00

SPECIES	MOLE FRACTIONS		
E-	3.7220E-08	5.8432E-06	3.7270E-05
NE	1.0350E-01	1.3692E-01	1.2598E-01
NE+	8.1827E-20	3.8364E-14	3.0092E-12
NE++	4.7435E-73	1.9645E-51	1.2264E-43
N	5.0442E-01	6.3082E-01	7.4013E-01
N+	3.7220E-08	5.8432E-06	3.7270E-05
N2	4.7200E-01	2.3225E-01	1.3384E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2372E+02	8.1607E+02	1.2398E+03
T	1.3115E+01	1.7786E+01	1.9950E+01
RHO	8.3870E+00	3.5516E+01	4.4639E+01
M	2.2290E+01	3.8109E+01	4.6779E+01
A	3.5028E+00	4.4618E+00	4.9659E+00
S	1.3338E+00	1.3897E+00	1.4303E+00
Z	1.1247E+00	1.2919E+00	1.3911E+00
GAME	8.3179E-01	8.6639E-01	8.8829E-01
U	1.6851E+00	2.0519E+00	2.0077E+00

SPECIES	MOLE FRACTIONS		
E-	3.3023E-09	5.0722E-07	2.6226E-06
NE	1.7782E-01	1.5481E-01	1.4377E-01
NE+	3.5135E-22	1.2599E-16	6.5503E-15
NE++	9.8367E-81	2.3747E-60	8.5016E-53
N	2.2179E-01	4.5187E-01	5.6234E-01
N+	3.3023E-09	5.0722E-07	2.6226E-06
N2	6.0059E-01	3.9332E-01	2.9393E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9072E+02	1.5385E+03	2.3700E+03
T	1.5529E+01	2.3064E+01	2.8284E+01
RHO	9.9039E+00	4.3073E+01	4.9897E+01
M	2.4401E+01	6.0232E+01	7.5101E+01
A	4.0977E+00	5.7634E+00	6.9199E+00
S	1.4473E+00	1.5278E+00	1.5907E+00
Z	1.2791E+00	1.5486E+00	1.6801E+00
GAME	8.4342E-01	9.2997E-01	1.0077E+00
U	1.1361E+01	2.5493E+00	2.7493E+00

SPECIES	MOLE FRACTIONS		
E-	1.0095E-07	1.8524E-05	1.0686E-04
NE	1.5036E-01	1.2915E-01	1.1900E-01
NE+	7.5110E-19	5.9447E-13	1.3400E-10
NE++	5.4397E-69	7.8247E-47	8.0049E-38
N	4.3038E-01	7.0847E-01	8.0907E-01
N+	1.0095E-07	1.8524E-05	1.0686E-04
N2	4.4720E-01	1.6234E-01	7.1555E-02

Table II. - Continued

p_1 = 5 kN/ m^2

P1 = 5.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.245UE+02	1.8006E+03	2.85UUE+03
T	1.033+E+01	2.5525E+01	3.393JE+01
RHO	1.U243E+01	4.3220E+01	4.805/E+01
H	3.9U28E+01	6.8533E+01	8.723UE+01
A	4.3244E+00	6.3533E+00	7.9047E+00
S	1.4875E+00	1.5726E+00	1.64U1E+00
Z	1.3402E+00	1.6321E+00	1.7477E+00
GAME	6.5322E-01	9.6891E-01	1.0697E+00
U	1.1804E+01	2.8126E+00	3.2143E+00

SPECIES	MOLE FRACTIONS		
E-	2.3447E-07	6.0695E-05	9.1[illegible]E-04
HE	1.9[illegible]23E-01	1.2254E-01	1.1444E-01
HE+	8.5YY1E-18	1.0167E-11	8.2[illegible]E-09
HE++	2.4795E-05	5.0964E-02	2.5393E-01
H	5.U709E-01	7.7442E-01	8.5200E-01
H+	2.5447E-07	6.0694E-05	9.1[illegible]E-04
H2	3.4300E-01	1.0292E-01	3.0049E-02

P1 = 5.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1705E+02	2.4980E+03	4.39[illegible]E+03
T	1.9230E+01	3.8170E+01	5.477[illegible]E+01
RHO	1.0710E+01	3.6797E+01	4.36[illegible]E+01
H	5.4009E+01	9.5403E+01	1.281[illegible]E+02
A	5.1433E+00	8.5482E+00	9.96Y8E+00
S	1.0100E+00	1.6908F+00	1.75C4E+00
Z	1.5419E+00	1.7785E+00	1.83[illegible]E+00
GAME	8.9193E-01	1.0764E+00	9.8[illegible]E-01
U	1.4154E+01	4.1168F+00	4.6U19E+00

SPECIES	MOLE FRACTIONS		
E-	3.3041E-06	2.6896E-03	2.49[illegible]E-04
HE	1.2971E-01	1.1246E-01	1.U[illegible]E-01
HE+	2.1393E-15	[illegible].4928F-08	2.0424E-05
HE++	1.1324E-57	1.4987F-27	1.143[illegible]E-10
H	7.U288E-01	8.6737E-01	8.3[illegible]E-01
H+	3.3841E-06	2.6895E-03	2.49[illegible]E-04
H2	1.6740E-01	1.4798E-02	4.9[illegible]E-03

P1 = 5.00E+03 N/SQ-M. US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5397E+02	2.0559E+03	3.3715E+03
T	1.7221E+01	2.8765E+01	4.1334E+01
RHO	1.0498E+01	4.1982E+01	4.5726E+01
M	4.3949E+01	7.7208E+01	1.0054E+02
A	4.5691E+00	7.0732E+00	8.8054E+00
S	1.5248E+00	1.6153E+00	1.6846E+00
Z	1.4049E+00	1.7024E+00	1.7838E+00
GAME	8.6292E-01	1.0217E+00	1.0629E+00
U	1.2638E+01	3.1595E+00	3.7611E+00

SPECIES	MOLE FRACTIONS		
E-	8.0775E-07	2.1579E-04	4.3171E-03
NE	1.4230E-01	1.1748F-01	1.1212E-01
NE+	4.8541E-17	2.1404E-10	3.5072E-07
NE++	2.4044E-62	3.0842E-37	2.1731E-25
N	5.7037E-01	8.2456E-01	8.6283E-01
N+	8.0775E-07	2.1579E-04	4.3100E-03
N2	2.8126E-01	5.7526E-02	1.3417E-02

P1 = 5.00E+03 N/SQ-M. US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2102E+02	2.6873E+03	4.8397E+03
T	2.0315E+01	4.3439E+01	6.0108E+01
RHO	1.0604E+01	3.4420E+01	4.3094E+01
M	6.0460E+01	1.0500E+02	1.4179E+02
A	5.5010E+00	9.0406E+00	1.0441E+01
S	1.8513E+00	1.7236F+00	1.7878E+00
Z	1.8104E+00	1.7973E+00	1.8863E+00
GAME	9.1308E-01	1.0469E+00	9.6661E-01
U	1.4884E+01	4.5996E+00	4.8806E+00

SPECIES	MOLE FRACTIONS		
E-	8.4048E-06	6.9950E-03	4.0196E-02
NE	1.2491E-01	1.1128E-01	1.0870E-01
NE+	2.4953E-14	9.5203E-07	8.6133E-05
NE++	5.1045E-52	5.9641E-24	8.0052E-17
N	7.5848E-01	8.6625E-01	8.8908E-01
N+	8.4048E-06	6.9940E-03	4.0114E-02
N2	1.1737E-01	8.4835E-03	3.6209E-03

P1 = 5.00E+03 N/SQ-M. US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8505E+02	2.2889E+03	3.6935E+03
T	1.8105E+01	3.3066E+01	4.8501E+01
RHO	1.0657E+01	3.9538E+01	4.4331E+01
M	4.9104E+01	8.6165E+01	1.1430E+02
A	4.8388E+00	7.8704E+00	9.4700E+00
S	1.5093E+00	1.6550E+00	1.7228E+00
Z	1.4725E+00	1.7508E+00	1.8093E+00
GAME	8.7533E-01	1.0700E+00	1.0271E+00
U	1.3402E+01	3.6110E+00	4.2392E+00

SPECIES	MOLE FRACTIONS		
E-	1.4201E-06	8.0948E-04	1.2938E-02
NE	1.2384E-01	1.1423E-01	1.1054E-01
NE+	3.2665E-16	5.2209E-09	4.8362E-06
NE++	2.4483E-59	4.2022E-32	2.5911E-21
N	6.4177E-01	8.5522E-01	8.5699E-01
N+	1.4201E-06	8.0948E-04	1.2933E-02
N2	2.2241E-01	2.8922E-02	7.3976E-03

P1 = 5.00E+03 N/SQ-M. US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8071E+02	2.8542E+03	5.2078E+03
T	2.2132E+01	4.8420E+01	6.4761E+01
RHO	1.0611E+01	3.2458E+01	4.2200E+01
M	6.8038E+01	1.1502E+02	1.5594E+02
A	5.9403E+00	9.4294E+00	1.0839E+01
S	1.8771E+00	1.7548E+00	1.8103E+00
Z	1.8175E+00	1.8161E+00	1.9031E+00
GAME	9.2413E-01	1.0111E+00	9.5329E-01
U	1.2599E+01	5.0015E+00	5.1035E+00

SPECIES	MOLE FRACTIONS		
E-	2.3508E-05	1.4356F-02	5.7002E-02
NE	1.1934E-01	1.1012E-01	1.0980E-01
NE+	2.8730E-13	5.3873E-06	2.0093E-04
NE++	4.3895E-48	2.9612E-21	1.8831E-15
N	8.0053E-01	8.5570E-01	7.7831E-01
N+	2.3508E-05	1.4351E-02	5.6795E-02
N2	7.4083E-02	5.4693E-03	2.8590E-03

Table II. - Continued

$p_1 = 5$ kN/m^2

P1 = 5.00E+03 N/SQ-M. US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2249E+02	2.9789E+03	5.4490E+03
T	2.4401E+01	5.2890E+01	6.8757E+01
RHO	1.0000E+01	3.0643E+01	4.0844E+01
M	7.2802E+01	1.2539E+02	1.6901E+02
A	6.5227E+00	9.7746E+00	1.1735E+01
S	1.7249E+00	1.7852E+00	1.8488E+00
Z	1.7303E+00	1.8380E+00	1.9403E+00
GAME	1.0077E+00	9.8282E-01	9.4523E-01
U	1.0271E+01	5.3107E+00	5.2782E+00

SPECIES	MOLE FRACTIONS		
E-	7.7080E-05	2.4528E-02	7.4294E-02
NE	1.1339E-01	1.0879E-01	1.0220E-01
NE+	5.1304E-12	1.9575E-05	4.0301E-04
NE++	1.4429E-43	2.9659E-19	2.0707E-14
N	8.4389E-01	8.3831E-01	7.4002E-01
N+	7.7086E-05	2.4509E-02	7.4136E-02
N2	4.0367E-02	3.8396E-03	2.2219E-03

P1 = 5.00E+03 N/SQ-M. US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3269E+02	3.1739E+03	5.6290E+03
T	3.0095E+01	6.3665E+01	7.8239E+01
RHO	8.3093E+00	2.5914E+01	3.4913E+01
M	9.3378E+01	1.5846E+02	2.1113E+02
A	8.2826E+00	1.0730E+01	1.2280E+01
S	1.8260E+00	1.8745E+00	1.9401E+00
Z	1.7977E+00	1.9238E+00	2.0610E+00
GAME	1.0069E+00	9.4000E-01	9.3253E-01
U	1.8069E+01	5.7861E+00	5.6352E+00

SPECIES	MOLE FRACTIONS		
E-	3.3483E-03	6.6076E-02	1.2179E-01
NE	1.1125E-01	1.0375E-01	9.5479E-02
NE+	2.3137E-08	2.1671E-04	1.5804E-03
NE++	2.8085E-29	1.5279E-15	2.5400E-14
N	8.7745E-01	7.6237E-01	6.4776E-01
N+	3.3482E-03	6.5859E-02	1.2023E-01
N2	4.0047E-03	1.7348E-03	1.1740E-03

P1 = 5.00E+03 N/SQ-M. US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5d52E+02	3.0525E+03	5.547[illegible]E+03
T	2.[illegible]1E+01	5.6846E+01	7.21[illegible]E+01
RHO	9.422[illegible]E+00	2.8816E+01	3.8835E+01
M	7.[illegible]E+01	1.3607E+02	1.834[illegible]E+02
A	7.[illegible]E+00	1.0099E+01	1.15[illegible]E+01
S	1.[illegible]E+00	1.8157E+00	1.87[illegible]E+00
Z	1.[illegible]E+00	1.8635E+00	1.97[illegible]E+00
GAME	1.[illegible]E+00	9.6285E-01	9.39[illegible]E-01
U	1.[illegible]E+01	5.5224E+00	5.41[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.[illegible]E-04	3.6923E-02	9.21[illegible]E-02
HE	1.[illegible]E-01	1.0727E-01	1.00[illegible]E-01
HE+	1.[illegible]E-10	5.2360E-05	8.86[illegible]E-04
HE++	2.[illegible]E-38	9.8050E-18	1.34[illegible]E-13
H	8.[illegible]E-01	8.1604E-01	7.13[illegible]E-01
H+	2.[illegible]E-04	3.6870E-02	9.19[illegible]E-02
H2	1.[illegible]E-02	2.8412E-03	1.78[illegible]E-03

P1 = 5.00E+03 N/SQ-M. US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.[illegible]E+02	3.3003E+03	5.787[illegible]E+03
T	3.9744E+01	6.6863E+01	8.12[illegible]E+01
RHO	7.9696E+00	2.5205E+01	3.3839E+01
M	1.0079E+02	1.7059E+02	2.2607E+02
A	8.5939E+00	1.1058E+01	1.2616E+01
S	1.8523E+00	1.9019E+00	1.9687E+00
Z	1.8090E+00	1.9583E+00	2.1050E+00
GAME	1.0272E+00	9.3393E-01	9.30[illegible]E-01
U	1.8884E+01	5.9022E+00	5.75[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	7.765[illegible]E-03	8.2243E-02	1.45[illegible]E-01
HE	1.1[illegible]E-01	1.0175E-01	9.27[illegible]E-02
HE+	4.1810E-07	3.7918E-04	2.2341E-03
HE++	9.810[illegible]E-26	1.1347E-14	9.193[illegible]E-12
H	8.7112E-01	7.3235E-01	6.14[illegible]E-01
H+	7.7[illegible]E-03	8.1864E-02	1.43[illegible]E-01
H2	2.7932E-03	1.4174E-03	9.77[illegible]E-04

P1 = 5.00E+03 N/SQ-M. US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9505E+02	3.1007E+03	5.57[illegible]E+03
T	3.147[illegible]E+01	6.0376E+01	7.52[illegible]E+01
RHO	8.80[illegible]E+00	2.7141E+01	3.66[illegible]E+01
M	8.627[illegible]E+01	1.4703E+02	1.97[illegible]E+02
A	7.841[illegible]E+00	1.0413E+01	1.19[illegible]E+01
S	1.797[illegible]E+00	1.8457E+00	1.91[illegible]E+00
Z	1.7[illegible]E+00	1.8922E+00	2.01[illegible]E+00
GAME	1.0[illegible]E+00	9.4920E-01	9.35[illegible]E-01
U	1.746[illegible]E+01	5.6693E+00	5.52[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.11[illegible]E-03	5.0902E-02	1.09[illegible]E-01
HE	1.1197E-01	1.0558E-01	9.[illegible]E-02
HE+	3.[illegible]E-09	1.1379E-04	1.0[illegible]E-03
HE++	3.49[illegible]E-33	1.5408E-16	6.46[illegible]E-13
H	8.769[illegible]E-01	7.9043E-01	6.[illegible]E-01
H+	1.112[illegible]E-03	5.0788E-02	1.08[illegible]E-01
H2	8.0240[illegible]E-03	2.1834E-03	1.43[illegible]E-03

P1 = 5.00E+03 N/SQ-M. US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.15[illegible]E+02	3.4808E+03	6.04[illegible]E+03
T	4.3439E+01	7.0026E+01	8.43[illegible]E+01
RHO	7.7738E+00	2.4910E+01	3.33[illegible]E+01
M	1.0852E+02	1.8347E+02	2.42[illegible]E+02
A	8.8541E+00	1.1400E+01	1.2985E+01
S	1.8769E+00	1.9281E+00	1.99[illegible]E+00
Z	1.823[illegible]E+00	1.9955E+00	2.15[illegible]E+00
GAME	9.8994E-01	9.3006E-01	9.296E-01
U	1.9333E+01	6.0282E+00	5.881[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.4555E-02	9.9137E-02	1.6394E-01
HE	1.0[illegible]E-01	9.9605E-02	8.98[illegible]E-02
HE+	1.9086E-06	6.2283E-04	3.10[illegible]E-03
HE++	2.[illegible]E-25	6.8204E-14	3.08[illegible]E-11
H	8.[illegible]E-01	7.0094E-01	5.814[illegible]E-01
H+	1.4553E-02	9.8514E-02	1.60[illegible]E-01
H2	1.9[illegible]E-03	1.1833E-03	8.25[illegible]E-04

Table II. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, USI= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6075E+02	3.7089E+03	6.3909E+03
T	4.6709E+01	7.3176E+01	8.7586E+01
RHO	7.6761E+00	2.4906E+01	3.3109E+01
H	1.1659E+02	1.9710E+02	2.5907E+02
A	9.1024E+00	1.1754E+01	1.3379E+01
S	1.9002E+00	1.9535E+00	2.0232E+00
Z	1.8405E+00	2.0351E+00	2.1999E+00
GAME	9.6254E-01	9.2771E-01	9.2898E-01
U	2.0011E+01	6.1630E+00	8.0217E+00

SPECIES	MOLE FRACTIONS		
E-	2.3435E-02	1.1652E-01	1.8247E-01
NE	1.0806E-01	9.7304E-02	8.6080E-02
NE+	8.4497E-06	9.7247E-04	4.2330E-03
NE++	1.8510E-21	3.4606E-13	9.9331E-11
N	8.4305E-01	6.6866E-01	5.4706E-01
N+	2.3429E-02	1.1554E-01	1.7824E-01
N2	1.4235E-03	1.0032E-03	6.9977E-04

P1 = 5.00E+03 N/SQ-M, USI= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6388E+02	4.9650E+03	8.3784E+03
T	5.7558E+01	8.5673E+01	1.0126E+02
RHO	7.7400E+00	2.6201F+01	3.4302E+01
H	1.5202E+02	2.5834E+02	3.3626E+02
A	1.0100E+01	1.3243E+01	1.5082E+01
S	1.9877E+00	2.0512E+00	2.1289E+00
Z	1.9376E+00	2.2119E+00	2.4093E+00
GAME	9.1002E-01	9.2549E-01	9.2993E-01
U	2.2901E+01	6.7670E+00	8.8626E+00

SPECIES	MOLE FRACTIONS		
E-	7.1006E-02	1.8677E-01	2.5326E-01
NE	1.0310E-01	8.6470E-02	7.1900E-02
NE+	1.1022E-04	3.9514E-03	1.1994E-02
NE++	8.4040E-17	6.4513E-11	5.9197E-09
N	7.5268E-01	5.3943E-01	4.2101E-01
N+	7.1571E-02	1.8282E-01	2.4163E-01
N2	6.2400E-04	5.5918E-04	3.7896E-04

P1 = 5.00E+03 N/SQ-M. US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.0831E+02	3.9784E+03	6.81o5E+03
T	4.9775E+01	7.6319E+01	9.09o3E+01
RHO	7.6465E+00	2.5100E+01	3.329oE+01
M	1.2697E+02	2.1145E+02	2.7707E+02
A	9.3497E+00	1.2117E+01	1.37o3E+01
S	1.9227E+00	1.9784E+00	2.050cE+00
Z	1.8610E+00	2.0768E+00	2.25o3E+00
GAME	9.4371E-01	9.2638E-01	9.287oE-01
U	2.0714E+01	6.3062E+00	6.172oE+00

SPECIES	MOLE FRACTIONS		
E-	3.3906E-02	1.3416E-01	2.0o69E-01
HE	1.0745E-01	9.4046E-02	8.3249E-02
HE+	1.6400E-05	1.4550E-03	5.634oE-03
HE++	5.3797E-20	1.5229E-12	2.9743E-10
H	8.2301E-01	6.3598E-01	5.1477E-01
H+	3.3869E-02	1.3270E-01	1.9306E-01
H2	1.1220E-03	8.5960E-04	5.9o[illegible]E-04

P1 = 5.00E+03 N/SQ-M. US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7746E+02	5.7382E+03	9.62[illegible]E+03
T	6.2[illegible]E+01	9.1864E+01	1.0837E+02
RHO	7.8794E+00	2.7067E+01	3.5[illegible]E+01
M	1.7[illegible]E+02	2.9255E+02	3.7914E+02
A	1.0024E+01	1.4011E+01	1.596[illegible]E+01
S	2.0306E+00	2.0991E+00	2.181[illegible]E+00
Z	1.9965E+00	2.3077E+00	2.[illegible]E+00
GAME	9.0928E-01	9.2603E-01	9.331[illegible]E-01
U	2.4391E+01	7.0927E+00	7.01[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	9.9813E-02	2.2043E-01	2.861[illegible]E-01
HE	9.9785E-02	7.9976E-02	6.[illegible]E-02
HE+	2.9001E-04	6.6897E-03	1.6[illegible]E-02
HE++	1.0069E-15	4.9924E-10	2.843[illegible]E-08
H	7.0009E-01	4.7873E-01	3.[illegible]E-01
H+	9.9525E-02	2.1374E-01	2.693[illegible]E-01
H2	4.0970E-04	4.2442E-04	2.7813E-04

P1 = 5.00E+03 N/SQ-M. US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5801E+02	4.2774E+03	7.2812E+03
T	5.2565E+01	7.9441E+01	9.4271E+01
RHO	7.6522E+00	2.5394E+01	3.3551E+01
M	1.3307E+02	2.2644E+02	2.9594E+02
A	9.6018E+00	1.2487E+01	1.4197E+01
S	1.9449E+00	2.0029E+00	2.07o0E+00
Z	1.8845E+00	2.1204E+00	2.3021E+00
GAME	9.5071E-01	9.2570E-01	9.2879E-01
U	2.1431E+01	6.4541E+00	6.3267E+00

SPECIES	MOLE FRACTIONS		
E-	4.5750E-02	1.5183E-01	2.1001E-01
HE	1.0009E-01	9.2229E-02	7.9501E-02
HE+	3.5429E-05	2.0948E-03	7.3173E-03
HE++	8.6925E-19	5.8872E-12	8.3000E-10
H	8.0148E-01	6.0337E-01	4.8270E-01
H+	4.5721E-02	1.4974E-01	2.1124E-01
H2	9.1477E-04	7.4162E-04	5.1501E-04

P1 = 5.00E+03 N/SQ-M. US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0960E+03	6.5926E+03	1.1000E+04
T	6.6342E+01	9.8073E+01	1.1501E+02
RHO	8.0203E+00	2.7932E+01	3.6096E+01
M	1.9235E+02	3.2901E+02	4.2631E+02
A	1.1146E+01	1.4794E+01	1.6972E+01
S	2.0172E+00	2.1468E+00	2.2332E+00
Z	2.0064E+00	2.4066E+00	2.6326E+00
GAME	9.0071E-01	9.2730E-01	9.3946E-01
U	2.5894E+01	7.4323E+00	7.3971E+00

SPECIES	MOLE FRACTION		
E-	1.2639E-01	2.5238E-01	3.1[illegible]E-01
HE	9.0201E-02	7.2746E-02	5.3512E-02
HE+	6.0447E-04	1.0359E-[illegible]	2.2492E-02
HE++	2.0023E-14	2.951[illegible]	1.2[illegible]E-07
H	6.4019E-01	4.221[illegible]	3.1311E-01
H+	1.2719E-01	2.4202E-01	2.9411E-01
H2	3.7674E-04	3.2239E-04	2.0239E-04

Table II. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.22[illegible]E+03	7.5146E+03	1.2515E+04
T	8.0377E+01	1.0434E+02	1.2377E+02
RHO	5.1640E+00	2.8722E+01	3.6795E+01
M	2.1432E+02	3.6762E+02	4.7617E+02
A	1.1871E+01	1.5597E+01	1.7973E+01
S	2.1140E+00	2.1944E+00	2.2855E+00
L	2.1350E+00	2.5075E+00	2.7481E+00
GAMA	9.0631E-01	9.2982E-01	9.4975E-01
U	2.7601E+01	7.7860E+00	7.8132E+00

SPECIES	MOLE FRACTIONS		
E-	1.5743E-01	2.8240E-01	3.4513E-01
HE	9.4533E-02	6.4911E-02	4.4334E-02
HE+	1.1200E-03	1.4850E-02	2.8493E-02
HE++	2.5700E-13	1.4056E-08	4.7700E-07
H	5.9232E-01	3.7005E-01	2.6503E-01
H+	1.5031E-01	1.6755E-01	3.1690E-01
H2	2.9329E-04	2.4374E-04	1.4322E-04

P1 = 5.00E+03 N/SQ-M. US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6244E+03	1.0591E+04	1.7759E+04
T	8.1965E+01	1.2431E+02	1.5327E+02
RHO	8.5230E+00	3.0260E+01	3.7444E+01
M	2.8736E+02	4.9566E+02	6.4067E+02
A	1.3294E+01	1.8256E+01	2.1862E+01
S	2.4412E+00	2.3361E+00	2.4400E+00
L	2.3687E+00	2.8158E+00	3.0944E+00
GAME	9.1017E-01	9.5217E-01	1.0077E+00
U	3.1915E+01	8.9871E+00	9.4009E+00

SPECIES	MOLE FRACTIONS		
E-	2.4022E-01	3.6084E-01	4.1834E-01
HE	1.9820E-02	4.0694E-02	2.2711E-02
HE+	4.0097E-03	3.0333E-02	4.1896E-02
HE++	5.1401E-11	6.3024E-07	1.8532E-05
H	4.3960E-01	2.3752E-01	1.4025E-01
H+	2.3561E-01	3.3051E-01	3.7440E-01
H2	1.3963E-04	9.6482E-05	3.7855E-05

P1 = 5.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3625E+03	8.4947E+03	1.41[illegible]E+04
T	7.4291E+01	1.1074E+02	1.32[illegible]E+02
RMU	8.2977E+00	2.9396E+01	3.72[illegible]E+01
M	2.3748E+02	4.0831E+02	5.29[illegible]E+02
A	1.2204E+01	1.6432E+01	1.91[illegible]E+01
S	2.1567E+00	2.2418E+00	2.3375E+00
Z	2.2103E+00	2.6097E+00	2.86[illegible]E+00
GAME	9.0709E-01	9.3438E-01	9.6467E-01
U	2.6908E+01	8.1579E+00	8.28[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.6585E-01	3.1045E-01	3.717[illegible]E-01
HE	8.8588E-02	5.6728E-02	3.61[illegible]E-02
HE+	1.9005E-03	1.9909E-02	3.36[illegible]E-02
HE++	1.8516E-12	5.6400E-08	1.68[illegible]E-08
N	5.3[illegible]E-01	3.2218E-01	2.2[illegible]E-01
N+	1.8394E-01	2.9054E-01	3.3011E-01
N2	2.2931E-04	1.8242E-04	9.79[illegible]E-05

P1 = 5.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.81[illegible]E+03	1.1687E+04	1.97[illegible]E+04
T	8.5733E+01	1.3174E+02	1.66[illegible]E+02
RMU	8.8142E+00	3.0401E+01	3.706[illegible]E+01
M	3.1907E+02	5.4213E+02	7.12[illegible]E+02
A	1.3845E+01	1.9271E+01	2.349[illegible]E+01
S	2.2830E+00	2.3826E+00	2.49[illegible]E+00
Z	2.4511E+00	2.9180E+00	3.2037E+00
GAME	9.1201E-01	9.6610E-01	1.0344E+00
U	3.3411E+01	9.4641E+00	1.01[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	2.0576E-01	3.8321E-01	4.3[illegible]E-01
HE	7.4913E-02	3.3516E-02	1.77[illegible]E-02
HE+	8.0816E-03	3.5021E-02	4.40[illegible]E-02
HE++	2.1502E-10	1.8661E-06	6.22[illegible]E-05
N	3.9347E-01	1.9999E-01	1.0[illegible]E-01
N+	2.5907E-01	3.4819E-01	3.933[illegible]E-01
N2	1.0823E-04	6.7109E-05	2.67[illegible]E-05

P1 = 5.00E+03 [illegible] N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5[illegible]E+03	9.5237E+03	1.58[illegible]E+04
T	7.8[illegible]E+01	1.1735E+02	1.42[illegible]E+02
RMU	8.6[illegible]E+00	2.9917E+01	3.74[illegible]E+01
M	2.6[illegible]E+02	4.5101E+02	5.86[illegible]E+02
A	1.2744E+01	1.7314E+01	2.04[illegible]E+01
S	2.1[illegible]E+00	2.2891E+00	2.389[illegible]E+00
Z	2.[illegible]E+00	2.7127E+00	2.981[illegible]E+00
GAME	9.0[illegible]E-01	9.4166E-01	9.84[illegible]E-01
U	3.0413E+01	8.5548E+00	8.80[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	2.1354E-01	3.3659E-01	3.9[illegible]E-01
HE	8.9304E-02	4.8536E-02	2.08[illegible]E-02
HE+	[illegible].0424E-03	2.5191E-02	3.82[illegible]E-02
HE++	1.0041E-11	1.9816E-07	5.60[illegible]E-06
N	4.8804E-01	2.7815E-01	1.78[illegible]E-01
N+	2.1048E-01	3.1140E-01	3.58[illegible]E-01
N2	1.7924E-04	1.3428E-04	8.27[illegible]E-05

P1 = [illegible].00E+03 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9737E+03	1.2900E+04	2.19[illegible]E+04
T	8.9549E+01	1.3982E+02	1.82[illegible]E+02
RMU	8.6899E+00	3.0330E+01	3.643[illegible]E+01
M	3.4197E+02	5.9038E+02	7.82[illegible]E+02
A	1.4408E+01	2.0371E+01	2.52[illegible]E+01
S	2.3[illegible]E+00	2.4285E+00	2.54[illegible]E+00
Z	2.5552E+00	3.0181E+00	3.30[illegible]E+00
GAME	9.1903E-01	9.8335E-01	1.05[illegible]E+00
U	3.4904E+01	9.9950E+00	1.0944E+01

SPECIES	MOLE FRACTIONS		
E-	2.9300E-01	4.0365E-01	4.5[illegible]E-01
HE	8.9575E-02	2.7215E-02	1.30[illegible]E-02
HE+	[illegible].3152E-03	3.9046E-02	4.6[illegible]E-02
HE++	8.0624E-10	5.2719E-06	2.08[illegible]E-04
N	3.5027E-01	1.6545E-01	7.7[illegible]E-02
N+	2.8016E-01	3.6459E-01	4.07[illegible]E-01
N2	8.3301E-05	4.4794E-05	1.0[illegible]E-05

Table II. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, USI= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1434E+03	1.3912E+04	2.913[illegible]E+04
T	9.3[illegible]E+01	1.4880E+02	2.005[illegible]E+02
RHO	8.75[illegible]E+00	3.0015E+01	3.561[illegible]E+01
H	3.71[illegible]E+02	6.4023E+02	8.5[illegible]E+02
A	1.4982E+01	2.1568E+01	2.70[illegible]E+01
S	2.3[illegible]E+00	2.4739E+00	2.591[illegible]E+00
Z	2.6203E+00	3.1149E+00	3.3[illegible]E+00
GAME	9.1642E-01	1.0036E+00	1.0771E+00
U	3.6391E+01	1.0601E+01	1.1854E+01

SPECIES	MOLE FRACTIONS		
E-	3.1311E-01	4.2217E-01	4.677[illegible]E-01
HE	6.3799E-02	2.1855E-02	1.0844E-02
HE+	1.2529E-02	4.2337E-02	4.7[illegible]E-02
HE++	2.7345E-09	1.4566E-05	6.87[illegible]E-04
H	3.0992E-01	1.3380E-01	5.431[illegible]E-02
H+	3.0058E-01	3.7980E-01	4.1[illegible]E-01
H2	6.3582E-03	2.8341E-05	4.9195E-06

P1 = 5.00E+03 N/SQ-M, USI= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.[illegible]E+03	1.7145E+04	3.1[illegible]E+04
T	1.0[illegible]E+02	1.8239E+02	2.63[illegible]E+02
RHO	8.[illegible]E+00	2.8025E+01	3.35[illegible]E+01
H	4.[illegible]E+02	7.9853E+02	1.09[illegible]E+03
A	1.[illegible]E+01	2.5553E+01	3.11[illegible]E+01
S	2.[illegible]E+00	2.6007E+00	2.7[illegible]E+00
Z	2.[illegible]E+00	3.3542E+00	3.54[illegible]E+00
GAME	9.[illegible]E-01	1.0673E+00	1.0[illegible]E+00
U	4.[illegible]E+01	1.2870E+01	1.45[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	3.[illegible]E-01	4.6337E-01	4.921[illegible]E-01
HE	4.[illegible]E-02	1.1334E-02	5.0[illegible]E-03
HE+	2.5036E-02	4.8018E-02	4.[illegible]E-02
HE++	8.[illegible]E-08	2.7421E-04	1.[illegible]E-02
H	2.[illegible]E-01	6.2195E-02	2.0[illegible]E-02
H+	3.[illegible]E-01	4.1480E-01	4.[illegible]E-01
H2	2.[illegible]E-05	5.3154E-06	6.[illegible]E-07

P1 = 5.00E+03 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3199E+03	1.5019E+04	2.6531E+04
T	9.7457E+01	1.5870E+02	2.2139E+02
RHO	8.7970E+00	2.9539E+01	3.4703E+01
H	4.6130E+02	6.9168E+02	9.3594E+02
A	1.5572E+01	2.2835E+01	2.8653E+01
S	2.4109E+00	2.5173E+00	2.6362E+00
Z	2.7060E+00	3.2038E+00	3.4473E+00
GAME	9.1950E-01	1.0255E+00	1.0759E+00
U	3.7874E+01	1.1275E+01	1.2830E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.3480E-01	4.3818E-01	4.7703E-01
NE	5.7010E-02	1.7544E-02	8.4724E-03
NE+	1.6294E-02	4.4843E-02	4.7400E-02
NE++	8.5467E-09	3.9083E-05	2.0833E-03
N	2.7202E-01	1.0611E-01	3.7900E-02
N+	3.1830E-01	3.9326E-01	4.2023E-01
N2	4.8037E-05	1.7141E-05	2.2720E-06

P1 = 5.00E+03 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8875E+03	1.8123E+04	3.3699E+04
T	1.1037E+02	1.9614E+02	2.8301E+02
RHO	8.8295E+00	2.7078E+01	3.3110E+01
H	4.9906E+02	8.5371E+02	1.1841E+03
A	1.7509E+01	2.6878E+01	3.2430E+01
S	2.5375E+00	2.6401E+00	2.7010E+00
Z	2.9031E+00	3.4122E+00	3.5819E+00
GAME	9.3743E-01	1.0794E+00	1.0331E+00
U	4.2207E+01	1.3777E+01	1.5300E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.9253E-01	4.7249E-01	4.9031E-01
NE	5.7742E-02	9.1731E-03	3.6057E-03
NE+	2.9154E-02	4.8745E-02	3.5300E-02
NE++	1.8249E-07	6.9420E-04	1.6499E-02
N	1.7714E-01	4.6542E-02	1.0424E-02
N+	3.0279E-01	4.2235E-01	4.2978E-01
N2	1.0886E-05	2.8045E-06	3.7805E-07

P1 = 5.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5053E+03	1.6091E+04	2.8935E+04
T	1.0125E+02	1.7000E+02	2.4264E+02
RHO	8.8271E+00	2.8810E+01	3.4077E+01
H	4.5273E+02	7.4441E+02	1.0172E+03
A	1.6184E+01	2.4194E+01	2.9975E+01
S	2.4933E+00	2.5605E+00	2.6816E+00
Z	2.7942E+00	3.2855E+00	3.4992E+00
GAME	9.4278E-01	1.0481E+00	1.0588E+00
U	3.9953E+01	1.2051E+01	1.3701E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.5553E-01	4.5215E-01	4.8529E-01
NE	5.1112E-02	1.4028E-02	6.5002E-03
NE+	2.0522E-02	4.6740E-02	4.5424E-02
NE++	2.4945E-08	1.0555E-04	5.1412E-03
N	2.3818E-01	8.1765E-02	2.7307E-02
N+	3.3981E-01	4.0520E-01	4.2960E-01
N2	3.2032E-05	9.6845E-06	1.1527E-06

P1 = 5.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0885E+03	1.9049E+04	3.6061E+04
T	1.1522E+02	2.1086E+02	3.0411E+02
RHO	8.7969E+00	2.6115E+01	3.2062E+01
H	5.3395E+02	9.1000E+02	1.2711E+03
A	1.8244E+01	2.8060E+01	3.3871E+01
S	2.5791E+00	2.6778E+00	2.7962E+00
Z	3.0477E+00	3.4554E+00	3.6287E+00
GAME	9.4801E-01	1.0794E+00	1.0399E+00
U	4.3705E+01	1.4729E+01	1.6117E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	4.0950E-01	4.7968E-01	5.0395E-01
NE	3.1267E-02	7.4504E-03	2.5217E-03
NE+	3.4307E-02	4.8722E-02	2.9152E-02
NE++	4.7032E-07	1.6413E-03	2.3413E-02
N	1.2011E-01	3.4838E-02	1.2904E-02
N+	3.7494E-01	4.2767E-01	4.2797E-01
N2	1.3193E-05	1.4802E-06	2.3744E-07

Table II. - Continued

$p_1 = ^{c}$ kN/ m^2

P1 = 5.00E+03 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4994E+03	1.9951E+04	3.8203E+04
T	1.2053E+02	2.2611E+02	3.2510E+02
RHO	8.7347E+00	2.5220E+01	3.2122E+01
H	5.0493E+02	9.6786E+02	1.3597E+03
A	1.9043E+01	2.9052E+01	3.5463E+01
S	2.6203E+00	2.7141E+00	2.8339E+00
Z	3.1292E+00	3.4987E+00	3.6624E+00
GAMC	9.6173E-01	1.0669E+00	1.0534E+00
U	4.3114E+01	1.5616E+01	1.6830E+01

SPECIES	MOLE FRACTIONS		
E-	4.4478E-01	4.8552E-01	5.0849E-01
HE	2.5210E-02	6.0392E-03	1.6830E-03
HE+	3.8098E-02	4.7617E-02	2.4923E-02
HE++	1.1961E-06	3.5083E-03	2.9939E-02
H	1.2521E-01	2.6433F-02	1.0474E-02
H+	3.8809E-01	4.3088F-01	4.2600E-01
H2	8.6926E-06	8.0631E-07	1.5200E-07

P1 = 5.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9395E+03	2.2375E+04	4.4477E+04
T	1.4078E+02	2.7067E+02	4.0532E+02
RHO	8.3503E+00	2.2964E+01	2.9299E+01
H	6.8436E+02	1.1509E+03	1.6511E+03
A	2.1974E+01	3.1648E+01	4.1331E+01
S	2.7388E+00	2.8172E+00	2.9403E+00
Z	3.3492E+00	3.5997E+00	3.7421E+00
GAMC	1.0243E+00	1.0280E+00	1.1253E+00
U	4.9190E+01	1.7891E+01	1.9634E+01

SPECIES	MOLE FRACTIONS		
E-	4.6236E-01	4.9996E-01	5.1937E-01
HE	1.1326E-02	2.9314E-03	3.0905E-04
HE+	4.8369E-02	3.6470E-02	8.8923E-03
HE++	2.0820E-05	1.6158E-02	4.4204E-02
H	6.3576E-02	1.3310E-02	5.1577E-03
H+	4.1415E-01	4.3117E-01	4.2207E-01
H2	2.0099E-06	1.7970E-07	3.3548E-08

P1 = 5.00E+03 N/SQ-M. US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5033E+03	2.0813E+04	4.0484E+04
T	1.2643E+02	2.4126E+02	3.4893E+02
RHO	8.0420E+00	2.4414E+01	3.1373E+01
M	6.0700E+02	1.0273E+03	1.4531E+03
A	1.9727E+01	2.9906E+01	3.7305E+01
S	2.6001E+00	2.7492E+00	2.8693E+00
Z	3.2080E+00	3.5335E+00	3.6981E+00
GAME	9.7903E-01	1.0491E+00	1.0785E+00
U	6.0000E+01	1.6454E+01	1.7704E+01

SPECIES	MOLE FRACTIONS		
E-	4.3691E-01	4.9059E-01	5.1327E-01
HE	1.9783E-02	4.8514E-03	1.0221E-03
HE+	4.2551E-02	4.5158E-02	1.7149E-02
HE++	3.0467E-06	6.5916E-03	3.5911E-02
H	1.0239E-01	2.0553E-02	8.3570E-03
H+	3.9035E-01	4.3225E-01	4.2435E-01
H2	5.7300E-06	4.6443E-07	9.4370E-08

P1 = 5.00E+03 N/SQ-M. US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1613E+03	2.3025E+04	4.6180E+04
T	1.4957E+02	2.8497E+02	4.3669E+02
RHO	8.1645E+00	2.2251E+01	2.8119E+01
M	7.2480E+02	1.2145E+03	1.7537E+03
A	2.3132E+01	3.2644E+01	4.3204E+01
S	2.7760E+00	2.8500E+00	2.9738E+00
Z	3.4070E+00	3.6313E+00	3.7591E+00
GAME	1.0499E+00	1.0298E+00	1.1402E+00
U	5.0476E+01	1.8531E+01	2.0643E+01

SPECIES	MOLE FRACTIONS		
E-	4.7178E-01	5.0430E-01	5.2110E-01
HE	8.3876E-03	2.1828E-03	1.6274E-04
HE+	5.0248E-02	3.1118E-02	6.5009E-03
HE++	5.6336E-05	2.1776E-02	4.6538E-02
H	4.8115E-02	1.0986E-02	4.0593E-03
H+	4.2142E-01	4.2963E-01	4.2150E-01
H2	1.0059E-06	1.1799E-07	1.9973E-08

P1 = 5.00E+03 N/SQ-M. US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7207E+03	2.1609E+04	4.2523E+04
T	1.3311E+02	2.5607E+02	3.7542E+02
RHO	8.5167E+00	2.3659E+01	3.0416E+01
M	6.4529E+02	1.0882E+03	1.5500E+03
A	2.0902E+01	3.0741E+01	3.9299E+01
S	2.7003E+00	2.7836E+00	2.9050E+00
Z	3.2820E+00	3.5669E+00	3.7249E+00
GAME	1.0000E+00	1.0346E+00	1.1050E+00
U	4.7800E+01	1.7242E+01	1.8610E+01

SPECIES	MOLE FRACTIONS		
E-	4.5150E-01	4.9536E-01	5.1670E-01
HE	1.5129E-02	3.8219E-03	5.7035E-04
HE+	4.5806E-02	4.1342E-02	1.2419E-02
HE++	7.8748E-06	1.0907E-02	4.0694E-02
H	8.1784E-02	1.6373E-02	8.5933E-03
H+	4.0574E-01	4.3220E-01	4.2495E-01
H2	3.4986E-06	2.8235E-07	5.6941E-08

Table II. - Continued

p_1 = 10 kN/m^2

P1 = 1.00E+04 N/SQ-M, USI= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5071E+01
T	3.1753E+00	3.9838E+00	5.7058E+00
RHO	3.9601E+00	6.6009E+00	1.1400E+01
M	3.2407E+00	4.1057E+00	6.0136E+00
A	1.7739E+00	1.9770E+00	2.3400E+00
S	1.0712E+00	1.0733E+00	1.0936E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9100E-01	9.8108E-01	9.5959E-01
U	2.4570E+00	1.4729E+00	1.3083E+00

SPECIES	MOLE FRACTIONS		
C-	1.2494E-53	7.0099E-41	4.3194E-25
HE	2.0000E-01	2.0000E-01	2.0000E-01
HE+	1.1267E-63	2.2649E-56	4.5794E-47
HE++	0.	0.	0.
H	1.2303E-10	3.9537E-08	2.9194E-05
H+	7.2402E-20	7.2402E-20	7.2401E-20
H2	8.0000E-01	8.0000E-01	7.9997E-01

P1 = 1.00E+04 N/SQ-M, USI= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9495E+01	1.3968E+02	2.0252E+02
T	7.9441E+00	1.0263E+01	1.2300E+01
RHO	5.2971E+00	1.3453E+01	2.0522E+01
M	8.0871E+00	1.2174E+01	1.8279E+01
A	2.0334E+00	3.0164E+00	3.3044E+00
S	1.1784E+00	1.1885E+00	1.2177E+00
Z	1.0008E+00	1.0120E+00	1.0300E+00
GAME	9.3229E-01	8.7609E-01	8.5420E-01
U	4.6065E+00	1.8369E+00	1.6293E+00

SPECIES	MOLE FRACTIONS		
C-	3.0052E-17	2.0133E-12	2.3332E-10
HE	1.9948E-01	1.9763E-01	1.9429E-01
HE+	5.0116E-39	4.8922E-29	1.0474E-23
HE++	0.	0.	9.7306E-07
H	1.3265E-03	2.3653E-02	7.4033E-02
H+	3.0924E-17	2.0133E-12	2.3332E-10
H2	7.9805E-01	7.7870E-01	7.5202E-01

P1 = 1.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2089E+01	1.1588E+02
T	4.4065E+00	5.9047E+00	8.1170E+00
RHO	4.4957E+00	8.8198E+00	1.4260E+01
M	4.5641E+00	6.2438E+00	8.9214E+00
A	2.0733E+00	2.3774E+00	2.7410E+00
S	1.1079E+00	1.1128E+00	1.1367E+00
Z	1.0000E+00	1.0000E+00	1.0012E+00
GAME	9.7553E-01	9.5715E-01	9.2503E-01
U	3.1952E+00	1.6271E+00	1.4721E+00

SPECIES	MOLE FRACTIONS		
E-	2.8931E-37	3.2185E-23	2.2249E-16
HE	2.0000E-01	1.9999E-01	1.9972E-01
HE+	1.4822E-34	4.0695E-46	3.1198E-34
HE++	0.	0.	0.
H	5.0863E-07	5.7062E-05	2.4283E-03
H+	7.2402E-20	7.2432E-20	2.2301E-16
H2	8.0000E-01	7.9995E-01	7.9779E-01

P1 = 1.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8753E+01	8.8530E+01	1.8114E+02
T	5.8455E+00	8.0994E+00	1.0400E+01
RHO	4.9187E+00	1.0916E+01	1.7190E+01
M	6.1762E+00	8.9085E+00	1.2335E+01
A	2.3680E+00	2.7365E+00	3.0400E+00
S	1.1430E+00	1.1511E+00	1.1715E+00
Z	1.0000E+00	1.0014E+00	1.0119E+00
GAME	9.5758E-01	9.2332E-01	8.7746E-01
U	3.9283E+00	1.7694E+00	1.5753E+00

SPECIES	MOLE FRACTIONS		
E-	1.3001E-22	5.9418E-16	2.5825E-14
HE	1.9999E-01	1.9972E-01	1.9764E-01
HE+	4.8726E-47	5.5599E-35	3.6989E-28
HE++	0.	0.	0.
H	6.2812E-05	2.7507E-03	2.3257E-02
H+	7.2209E-20	5.9425E-16	2.5823E-14
H2	7.9994E-01	7.9752E-01	7.7880E-01

P1 = 1.00E+04 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2123E+01	2.1142E+02	3.6830E+02
T	9.0392E+00	1.2136E+01	1.3992E+01
RHO	5.7330E+00	1.6769E+01	2.4370E+01
M	1.0307E+01	1.6085E+01	2.0870E+01
A	2.8467E+00	3.2785E+00	3.5842E+00
S	1.2085E+00	1.2267E+00	1.2591E+00
Z	1.0056E+00	1.0389E+00	1.0850E+00
GAME	8.9152E-01	8.5254E-01	8.4959E-01
U	5.4273E+00	1.8545E+00	1.6701E+00

SPECIES	MOLE FRACTIONS		
E-	6.4074E-14	1.8821E-10	4.1010E-09
HE	1.9864E-01	1.9751E-01	1.8500E-01
HE+	6.1080E-32	4.5479E-24	4.0703E-21
HE++	0.	1.5712E-07	2.4331E-14
H	1.1283E-02	7.4886E-02	1.4921E-01
H+	6.4074E-14	1.8821E-10	4.1010E-09
H2	7.8952E-01	7.3260E-01	6.6571E-01

P1 = 1.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8911E+01	3.1007E+02	5.1279E+02
T	1.0430E+01	1.3814E+01	1.5649E+01
RHO	6.2897E+00	2.0771E+01	2.8854E+01
M	1.2891E+01	2.0647E+01	2.6220E+01
A	3.0227E+00	3.5577E+00	3.8900E+00
S	1.2404E+00	1.2663E+00	1.3020E+00
Z	1.0200E+00	1.0806E+00	1.1300E+00
GAME	8.5887E-01	8.4790E-01	8.5401E-01
U	6.2198E+00	1.8821E+00	1.7345E+00

SPECIES	MOLE FRACTIONS		
E-	5.7984E-12	3.5531E-09	3.7439E-08
HE	1.9600E-01	1.8507E-01	1.7000E-01
HE+	5.7124E-28	3.1898E-21	7.4123E-19
HE++	0.	9.3067E-18	9.0251E-09
H	3.9194E-02	1.4926E-01	2.3990E-01
H+	5.7984E-12	3.5531E-09	3.7439E-08
H2	7.8477E-01	6.6567E-01	5.8434E-01

Table II. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.3771E+01	4.3841E+02	7.0025E+02
T	1.1607E+01	1.5410E+01	1.7336E+01
RHO	6.9154E+00	2.5080E+01	3.3517E+01
M	1.2664E+01	2.5826E+01	3.2356E+01
A	3.1966E+00	3.8594E+00	4.2406E+00
S	1.2730E+00	1.3077E+00	1.3401E+00
Z	1.0438E+00	1.1343E+00	1.2034E+00
GAME	8.4355E-01	8.5213E-01	8.6410E-01
U	7.0297E+00	1.9387E+00	1.8231E+00

SPECIES	MOLE FRACTIONS		
E-	1.1207E-10	3.0643E-08	2.2153E-07
HE	1.9164E-01	1.7631E-01	1.6624E-01
HE+	4.9044E-25	4.0390E-19	4.1924E-17
HE++	1.9166E-91	7.3005E-70	6.0933E-63
H	8.3000E-02	2.3687E-01	3.3799E-01
H+	1.1207E-10	3.0643E-08	2.2153E-07
H2	7.2478E-01	5.8681E-01	4.9581E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4507E+02	9.8975E+02	1.5240E+03
T	1.4491E+01	2.0309E+01	2.3339E+01
RHO	8.6773E+00	3.6160E+01	4.4687E+01
M	1.6009E+01	4.4707E+01	5.5413E+01
A	3.7277E+00	4.9358E+00	5.6107E+00
S	1.3783E+00	1.4396E+00	1.4931E+00
Z	1.1506E+00	1.3477E+00	1.4614E+00
GAME	8.4109E-01	8.9005E-01	9.2305E-01
U	9.4514E+00	2.2687E+00	2.2772E+00

SPECIES	MOLE FRACTIONS		
E-	1.8162E-08	2.5535E-06	1.4914E-05
HE	1.7271E-01	1.4840E-01	1.3087E-01
HE+	3.5200E-20	1.0524E-14	6.8594E-13
HE++	9.0220E-74	4.5740E-53	1.7493E-46
H	2.7292E-01	5.1602E-01	6.3142E-01
H+	1.8162E-08	2.5535E-06	1.4414E-05
H2	5.5437E-01	3.3558E-01	2.3180E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.025E+02	5.961E+02	9.31E+02
T	1.204E+01	1.699E+01	1.91E+01
RHO	7.544E+00	2.929E+01	3.80E+01
M	1.08E+01	3.158E+01	3.92E+01
A	3.37E+00	4.186E+00	4.63E+00
S	1.30E+00	1.350E+00	1.39E+00
Z	1.075E+00	1.197E+00	1.28E+00
GAME	8.36E-01	8.612E-01	8.78E-01
U	1.04E+00	2.019E+00	1.93E+00

SPECIES	MOLE FRACTIONS		
E-	9.23E-10	1.699E-07	1.01E-06
NE	1.66E+00	1.669E-01	1.50E-01
NE+	4.89E-23	1.983E-17	1.39E-15
NE++	2.03E-04	1.621E-03	9.71E-57
N	1.40E-01	3.303E-01	4.30E+00
N+	9.23E-10	1.699E-07	1.01E+00
N2	6.73E-01	5.026E-01	4.05E+00

P1 = 1.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.09E+02	1.218E+03	1.88E+03
T	1.53E+01	2.216E+01	2.61E+01
RHO	9.17E+00	3.842E+01	4.63E+01
M	5.00E+01	5.204E+01	6.48E+01
A	3.90E+00	5.373E+00	6.24E+00
S	1.41E+00	1.484E+00	1.54E+00
Z	1.20E+00	1.430E+00	1.55E+00
GAME	8.40E-01	9.104E-01	9.58E-01
U	1.02E+01	2.440E+00	2.51E+00

SPECIES	MOLE FRACTIONS		
E-	5.73E-08	8.168E-06	5.21E-05
NE	1.65E-01	1.398E-01	1.28E-01
NE+	4.69E-19	1.583E-13	1.43E-11
NE++	1.43E-09	8.486E-09	2.69E-41
N	3.43E-01	6.019E-01	7.12E-01
N+	5.73E-08	8.168E-06	5.21E-05
N2	4.90E-01	2.582E-01	1.52E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.23E+02	7.807E+02	1.20E+03
T	1.35E+01	1.860E+01	2.10E+01
RHO	8.13E+00	3.305E+01	4.18E+01
M	2.22E+01	3.787E+01	4.69E+01
A	3.56E+00	4.543E+00	5.08E+00
S	1.36E+00	1.374E+00	1.44E+00
Z	1.11E+00	1.269E+00	1.36E+00
GAME	8.38E-01	8.789E-01	8.97E-01
U	8.64E+00	2.209E+00	2.08E+00

SPECIES	MOLE FRACTIONS		
E-	4.72E-09	7.186E-07	3.91E-06
NE	1.79E-01	1.575E-01	1.40E-01
NE+	1.72E-21	5.579E-16	3.30E-14
NE++	7.65E-06	7.135E-08	3.70E-51
N	2.04E-01	4.245E-01	5.37E+01
N+	4.72E-09	7.186E-07	3.91E-06
N2	6.16E-01	4.178E-01	3.15E+01

P1 = 1.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9E+02	1.460E+03	2.28E+03
T	1.62E+01	2.428E+01	2.98E+01
RHO	9.54E+00	3.970E+01	4.65E+01
M	3.43E+01	5.985E+01	7.53E+01
A	4.16E+00	5.869E+00	7.03E+00
S	1.45E+00	1.529E+00	1.59E+00
Z	1.27E+00	1.514E+00	1.64E+00
GAME	8.52E-01	9.366E-01	1.00E+00
U	1.10E+01	2.652E+00	2.84E+00

SPECIES	MOLE FRACTIONS		
E-	1.58E-07	2.478E-05	2.03E-04
NE	1.58E-01	1.320E-01	1.21E-01
NE+	4.59E-18	2.156E-12	3.70E-10
NE++	2.16E-06	2.065E-04	4.40E-30
N	4.12E-01	6.797E-01	7.80E-01
N+	1.38E-07	2.478E-05	2.03E-04
N2	4.20E-01	1.882E-01	9.20E-02

Table II. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2355E+02	1.7073E+03	2.7409E+03
T	1.7174E+01	2.6796E+01	3.5126E+01
RHO	9.8539E+00	3.9912E+01	4.5341E+01
M	3.8998E+01	6.8105E+01	8.7200E+01
A	4.0192E+00	6.4447E+00	8.0036E+00
S	1.4932E+00	1.5729E+00	1.6400E+00
Z	1.3241E+00	1.5964E+00	1.7209E+00
GAME	8.0081E-01	9.7093E-01	1.0593E+00
U	1.1813E+01	2.9178E+00	3.2784E+00

SPECIES	MOLE FRACTIONS		
E-	4.0225E-07	7.4779E-05	8.8085E-04
NE	1.5140E-01	1.2528E-01	1.1022E-01
NE+	3.7888E-17	2.9389E-11	1.2720E-08
NE++	2.0873E-62	3.5695E-40	1.9017E-30
N	4.8599E-01	7.4697E-01	8.3515E-01
N+	4.0225E-07	7.4779E-05	8.8084E-04
N2	3.0261E-01	1.2760E-01	4.6054E-02

P1 = 1.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1526E+02	2.3778E+03	4.2114E+03
T	2.0308E+01	3.8774E+01	5.6214E+01
RHO	1.0209E+01	3.4859E+01	4.1102E+01
M	5.4628E+01	9.4911E+01	1.2811E+02
A	5.2695E+00	8.5631E+00	1.0152E+01
S	1.0137E+00	1.6902E+00	1.7579E+00
Z	1.5165E+00	1.7592E+00	1.8227E+00
GAME	8.9991E-01	1.0750E+00	1.0059E+00
U	1.4097E+01	4.1498E+00	4.6926E+00

SPECIES	MOLE FRACTIONS		
E-	5.1825E-06	2.1977E-03	2.1111E-02
NE	1.3188E-01	1.1369E-01	1.0978E-01
NE+	1.4259E-14	9.4527E-08	2.7359E-05
NE++	3.4615E-53	2.3605E-27	2.0846E-18
N	6.8117E-01	8.5655E-01	8.3994E-01
N+	5.1825E-06	2.1976E-03	2.1083E-02
N2	1.8694E-01	2.5366E-02	8.6935E-03

P1 = 1.00E+06 N/SQ-M. US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5287E+02	1.9502E+03	3.2396E+03
T	1.8123E+01	2.9944E+01	4.2203E+01
RHO	1.0087E+01	3.9038E+01	4.3401E+01
H	4.3916E+01	7.6737E+01	1.0046E+02
A	4.6724E+00	7.1187E+00	8.9305E+00
S	1.5331E+00	1.6147E+00	1.6840E+00
Z	1.3832E+00	1.6683E+00	1.7001E+00
GAME	8.7089E-01	1.0144E+00	1.0700E+00
U	1.2563E+01	3.2506E+00	3.8124E+00

SPECIES	MOLE FRACTIONS		
E-	9.2902E-07	2.3230E-04	3.6449E-03
NE	1.4459E-01	1.1988E-01	1.1342E-01
NE+	2.8249E-16	4.3626E-10	3.8052E-07
NE++	3.1173E-59	7.4351E-36	4.2934E-27
N	5.5414E-01	8.0050E-01	8.5007E-01
N+	9.5982E-07	2.3230E-04	3.6493E-03
N2	3.0131E-01	7.9159E-02	2.2830E-02

P1 = 1.00E+06 N/SQ-M. US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5009E+02	2.5604E+03	4.6496E+03
T	2.1652E+01	4.3980E+01	6.2004E+01
RHO	1.0208E+01	3.2653E+01	4.0457E+01
H	6.0415E+01	1.0446E+02	1.4218E+02
A	5.6232E+00	9.1157E+00	1.0653E+01
S	1.6535E+00	1.7235E+00	1.7897E+00
Z	1.5834E+00	1.7829E+00	1.8527E+00
GAME	9.2201E-01	1.0597E+00	9.8375E-01
U	1.4824E+01	4.6310E+00	5.0035E+00

SPECIES	MOLE FRACTIONS		
E-	1.2359E-05	5.5271E-03	3.4780E-02
NE	1.2627E-01	1.1218E-01	1.0780E-01
NE+	1.1205E-13	8.6045E-07	9.3223E-05
NE++	1.9816E-49	6.6888E-24	1.7026E-16
N	7.5728E-01	8.6165E-01	8.1622E-01
N+	1.2359E-05	5.5263E-03	3.4699E-02
N2	1.3642E-01	1.5118E-02	6.3495E-03

P1 = 1.00E+06 N/SQ-M. US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8300E+02	2.1732E+03	3.7301E+03
T	1.9161E+01	3.3980E+01	4.9504E+01
RHO	1.0219E+01	3.7102E+01	4.1919E+01
H	4.9127E+01	8.5676E+01	1.1414E+02
A	4.9538E+00	7.8704E+00	9.6117E+00
S	1.5737E+00	1.6545E+00	1.7230E+00
Z	1.4499E+00	1.7237E+00	1.7953E+00
GAME	8.8364E-01	1.0575E+00	1.0362E+00
U	1.3243E+01	3.6729E+00	4.2902E+00

SPECIES	MOLE FRACTIONS		
E-	2.2457E-06	7.4413E-04	1.0354E-02
NE	1.3799E-01	1.1603E-01	1.1140E-01
NE+	2.0222E-15	7.0496E-09	4.8232E-06
NE++	5.2001E-50	1.9283E-31	4.0645E-21
N	8.2013E-01	8.3748E-01	8.5494E-01
N+	2.2457E-06	7.4412E-04	1.0349E-02
N2	2.9180E-01	4.5002E-02	1.2952E-02

P1 = 1.00E+04 N/SQ-M. US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8509E+02	2.7203E+03	5.0222E+03
T	2.3312E+01	4.9127E+01	6.7227E+01
RHO	1.0022E+01	3.0712F+01	3.9615E+01
H	6.6408E+01	1.1438E+02	1.5630E+02
A	6.0538E+00	9.5534E+00	1.1083E+01
S	1.6927E+00	1.7551F+00	1.8203E+00
Z	1.6488E+00	1.8029E+00	1.8830E+00
GAME	9.5359E-01	1.0304E+00	9.6935E-01
U	1.5533E+01	5.0630E+00	5.2503E+00

SPECIES	MOLE FRACTIONS		
E-	3.1536E-05	1.1451E-02	5.0309E-02
NE	1.2132E-01	1.1093E-01	1.0304E-01
NE+	1.0464E-12	4.9119E-06	2.3193E-04
NE++	7.4901E-46	3.4373E-21	4.4422E-15
N	7.8675E-01	8.5634E-01	7.8863E-01
N+	3.1536E-05	1.1446E-02	5.0077E-02
N2	9.1872E-02	9.8307E-03	4.9161E-03

Table II. - Continued

p_1 = 10 kN/m^2

P1 = 1.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2100E+02	2.8536E+03	5.3047E+03
T	2.5402E+01	5.3917E+01	7.1790E+01
RHO	9.6907E+00	2.9018E+01	3.8403E+01
M	7.2017E+01	1.2469E+02	1.7026E+02
A	6.5036E+00	9.9317E+00	1.1504E+01
S	1.7301E+00	1.7855E+00	1.8504E+00
Z	1.7030E+00	1.8239E+00	1.9208E+00
GAME	9.9033E-01	1.0031E+00	9.5471E-01
U	1.8219E+01	5.4159E+00	5.4693E+00

SPECIES	MOLE FRACTIONS		
E-	8.9204E-05	2.0007E-02	6.0824E-02
NE	1.1736E-01	1.0964E-01	1.0362E-01
NE+	1.2491E-11	1.8653E-05	4.6067E-04
NE++	0.0000E-02	4.0476E-19	5.5200E-14
N	8.2681E-01	8.4343E-01	7.5878E-01
N+	8.9204E-05	1.9988E-02	6.0300E-02
N2	0.0000E-02	6.9152E-03	3.9133E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3211E+02	3.0914E+03	5.6210E+03
T	3.0100E+01	6.5834E+01	8.2677E+01
RHO	8.2227E+00	2.4679E+01	3.3400E+01
M	9.3349E+01	1.5766E+02	2.1289E+02
A	8.3528E+00	1.0945E+01	1.2600E+01
S	1.8272E+00	1.8733E+00	1.9401E+00
Z	1.7895E+00	1.9027E+00	2.0354E+00
GAME	1.0780E+00	9.5642E-01	9.4428E-01
U	1.8043E+01	6.0078E+00	5.8899E+00

SPECIES	MOLE FRACTIONS		
E-	2.6453E-03	5.7114E-02	1.1779E-01
NE	1.1176E-01	1.0488E-01	9.6300E-02
NE+	4.9474E-08	2.3142E-04	1.8917E-03
NE++	7.7233E-29	3.1311E-15	8.1455E-12
N	8.7444E-01	7.7774E-01	6.6593E-01
N+	2.6452E-03	5.6882E-02	1.1590E-01
N2	8.5077E-03	3.1490E-03	2.1240E-03

P1 = 1.00E+04 N/SQ-M. US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5739E+02	2.9490E+03	5.4603E+03
T	2.8358E+01	5.8266E+01	7.5791E+01
RHO	9.2293E+00	2.7396E+01	3.6853E+01
H	7.9407E+01	1.3534E+02	1.8409E+02
A	7.2190E+00	1.0282E+01	1.1892E+01
S	1.7054E+00	1.8154E+00	1.8807E+00
Z	1.7470E+00	1.8475E+00	1.9578E+00
GAMMA	1.0310E+00	9.8209E-01	9.5300E-01
U	1.8833E+01	5.6733E+00	5.6300E+00

SPECIES	MOLE FRACTIONS		
E-	2.8399E-04	3.0820E-02	8.3747E-02
NE	1.1999E-01	1.0820E-01	1.0139E-01
NE+	2.1450E-10	5.2368E-05	8.1033E-04
NE++	2.2149E-37	1.5955E-17	4.0377E-13
N	8.5474E-01	8.2502E-01	7.2001E-01
N+	2.8399E-04	3.0767E-02	8.2930E-02
N2	3.0250E-02	5.1312E-03	3.1000E-03

P1 = 1.00E+04 N/SQ-M. US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7198E+02	3.2015E+03	5.7622E+03
T	4.0325E+01	6.9379E+01	8.5997E+01
RHO	7.8727E+00	2.3852E+01	3.2264E+01
H	1.0075E+02	1.6960E+02	2.2787E+02
A	8.7184E+00	1.1286E+01	1.2907E+01
S	1.8541E+00	1.9009E+00	1.9684E+00
Z	1.8817E+00	1.9346E+00	2.0760E+00
GAMMA	1.0462E+00	9.4895E-01	9.4149E-01
U	1.8651E+01	6.1539E+00	6.0107E+00

SPECIES	MOLE FRACTIONS		
E-	6.1538E-03	7.2163E-02	1.3205E-01
NE	1.1100E-01	1.0296E-01	9.3042E-02
NE+	5.8828E-07	4.1392E-04	2.6825E-03
NE++	1.2812E-25	2.4990E-14	2.8899E-11
N	8.7149E-01	7.5014E-01	6.3491E-01
N+	6.1534E-03	7.1749E-02	1.3250E-01
N2	5.1971E-03	2.5662E-03	1.7770E-03

P1 = 1.00E+04 N/SQ-M. US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9426E+02	3.0157E+03	5.5430E+03
T	3.2034E+01	6.2206E+01	7.9340E+01
RHO	8.6979E+00	2.5871E+01	3.5026E+01
H	8.8266E+01	1.4628E+02	1.9866E+02
A	7.8524E+00	1.0617E+01	1.2239E+01
S	1.7958E+00	1.8450F+00	1.9107E+00
Z	1.7746E+00	1.8739E+00	1.9939E+00
GAMMA	1.0065E+00	9.6697E-01	9.4804E-01
U	1.7950E+01	5.8661E+00	5.7639E+00

SPECIES	MOLE FRACTIONS		
E-	9.2513E-04	4.3377E-02	1.0074E-01
NE	1.1274E-01	1.0661F-01	9.8923E-02
NE+	3.8117E-09	1.1868F-04	1.2831E-03
NE++	7.4650E-33	2.9122E-16	2.0242E-14
N	8.6982E-01	8.0268E-01	6.9700E-01
N+	9.2514E-04	4.3258E-02	9.9439E-02
N2	1.5592E-02	3.9518E-03	2.5720E-03

P1 = 1.00E+04 N/SQ-M. US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1911E+02	3.3596E+03	5.9896E+03
T	4.4246E+01	7.2841E+01	8.9393E+01
RHO	7.6467E+00	2.3426E+01	3.1603E+01
H	1.0846E+02	1.8228E+02	2.4378E+02
A	9.0126E+00	1.1635E+01	1.3303E+01
S	1.8791E+00	1.9270E+00	1.9958E+00
Z	1.8150E+00	1.9689E+00	2.1200E+00
GAMMA	1.0115E+00	9.4389E-01	9.3941E-01
U	1.9286E+01	6.2932E+00	6.1526E+00

SPECIES	MOLE FRACTIONS		
E-	1.1797E-02	8.7907E-02	1.5247E-01
NE	1.1019E-01	1.0089E-01	9.0500E-02
NE+	1.9113E-06	6.8713E-04	3.6972E-03
NE++	3.9318E-23	1.5497E-13	9.4753E-11
N	8.8268E-01	7.2115E-01	6.0291E-01
N+	1.1795E-02	8.7219E-02	1.4877E-01
N2	5.5362E-03	2.1433E-03	1.5070E-03

Table II. - Continued

p_1 = 10 kN/m^2

P1 = 1.00E+04 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.566aE+02	3.5613E+03	6.2971E+03
T	4.7859E+01	7.6278E+01	9.2861E+01
RHO	7.51aaE+00	2.3282E+01	3.1313E+01
M	1.165aE+02	1.9568E+02	2.606aE+02
A	9.2821E+00	1.1996E+01	1.3733E+01
S	1.9027E+00	1.9522E+00	2.0224E+00
Z	1.8309E+00	2.0054E+00	2.1651E+00
GAME	9.8326E-01	9.4046E-01	9.3787E-01
U	1.9944E+01	6.4385E+00	6.2942E+00

SPECIES	MOLE FRACTIONS		
E-	1.9475E-02	1.0422E-01	1.6995E-01
HE	1.a923E-01	9.8654E-02	8.7aa7E-02
HE+	6.5871E-06	1.0792E-03	4.9861E-03
HE++	3.3702E-21	7.9894E-13	2.8929E-10
H	8.4921E-01	6.9108E-01	5.7144E-01
H+	1.9469E-02	1.0316E-01	1.6490E-01
H2	2.6100E-03	1.8202E-03	1.29aaE-03

P1 = 1.00E+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.593aE+02	4.6979E+03	8.1221E+03
T	5.98a7E+01	8.9873E+01	1.0729E+02
RHO	7.4825E+00	2.4101E+01	3.1999E+01
M	1.51a3E+02	2.5602E+02	3.3747E+02
A	1.0349E+01	1.3457E+01	1.5618E+01
S	1.9902E+00	2.0479E+00	2.1225E+00
Z	1.9206E+00	2.1689E+00	2.3596E+00
GAME	9.7[illegible]E-01	9.3454E-01	9.3694E-01
U	[illegible]	7.0671E+00	6.9514E+00

SPECIES	MOLE FRACTIONS		
E-	6.3865E-02	1.7111E-01	2.3780E-01
HE	1.0901E-01	9.7850E-02	7.2080E-02
HE+	1.5348E-04	4.3641F-03	1.2695E-02
HE++	1.8498E-16	1.4602F-10	1.5103E-08
H	7.67aaE-01	5.6889F-01	4.5149E-01
H+	6.3729E-02	1.6675F-01	2.4218E-01
H2	1.1783E-03	1.0380E-03	7.3083E-04

P1 = 1.00E+04 N/SQ-M. US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.0557E+02	3.8.22E+03	6.67[illegible]+03
T	5.1174E+01	7.9703E+01	9.6464E+01
RHO	7.4563E+00	2.3340E+01	3.1283E+01
M	1.2488E+02	2.0980E+02	2.7850E+02
A	9.5456E+00	1.2362E+01	1.4138E+01
S	1.9254E+00	1.9767E+00	2.0460E+00
Z	1.8496E+00	2.0439E+00	2.2124E+00
GAME	9.6267E-01	9.3813E-01	9.3677E-01
U	2.0634E+01	6.5838E+00	6.4504E+00

SPECIES	MOLE FRACTIONS		
E-	2.8803E-02	1.2090E-01	1.8730E-01
NE	1.0811E-01	9.6233E-02	8.3900E-02
NE+	1.7588E-05	1.6190E-03	6.5120E-03
NE++	1.1593E-19	3.5355E-12	8.2780E-10
N	8.5212E-01	6.6040E-01	5.4027E-01
N+	2.8865E-02	1.1920E-01	1.8004E-01
N2	2.0403E-03	1.5649E-03	1.1134E-03

P1 = 1.00E+04 N/SQ-M. US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7209E+02	5.4153E+03	9.2903E+03
T	6.4822E+01	9.6607E+01	1.1532E+02
RHO	7.5872E+00	2.4828E+01	3.2752E+01
M	1.7136E+02	2.8987E+02	3.8087E+02
A	1.0873E+01	1.4270E+01	1.6332E+01
S	2.0310E+00	2.0944E+00	2.1732E+00
Z	1.9705E+00	2.2578E+00	2.4624E+00
GAME	9.2271E-01	9.3362E-01	9.3502E-01
U	2.4257E+01	7.4089E+00	7.3140E+00

SPECIES	MOLE FRACTIONS		
E-	9.0194E-02	2.0355E-01	2.6957E-01
NE	1.0084E-01	8.1296E-02	6.3449E-02
NE+	3.9407E-04	7.2880E-03	1.7771E-02
NE++	5.4700E-15	1.0897E-09	8.2611E-08
N	7.1780E-01	5.1079E-01	3.9080E-01
N+	8.9650E-02	1.9627E-01	2.5180E-01
N2	8.1750E-04	8.0433E-04	5.5395E-04

P1 = 1.00E+04 N/SQ-M. US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5473E+02	4.0738E+03	7.1102E+03
T	5.6240E+01	8.3107E+01	1.0009E+02
RHO	7.4370E+00	2.3520E+01	3.1439E+01
M	1.3354E+02	2.2458E+02	2.9734E+02
A	9.8091E+00	1.2736E+01	1.4550E+01
S	1.9474E+00	2.0007E+00	2.0791E+00
Z	1.8710E+00	2.0842E+00	2.2596E+00
GAME	9.4814E-01	9.3652E-01	9.3612E-01
U	2.1338E+01	6.7414E+00	6.6118E+00

SPECIES	MOLE FRACTIONS		
E-	3.9395E-02	1.3770E-01	2.0438E-01
NE	1.0866E-01	9.3630E-02	8.0190E-02
NE+	3.9165E-05	2.3314E-03	8.3120E-03
NE++	2.0792E-18	1.3657E-11	2.1901E-09
N	8.1230E-01	6.2961F-01	5.1000E-01
N+	3.9553E-02	1.3537E-01	1.9000E-01
N2	1.6582E-03	1.3571E-03	9.6072E-04

P1 = 1.00E+04 N/SQ-M. US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0921E+03	6.2002E+03	1.0590E+04
T	8.9227E+01	1.0331E+02	1.2394E+02
RHO	7.6998E+00	2.5543F+01	3.3414E+01
M	1.9209E+02	3.2591E+02	4.2730E+02
A	1.1911E+01	1.5056F+01	1.7321E+01
S	2.0733E+00	2.1908E+00	2.2263E+00
Z	2.0391E+00	2.3495F+00	2.5600E+00
GAME	9.1890E-01	9.3387E-01	9.4653E-01
U	2.5741E+01	7.7547E+00	7.7030E+00

SPECIES	MOLE FRACTIONS		
E-	1.1790E-01	2.3450E-01	2.9940E-01
NE	9.7349E-02	7.4065F-02	5.4798E-02
NE+	7.3159E-04	1.1060E-02	2.3040E-02
NE++	8.8150E-14	6.0983E-09	2.5130E-07
N	6.6605E-01	4.5630E-01	3.4503E-01
N+	1.1723E-01	2.2344E-01	2.7034E-01
N2	6.8403E-04	6.2583E-04	4.1299E-04

Table II. - Continued

p_1 = 10 kN/m^2

P1 = 1.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2195E+03	7.0563E+03	1.2017E+04
T	7.4942E+01	1.1005E+02	1.3208E+02
RHO	7.8213E+00	2.6250E+01	3.3993E+01
M	2.1403E+02	3.6416E+02	4.7728E+02
A	1.1962E+01	1.5862E+01	1.8401E+01
S	2.1143E+00	2.1862E+00	2.2700E+00
Z	2.1059E+00	2.4427E+00	2.6705E+00
GAME	9.1760E-01	9.3591E-01	9.5776E-01
U	2.7234E+01	8.1104F+00	8.1432E+00

SPECIES	MOLE FRACTIONS		
E-	1.4579E-01	2.6359E-01	3.2779E-01
HE	9.3009E-02	6.6402E-02	4.6507E-02
HE+	1.3028E-03	1.5476E-02	2.8217E-02
HE++	8.4978E-13	2.7184E-08	8.9687E-07
H	8.1427E-01	4.0594E-01	2.9702E-01
H+	1.4443E-01	2.4811F-01	2.9957E-01
H2	5.3752E-04	4.8783E-04	3.0400E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6441E+03	9.9175E+03	1.6994E+04
T	8.0824E+01	1.3151E+02	1.6361E+02
RHO	8.1415E+00	2.7605E+01	3.4544E+01
M	2.8697E+02	4.9096E+02	6.4800E+02
A	1.3024E+01	1.8559E+01	2.2330E+01
S	2.2572E+00	2.3231F+00	2.4209E+00
Z	2.3258E+00	2.7319E+00	3.0068E+00
GAME	9.1909E-01	9.5868F-01	1.0136E+00
U	3.1715E+01	9.3547F+00	9.7710E+00

SPECIES	MOLE FRACTIONS		
E-	2.2633E-01	3.4132E-01	4.0143E-01
HE	8.0306E-02	4.3535E-02	2.7046E-02
HE+	5.4849E-03	2.9675E-02	3.9443E-02
HE++	1.5979E-10	1.0134E-06	2.6624E-05
H	4.0052E-01	2.7361F-01	1.6998E-01
H+	2.2087E-01	3.1164F-01	3.6196E-01
H2	2.0733E-04	2.1392F-04	9.4381E-05

P1 = 1.00E+06 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3541E+03	7.9662E+03	1.35[illegible]E+04
T	7.0381E+01	1.1696E+02	1.4143E+02
RHO	7.9377E+00	2.6833E+01	3.4400E+01
M	2.3715E+02	4.0445F+02	5.3033E+02
A	1.2511E+01	1.6710E+01	1.9581E+01
S	2.1553E+00	2.2322E+00	2.3269E+00
Z	2.1764E+00	2.5383F+00	2.7801E+00
GAME	9.1700E-01	9.4047E-01	9.7307E-01
U	2.8729E+01	8.4936E+00	8.6074E+00

SPECIES	MOLE FRACTIONS		
E-	1.7330E-01	2.9125E-01	3.5413E-01
NE	8.9581E-02	5.8493E-02	3.9044E-02
NE+	2.3150E-03	2.0298E-02	3.2730E-02
NE++	6.0826E-12	1.0299E-07	2.9031E-06
N	5.6328E-01	3.5863E-01	2.5249E-01
N+	1.7104E-01	2.7095E-01	3.2140E-01
N2	4.2312E-04	3.7612F-04	2.1614E-04

P1 = 1.00E+06 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7995E+03	1.0946E+04	1.8496E+04
T	9.1031E+01	1.3941E+02	1.7704E+02
RHO	8.2204E+00	2.7757E+01	3.4302E+01
M	3.1306E+02	5.3706F+02	7.1316E+02
A	1.4188E+01	1.9582E+01	2.3892E+01
S	2.2781E+00	2.3678E+00	2.4159E+00
Z	2.4037E+00	2.8287E+00	3.1119E+00
GAME	9.2026E-01	9.7234E-01	1.0361E+00
U	3.3205E+01	9.8369E+00	1.0461E+01

SPECIES	MOLE FRACTIONS		
E-	2.5138E-01	3.6382E-01	4.2104E-01
NE	1.5388E-02	3.7001E-02	2.2942E-02
NE+	7.8164E-03	3.3701E-02	4.1094E-02
NE++	6.4099E-10	2.8026E-06	7.7736E-05
N	4.2165E-01	2.3521E-01	1.3942E-01
N+	2.4356E-01	3.3011F-01	3.7984E-01
N2	2.1152E-04	1.5573E-04	5.7609E-05

P1 = 1.00E+06 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4950E+03	8.9232E+03	1.5217E+04
T	8.2629E+01	1.2408E+02	1.5180E+02
RHO	8.0451E+00	2.7293E+01	3.4500E+01
M	2.6147E+02	4.4675E+02	5.8733E+02
A	1.3065E+01	1.7605E+01	2.0894E+01
S	2.1982E+00	2.2779E+00	2.3771E+00
Z	2.4499E+00	2.6349E+00	2.8972E+00
GAME	9.1818E-01	9.4801E-01	9.9209E-01
U	3.0223E+01	8.9047E+00	9.1587E+00

SPECIES	MOLE FRACTIONS		
E-	2.0029E-01	3.1716E-01	3.7888E-01
NE	8.5227E-02	5.0765E-02	3.2511E-02
NE+	3.6072E-03	2.9137E-02	3.6508E-02
NE++	3.4244E-11	3.4039E-07	8.9507E-06
N	5.1385E-01	3.1463E-01	2.0962E-01
N+	1.9663E-01	2.9202E-01	3.4234E-01
N2	3.3715E-04	2.8632E-04	1.4004E-04

P1 = 1.00E+06 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9010E+03	1.1991E+04	2.0926E+04
T	9.5189E+01	1.4789E+02	1.9208E+02
RHO	8.2991E+00	2.7728E+01	3.3806E+01
M	3.4153E+02	5.8491E+02	7.8234E+02
A	1.4781E+01	2.0676E+01	2.5572E+01
S	2.3191E+00	2.4119E+00	2.5246E+00
Z	2.4631E+00	2.9242F+00	3.2106E+00
GAME	9.2179E-01	9.8849F-01	1.0571E+00
U	3.4090E+01	1.0378E+01	1.1272E+01

SPECIES	MOLE FRACTIONS		
E-	2.1527E-01	3.8455E-01	4.3495E-01
NE	9.9869E-02	3.1296F-02	1.8703E-02
NE+	1.0875E-02	3.7091F-02	4.3489E-02
NE++	2.2701E-09	7.3342E-06	2.2633E-04
N	5.1943E-01	1.9947E-01	1.0271E-01
N+	2.0459E-01	3.4746E-01	3.9501E-01
N2	1.0073E-04	1.0983E-04	3.2491E-05

Table II. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1305E+03	1.3047E+04	2.3063E+04
T	9.9419E+01	1.5709E+02	2.1044E+02
RHO	8.3592E+00	2.7528E+01	3.3245E+01
H	3.7058E+02	6.3443E+02	8.5636E+02
A	1.5365E+01	2.1841E+01	2.7273E+01
S	2.3601E+00	2.4552E+00	2.5716E+00
Z	2.5036E+00	3.0171E+00	3.2905E+00
GAME	9.2393E-01	1.0065E+00	1.0722E+00
U	3.6171E+01	1.0976E+01	1.2145E+01

SPECIES	MOLE FRACTIONS		
E-	2.9799E-01	4.0347E-01	4.5399E-01
HE	6.3982E-02	2.6437E-02	1.5861E-02
HE+	1.9033E-02	3.9833E-02	4.4372E-02
HE++	7.2477E-09	1.8461E-05	6.3051E-04
H	3.3991E-01	1.6656E-01	7.6982E-02
H+	2.8396E-01	3.6360E-01	4.0834E-01
H2	1.3070E-04	7.4707E-05	1.7552E-05

P1 = 1.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6762E+03	1.6137E+04	2.9896E+04
T	1.1274E+02	1.9025E+02	2.7204E+02
RHO	8.4519E+00	2.6005E+01	3.1570E+01
H	4.6474E+02	7.9180E+02	1.0976E+03
A	1.7229E+01	2.5655E+01	3.1467E+01
S	2.4824E+00	2.5786E+00	2.6998E+00
Z	2.8085E+00	3.2615E+00	3.4809E+00
GAME	9.3740E-01	1.0607E+00	1.0523E+00
U	4.0572E+01	1.3178E+01	1.4824E+01

SPECIES	MOLE FRACTIONS		
E-	3.5915E-01	4.4813E-01	4.8290E-01
HE	4.5069E-02	1.6143E-02	8.4662E-03
HE+	2.6143E-02	4.4929E-02	4.1503E-02
HE++	1.4909E-07	2.5219E-04	7.4873E-03
H	2.3657E-01	8.7838E-02	3.3225E-02
H+	3.3301E-01	4.0269E-01	4.2642E-01
H2	5.9551E-05	1.8656E-05	2.9726E-06

P1 = 1.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3064E+03	1.4093E+04	2.5287E+04
T	1.0374E+02	1.6713E+02	2.3007E+02
RHO	6.4034E+00	2.7152E+01	3.2647E+01
M	4.0080E+02	6.8547E+02	9.3381E+02
A	1.5949E+01	2.3069E+01	2.8870E+01
S	2.4012E+00	2.4975E+00	2.6163E+00
Z	2.6452E+00	3.1055E+00	3.3680E+00
GAME	9.2701E-01	1.0754E+00	1.0754E+00
U	3.7646E+01	1.1644E+01	1.3049E+01

SPECIES	MOLE FRACTIONS		
E-	3.1962E-01	4.2043E-01	4.6507E-01
NE	5.7760E-02	2.2365E-02	1.2990E-02
NE+	1.7829E-02	4.1992E-02	4.4718E-02
NE++	2.1298E-08	4.5142E-05	1.6274E-03
N	3.0288E-01	1.3677E-01	5.7316E-02
N+	3.0179E-01	3.7835E-01	4.1764E-01
N2	1.0157E-04	4.8852E-05	9.3722E-06

P1 = 1.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4488E+03	1.5130E+04	2.7591E+04
T	1.0815E+02	1.7816E+02	2.5110E+02
RHO	6.6372E+00	2.6642E+01	3.2061E+01
M	4.3219E+02	7.3797E+02	1.0140E+03
A	1.6572E+01	2.4350E+01	3.0297E+01
S	2.4418E+00	2.5387E+00	2.6595E+00
Z	2.7200E+00	3.1875E+00	3.4296E+00
GAME	9.5137E-01	1.0440E+00	1.0659E+00
U	3.9114E+01	1.2380E+01	1.3971E+01

SPECIES	MOLE FRACTIONS		
E-	3.3991E-01	4.3533E-01	4.7515E-01
NE	5.1451E-02	1.8975E-02	1.0800E-02
NE+	4.1901E-02	4.3662E-02	4.3875E-02
NE++	5.7879E-08	1.0795E-04	3.8445E-03
N	2.8804E-01	1.1045E-01	4.2980E-02
N+	3.4801E-01	3.9145E-01	4.2320E-01
N2	7.8355E-05	3.0736E-05	5.1007E-06

P1 = 1.00E+04 N/SQ-M, US1= 5.80E+04 M/S

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8705E+03	1.7103E+04	3.2183E+04
T	1.1757E+02	2.0341E+02	2.9252E+02
RHO	8.4472E+00	2.5278E+01	3.1194E+01
M	4.9845E+02	6.4685E+02	1.1821E+03
A	1.7924E+01	2.6942E+01	3.2822E+01
S	2.5229E+00	2.6172E+00	2.7376E+00
Z	2.8902E+00	3.3263E+00	3.5271E+00
GAME	9.4543E-01	1.0729E+00	1.0442E+00
U	4.2918E+01	1.4034E+01	1.5617E+01

SPECIES	MOLE FRACTIONS		
E-	3.7726E-01	4.5888E-01	4.8966E-01
NE	3.9922E-02	1.3741E-02	6.5708E-03
NE+	3.0376E-02	4.5814E-02	3.7753E-02
NE++	3.6759E-07	5.7095E-04	1.2381E-02
N	2.0661E-01	6.9067E-02	2.6486E-02
N+	3.4688E-01	4.1192E-01	4.2715E-01
N2	4.4482E-05	1.1025E-05	1.8559E-06

P1 = 1.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0705E+03	1.8520E+04	3.4439E+04
T	1.2272E+02	2.1763E+02	3.1342E+02
RHO	8.4211E+00	2.4480E+01	3.0770E+01
M	5.3330E+02	9.0307E+02	1.2699E+03
A	1.8668E+01	2.8162E+01	3.4200E+01
S	2.5629E+00	2.6555E+00	2.7749E+00
Z	2.9713E+00	3.3824E+00	3.5711E+00
GAME	9.5571E-01	1.0774E+00	1.0450E+00
U	4.3449E+01	1.4934E+01	1.6382E+01

SPECIES	MOLE FRACTIONS		
E-	3.9423E-01	4.6785E-01	4.9595E-01
NE	3.2874E-02	1.1654E-02	4.8663E-03
NE+	3.4436E-02	4.6112E-02	3.2949E-02
NE++	8.7840E-07	1.2427E-03	1.8130E-02
N	1.7962E-01	5.3991E-02	2.1415E-02
N+	3.5980E-01	4.1913E-01	4.2662E-01
N2	3.2493E-05	6.3969E-06	1.1940E-06

Table II. - Continued

p_1 = 10 kN/m^2

P1 = 1.00E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2759E+03	1.8906E+04	3.6648E+04
T	1.2927E+02	2.3229E+02	3.3499E+02
RHO	8.3712E+00	2.3735E+01	3.0288E+01
H	5.6928E+02	9.6074E+02	1.3582E+03
A	1.9468E+01	2.9234E+01	3.5723E+01
S	2.6026E+00	2.6935E+00	2.8110E+00
Z	3.0510E+00	3.4292E+00	3.6119E+00
GAMF	9.6847E-01	1.0729E+00	1.0547E+00
U	4.4961E+01	1.5916E+01	1.7154E+01

SPECIES	MOLE FRACTIONS		
E-	4.1004E-01	4.7510E-01	5.0165E-01
HE	2.7375E-02	9.8657E-03	3.4330E-03
HE+	3.8176E-02	4.5965E-02	2.7719E-02
HE++	2.0587E-06	2.4919E-03	2.4220E-02
H	1.5252E-01	4.2424E-02	1.7480E-02
H+	3.7196E-01	4.2415E-01	4.2549E-01
H2	2.3082E-05	3.7894E-06	7.9303E-07

P1 = 1.00E+04 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9203E+03	2.1325E+04	4.2902E+04
T	1.4859E+02	2.7744E+02	4.1150E+02
RHO	8.0659E+00	2.1692E+01	2.8052E+01
H	6.8383E+02	1.1426E+03	1.6461E+03
A	2.2281E+01	3.1980E+01	4.1196E+01
S	2.7173E+00	2.7929E+00	2.9165E+00
Z	3.2741E+00	3.5434E+00	3.7079E+00
GAME	1.0215E+00	1.0403E+00	1.1123E+00
U	4.8950E+01	1.8185E+01	1.9776E+01

SPECIES	MOLE FRACTIONS		
E-	4.4972E-01	4.9202E-01	5.1456E-01
HE	1.4564E-02	5.4438E-03	9.5467E-04
HE+	4.6553E-02	3.9218E-02	1.3823E-02
HE++	2.6043E-05	1.1791E-02	3.9260E-02
H	8.6007E 02	2.2294E-02	9.2938E-03
H+	4.0312E 01	4.2924E-01	4.2221E-01
H2	6.6175E-06	9.3101E-07	2.0638E-07

P1 = 1.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4863E+03	1.9746E+04	3.8784E+04
T	1.3435E+02	2.4736E+02	3.5826E+02
RHO	9.2944E+00	2.3002E+01	2.9665E+01
M	6.0639E+02	1.0198E+03	1.4505E+03
A	2.0335E+01	3.0199E+01	3.7427E+01
S	2.6417E+00	2.7255E+00	2.8468E+00
Z	3.1285E+00	3.4704E+00	3.6493E+00
GAME	9.8384E-01	1.0617E+00	1.0714E+00
U	4.6251E+01	1.6673E+01	1.7960E+01

SPECIES	MOLE FRACTIONS		
E-	4.2466E-01	4.8134E-01	5.0676E-01
HE	2.2433E-02	9.2432E-03	2.2787E-03
HE+	4.1491E-02	4.4779E-02	2.2499E-02
HE++	4.7929E-06	4.6096E-03	3.0027E-02
H	1.2823E-01	3.3689E-02	1.4232E-02
H+	3.9316E-01	4.2734E-01	4.2420E-01
H2	1.5834E-05	2.2885E-06	5.0907E-07

P1 = 1.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7012E+03	2.0538E+04	4.0821E+04
T	1.4110E+02	2.6263E+02	3.8307E+02
RHO	8.1906E+00	2.2299E+01	2.9950E+01
M	6.4456E+02	1.0602E+03	1.5460E+03
A	2.1276E+01	3.1090E+01	3.9230E+01
S	2.6802E+00	2.7603E+00	2.8811E+00
Z	3.2026E+00	3.5086E+00	3.6809E+00
GAME	1.0017E+00	1.0490E+00	1.0914E+00
U	4.7614E+01	1.7485E+01	1.9811E+01

SPECIES	MOLE FRACTIONS		
E-	4.3797E-01	4.8697E-01	5.1099E-01
HE	1.8141E-02	6.7487E-03	1.4457E-03
HE+	4.4298E-02	4.2475E-02	1.7877E-02
HE++	1.1170E-05	7.7797E-03	3.5012E-02
H	1.0593E-01	2.7088E-02	1.1593E-02
H+	3.9365E-01	4.2994E-01	4.2309E-01
H2	1.0438E-05	1.4209E-06	3.3036E-07

P1 = 1.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1423E+03	2.1997E+04	4.4540E+04
T	1.5718E+02	2.9211E+02	4.4164E+02
RHO	7.9029E+00	2.1051E+01	2.7049E+01
M	7.2413E+02	1.2058E+03	1.7481E+03
A	2.3377E+01	3.2927E+01	4.3121E+01
S	2.7544E+00	2.9255E+00	2.9504E+00
Z	3.3346E+00	3.5772E+00	3.7285E+00
GAME	1.0427E+00	1.0376E+00	1.1292E+00
U	5.0245E+01	1.8865E+01	2.0755E+01

SPECIES	MOLE FRACTIONS		
E-	4.6021E-01	4.9681E-01	5.1724E-01
HE	1.1578E-02	4.2693E-03	4.9569E-04
HE+	4.8337E-02	3.5202E-02	1.0718E-02
HE++	6.2452E-05	1.6438E-02	4.2427E-02
H	6.8066E-02	1.8546E-02	7.4595E-03
H+	4.1175E-01	4.2873E-01	4.2166E-01
H2	3.9569E-06	6.2302E-07	1.2869E-07

Table II. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5072E+01
T	3.1753E+00	3.9838E+00	5.7061E+00
RHO	3.9601E+00	6.6039E+00	1.1403E+01
H	3.2467E+00	4.1057E+00	6.0157E+00
A	1.7739E+00	1.9770E+00	2.3402E+00
S	1.0746E+00	1.0762E+00	1.0975E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9106E-01	9.9109E-01	9.3975E-01
U	2.4570E+00	1.4729E+00	1.3084E+00

SPECIES	MOLE FRACTIONS		
E-	4.4172E-54	2.4784E-41	1.5328E-25
HE	2.0000E-01	2.0000E-01	2.0000E-01
HE+	1.5934E-63	3.2031E-56	6.4949E-47
HE++	0.	0.	0.
H	8.7152E-11	2.8032E-09	2.0659E-05
H+	7.2402E-20	7.2402E-20	7.2401E-20
H2	8.0000E-01	8.0000E-01	7.9999E-01

P1 = 2.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9449E+01	1.3855E+02	2.6303E+02
T	7.4537E+00	1.0366E+01	1.2615E+01
RHO	5.2897E+00	1.3243E+01	2.0185E+01
H	8.0863E+00	1.2150E+01	1.6356E+01
A	2.6418E+00	3.6437E+00	3.3521E+00
S	1.1933E+00	1.1955E+00	1.2254E+00
Z	1.0005E+00	1.0093E+00	1.0330E+00
GAME	9.3579E-01	9.9549E-01	8.6232E-01
U	4.6649E+00	1.8623E+00	1.6582E+00

SPECIES	MOLE FRACTIONS		
E-	2.4957E-17	1.5812E-12	2.6080E-10
HE	1.9999E-01	1.9816E-01	1.9361E-01
HE+	7.7025E-41	2.0027E-29	2.4997E-23
HE++	0.	0.	1.3265E-82
H	1.0971E-03	1.9424E-02	6.3879E-02
H+	2.5029E-17	1.5912E-12	2.6080E-10
H2	7.9901E-01	7.9342E-01	7.4251E-01

P1 = 2.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2085E+01	1.1595E+02
T	4.4065E+00	5.9050E+00	8.1365E+00
RHO	4.4957E+00	8.8188E+00	1.4238E+01
M	4.5641E+00	6.2436E+00	8.9259E+00
A	2.0733E+00	2.3778E+00	2.7508E+00
S	1.1121E+00	1.1172E+00	1.1421E+00
Z	1.0000E+00	1.0000E+00	1.0009E+00
GAME	9.7553E-01	9.5743E-01	9.2918E-01
U	3.1952E+00	1.6273E+00	1.4753E+00

SPECIES	MOLE FRACTIONS		
E-	1.0230E-37	1.1409E-23	1.6655E-16
HE	2.0000E-01	2.0000E-01	1.9982E-01
HE+	2.0964E-54	5.7618E-46	2.6527E-34
HE++	0.	0.	0.
H	3.5877E-07	4.0383E-05	1.7856E-03
H+	7.2402E-20	7.2412E-20	1.6662E-16
H2	8.0000E-01	7.9996E-01	7.9839E-01

P1 = 2.00E+04 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2045E+01	2.0777E+02	3.6746E+02
T	9.1011E+00	1.2394E+01	1.4471E+01
RHO	5.6937E+00	1.6251E+01	2.3704E+01
M	1.0303E+01	1.6026E+01	2.0953E+01
A	2.8687E+00	3.3175E+00	3.6449E+00
S	1.2165E+00	1.2343E+00	1.2675E+00
Z	1.0044E+00	1.0324E+00	1.0713E+00
GAME	9.3022E-01	8.6982E-01	8.5709E-01
U	5.4194E+00	1.8976E+00	1.7142E+00

SPECIES	MOLE FRACTIONS		
E-	4.9712E-14	1.9517E-10	5.4171E-09
HE	1.9912E-01	1.9373E-01	1.8669E-01
HE+	1.0530E-31	1.2395E-23	2.0047E-20
HE++	0.	1.5266E-86	7.4360E-73
H	8.7977E-03	6.2714E-02	1.3309E-01
H+	4.9712E-14	1.9517E-10	5.4171E-09
H2	7.9208E-01	7.4356E-01	6.9023E-01

P1 = 2.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8752E+01	9.9369E+01	1.9160E+02
T	5.8459E+00	8.1137E+00	1.0545E+01
RHO	4.9183E+00	1.0891E+01	1.7060E+01
M	6.1761E+00	8.9040E+00	1.2383E+01
A	2.3664E+00	2.7453E+00	3.0715E+00
S	1.1486E+00	1.1569E+00	1.1842E+00
Z	1.0003E+00	1.0010E+00	1.0094E+00
GAME	9.5791E-01	9.2798E-01	8.8625E-01
U	3.9283E+00	1.7748E+00	1.5927E+00

SPECIES	MOLE FRACTIONS		
E-	4.6703E-23	3.7197E-16	2.2991E-12
HE	2.0000E-01	1.9980E-01	1.9813E-01
HE+	6.4818E-47	5.4463E-35	9.0686E-28
HE++	0.	0.	0.
H	4.4465E-05	1.9862E-03	1.8719E-02
H+	7.2354E-20	3.7204E-16	2.2991E-12
H2	7.9996E-01	7.9821E-01	7.8315E-01

P1 = 2.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6727E+01	3.0177E+02	5.0684E+02
T	1.0594E+01	1.4212E+01	1.6288E+01
RHO	6.1979E+00	1.9844E+01	2.7712E+01
M	1.2832E+01	2.0545E+01	2.6301E+01
A	3.0572E+00	3.6061E+00	3.9695E+00
S	1.2491E+00	1.2742E+00	1.3113E+00
Z	1.0162E+00	1.0700E+00	1.1229E+00
GAME	8.6815E-01	8.5511E-01	8.6155E-01
U	6.2024E+00	1.9354E+00	1.7874E+00

SPECIES	MOLE FRACTIONS		
E-	5.6773E-12	4.1594E-09	5.1950E-08
HE	1.9681E-01	1.8692E-01	1.7811E-01
HE+	2.0390E-27	9.9507E-21	3.3364E-18
HE++	0.	3.9207E-75	2.8231E-66
H	3.1938E-02	1.3092E-01	2.1988E-01
H+	5.6773E-12	4.1894E-09	5.1850E-08
H2	7.7129E-01	6.9226E-01	6.6300E-01

Table II. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.0CE+C4 N/SQ-M, US1= 1.00E+04 M/SEC

	POVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3475E+01	4.2364E+02	6.R772E+02
T	1.1885E+01	1.5959E+01	1.R157E+01
RHO	6.7715E+00	2.3711E+01	3.1924E+01
H	1.5671E+01	2.5681E+01	3.2438E+01
A	3.2398E+00	3.9179E+00	4.3346E+00
S	1.2821E+00	1.3153E+00	1.3562E+00
Z	1.C373E+0J	1.1196E+00	1.1964E+00
GAME	8.5147E-01	8.5912E-01	8.7215E-01
U	7.0046E+00	1.9996E+00	1.9865E+00

SPECIES	MOLE FRACTIONS		
E-	1.2363E-10	3.9176E-08	3.1939E-07
HE	1.9292E-01	1.7964E-01	1.6957E-01
HE+	1.6371E-24	1.4822E-18	2.0297E-16
HE++	2.7130E-90	2.3791E-67	1.9569E-59
H	7.1840E-02	2.1359E-01	3.1429E-01
H+	1.2863E-10	3.9176E-08	3.1939E-07
H2	7.3534E-01	6.0777E-01	5.1713E-01

P1 = 2.CCE+C4 N/SQ-M, US1= 1.30E+04 M/SEC

	POVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4506E+02	9.4446E+02	1.4937E+03
T	1.5C84E+01	2.1329E+01	2.4783E+01
RHO	8.4031E+00	3.3540E+01	4.1715E+01
H	2.5987E+01	4.4627E+01	5.5791E+01
A	3.8259E+00	5.0297E+00	5.7554E+00
S	1.3872E+00	1.4449E+00	1.4987E+00
Z	1.1444E+00	1.3202E+00	1.4322E+00
GAME	8.4795E-01	8.9837E-01	9.3320E-01
U	9.4113E+00	2.3570E+00	2.3752E+00

SPECIES	MOLE FRACTIONS		
E-	2.6190E-38	3.5291E-06	2.0948E-05
HE	1.7476E-01	1.5149E-01	1.3964E-01
HE+	1.7188E-19	4.3369E-14	3.1021E-12
HE++	1.8364E-70	1.1953E-50	9.9994E-44
H	2.5243E-01	4.8509E-01	6.0353E-01
H+	2.6190E-38	3.5291E-06	2.0948E-05
H2	5.7281E-01	3.6341E-01	2.5679E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.021eE+02	5.7299E+02	9.1047E+02
T	1.3027E+01	1.7692E+01	2.0136F+01
RHO	7.3535E+00	2.7471E+01	3.5878E+01
H	1.8812E+01	3.1391E+01	3.9341E+01
A	3.427UE+00	4.2562F+00	4.7456E+00
S	1.3161E+00	1.3577E+00	1.4028E+00
Z	1.0664E+00	1.1789E+00	1.2603E+00
GAME	8.4536E-01	8.6851E-01	8.8743E-01
U	7.8102E+00	2.0892E+00	2.0117F+00

SPECIES	MOLE FRACTIONS		
E-	1.1786E-09	2.2900F-07	1.4921E-06
HE	1.8755E-01	1.6965E-01	1.5870E-01
HE+	1.8324E-22	8.1474E-17	6.8693E-15
HE++	6.4690E-81	6.7075E-61	1.1676E-53
H	1.2455E-01	3.0353F-C1	4.1303E-01
H+	1.1786E-09	2.2800E-C7	1.4921E-06
H2	6.8791E-01	5.2685E-C1	4.2827E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.227JE+02	7.4756E+02	1.1751E+03
T	1.4C91E+01	1.9465E+01	2.2307E+01
RHO	7.9048E+00	3.0815E+01	3.9227E+01
H	2.2251E+01	3.7647E+01	4.7047E+01
A	3.6217E+00	4.6249E+00	5.2139E+00
S	1.3512E+00	1.4010F+00	1.4504E+00
Z	1.1024E+00	1.2463E+00	1.3430E+00
GAME	8.4499E-01	9.9171E-01	9.0745E-01
U	8.6135E+00	2.2090E+00	2.1734E+00

SPECIES	MOLE FRACTIONS		
E-	6.51C7E-09	9.8536F-07	5.9747E-06
HE	1.8142E-01	1.6047E-01	1.4892E-01
HE+	7.87C5E-21	2.27C4E-15	1.6160E-13
HE++	2.9240E-75	1.6958E-55	1.5529E-48
H	1.8583E-01	3.9528E-01	5.1073E-01
H+	6.5107E-09	9.8536E-C7	5.9747E-06
H2	6.3276E-01	4.4425E-01	3.4033E-C1

P1 = 2.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6918E+02	1.1586E+03	1.8261E+03
T	1.6065E+01	2.3344F+01	2.7757E+01
RHO	8.8357E+00	3.5487E+01	4.3158E+01
H	3.0019F+01	5.1702F+01	6.5035E+01
A	4.0417E+00	5.4771E+00	6.3950E+00
S	1.4243E+00	1.4997E+00	1.5471E+00
Z	1.1918E+00	1.3986E+00	1.5243E+00
GAME	8.5316E-01	9.1893E-01	9.6654E-01
U	1.02C2E+01	2.5420E+00	2.6252E+00

SPECIES	MOLE FRACTIONS		
E-	8.5575E-08	1.1141E-05	7.1871E-05
HE	1.6781E-01	1.4300E-01	1.3120E-01
HE+	2.4329E-18	6.1971E-13	5.5645E-11
HE++	6.9652E-67	2.7274E-46	4.2903E-39
H	3.2189E-01	5.6999E-01	6.8775E-01
H+	8.5575E-08	1.1141E-05	7.1871E-05
H2	5.1030E-01	2.8699E-01	1.8091E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9504E+02	1.3864E+03	2.2128E+03
T	1.7048E+01	2.5600E+01	3.1581E+01
RHO	9.1963E+00	3.6614F+01	4.3431E+01
H	3.4346E+01	5.9467E+01	7.5557E+01
A	4.2711E+00	5.9788E+00	7.1706E+00
S	1.4622E+00	1.5322E+00	1.5951E+00
Z	1.2440E+00	1.4791E+00	1.6133E+00
GAME	9.6016E-01	9.4401E-01	1.0090E+00
U	1.0986E+01	2.7572E+00	2.9508E+00

SPECIES	MOLE FRACTIONS		
E-	2.4250E-07	3.2720E-05	2.5247E-04
HE	1.6077E-01	1.3522E-01	1.2397E-01
HE+	2.5400E-17	7.6103E-12	1.0829E-09
HE++	4.5796E-63	3.2700E-42	3.1951E-34
H	3.9232E-01	6.4774E-01	7.5951E-01
H+	2.4250E-07	3.2720E-05	2.5247E-04
H2	4.4601E-01	2.1698E-01	1.1631E-01

Table II. - Continued

p_1 = 20 kN/m^2

P1 = 2.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2257E+02	1.6179E+03	2.6395E+03
T	1.8353E+01	2.9209E+01	3.6732E+01
RHO	9.7794E+00	3.6819E+01	4.2563E+01
H	3.8967E+01	6.7656E+01	9.7288E+01
A	4.5166E+00	6.5453E+00	8.0799E+00
S	1.5007E+00	1.5747E+00	1.6417E+00
Z	1.3005E+00	1.5578E+00	1.6883E+00
GAME	8.6886E-01	9.7492E-01	1.0527E+00
U	1.1761E+01	3.0266E+00	3.3681E+00

SPECIES	MOLE FRACTIONS		
E-	6.2214E-07	9.2443E-05	9.2274E-04
HE	1.5379E-01	1.2839E-01	1.1946E-01
HE+	2.1411E-16	8.6299E-11	2.3611E-08
HE++	1.5376E-59	2.5107E-39	2.6915E-29
H	4.6217E-01	7.1585E-01	8.1261E-01
H+	6.2214E-07	9.2443E-05	9.2272E-04
H2	3.8405E-01	1.5558E-01	6.7082E-02

P1 = 2.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1479E+02	2.2583E+03	4.0349E+03
T	2.1479E+01	3.9707E+01	5.7726E+01
RHO	9.8425E+00	3.2931E+01	3.8724E+01
H	5.4582E+01	9.4358E+01	1.2906E+02
A	5.3905E+00	8.5702E+00	1.0321E+01
S	1.6181E+00	1.6906E+00	1.7599E+00
Z	1.4891E+00	1.7321E+00	1.9050E+00
GAME	9.0852E-01	1.0694E+00	1.0223E+00
U	1.4026E+01	4.2033E+00	4.7791E+00

SPECIES	MOLE FRACTIONS		
E-	7.8117E-06	1.9063E-03	1.7801E-02
HE	1.3431E-01	1.1547E-01	1.1077E-01
HE+	7.1878E-14	1.1066E-07	2.8443E-05
HE++	4.3756E-50	6.2955E-27	3.9224E-18
H	6.5684E-01	8.3963E-01	8.3862E-01
H+	7.9117E-06	1.9359E-03	1.7773E-02
H2	2.0883E-01	4.1095E-02	1.5003E-02

P1 = 2.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5175E+02	1.8463E+03	3.1037E+03
T	1.91C5E+01	3.1337E+01	4.3[illegible]9E+01
RHO	9.6834E+00	3.6156E+01	4.1052E+01
H	4.3981E+01	7.6239E+01	1.0024E+02
A	4.7816E+00	7.1867E+00	8.9877E+00
S	1.5397E+00	1.6156E+00	1.6954E+00
Z	1.3608E+00	1.6296E+00	1.74 9E+00
GAME	8.7944E-01	1.0114E+00	1.0695E+00
U	1.2527E+01	3.3533E+00	3.8637E+00

SPECIES	MOLE FRACTIONS		
E-	1.4933E-06	2.5870E-04	3.1918E-03
HE	1.4698E-01	1.2273E-01	1.1489E-01
HE+	1.5753E-15	9.7254E-10	4.5484E-07
HE++	2.7996E-56	1.9547E-34	1.2755E-24
H	5.3023E-01	7.7191E-01	8.4159E-01
H+	1.4933E-06	2.5970E-04	3.1913E-03
H2	3.2279E-01	1.0484E-01	3.7158E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4847E+02	2.4343E+03	4.4614E+03
T	2.29C3E+01	4.4759E+01	6.4054E+01
RHO	9.7877E+00	3.0863E+01	3.7968E+01
H	6.03e4E+01	1.0387E+02	1.4229E+02
A	5.7521E+00	9.1701E+00	1.0842E+01
S	1.6569E+00	1.7243E+00	1.7922E+00
Z	1.5545E+00	1.7622E+00	1.8345E+00
GAME	9.2932E-01	1.0661E+00	1.0304E+00
U	1.4755E+01	4.6763E+00	5.1192E+00

SPECIES	MOLE FRACTIONS		
E-	1.7880E-05	4.5170E-03	2.9863E-02
HE	1.2866E-01	1.1349E-01	1.0892E-01
HE+	4.9950E-13	9.5257E-07	9.9544E-05
HE++	4.9563E-47	1.0264E-23	3.4257E-16
H	7.1336E-01	8.5153E-01	8.2029E-01
H+	1.7990E-05	4.5161E-03	2.9763E-02
H2	1.5795E-01	2.5945E-02	1.1365E-02

P1 = 2.00E+04 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8251E+02	2.0616E+03	3.5745E+03
T	2.1233E+01	3.5157E+01	5.0732E+01
RHO	9.8057E+00	3.4724E+01	3.9701E+01
H	4.9C97E+01	9.5151E+01	1.1399E+02
A	5.G7C5E+00	7.8872E+00	9.7245E+00
S	1.5789E+00	1.6543E+00	1.7246E+00
Z	1.4246E+00	1.6888E+00	1.7758E+00
GAME	9.9237E-01	1.0479E+00	1.0503E+00
U	1.3283E+01	3.7501E+00	4.3564E+00

SPECIES	MOLE FRACTIONS		
E-	3.4416E-06	7.1879E-04	8.6268E-03
HE	1.4049E-01	1.1843E-01	1.1262E-01
HE+	1.0695E-14	1.7903E-09	4.9725E-06
HE++	1.9568E-53	1.4345E-30	7.2067E-21
H	5.9545E-01	8.1355E-01	9.4785E-01
H+	3.4416E-06	7.1878E-04	8.6218E-03
H2	2.6409E-01	6.6590E-02	2.2273E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8339E+02	2.5895E+03	4.8388E+03
T	2.46C2E+01	4.9973E+01	6.9762E+01
RHO	9.6324E+00	2.9019E+01	3.7172E+01
H	6.6427E+01	1.1370E+02	1.5670E+02
A	6.1718E+00	9.6596E+00	1.1323E+01
S	1.6949E+00	1.7564E+00	1.7230E+00
Z	1.6179E+00	1.7857E+00	1.8660E+00
GAME	9.5699E-01	1.0456E+00	9.9499E-01
U	1.5465E+01	5.1295E+00	5.4081E+00

SPECIES	MOLE FRACTIONS		
E-	4.2451E-05	9.2549E-03	4.3967E-02
HE	1.2362E-01	1.1203E-01	1.0693E-01
HE+	3.8746E-12	4.6667E-06	2.5516E-04
HE++	1.3011E-43	4.5790E-21	1.0008E-14
H	7.6367E-01	9.5221E-01	7.9654F-01
H+	4.2451E-05	9.2501E-03	4.3712E-02
H2	1.1263E-01	1.7295E-02	8.5979E-03

Table II. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1931E+02	2.7275E+03	5.1429E+03
T	2.6719E+01	5.4899E+01	7.4970E+01
RHO	9.3669E+00	2.7497E+01	3.6163E+01
H	7.2767E+01	1.2397E+02	1.7118E+02
A	6.6699E+00	1.0369E+01	1.1773E+01
S	1.7317E+00	1.7862E+00	1.9533E+00
Z	1.6734E+00	1.8069E+00	1.8996E+00
GAME	9.9395E-01	1.0221E+00	9.7418E-01
U	1.6146E+01	5.4792E+00	5.6449E+00

SPECIES	MOLE FRACTIONS		
E-	1.0736E-04	1.8156E-02	5.9247E-02
HE	1.1937E-01	1.1067E-01	1.0477E-01
HE+	3.5561E-11	1.7495E-05	5.2734E-04
HE++	4.7643E-40	5.1693E-19	1.3511E-13
H	8.0595E-01	9.4463E-01	7.6995E-01
H+	1.0736E-04	1.6138E-02	5.8720E-02
H2	7.4466E-32	1.2390E-02	6.9999E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3130E+02	3.0021E+03	5.7783E+03
T	3.6803E+01	6.8012E+01	8.7318E+01
RHO	8.1252E+00	2.3463E+01	3.1931E+01
H	9.3316E+01	1.5677E+02	2.1456E+02
A	8.4024E+00	1.1160E+01	1.2941E+01
S	1.8299E+00	1.8736E+00	1.9409E+00
Z	1.7768E+00	1.8813E+00	2.0079E+00
GAME	1.0797E+00	9.7337E-01	9.5516E-01
U	1.8015E+01	6.2354E+00	6.1423E+00

SPECIES	MOLE FRACTIONS		
E-	2.1601E-03	4.8993E-02	1.0739E-01
HE	1.1256E-01	1.0607E-01	9.7392E-02
HE+	5.0293E-08	2.4245E-04	2.2149E-03
HE++	1.3668E-28	5.9575E-15	2.3233E-11
H	8.6787E-01	7.9046E-01	6.8397E-01
H+	2.1600E-03	4.8651E-02	1.0518E-01
H2	1.5245E-02	5.6899E-03	3.9552E-03

P1 = 2.C5E+C4 N/SQ-M, US1= 2.30E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.559?E+02	2.8345E+03	5.3571E+03
T	2.9434E+01	5.7629E+01	7.9434E+01
RHO	8.9935E+03	2.5990E+01	3.4867E+01
H	7.9358E+01	1.3454E+02	1.8563E+02
A	7.2525E+03	1.0452E+01	1.2185E+01
S	1.7666E+00	1.8162E+00	1.8827E+00
Z	1.7224E+00	1.8297E+00	1.9345E+00
GAPE	1.3375E+00	1.0012E+00	9.6622E-01
U	1.6779E+01	5.9124E+00	5.8403E+00

SPECIES	MOLE FRACTIONS		
E-	2.9232E-04	2.5444E-02	7.5125E-02
HE	1.1611E-01	1.0926E-01	1.0245E-01
HE+	3.9653E-13	5.1262E-05	9.3742E-04
HE++	3.2839E-36	2.3826E-17	1.0598E-12
H	8.3798E-01	9.3065E-01	7.4168E-01
H+	2.9232E-04	2.5392E-02	7.4188E-02
H2	4.5321E-02	9.2107E-03	5.8154E-03

P1 = 2.0GE+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.7102E+02	3.1084E+03	5.7436E+03
T	4.0954E+01	7.1853E+01	9.1042E+01
RHO	7.7823E+03	2.2631E+01	3.0924E+01
H	1.0071E+02	1.6862E+02	2.2976E+02
A	8.821CE+00	1.1511E+01	1.3313E+01
S	1.8561E+00	1.9307E+00	1.9690E+00
Z	1.7916E+00	1.9104E+00	2.0469E+00
GAPE	1.0605E+00	9.6468E-01	9.5118E-01
U	1.8620E+01	6.3998E+00	6.2919E+00

SPECIES	MOLE FRACTIONS		
E-	4.8993E-03	6.2470E-02	1.2381E-01
HE	1.1163E-01	1.0425E-01	9.4580E-02
HE+	3.66A0E-07	4.3992E-04	3.1359E-03
HE++	1.7581E-25	4.9886E-14	8.2683E-11
H	8.6SC0E-01	7.6615E-01	6.5455E-01
H+	4.8979E-03	6.2030E-02	1.2067E-01
H2	9.5710E-03	4.6576E-03	3.2504E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.932?E+02	2.9201E+03	5.4924E+03
T	3.2847E+01	6.3967E+01	8.3534E+01
RHO	8.5527E+03	2.4617E+01	3.3364E+01
H	8.6207E+01	1.4547E+02	2.0004E+02
A	7.8656E+03	1.0811E+01	1.2572E+01
S	1.7991E+00	1.8453E+00	1.9121E+00
Z	1.7556E+00	1.8544E+00	1.9707E+00
GAME	1.0727E+00	9.8523E-01	9.6006E-01
U	1.7418E+01	6.0482E+00	6.3027E+00

SPECIES	MOLE FRACTIONS		
E-	8.2164E-04	3.6465E-02	9.1238E-02
HE	1.1392E-01	1.0773E-01	9.9991E-02
HE+	4.9296E-09	1.2033E-04	1.4961E-03
HE++	2.8257E-32	4.9402E-16	5.6556E-12
H	8.5933E-01	8.1221E-01	7.1291E-01
H+	8.2163E-04	3.6345E-02	8.9742E-02
H2	2.6168E-02	7.1326E-03	4.6265E-03

P1 = 2.C0E+C4 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.1261E+02	3.2431E+03	5.9347E+03
T	4.5105E+01	7.5665E+01	9.4710E+01
RHO	7.5222E+03	2.2073E+01	3.0029E+01
H	1.0840E+02	1.8107E+02	2.4553E+02
A	9.1625E+03	1.1866E+01	1.3688E+01
S	1.8821E+00	1.9268E+00	1.9961E+00
Z	1.8056E+00	1.9419E+00	2.0967E+00
GAPE	1.0308E+00	9.5830E-01	9.4796E-01
U	1.9239E+01	6.5533E+00	6.4265E+00

SPECIES	MOLE FRACTIONS		
E-	9.5759E-03	7.6916E-02	1.4018E-01
HE	1.1977E-01	1.0226E-01	9.1571E-02
HE+	1.8717E-06	7.3745E-04	4.2673E-03
HE++	6.1654E-23	3.1832E-13	2.6004E-10
H	8.6359E-01	7.4602E-01	6.2530E-01
H+	9.5740E-03	7.6179E-02	1.3591E-01
H2	6.4992E-03	3.9919E-03	2.7744E-03

Table II. - Continued

p_1 = 20 kN/m^2

P1 = 2.00E+04 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.5671E+02	3.4256E+03	6.2191E+03
T	4.892CE+01	7.9424E+01	9.8517E+01
RHO	7.3744E+00	2.1835E+01	2.9659E+01
H	1.1642E+02	1.9427E+02	2.6240E+02
A	9.4560E+00	1.2231E+01	1.4079E+01
S	1.9057E+00	1.9517E+00	2.0223E+00
Z	1.82C4E+00	1.9753E+00	2.1284E+00
GAPE	1.0041E+00	9.5361E-01	9.4536E-01
U	1.9889E+01	6.7143E+00	6.5777E+00

SPECIES	MOLE FRACTIONS		
E-	1.5597E-02	9.2040E-02	1.5670E-01
HE	1.0986E-01	1.0009E-01	8.8302E-02
HE+	6.5726E-06	1.1669E-03	5.6634E-03
HE++	5.6278E-21	1.6777E-12	7.6720E-10
H	8.5335E-01	7.1252E-01	5.9589E-01
H+	1.5991E-02	9.0873E-02	1.5104E-01
H2	4.7967E-03	3.3151E-03	2.3972E-03

P1 = 2.CCE+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5502E+02	4.4504E+03	7.9910E+03
T	6.2046E+01	9.4196E+01	1.1440E+02
RHO	7.2432E+00	2.2231E+01	2.9898E+01
H	1.5165E+02	2.5366E+02	3.3869E+02
A	1.0574E+01	1.3743E+01	1.5765E+01
S	1.9932E+00	2.0459E+00	2.1230E+00
Z	1.9025E+00	2.1252E+00	2.3070E+00
GAPE	9.4715E-01	9.43C9E-01	9.4167E-01
U	2.2666E+01	7.38[6E+00	7.242[E+00

SPECIES	MOLE FRACTIONS		
E-	5.6023E-02	1.5496E-01	2.2120E-01
HE	1.0497E-01	8.9413E-02	7.3144E-02
HE+	1.5243E-04	4.6993E-03	1.3547E-02
HE++	4.6573E-16	3.0178E-10	2.4905E-08
H	7.9084E-01	5.9873E-01	4.8304E-01
H+	5.5871E-02	1.5226E-01	2.3765E-01
H2	2.1392E-03	1.9335E-03	1.4191E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.0302E+02	3.6392E+03	6.5600E+03
T	5.2522E+01	8.3146E+01	1.0238E+02
RHO	7.2841E+00	2.1769E+01	2.9507E+01
H	1.2475E+02	2.0814E+02	2.8015E+02
A	9.7387E+00	1.2602E+01	1.4482E+01
S	1.9286E+00	1.9760E+00	2.0480E+00
Z	1.8376E+00	2.0106E+00	2.1715E+00
GAME	9.8267E-01	9.5005E-01	9.4336E-01
U	2.0559E+01	6.8766E+00	6.7346E+00

SPECIES	MOLE FRACTIONS		
E-	2.4185E-02	1.0759E-01	1.7315E-01
HE	1.3882E-01	9.7720E-02	8.4794E-02
HE+	1.8227E-05	1.7546E-03	7.3098E-03
HE++	2.2029E-19	7.4613E-12	2.0951E-09
H	8.3908E-01	6.8425E-01	5.6681E-01
H+	2.4166E-02	1.0583E-01	1.6594E-01
H2	3.7312E-03	2.8600E-03	2.0873E-03

P1 = 2.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6646E+02	5.1062E+03	8.9795E+03
T	6.7652E+01	1.0149E+02	1.2280E+02
RHO	7.3075E+00	2.2797E+01	3.0446E+01
H	1.7113E+02	2.8706E+02	3.9190E+02
A	1.1132E+01	1.4513E+01	1.6697E+01
S	2.0346E+00	2.0913E+00	2.1722E+00
Z	1.9549E+00	2.2069E+00	2.4018E+00
GAME	9.3706E-01	9.4040E-01	9.4523E-01
U	2.4116E+01	7.7230E+00	7.6152E+00

SPECIES	MOLE FRACTIONS		
E-	8.0862E-02	1.8589E-01	2.5167E-01
HE	1.0190E-01	9.2999E-02	6.4942E-02
HE+	4.0082E-04	7.7367E-03	1.8329E-02
HE++	1.5496E-14	2.1693E-09	1.2694E-07
H	7.3476E-01	5.4380E-01	4.3062E-01
H+	9.0461E-02	1.7816E-01	2.3334E-01
H2	1.6096E-03	1.5265E-03	1.1030E-03

P1 = 2.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0855E+03	5.8323E+03	1.0202E+04
T	7.2894E+01	1.0876E+02	1.3163E+02
RHO	7.3585E+00	2.3404E+01	3.1004E+01
H	1.9182E+02	3.2270E+02	4.2844E+02
A	1.1693E+01	1.5301E+01	1.7711E+01
S	2.0751E+00	2.1361E+00	2.2211E+00
Z	2.0129E+00	2.2912E+00	2.4994E+00
GAME	9.3197E-01	9.3954E-01	9.5323E-01
U	2.6595E+01	8.0940E+00	8.0765E+00

SPECIES	MOLE FRACTIONS		
E-	1.0702E-01	2.1560E-01	2.8079E-01
HE	9.8498E-02	7.5764E-02	5.6912E-02
HE+	9.6131E-04	1.1525E-02	2.3094E-02
HE++	2.5235E-13	1.1595E-08	4.7401E-07
H	6.8621E-01	4.9142E-01	3.8065E-01
H+	1.0616E-01	2.0407E-01	2.5770E-01
H2	1.2516E-03	1.2155E-03	9.5024E-04

P1 = 2.00E+04 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5155E+02	3.9934E+03	6.9969E+03
T	5.5887E+01	8.6847E+01	1.0632E+02
RHO	7.2412E+00	2.1940E+01	2.9533E+01
H	1.3341E+02	2.2267E+02	2.9880E+02
A	1.0017E+01	1.2979E+01	1.4996E+01
S	1.9506E+00	1.9997E+00	2.0733E+00
Z	1.8571E+00	2.0475E+00	2.2157E+00
GAME	9.6682E-01	9.4725E-01	9.4201E-01
U	2.1248E+01	7.0425E+00	6.8979E+00

SPECIES	MOLE FRACTIONS		
E-	3.3775E-02	1.2336E-01	1.8943E-01
HE	1.0765E-01	9.5155E-02	8.1071E-02
HE+	4.1961E-05	2.5269E-03	9.1955E-03
HE++	4.4349E-18	2.8789E-11	5.3438E-09
H	8.2178E-01	6.5564E-01	5.3824E-01
H+	3.3733E-02	1.2083E-01	1.8023E-01
H2	3.0209E-03	2.4926E-03	1.8286E-03

Table II. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2119E+03	6.6244E+03	1.1542E+04
T	7.7874E+01	1.1609E+02	1.4104E+02
RHO	7.4985E+00	2.4001E+01	3.1471E+01
H	2.1372E+02	3.6053E+02	4.7815E+02
A	1.2256E+01	1.6117E+01	1.8919E+01
S	2.1153E+00	2.1806E+00	2.2698E+00
Z	2.0753E+00	2.3775E+00	2.6004E+00
GAME	9.2947E-01	9.4119E-01	9.6555E-01
U	2.7362E+01	8.4481E+00	8.4648E+00

SPECIES	MOLE FRACTIONS		
E-	1.3365E-01	2.4388E-01	3.0844E-01
HE	9.4757E-02	6.8306E-02	4.9483E-02
HE+	1.6142E-03	1.5815E-02	2.7428E-02
HE++	2.5383E-12	4.9406E-09	1.5633E-06
H	6.3695E-01	4.4296E-01	3.3300E-01
H+	1.3204E-01	2.2807E-01	2.9100E-01
H2	9.9121E-04	9.6983E-04	6.4387E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6335E+03	9.2922E+03	1.6276E+04
T	9.2016E+01	1.3924E+02	1.7511E+02
RHO	7.7817E+00	2.5229E+01	3.1903E+01
H	2.8656E+02	4.8615E+02	6.4939E+02
A	1.3956E+01	1.8853E+01	2.2811E+01
S	2.2346E+00	2.3122E+00	2.4150E+00
Z	2.2813E+00	2.6451E+00	2.9133E+00
GAME	9.2791E-01	9.6505E-01	1.0199E+00
U	3.1510E+01	9.7127E+00	1.0164E+01

SPECIES	MOLE FRACTIONS		
E-	2.1149E-01	3.1997E-01	3.8238E-01
HE	8.1312E-02	4.7121E-02	3.2304E-02
HE+	6.3574E-03	2.8489E-02	3.6308E-02
HE++	4.5280E-10	1.5533E-06	3.7044E-05
H	4.9520E-01	3.1247E-01	2.0274E-01
H+	2.0513E-01	2.9149E-01	3.4600E-01
H2	5.1493E-04	4.6773E-04	2.2925E-04

P1 = 2.COE+C4 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3454E+03	7.4699E+03	1.3002E+04
T	8.2689E+01	1.2354E+02	1.5131E+02
RHO	7.5983E+00	2.4524E+01	3.1776E+01
H	2.3681E+02	4.0043E+02	5.3145E+02
A	1.2821E+01	1.6974E+01	2.0042E+01
S	2.1552E+00	2.2249E+00	2.3187E+00
Z	2.1413E+00	2.4655E+00	2.7042E+00
GAME	9.2831E-01	9.4592E-01	9.8165E-01
U	2.8544E+01	8.8373E+00	8.9640E+00

SPECIES	MOLE FRACTIONS		
E-	1.6018E-01	2.7070E-01	3.3495E-01
HE	9.0662E-02	6.0845E-02	4.2828E-02
HE+	2.7390E-03	2.0274E-02	3.1125E-02
HE++	1.8143E-11	1.7650E-07	4.7625E-06
H	5.9819E-01	3.9699E-01	2.8700E-01
H+	1.5744E-01	2.5042E-01	3.0372E-01
H2	7.9315E-04	7.7013E-04	4.7284E-04

P1 = 2.COE+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7879E+03	1.0253E+04	1.8086E+04
T	9.6606E+01	1.4770E+02	1.8907E+02
RHO	7.8613E+00	2.5373E+01	3.1736E+01
H	3.1322E+02	5.3180E+02	7.1419E+02
A	1.4530E+01	1.9887E+01	2.4386E+01
S	2.2742E+00	2.3552E+00	2.4619E+00
Z	2.3542E+00	2.7358E+00	3.0142E+00
GAME	9.2822E-01	9.7871E-01	1.0392E+00
U	3.2992E+01	1.0215E+01	1.0862E+01

SPECIES	MOLE FRACTIONS		
E-	2.3584E-01	3.4242E-01	4.0298E-01
HE	7.6043E-02	4.1255E-02	2.8244E-02
HE+	8.9099E-03	3.1845E-02	3.8012E-02
HE++	1.7409E-09	4.0482E-06	9.7228E-05
H	4.5186E-01	2.7356E-01	1.6575E-01
H+	2.2693E-01	3.1056E-01	3.6477E-01
H2	4.1564E-04	3.5406E-04	1.5038E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4859E+03	9.3619E+03	1.4579E+04
T	8.7388E+01	1.3122E+02	1.6252E+02
RHO	7.6935E+00	2.4942E+01	3.1943E+01
H	2.6109E+02	4.4233E+02	5.8840E+02
A	1.3397E+01	1.7893E+01	2.1364E+01
S	2.1949E+00	2.2687E+00	2.3667E+00
Z	2.2101E+00	2.5549E+00	2.9093E+00
GAME	9.2784E-01	9.5394E-01	1.0001E+00
U	3.0027E+01	9.2559E+00	9.5239E+00

SPECIES	MOLE FRACTIONS		
E-	1.8621E-01	2.9605E-01	3.5937E-01
HE	8.6197E-02	5.3701E-02	3.7166E-02
HE+	4.3046E-03	2.4582E-02	3.4040E-02
HE++	1.0022E-10	5.5116E-07	1.3496E-05
H	5.4075E-01	3.5359E-01	2.4377E-01
H+	1.9191E-01	2.7147E-01	3.2530E-01
H2	6.3824E-04	6.0504E-04	3.3693E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9492E+03	1.1233E+04	2.0015E+04
T	1.0119E+02	1.5669E+02	2.0477E+02
RHO	7.9312E+00	2.5369E+01	3.1431E+01
H	3.4105E+02	5.7921E+02	7.9331E+02
A	1.5112E+01	2.0982E+01	2.5938E+01
S	2.3138E+00	2.3976E+00	2.5080E+00
Z	2.4286E+00	2.8260E+00	3.1098E+00
GAME	9.2925E-01	9.9417E-01	1.0565E+00
U	3.4470E+01	1.0771E+01	1.1646E+01

SPECIES	MOLE FRACTIONS		
E-	2.5918E-01	3.6332E-01	4.2128E-01
HE	7.0418E-02	3.6153E-02	2.4727E-02
HE+	1.1933E-02	3.4611E-02	3.9337E-02
HE++	5.8671E-09	9.9359E-06	2.4845E-04
H	4.1089E-01	2.3696E-01	1.3286E-01
H+	2.4724E-01	3.2869E-01	3.9145E-01
H2	3.3503E-04	2.6155E-04	9.4532E-05

Table II. - Continued

p_1 = 20 kN/m^2

P1 = 2.00E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1172E+03	1.2227E+04	2.2040E+04
T	1.0581E+02	1.6632E+02	2.2212E+02
RHO	7.9901E+00	2.5224E+01	3.1043E+01
M	3.7007E+02	6.2830E+02	8.5610E+02
A	1.5708E+01	2.2133E+01	2.7547E+01
S	2.3533E+00	2.4392E+00	2.5525E+00
Z	2.5042E+00	2.9146E+00	3.1963E+00
GAME	9.3120E-01	1.0106E+00	1.0699E+00
U	3.5945E+01	1.1379E+01	1.2465E+01

SPECIES	MOLE FRACTIONS		
E-	2.9147E-01	3.9260E-01	4.3691E-01
HE	6.4511E-02	3.1768E-02	2.1628E-02
HE+	1.5356E-02	3.6830E-02	4.0337E-02
HE++	1.7746E-08	2.3286E-05	6.0625E-04
H	3.7229E-01	2.0287E-01	1.0510E-01
H+	2.6611E-01	3.4572E-01	3.9536E-01
H2	2.6915E-04	1.8807E-04	5.7780E-05

P1 = 2.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6597E+03	1.5157E+04	2.8517E+04
T	1.2034E+02	1.9972E+02	2.8279E+02
RHO	8.0771E+00	2.4044E+01	2.9663E+01
M	4.6412E+02	7.8452E+02	1.0955E+03
A	1.7644E+01	2.5814E+01	3.1933E+01
S	2.4718E+00	2.5585E+00	2.6785E+00
Z	2.7363E+00	3.1565E+00	3.3996E+00
GAME	9.4545E-01	1.0570E+00	1.0607E+00
U	4.0321E+01	1.3541E+01	1.5086E+01

SPECIES	MOLE FRACTIONS		
E-	3.4230E-01	4.2980E-01	4.7054E-01
HE	4.6226E-02	2.1967E-02	1.3286E-02
HE+	2.6866E-02	4.1151E-02	3.9921E-02
HE++	3.0937E-07	2.4394E-04	5.6238E-03
H	2.6964E-01	1.1961E-01	5.1247E-02
H+	3.1543E-01	3.8816E-01	4.1937E-01
H2	1.3363E-04	5.9269E-05	1.2843E-05

P1 = 2.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2919E+03	1.3228E+04	2.4185E+04
T	1.1048E+02	1.7667E+02	2.4175E+02
RHO	8.0406E+00	2.4959E+01	3.0543E+01
H	4.0026E+02	6.7899E+02	9.3353E+02
A	1.6320E+01	2.3333E+01	2.9155E+01
S	2.3924E+00	2.4799E+00	2.5972E+00
Z	2.5901E+00	3.0001E+00	3.2755E+00
GAME	9.3433E-01	1.0272E+00	1.0735E+00
U	3.7416E+01	1.2044E+01	1.3375E+01

SPECIES	MOLE FRACTIONS		
E-	3.0257E-01	4.0015E-01	4.5049E-01
HE	5.8468E-02	2.8021E-02	1.8659E-02
HE+	1.9048E-02	3.8592E-02	4.0968E-02
HE++	4.8846E-08	5.2611E-05	1.4327E-03
H	3.3618E-01	1.7161E-01	8.1752E-02
H+	2.8352E-01	3.6145E-01	4.0666E-01
H2	2.1543E-04	1.3155E-04	3.4060E-05

P1 = 2.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8536E+03	1.6100E+04	3.0732E+04
T	1.2553E+02	2.1256E+02	3.0394E+02
RHO	8.0780E+00	2.3496E+01	2.9293E+01
H	4.9779E+02	8.3938E+02	1.1804E+03
A	1.9353E+01	2.7056E+01	3.3249E+01
S	2.5105E+00	2.5961E+00	2.7168E+00
Z	2.9135E+00	3.2253E+00	3.4518E+00
GAME	9.5368E-01	1.0679E+00	1.0536E+00
U	4.1762E+01	1.4359E+01	1.5911E+01

SPECIES	MOLE FRACTIONS		
E-	3.6033E-01	4.4199E-01	4.7854E-01
HE	4.0483E-02	1.9456E-02	1.0750E-02
HE+	3.0602E-02	4.2057E-02	3.7849E-02
HE++	7.1453E-07	5.0248E-04	9.3421E-03
H	2.3875E-01	9.7216E-02	4.1496E-02
H+	3.2973E-01	3.9883E-01	4.2201E-01
H2	1.0254E-04	3.9534E-05	9.3015E-06

P1 = 2.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4727E+03	1.4208E+04	2.6339E+04
T	1.1531E+02	1.8779E+02	2.6189E+02
RHO	8.0691E+00	2.4557E+01	3.0100E+01
H	4.3162E+02	7.3109E+02	1.0129E+03
A	1.6963E+01	2.4566E+01	3.0591E+01
S	2.4326E+00	2.5196F+00	2.6384F+00
Z	2.6575E+00	3.0811E+00	3.3413E+00
GAME	9.3905E-01	1.0430E+00	1.0694E+00
U	3.8874E+01	1.2764F+01	1.4223F+01

SPECIES	MOLE FRACTIONS		
E-	3.2287E-01	4.1589F-01	4.6131E-01
HE	5.2322E-02	2.4792E-02	1.5944E-02
HE+	2.2934E-02	4.0004E-02	4.0915E-02
HE++	1.2617E-07	1.1502E-04	2.9966E-03
H	3.0177E-01	1.4345E-01	6.4403E-02
H+	2.9993F-01	3.7566E-01	4.1441E-01
H2	1.7048E-04	8.9458E-05	2.0677E-05

P1 = 2.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0521F+03	1.7023F+04	3.2931E+04
T	1.3099E+02	2.2617E+02	3.2525E+02
RHO	8.0623E+00	2.2909E+01	2.9930E+01
H	5.3261E+02	8.9568E+02	1.2672E+03
A	1.9101E+01	2.9249E+01	3.4611E+01
S	2.5485E+00	2.6322E+00	2.7537E+00
Z	2.8906E+00	3.2957E+00	3.4998E+00
GAME	9.6379E-01	1.0738E+00	1.0524E+00
U	4.3199E+01	1.5197E+01	1.6696E+01

SPECIES	MOLE FRACTIONS		
E-	3.7725E-01	4.5220E-01	4.8569E-01
HE	3.5128E-02	1.7194E-02	8.4036E-03
HE+	3.4074E-02	4.2684E-02	3.4846E-02
HE++	1.5893E-06	9.9224E-04	1.3897E-02
H	2.1030E-01	7.9375E-02	3.4116E-02
H+	3.4317E-01	4.0753E-01	4.2305E-01
H2	7.8399E-05	2.4906F-05	5.5471E-06

Table II. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.03E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.25E2E+03	1.7865E+04	3.5015E+04
T	1.3655E+02	2.4346E+02	3.4679E+02
RHO	8.0116E+00	2.2243E+01	2.9491E+01
H	5.6853E+02	9.5293E+02	1.3559E+03
A	1.9917E+01	2.9369E+01	3.6056E+01
S	2.5874E+00	2.6679E+00	2.7893E+00
Z	2.5679E+00	3.3401E+00	3.5439E+00
GAME	9.7608E-01	1.0738E+00	1.0578E+00
U	4.4596E+01	1.6052E+01	1.7453E+01

SPECIES	MOLE FRACTIONS		
E-	3.9355E-01	4.6111E-01	4.9209E-01
HE	3.0101E-02	1.5056E-02	6.3312E-03
HE+	3.7286E-02	4.2950E-02	3.1243E-02
HE++	3.5117E-06	1.9726E-03	1.9960E-02
H	1.8275E-01	6.4584E-02	2.8338E-02
H+	3.5625E-01	4.1441E-01	4.2313E-01
H2	5.7883E-05	1.5817E-05	3.7800E-06

P1 = 2.00E+04 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8992E+03	2.0272E+04	4.1096E+04
T	1.5772E+02	2.9522E+02	4.2070E+02
RHO	7.7677E+00	2.0481E+01	2.6731E+01
H	6.8301E+02	1.1337E+03	1.6411E+03
A	2.2649E+01	3.2270E+01	4.1155E+01
S	2.6975E+00	2.7695E+00	2.8928E+00
Z	3.1830E+00	3.4703E+00	3.6544E+00
GAME	1.0222E+00	1.0521E+00	1.1017E+00
U	4.8687E+01	1.8474E+01	1.9954E+01

SPECIES	MOLE FRACTIONS		
E-	4.3452E-01	4.8132E-01	5.0744E-01
HE	1.8503E-02	9.3754E-03	2.0636E-03
HE+	4.4296E-02	3.9885E-02	1.9545E-02
HE++	3.3924E-05	8.3721E-03	3.3123E-02
H	1.1247E-01	3.6361E-02	1.6175E-02
H+	3.9016E-01	4.2469E-01	4.2165E-01
H2	2.3220E-05	4.5471E-06	1.1732E-06

P1 = 2.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4663E+03	1.8712E+04	3.7163E+04
T	1.4317E+02	2.5517E+02	3.6957E+02
RHO	7.9617E+00	2.1648E+01	2.8052E+01
H	6.0561E+02	1.0117E+03	1.4480E+03
A	2.0759E+01	3.0399E+01	3.7632E+01
S	2.6239E+00	2.7020E+00	2.8238E+00
Z	3.0409E+00	3.3976E+00	3.5946E+00
GAME	9.8972E-01	1.0684E+00	1.0690E+00
U	4.5994E+01	1.6926E+01	1.8243E+01

SPECIES	MOLE FRACTIONS		
E-	4.0911E-01	4.6866E-01	4.9786E-01
HE	2.5775E-02	1.3075E-02	4.5730E-03
HE+	3.9988E-02	4.2655E-02	2.7310E-02
HE++	7.4383E-06	3.3091E-03	2.3912E-02
H	1.5797E-01	5.2911E-02	2.3625E-02
H+	3.6811E-01	4.1939E-01	4.2272E-01
H2	4.2299E-05	1.0262E-05	2.5976E-06

P1 = 2.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1222E+03	2.0998E+04	4.2952E+04
T	1.6600E+02	3.0072E+02	4.4911E+02
RHO	7.6477E+00	1.9900E+01	2.5980E+01
H	7.2332E+02	1.1967E+03	1.7421E+03
A	2.3665E+01	3.3243E+01	4.2989E+01
S	2.7326E+00	2.8018E+00	2.9257E+00
Z	3.2476E+00	3.5087E+00	3.6812E+00
GAME	1.0390E+00	1.0474E+00	1.1179E+00
U	5.0001E+01	1.9203E+01	2.0864E+01

SPECIES	MOLE FRACTIONS		
E-	4.4565E-01	4.8699E-01	5.1103E-01
HE	1.5681E-02	7.6472E-03	1.3212E-03
HE+	4.5844E-02	3.7291E-02	1.6267E-02
HE++	7.1731E-05	1.2064E-02	3.6741E-02
H	9.3080E-02	3.0435E-02	1.3353E-02
H+	3.9966E-01	4.2557E-01	4.2128E-01
H2	1.3391E-05	3.0910E-06	7.9199E-07

P1 = 2.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6804E+03	1.9505E+04	3.9160E+04
T	1.5011E+02	2.7017E+02	3.9407E+02
RHO	7.9735E+00	2.1044E+01	2.7437E+01
H	6.4376E+02	1.0719E+03	1.5428E+03
A	2.1677E+01	3.1345E+01	3.9342E+01
S	2.6612E+00	2.7357E+00	2.8586E+00
Z	3.1139E+00	3.4307E+00	3.6219E+00
GAME	1.0053E+00	1.0600E+00	1.0844E+00
U	4.7346E+01	1.7721E+01	1.9374E+01

SPECIES	MOLE FRACTIONS		
E-	4.2197E-01	4.7534E-01	5.0302E-01
HE	2.1859E-02	1.1172E-02	3.1431E-03
HE+	4.2354E-02	4.1660E-02	2.3309E-02
HE++	1.5936E-05	5.4673E-03	2.8771E-02
H	1.3418E-01	4.3619E-02	1.9592E-02
H+	3.7959E-01	4.2274E-01	4.2217E-01
H2	2.9681E-05	6.7451E-06	1.7564E-06

Table II. - Continued

p_1 = 50 kN/m^2

P1 = 5.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5073E+01
T	3.1753E+00	3.9838E+00	5.7063E+00
RHO	3.9601E+00	6.6009E+00	1.1403E+01
H	3.2467E+00	4.1057E+00	6.0158E+00
A	1.7739E+00	1.9770E+00	2.3404E+00
S	1.0780E+00	1.0803E+00	1.1028E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9100E-01	9.8108E-01	9.5089E-01
U	2.4570E+00	1.4729E+00	1.3084E+00

SPECIES	MOLE FRACTIONS		
E-	1.1175E-54	6.2699E-42	3.8904E-26
HE	2.0000E-01	2.0000E-01	2.0000E-01
HE+	2.5193E-63	5.0646E-56	1.0295E-46
HE++	0.	0.	0.
H	5.5199E-11	1.7692E-08	1.3075E-05
H+	7.2402E-20	7.2402E-20	7.2402E-20
H2	8.0000E-01	8.0000E-01	7.9999E-01

P1 = 5.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9438E+01	1.3737E+02	2.6433E+02
T	7.4624E+00	1.0474E+01	1.2997E+01
RHO	5.2830E+00	1.3032E+01	1.9803E+01
H	9.0857E+00	1.2123E+01	1.6434E+01
A	2.6477E+00	3.0748E+00	3.4121E+00
S	1.1933E+00	1.2059E+00	1.2371E+00
Z	1.0004E+00	1.0065E+00	1.0259E+00
GAME	9.3916E-01	8.9697E-01	8.7319E-01
U	4.6636E+00	1.8895E+00	1.6981E+00

SPECIES	MOLE FRACTIONS		
E-	1.3447E-17	1.1209E-12	2.9062E-10
HE	1.9993E-01	1.9871E-01	1.9495E-01
HE+	3.2661E-39	1.0108E-29	1.0596E-22
HE++	0.	0.	5.4670E-82
H	7.0422E-04	1.2867E-02	5.0457E-02
H+	1.3519E-17	1.1209E-12	2.8062E-10
H2	7.9987E-01	7.9844E-01	7.9459E-01

P1 = 5.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2082E+01	1.1601E+02
T	4.4065E+00	5.9053E+00	8.1547E+00
RHO	4.4957E+00	8.8179E+00	1.4218E+01
H	4.5641E+00	6.2435E+00	8.9300E+00
A	2.0733E+00	2.3781E+00	2.7594E+00
S	1.1182E+00	1.1236E+00	1.1499E+00
Z	1.0000E+00	1.0000E+00	1.0006E+00
GAME	9.7554E-01	9.5769E-01	9.3321E-01
U	3.1952E+00	1.6274E+00	1.4782E+00

SPECIES	MOLE FRACTIONS		
E-	2.5883E-38	2.8917E-24	1.0391E-16
HE	2.0000E-01	2.0000E-01	1.9988E-01
HE+	3.3151E-54	9.1221E-46	2.0855E-34
HE++	0.	0.	0.
H	2.2716E-07	2.5560E-05	1.1579E-03
H+	7.2402E-20	7.2404E-20	1.0388E-16
H2	8.0000E-01	7.9998E-01	7.9896E-01

P1 = 5.00E+04 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1974E+01	2.0377E+02	3.6690E+02
T	9.1637E+00	1.2693E+01	1.5103E+01
RHO	5.6544E+00	1.5684E+01	2.2942E+01
H	1.0299E+01	1.5959E+01	2.1660E+01
A	2.1925E+00	3.3661E+00	3.7241E+00
S	1.2281E+00	1.2457E+00	1.2831E+00
Z	1.0030E+00	1.0247E+00	1.0591E+00
GAME	9.1026E-01	9.7211E-01	9.6741E-01
U	5.4114E+00	1.9495E+00	1.7710E+00

SPECIES	MOLE FRACTIONS		
E-	3.2173E-14	1.9299E-10	7.1902E-09
HE	1.9940E-01	1.9519E-01	1.8894E-01
HE+	1.4224E-31	3.1954E-23	1.2587E-19
HE++	0.	6.9730E-84	5.3655E-71
H	5.5763E-03	4.8116E-02	1.1164E-01
H+	3.2173E-14	1.8299E-10	7.1062E-09
H2	7.9462E-01	7.5673E-01	6.9952E-01

P1 = 5.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8751E+01	9.8220E+01	1.9216E+02
T	5.8463E+00	8.1269E+00	1.0695E+01
RHO	4.9186E+00	1.3849E+01	1.6913E+01
H	6.1761E+00	8.8994E+00	1.2416E+01
A	2.3669E+00	2.7537E+00	3.1076E+00
S	1.1567E+00	1.1655E+00	1.1942E+00
Z	1.0000E+00	1.0006E+00	1.0067E+00
GAME	9.5820E-01	9.3249E-01	8.9694E-01
U	3.9282E+00	1.7799E+00	1.6116E+00

SPECIES	MOLE FRACTIONS		
E-	1.1861E-23	1.9763E-16	1.8122E-12
HE	2.0000E-01	1.9987E-01	1.9866E-01
HE+	9.9262E-47	4.7776E-35	2.4524E-27
HE++	0.	0.	0.
H	2.8150E-05	1.2806E-03	1.3403E-02
H+	7.2389E-20	1.9768E-16	1.8122E-12
H2	7.9997E-01	7.9885E-01	7.8794E-01

P1 = 5.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6518E+01	2.9213E+02	5.0082E+02
T	1.0791E+01	1.4719E+01	1.7164E+01
RHO	6.0972E+00	1.8785E+01	2.6399E+01
H	1.2921E+01	2.0419E+01	2.6413E+01
A	3.0991E+00	3.6679E+00	4.0871E+00
S	1.2619E+00	1.2961E+00	1.3240E+00
Z	1.0119E+00	1.0565E+00	1.1053E+00
GAME	9.8039E-01	9.6513E-01	9.7199E-01
U	6.1827E+00	2.0060E+00	1.8574E+00

SPECIES	MOLE FRACTIONS		
E-	4.8999E-12	4.8094E-09	7.4611E-08
HE	1.9764E-01	1.8933E-01	1.8094E-01
HE+	5.1942E-27	4.1521E-20	2.1430E-17
HE++	0.	3.2572E-73	4.9875E-63
H	2.3610E-02	1.0699E-01	1.9056E-01
H+	4.8999E-12	4.8094E-09	7.4611E-08
H2	7.7875E-01	7.0371E-01	6.2850E-01

Table II. - Continued

p_1 = 50 kN/m^2

P1 = 5.00E+04 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.3113E+01	4.0599E+02	6.7326E+02
T	1.2226E+01	1.6685E+01	1.9299E+01
RHO	6.8036E+00	2.2116E+01	2.9991E+01
M	1.5654E+01	2.5495E+01	3.2557E+01
A	3.2948E+00	3.9935E+00	4.4530E+00
S	1.2957E+00	1.3273E+00	1.3696E+00
Z	1.0254E+00	1.1002E+00	1.1632E+00
GAME	8.6251E-01	8.6879E-01	8.8330E-01
U	6.9738E+00	2.0810E+00	1.9693E+00

SPECIES	MOLE FRACTIONS		
E-	1.3973E-10	5.0533E-08	4.8794E-07
HE	1.9429E-01	1.8179E-01	1.7194E-01
HE+	6.3358E-24	7.5222E-18	1.4136E-15
HE++	1.9457E-87	1.0519E-64	1.1935E-56
H	5.7127E-02	1.9211E-01	2.8058E-01
H+	1.3973E-10	5.0533E-08	4.8794E-07
H2	7.4859E-01	6.3610E-01	5.4749E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4424E+02	8.9813E+02	1.4268E+03
T	1.5886E+01	2.2760E+01	2.6882E+01
RHO	8.0640E+00	3.0432E+01	3.5172E+01
M	2.5956E+01	4.4043E+01	5.5814E+01
A	3.9165E+00	5.1529E+00	5.9503E+00
S	1.4011E+00	1.4543E+00	1.5085E+00
Z	1.1259E+00	1.2823E+00	1.3905E+00
GAME	8.5755E-01	9.0990E-01	9.4724E-01
U	9.3579E+00	2.4784E+00	2.5033E+00

SPECIES	MOLE FRACTIONS		
E-	4.0159E-08	5.1366E-06	3.2849E-05
HE	1.7763E-01	1.5597E-01	1.4394E-01
HE+	1.3089E-18	2.4978E-13	2.0703E-11
HE++	1.6602E-67	1.9302E-48	1.4826E-40
H	2.2369E-01	4.4026E-01	5.6155E-01
H+	4.0159E-08	5.1366E-06	3.2849E-05
H2	5.9868E-01	4.0378E-01	2.9455E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK,	STANDING SHOCK	REFLECTED SHOCK
P	1.0164E+02	5.4470E+02	8.8533E+02
T	1.3527E+01	1.8644E+01	2.1571E+01
RHO	7.1233E+00	2.5329E+01	3.3337E+01
H	1.8796E+01	3.1142E+01	3.9485E+01
A	3.4993E+00	4.3466E+00	4.9883E+00
S	1.3301E+00	1.3692E+00	1.4149E+00
Z	1.0549E+00	1.1535E+00	1.2311E+00
GAME	8.5531E-01	8.7851E-01	8.9990E-01
U	7.7706E+00	2.1847E+00	2.1100E+00

SPECIES	MOLE FRACTIONS		
E-	1.5040E-09	3.1427E-07	2.3587E-06
HE	1.8959E-01	1.7339E-01	1.6245E-01
HE+	9.6605E-22	4.4327E-16	4.9860E-14
HE++	3.2408E-78	4.4326E-58	1.3756E-50
H	1.0411E-01	2.6613E-01	3.7546E-01
H+	1.5040E-09	3.1427E-07	2.3587E-06
H2	7.0630E-01	5.6051E-01	4.6209E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2204E+02	7.0662E+02	1.1371E+03
T	1.4733E+01	2.0654E+01	2.4065E+01
RHO	7.6178E+00	2.8165E+01	3.6133E+01
H	2.2225E+01	3.7335E+01	4.7233E+01
A	3.7006E+00	4.7318E+00	5.3838E+00
S	1.3652E+00	1.4116E+00	1.4616E+00
Z	1.0874E+00	1.2147E+00	1.3077E+00
GAME	8.5451E-01	8.9242E-01	9.2106E-01
U	8.5666E+00	2.3152E+00	2.2882E+00

SPECIES	MOLE FRACTIONS		
E-	9.2714E-09	1.4163E-06	9.3893E-06
HE	1.8393E-01	1.6465E-01	1.5294E-01
HE+	5.2256E-20	1.3435E-14	1.1683E-12
HE++	2.0479E-73	1.7676E-52	3.5562E-45
H	1.6072E-01	3.5353E-01	4.7056E-01
H+	9.2714E-09	1.4163E-06	9.3893E-06
H2	6.5535E-01	4.8182E-01	3.7648E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6815E+02	1.0952E+03	1.7541E+03
T	1.7017E+01	2.5019E+01	3.0201E+01
RHO	8.4488E+00	3.2928E+01	3.9334E+01
H	2.9984E+01	5.1245E+01	6.5328E+01
A	4.1452E+00	5.6152E+00	6.6070E+00
S	1.4377E+00	1.4968E+00	1.5554E+00
Z	1.1699E+00	1.3543E+00	1.4766E+00
GAME	8.6315E-01	9.3052E-01	9.7886E-01
U	1.0143E+01	2.6743E+00	2.7731E+00

SPECIES	MOLE FRACTIONS		
E-	1.3784E-07	1.6103E-05	1.0706E-04
HE	1.7096E-01	1.4767E-01	1.3544E-01
HE+	1.9847E-17	3.4188E-12	3.1844E-10
HE++	2.5128E-63	1.3946E-43	5.0635E-36
H	2.9039E-01	5.2322E-01	6.4525E-01
H+	1.3794E-07	1.6103E-05	1.0706E-04
H2	5.3805E-01	3.2908E-01	2.1909E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9386E+02	1.2924E+03	2.1174E+03
T	1.8147E+01	2.7597E+01	3.4255E+01
RHO	8.7655E+00	3.2877E+01	3.9638E+01
H	3.4305E+01	5.8939E+01	7.5952E+01
A	4.3893E+00	6.1264E+00	7.3653E+00
S	1.4749E+00	1.5390E+00	1.6014E+00
Z	1.2186E+00	1.4291E+00	1.5606E+00
GAME	8.7074E-01	9.5480E-01	1.0149E+00
U	1.0920E+01	2.9132E+00	3.1049E+00

SPECIES	MOLE FRACTIONS		
E-	4.0333E-07	4.5827E-05	3.3525E-04
HE	1.6412E-01	1.3995E-01	1.2815E-01
HE+	2.1439E-16	3.7779E-11	4.5292E-09
HE++	2.2566E-60	1.5563E-39	9.4588E-32
H	3.5877E-01	6.0035E-01	7.1745E-01
H+	4.0333E-07	4.5827E-05	3.3525E-04
H2	4.7711E-01	2.5961E-01	1.5372E-01

Table II. - Continued

p_1 = 50 kN/m^2

P1 = 5.CCE+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2122E+02	1.5354F+03	2.5153E+03
T	1.93C6E+01	3.0288E+01	3.9397E+01
RHC	9.C112E+00	3.3090F+01	3.9023E+01
M	3.8922E+01	6.7025E+01	8.7494E+01
A	4.6484E+00	6.6860E+00	8.2220E+00
S	1.5125E+0u	1.5797E+0C	1.6465F+00
Z	1.2716E+00	1.5025E+0C	1.6361E+00
GAME	8.8013E-01	9.8233E-01	1.0488E+00
U	1.169CE+01	3.1820E+00	3.5087E+00

SPECIES	MOLE FRACTIONS		
E-	1.0566E-06	1.2102E-04	1.0314E-03
HE	1.5728E-01	1.3311E-01	1.2224E-01
HE+	1.8531E-15	3.5514E-10	6.2919E-09
HE++	2.5931E-56	6.6773E-36	1.5431E-27
H	4.2719E-01	6.6949E-01	7.7446E-01
H+	1.0560E-06	1.2102E-04	1.0314E-03
H2	4.1553E-01	1.9915E-01	1.0123E-01

P1 = 5.C0E+04 N/SQ-M, US1= 1.90E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1276E+02	2.1014E+03	3.8116E+03
T	2.3190E+01	4.1509F+01	6.0094E+01
RHC	9.3047E+00	3.0078E+01	3.5783F+01
M	5.4517E+01	9.3528E+01	1.2796E+02
A	5.5634E+00	8.6120E+00	1.0518E+01
S	1.6263E+00	1.6931F+00	1.7641E+00
Z	1.4495E+00	1.6832F+0C	1.7726E+00
GAME	9.2081E-01	1.0615E+00	1.0385E+00
U	1.3935E+01	4.3086E+00	4.8959E+00

SPECIES	MOLE FRACTIONS		
E-	1.3024E-05	1.7232E-03	1.4477E-02
HE	1.3798E-01	1.1992E-01	1.1290F-01
HE+	5.6861F-13	1.7013E-07	3.1917E-05
HE++	1.5551E-46	5.1936E-26	1.0379E-17
H	6.2013E-01	8.3661E-01	8.2829F-01
H+	1.3024E-05	1.7230E-03	1.4445E-02
H2	2.4186E-01	7.1130E-02	2.9959E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5018E+02	1.7147E+03	2.9403E+03
T	2.0512E+01	3.3492E+01	4.5724E+01
RHO	9.1827E+00	3.2568E+01	3.7932E+01
H	4.3938E+01	7.5519E+01	1.0023E+02
A	4.9288E+00	7.3008E+00	9.0893E+00
S	1.5505E+00	1.6194E+00	1.6991E+00
Z	1.3283E+00	1.5720E+00	1.6953E+00
GAME	8.913PE-01	1.0124E+00	1.0659E+00
U	1.2449E+01	3.5082E+00	3.9741E+00

SPECIES	MOLE FRACTIONS		
E-	2.5560E-06	3.0633E-04	2.9486E-03
HE	1.5057E-01	1.2722E-01	1.1797E-01
HE+	1.3731E-14	3.3512E-09	7.4286E-07
HE++	1.2978E-52	2.0073E-32	1.2868E-23
H	4.9428E-01	7.2685E-01	8.1140E-01
H+	2.5560E-06	3.0633E-04	2.9479E-03
H2	3.5515E-01	1.4531E-01	6.4726E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4621E+02	2.2705E+03	4.2211E+03
T	2.4751E+01	4.6302F+01	6.6956E+01
RHO	9.2531E+00	2.8482E+01	3.4955E+01
H	6.0290E+01	1.0299E+02	1.4239E+02
A	5.9315E+00	9.2225E+00	1.1092E+01
S	1.6638E+00	1.7269E+00	1.7973E+00
Z	1.5117E+00	1.7217E+00	1.8036E+00
GAME	9.4032E-01	1.0669E+00	1.0190E+00
U	1.4659E+01	4.7595E+00	5.2771E+00

SPECIES	MOLE FRACTIONS		
E-	2.8571E-05	3.6964E-03	2.4476E-02
HE	1.3230E-01	1.1616F-01	1.1079E-01
HE+	3.4999E-12	1.0107E-06	1.1102E-04
HE++	1.3911E-43	3.3116E-23	9.1474E-16
H	6.7690E-01	8.2726E-01	8.1776F-01
H+	2.8571E-05	3.6954F-03	2.4365E-02
H2	1.9074E-01	4.9187F-02	2.2503E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8072E+02	1.9153E+03	3.3789E+03
T	2.3796E+01	3.7213E+01	5.2961E+01
RHO	9.2809E+00	3.1517E+01	3.6767E+01
H	4.9029E+01	9.4366E+01	1.1393E+02
A	5.2313E+00	7.9541E+00	9.8620E+00
S	1.5995E+00	1.6572E+00	1.7283E+00
Z	1.3879E+00	1.6332E+00	1.7385E+00
GAME	9.0476E-01	1.0411E+00	1.0593E+00
U	1.3158E+01	3.9851E+00	4.4539E+00

SPECIES	MOLE FRACTIONS		
E-	5.8606E-06	7.4433E-04	7.2137E-03
HE	1.4411E-01	1.2246F-01	1.1503E-01
HE+	9.0552E-14	2.4332E-08	6.1360E-06
HE++	1.0963E-49	4.0137E-29	2.7239E-20
H	5.5803E-01	7.7316E-01	8.2796E-01
H+	5.8606E-06	7.4429F-04	7.2075E-03
H2	2.9[illegible]E-01	1.3289F-01	4.2574E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8094E+02	2.4201E+03	4.5927E+03
T	2.6547E+01	5.1366E+01	7.3237E+01
RHO	9.1246E+00	2.6903E+01	3.4191E+01
H	6.6346E+01	1.1275E+02	1.5701E+02
A	6.3453E+00	9.7559E+00	1.1[illegible]E+01
S	1.7005E+00	1.7589E+00	1.8277E+00
Z	1.5727E+00	1.7515E+00	1.9341E+00
GAME	9.6432E-01	1.0579E+00	1.0032E+00
U	1.5366E+01	5.2153F+00	5.5994E+00

SPECIES	MOLE FRACTIONS		
E-	6.3[illegible]E-05	7.1571E-03	3.6371E-02
HE	1.2717E-01	1.1419E-01	1.0876E-01
HE+	2.2165E-11	4.7265E-[illegible]	2.9499E-04
HE++	1.1933E-40	P.6287E-21	2.6927E-14
H	7.2915E-01	9.3665E-01	9.0073E-01
H+	6.3029E-05	7.1523E-03	3.6086E-02
H2	1.4456E-01	3.4850E-02	1.7769E-02

Table II. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 2.23E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.169JE+32	2.5567F+03	4.9152E+03
T	2.867[T+01	5.6535F+01	7.9173E+01
RHO	8.9162E+30	2.5467E+31	3.3257F+01
H	7.2677E+01	1.2290E+02	1.7186E+02
A	6.815[F+30	1.3224F+31	1.2099E+01
S	1.7361E+70	1.7894E+30	1.8584F+00
Z	1.63JUE+00	1.7767F+00	1.9667E+00
GAME	9.935[F-01	1.0412E+00	9.9056E-01
U	1.6352E+31	5.6173E+00	5.8829F+00

SPECIES	MOLE FRACTIONS		
E-	1.4224E-04	1.2472E-02	5.0073E-02
HE	1.2276E-01	1.1255E-01	1.0653F-01
HE+	1.5[73E-13	1.7293E-25	6.[803E-04
HE++	1.52J2E-37	9.0193E-19	4.0872E-13
H	7.7257F-01	8.3692E-01	7.7858F-01
H+	1.4224E-34	1.2455F-32	4.9465E-02
H2	1.0444E-01	2.558RF-02	1.4341E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2964E+02	2.8725E+03	5.5282E+03
T	3.8284E+01	7.0922E+01	9.3739E+01
RHO	7.6485E+00	2.1931E+01	2.9977E+01
H	9.3252E+01	1.5549E+02	2.1659E+02
A	8.4570E+30	1.1417E+01	1.3345E+01
S	1.8325E+03	1.8754E+30	1.9442E+00
Z	1.7496E+00	1.8494E+00	1.9673E+00
GAME	1.0733E+00	9.9527E-01	9.6574E-01
U	1.7959F+01	6.5045E+00	6.4739E+00

SPECIES	MOLE FRACTIONS		
E-	1.7970E-03	3.9039E-02	9.3486E-02
HE	1.1431E-01	1.0790E-01	9.9047E-02
HE+	6.4028E-08	2.4874E-04	2.6148E-03
HE++	6.2593E-29	1.2087E-14	7.9614E-11
H	8.5151E-01	8.0169E-01	7.0554E-01
H+	1.7969E-33	3.8790E-02	9.0872E-02
H2	3.0590E-02	1.2336E-02	8.4399E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5360E+02	2.6749E+03	5.1725E+03
T	3.1267E+01	6.1505E+01	8.4422E+01
RHO	8.6344E+00	2.4156E+01	3.2260E+01
M	7.9275E+01	1.3340E+02	1.8666F+02
A	7.3444E+00	1.0646E+01	1.2546E+01
S	1.7702E+00	1.8189E+00	1.8873E+00
Z	1.6902E+00	1.8004F+00	1.8992F+00
GAME	1.0268E+00	1.0236E+00	9.8377E-01
U	1.6713E+01	5.9704E+00	6.1092E+00

SPECIES	MOLE FRACTIONS		
E-	3.3067E-04	1.9695E-02	6.4131E-02
HE	1.1904E-01	1.1104E-01	1.0422E-01
HE+	1.1161E-09	5.0168E-05	1.0900E-03
HE++	2.4283E-34	4.0453E-17	3.3322E-12
H	8.0866E-01	8.3011E-01	7.5563E-01
H+	3.3067E-04	1.9634E-02	6.3041E-02
H2	7.1647E-02	1.9494E-02	1.1891E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.6939E+02	2.9777E+03	5.6994E+03
T	4.2123E+01	7.5195E+01	9.7960E+01
RHO	7.6342E+00	2.1108E+01	2.9035E+01
M	1.0064E+02	1.6721E+02	2.3196E+02
A	8.9303E+00	1.1788E+01	1.3721E+01
S	1.8604E+00	1.9023E+00	1.9713E+00
Z	1.7706E+00	1.8760E+00	2.0020E+00
GAME	1.0693E+00	9.8508E-01	9.6000E-01
U	1.8567E+01	6.7091E+00	6.6373E+00

SPECIES	MOLE FRACTIONS		
E-	3.8146F-03	5.0677E-02	1.0816E-01
HE	1.1295F-01	1.0615E-01	9.6243E-02
HE+	3.9064E-07	4.6083E-04	3.6553E-03
HE++	4.2912F-25	1.0886E-13	2.7395E-10
H	8.5903E-01	7.8233E-01	6.8020E-01
H+	3.8142E-03	5.0216E-02	1.0450E-01
H2	2.0391E-02	1.0168E-02	7.2414E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9114E+02	2.7764E+03	5.3686E+03
T	3.4407E+01	6.6274E+01	8.9255E+01
RHO	8.2976F+00	2.2964E+01	3.1119E+01
M	8.6132E+01	1.4424E+02	2.0154E+02
A	7.9107E+00	1.1040E+01	1.2953E+01
S	1.8024E+00	1.8475E+00	1.9160E+00
Z	1.7203E+00	1.8243E+00	1.9329E+00
GAME	1.0573E+00	1.0080E+00	9.7261E-01
U	1.7345E+01	6.2631E+00	6.3362E+00

SPECIES	MOLE FRACTIONS		
E-	7.8108E-04	2.8619E-02	7.8709E-02
HE	1.1626E-01	1.0951E-01	1.0172E-01
HE+	8.6961E-09	1.2018E-04	1.7575E-03
HE++	4.4223E-31	9.0967E-16	1.8697E-11
H	8.3507E-01	8.1795E-01	7.3090E-01
H+	7.8107E-04	2.8498E-02	7.6952E-02
H2	4.7113E-02	1.5306E-02	9.9663E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.1084E+02	3.1041E+03	5.8830E+03
T	4.6296E+01	7.9446F+01	1.0219E+02
RHO	7.3845E+00	2.0519E+01	2.8241E+01
M	1.0833E+02	1.7949E+02	2.4793E+02
A	9.3252E+00	1.2157E+01	1.4105E+01
S	1.8864E+00	1.9281E+00	1.9981E+00
Z	1.7874F+00	1.9042E+00	2.0384E+00
GAME	1.0513E+00	9.7696E-01	9.5507E-01
U	1.9183E+01	6.8989F+00	6.7914E+00

SPECIES	MOLE FRACTIONS		
E-	7.2392E-03	6.3255E-02	1.2322E-01
HE	1.1189E-01	1.0425E-01	9.3186E-02
HE+	1.8274E-06	7.8381E-04	4.9300E-03
HE++	1.1116E-22	7.2971E-13	8.4886E-10
H	8.5932E-01	7.6069E-01	6.5412E-01
H+	7.2374E-03	6.2471E-02	1.1829E-01
H2	1.4338E-02	8.5530E-03	6.2594E-03

Table II. - Continued

p_1 = 50 kN/m^2

P1 = 5.00E+04 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.5428E+02	3.2594E+03	6.1288E+03
T	5.0371E+01	9.3636F+01	1.0644E+02
RHO	7.2043E+00	2.0151F+01	2.7741E+01
H	1.1632E+02	1.9240F+02	2.6469E+02
A	9.6677E+00	1.2528E+01	1.4495E+01
S	1.91C9E+00	1.9530E+00	2.0242E+00
Z	1.8030E+00	1.9340E+00	2.0757E+00
GAME	1.0291E+00	9.7034E-01	9.5104E-01
U	1.9815E+01	7.0800E+00	6.9471E+00

SPECIES	MOLE FRACTIONS		
E-	1.2270E-02	7.6593E-02	1.3829E-01
HE	1.1092E-01	1.0217E-01	8.9931E-02
HE+	6.5429E-06	1.2484E-03	6.4216E-03
HE++	1.0896E-20	3.9195E-12	2.3788E-09
H	8.5392E-01	7.3735E-01	6.2902E-01
H+	1.2263E-02	7.5335E-02	1.3187E-01
H2	1.0615E-02	7.3183E-03	5.4699E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4941E+02	4.1552E+03	7.6153E+03
T	6.5015E+01	1.6006E+02	1.2401E+02
RHO	6.9575E+00	2.0097E+01	2.7499E+01
H	1.5141E+02	2.5054E+02	3.4027E+02
A	1.0883E+01	1.4032E+01	1.6183E+01
S	1.9989E+00	2.0455E+00	2.1224E+00
Z	1.9778E+00	2.0663E+00	2.2331E+00
GAME	9.7005E-01	9.5227E-01	9.4563E-01
U	2.2517E+01	7.7912E+00	7.6222E+00

SPECIES	MOLE FRACTIONS		
E-	4.617CE-02	1.3329E-01	1.9735E-01
HE	1.0634E-01	9.1812F-02	7.5542F-02
HE+	1.7069E-04	4.9834E-03	1.4021F-02
HE++	1.3471E-15	6.8671F-10	7.0793F-08
H	7.966eF-01	6.3721F-01	5.2633F-01
H+	4.5999E-02	1.2836F-01	1.8333E-01
H2	4.7243E-03	4.4107F-03	3.4228E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9987E+02	3.4441E+03	6.4312E+03
T	5.4302E+01	8.7786E+01	1.1076E+02
RHO	7.0843E+00	1.9963E+01	2.7464E+01
H	1.2462E+02	2.0596E+02	2.8239E+02
A	9.9834E+00	1.2901E+01	1.4899E+01
S	1.9340E+00	1.9770E+00	2.0497E+00
Z	1.0193E+00	1.9653E+00	2.1142E+00
GAME	1.0089E+00	9.6479E-01	9.4796E-01
U	2.0467E+01	7.2590E+00	7.1184E+00

SPECIES	MOLE FRACTIONS		
E-	1.8875E-02	9.0438E-02	1.5343E-01
HE	1.0991E-01	9.9996E-02	8.6469E-02
HE+	1.8650E-05	1.8826E-03	8.1298E-03
HE++	4.6979E-19	1.7568E-11	6.1853E-09
H	8.4407E-01	7.1289E-01	6.0186E-01
H+	1.8857E-02	8.8555E-02	1.4530E-01
H2	8.2655E-03	6.3514E-03	4.8171E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5921E+02	4.7357E+03	8.6016E+03
T	7.1427E+01	1.0916E+02	1.3337E+02
RHO	6.9767E+00	2.0476E+01	2.7941E+01
H	1.7091E+02	2.9330E+02	3.9317E+02
A	1.1473E+01	1.4798E+01	1.7137E+01
S	2.0397E+00	2.0997E+00	2.1699E+00
Z	1.0249E+00	2.1382E+00	2.3166E+00
GAME	9.5735E-01	9.4699E-01	9.5069E-01
U	2.3935E+01	9.1527E+00	8.0037E+00

SPECIES	MOLE FRACTIONS		
E-	6.8434E-02	1.6175E-01	2.2574E-01
HE	1.0344E-01	8.5498E-02	6.8199E-02
HE+	4.6624E-04	9.0469E-03	1.8145E-02
HE++	5.0868E-14	4.7101E-09	2.7954E-07
H	7.5612E-01	5.9744E-01	4.7758E-01
H+	6.7568E-02	1.5371E-01	2.0760E-01
H2	3.5698E-03	3.5642E-03	2.7490E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4757E+02	3.6543E+03	6.7749E+03
T	5.8077E+01	9.1900E+01	1.1505E+02
RHO	7.0061E+00	1.9903E+01	2.7356E+01
H	1.3323E+02	2.2017E+02	3.0072E+02
A	1.0290E+01	1.3277E+01	1.5306E+01
S	1.9565E+00	2.0004E+00	2.0741E+00
Z	1.8373E+00	1.9979E+00	2.1526E+00
GAME	9.9224E-01	9.6002E-01	9.4800E-01
U	2.1135E+01	7.4356E+00	7.2714E+00

SPECIES	MOLE FRACTIONS		
E-	2.6958E-02	1.0462E-01	1.6810E-01
HE	1.0881E-01	9.7397E-02	8.2944E-02
HE+	4.4676E-04	2.7086E-03	9.9657E-03
HE++	1.0826E-17	6.7535E-11	1.4663E-08
H	8.3060E-01	6.9778E-01	5.7657E-01
H+	2.6914E-02	1.0192E-01	1.5813E-01
H2	6.6655E-03	5.5733E-03	4.2939E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0767E+03	5.3499E+03	9.7209E+03
T	7.7440E+01	1.1624E+02	1.4333E+02
RHO	7.0322E+00	2.0953E+01	2.9211E+01
H	1.9144E+02	3.1838E+02	4.2548E+02
A	1.2068E+01	1.5596E+01	1.9192E+01
S	2.0755E+00	2.1331E+00	2.2177E+00
Z	1.9771E+00	2.2125E+00	2.4041E+00
GAME	9.4956E-01	9.4455E-01	9.6045E-01
U	2.5377E+01	9.5136E+00	8.4267E+00

SPECIES	MOLE FRACTIONS		
E-	9.2374E-02	1.8935E-01	2.5347E-01
HE	1.0013E-01	7.8732E-02	6.1213E-02
HE+	1.0235E-03	1.1695E-02	2.1978E-02
HE++	8.8864E-13	2.3792E-08	9.5671E-07
H	7.1232E-01	5.3968E-01	4.2966E-01
H+	9.1350E-02	1.7765E-01	2.3149E-01
H2	2.7940E-03	2.9192E-03	2.1893E-03

Table II. - Continued

p_1 = 50 kN/m^2

P1 = 5.00E+04 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2015E+03	6.1029E+03	1.0962E+04
T	8.3166E+01	1.2439E+02	1.5402E+02
RHO	7.1049E+00	2.1439E+01	2.9525E+01
H	2.1328E+02	3.5564E+02	4.7928E+02
A	1.2644E+01	1.6410E+01	1.9352E+01
S	2.1186E+00	2.1759E+00	2.2639E+00
Z	2.0335E+00	2.2986E+00	2.4951E+00
GAME	9.4533E-01	9.4597E-01	9.7452E-01
U	2.6832E+01	8.8893E+00	8.8998E+00

SPECIES	MOLE FRACTIONS		
E-	1.1707E-01	2.1590E-01	2.8030E-01
HE	9.6419E-02	7.1776E-02	5.4923E-02
HE+	1.9340E-03	1.5612E-02	2.5232E-02
HE++	9.2173E-12	9.5325E-08	2.9218E-06
H	6.6720E-01	4.9402E-01	3.9277E-01
H+	1.1514E-01	2.0029E-01	2.5506E-01
H2	2.2430E-03	2.4016E-03	1.7169E-03

P1 = 5.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6192E+03	8.5339E+03	1.5396E+04
T	9.9326E+01	1.5023E+02	1.9232E+02
RHO	7.3437E+00	2.2476E+01	2.8833E+01
H	2.8597E+02	4.7957E+02	6.5387E+02
A	1.4383E+01	1.9215E+01	2.3406E+01
S	2.2337E+00	2.3017E+00	2.4018E+00
Z	2.2198E+00	2.5273E+00	2.7809E+00
GAME	9.3822E-01	9.7244E-01	1.0260E+00
U	3.1234E+01	1.0196E+01	1.0681E+01

SPECIES	MOLE FRACTIONS		
E-	1.9034E-01	2.8909E-01	3.5342E-01
HE	8.2707E-02	5.3094E-02	4.0643E-02
HE+	7.3924E-03	2.6038E-02	3.1226E-02
HE++	1.5387E-09	2.5006E-06	5.2753E-05
H	5.3538E-01	3.6747E-01	2.5185E-01
H+	1.8255E-01	2.6303E-01	3.2209E-01
H2	1.2349E-03	1.2886E-03	7.2110E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3337E+03	6.8697E+03	1.2322E+04
T	8.8691E+01	1.3270E+02	1.6561E+02
RHO	7.1837E+00	2.1874E+01	2.8738E+01
H	2.3632E+02	3.9499E+02	5.3269E+02
A	1.3225E+01	1.7285F+01	2.0615E+01
S	2.1573E+00	2.2193E+00	2.3105E+00
Z	2.0933E+00	2.3666E+00	2.5890E+00
GAME	9.4214E-01	9.5136E-01	9.9116E-01
U	2.8296F+01	9.2891E+00	9.4298F+00

SPECIES	MOLE FRACTIONS		
E-	1.4192E-01	2.4139E-01	3.0607E-01
HE	9.2269E-02	6.5039E-02	4.9431E-02
HE+	3.2759E-03	1.9470E-02	2.7910E-02
HE++	6.5914E-11	3.2049E-07	8.1765E-06
H	6.2207E-01	4.5022E-01	3.3711E-01
H+	1.3865E-01	2.2191E-01	2.7825E-01
H2	1.9232E-03	1.9706E-03	1.3180E-03

P1 = 5.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7724E+03	9.4081E+03	1.7102E+04
T	1.0454E+02	1.5967E+02	2.0717E+02
RHO	7.4176E+00	2.2574E+01	2.8705E+01
H	3.1259E+02	5.2455E+02	7.1572E+02
A	1.4967E+01	2.0276E+01	2.4914E+01
S	2.2717E+00	2.3431E+00	2.4468E+00
Z	2.2857E+00	2.6102E+00	2.8759E+00
GAME	9.3751E-01	9.9644E-01	1.0419E+00
U	3.2705F+01	1.0739F+01	1.1395E+01

SPECIES	MOLE FRACTIONS		
E-	2.1351E-01	3.1142E-01	3.7462E-01
HE	7.7365E-02	4.8062E-02	3.7033E-02
HE+	1.0136E-02	2.8554E-02	3.2386E-02
HE++	5.6150E-09	6.1473E-06	1.2480E-04
H	4.9458E-01	3.2809E-01	2.1335E-01
H+	2.0338E-01	2.8285E-01	3.4198E-01
H2	1.0224E-03	1.0156F-03	5.1146E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4729E+03	7.6916E+03	1.3903E+04
T	9.4056E+01	1.4128E+02	1.7826F+02
RHO	7.2651E+00	2.2227E+01	2.9832E+01
H	2.6055E+02	4.3631E+02	5.8980E+02
A	1.3903F+01	1.8219E+01	2.1974E+01
S	2.1956E+00	2.2602E+00	2.3566E+00
Z	2.1555E+00	2.4462E+00	2.6851F+00
GAME	9.3982E-01	9.[illegible]43E-01	1.0088E+00
U	2.9763E+01	9.7252F+00	1.0020E+01

SPECIES	MOLE FRACTIONS		
E-	1.6641E-01	2.6577E-01	3.3061E-01
HE	8.7696E-02	5.8760E-02	4.4698E-02
HE+	5.0917E-03	2.2999E-02	2.9767F-02
HE++	3.5476E-10	9.4202E-07	2.1407E-05
H	5.7799E-01	4.0810E-01	2.9311E-01
H+	1.[illegible]52E-01	2.4277E-01	3.0080F-01
H2	1.4964E-03	1.6037E-03	9.8635E-04

P1 = 5.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9324E+03	1.0310E+04	1.8919E+04
T	1.0973E+02	1.6953E+02	2.2363F+02
RHO	7.4844E+00	2.2589E+01	2.8516E+01
H	3.4038E+02	5.7135F+02	7.8458E+02
A	1.5562E+01	2.1377F+01	2.6457F+01
S	2.3056E+00	2.3831E+00	2.4905E+00
Z	2.3529E+00	2.6923E+00	2.9667E+00
GAME	9.3795E-01	1.0012E+00	1.0550E+00
U	3.4174E+01	1.1315E+01	1.2173E+01

SPECIES	MOLE FRACTIONS		
E-	2.3585E-01	3.3222E-01	3.9362E-01
HE	7.1760E-02	4.3739E-02	3.3778E-02
HE+	1.3240E-02	3.0532E-02	3.3356E-02
HE++	1.7830E-09	1.4055E-05	2.8090E-04
H	4.5570F-01	2.9104F-01	1.7990E-01
H+	2.2261F-01	3.0166E-01	3.5970F-01
H2	8.4725E-04	7.9987E-04	3.5581F-04

Table II. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0992E+03	1.1232E+04	2.0824E+04
T	1.1495E+02	1.7990E+02	2.4150E+02
RHO	7.5417E+00	2.2513E+01	2.8250E+01
H	3.6935E+02	6.1988E+02	9.5694E+02
A	1.6174E+01	2.2513E+01	2.8012E+01
S	2.3473E+00	2.4222E+00	2.5332E+00
Z	2.4213E+00	2.7733E+00	3.0523E+00
GAME	9.3981E-01	1.0159E+00	1.0645E+00
U	3.5640E+01	1.1927E+01	1.2977E+01

SPECIES	MOLE FRACTIONS		
E-	2.5731E-01	3.5155E-01	4.1052E-01
HE	6.6011E-02	4.0304E-02	3.0690E-02
HE+	1.6588E-02	3.2083E-02	3.4232E-02
HE++	5.0599E-08	3.0371E-05	6.0327E-04
H	4.1967E-01	2.5632E-01	1.4863E-01
H+	2.4072E-01	3.1941E-01	3.7508E-01
H2	7.0109E-04	6.0480E-04	2.4269E-04

P1 = 5.60E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6381E+03	1.3979E+04	2.6940E+04
T	1.3124E+02	2.1469E+02	3.0169E+02
RHO	7.6389E+00	2.1677E+01	2.7339E+01
H	4.6327E+02	7.7447E+02	1.0943E+03
A	1.8167E+01	2.6075E+01	3.2399E+01
S	2.4593E+00	2.5355E+00	2.6534E+00
Z	2.6315E+00	3.0038E+00	3.2663E+00
GAME	9.5566E-01	1.0543E+00	1.0653E+00
U	3.9994E+01	1.4088E+01	1.5519E+01

SPECIES	MOLE FRACTIONS		
E-	3.1636E-01	4.0101E-01	4.4839E-01
HE	4.9236E-02	3.1042E-02	2.1443E-02
HE+	2.6766E-02	3.5298E-02	3.5764E-02
HE++	7.1349E-07	2.4189E-04	4.0248E-03
H	3.1767E-01	1.6694E-01	8.4527E-02
H+	2.8959E-01	3.6523E-01	4.0518E-01
H2	3.8510E-04	2.4288E-04	7.6172E-05

P1 = 5.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2725E+03	1.2153E+04	2.2799E+04
T	1.2025E+02	1.9089E+02	2.6041E+02
RHO	7.5874E+00	2.2315E+01	2.7972E+01
H	3.9945E+02	6.6953E+02	9.3249E+02
A	1.6809E+01	2.3686E+01	2.9519E+01
S	2.3849E+00	2.4608E+00	2.5741E+00
Z	2.4907E+00	2.8531E+00	3.1299E+00
GAME	9.4333E-01	1.0301E+00	1.0691E+00
U	3.7099E+01	1.2603E+01	1.3791E+01

SPECIES	MOLE FRACTIONS		
E-	2.7789E-01	3.6957E-01	4.2507E-01
HE	6.0251E-02	3.6695E-02	2.7699E-02
HE+	2.0047E-02	3.3340E-02	3.4988E-02
HE++	1.3110E-07	6.3003E-05	1.2131E-03
H	3.8338E-01	2.2377E-01	1.2322E-01
H+	2.5785E-01	3.3611E-01	3.8765E-01
H2	5.7795E-04	4.5358E-04	1.6500E-04

P1 = 5.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8296E+03	1.4864E+04	2.8990E+04
T	1.3709E+02	2.2752E+02	3.2253E+02
RHO	7.6354E+00	2.1258E+01	2.7046E+01
H	4.9687E+02	8.2885E+02	1.1780E+03
A	1.8966E+01	2.7265E+01	3.3735E+01
S	2.4965E+00	2.5716E+00	2.6900E+00
Z	2.7033E+00	3.0730E+00	3.3233E+00
GAME	9.6449E-01	1.0632E+00	1.0617E+00
U	4.1419E+01	1.4863E+01	1.6310E+01

SPECIES	MOLE FRACTIONS		
E-	3.3446E-01	4.1444E-01	4.5842E-01
HE	4.4138E-02	2.8515E-02	1.8338E-02
HE+	2.9844E-02	3.6117E-02	3.5474E-02
HE++	1.5505E-06	4.5000E-04	6.3687E-03
H	2.8664E-01	1.4289E-01	7.1129E-02
H+	3.0461E-01	3.7742E-01	4.1021E-01
H2	3.0874E-04	1.7398E-04	5.3590E-05

P1 = 5.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4521E+03	1.3067E+04	2.4841E+04
T	1.2567E+02	2.0245E+02	2.8063E+02
RHO	7.6193E+00	2.2026E+01	2.7649E+01
H	4.3085E+02	7.2142E+02	1.0117E+03
A	1.7473E+01	2.4875E+01	3.0388E+01
S	2.4223E+00	2.4986E+00	2.6144E+00
Z	2.5610E+00	2.9303E+00	3.2015E+00
GAME	9.4861E-01	1.0431E+00	1.0688E+00
U	3.8550E+01	1.3331E+01	1.4645E+01

SPECIES	MOLE FRACTIONS		
E-	2.9761E-01	3.8605E-01	4.3787E-01
HE	5.4410E-02	3.3743E-02	2.4614E-02
HE+	2.3486E-02	3.4388E-02	3.5558E-02
HE++	3.1559E-07	1.2557E-04	2.2991E-03
H	3.4970E-01	1.9393E-01	1.0183E-01
H+	2.7412E-01	3.5142E-01	3.9771E-01
H2	4.7346E-04	3.3444E-04	1.1151E-04

P1 = 5.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0272E+03	1.5734E+04	3.1059E+04
T	1.4317E+02	2.4091E+02	3.4447E+02
RHO	7.6207E+00	2.0921E+01	2.6693E+01
H	5.3162E+02	8.8464E+02	1.2644E+03
A	1.9678E+01	2.8423E+01	3.5131E+01
S	2.5328E+00	2.6065E+00	2.7269E+00
Z	2.7745E+00	3.1368E+00	3.3779E+00
GAME	9.7479E-01	1.0693E+00	1.0607E+00
U	4.2835E+01	1.5670E+01	1.7093E+01

SPECIES	MOLE FRACTIONS		
E-	3.5147E-01	4.2629E-01	4.6717E-01
HE	3.9495E-02	2.6121E-02	1.5161E-02
HE+	3.2588E-02	3.6833E-02	3.4601E-02
HE++	3.2238E-06	8.0527E-04	9.4459E-03
H	2.5732E-01	1.2198E-01	5.9916E-02
H+	3.1888E-01	3.8785E-01	4.1367E-01
H2	2.4502E-04	1.2391E-04	3.7759E-05

Table II. - Continued

p_1 = 50 kN/m^2

P1 = 5.60E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2299E+03	1.6567E+04	3.3063E+04
T	1.4965E+02	2.5488E+02	3.6602E+02
RHO	7.3827E+00	2.0339E+01	2.6364E+01
H	5.6745E+02	9.4170E+02	1.3527E+03
A	2.0499E+01	2.9543E+01	3.6520E+01
S	2.5692E+00	2.6409E+00	2.7611E+00
Z	2.8462E+00	3.1960E+00	3.4263E+00
GAME	9.9647E-01	1.0714E+00	1.0635E+00
U	4.4229E+01	1.6475E+01	1.7850E+01

SPECIES	MOLE FRACTIONS		
E-	3.6776E-01	4.3688E-01	4.7468E-01
HE	3.5241E-02	2.3760E-02	1.2299E-02
HE+	3.5022E-02	3.7428E-02	3.3224E-02
HE++	6.5516E-06	1.3907E-03	1.2859E-02
H	2.2965E-01	1.0379E-01	5.1177E-02
H+	3.3273E-01	3.9667E-01	4.1574E-01
H2	1.9082E-04	8.7532E-05	2.7401E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8690E+03	1.8895E+04	3.8901E+04
T	1.7171E+02	2.9949E+02	4.3906E+02
RHO	7.3818E+00	1.8850E+01	2.4985E+01
H	6.8177E+02	1.1208E+03	1.6346E+03
A	2.3189E+01	3.2633E+01	4.1247E+01
S	2.6744E+00	2.7406E+00	2.8623E+00
Z	3.0524E+00	3.3470E+00	3.5543E+00
GAME	1.0260E+00	1.0623E+00	1.0927E+00
U	4.9310E+01	1.9905E+01	2.0245E+01

SPECIES	MOLE FRACTIONS		
E-	4.1038E-01	4.6224E-01	4.9359E-01
HE	2.5142E-02	1.6692E-02	5.3409E-03
HE+	4.0332E-02	3.7572E-02	2.6645E-02
HE++	4.8421E-05	5.4903E-03	2.4284E-02
H	1.5407E-01	6.4285E-02	3.1782E-02
H+	3.6995E-01	4.1369E-01	4.1836E-01
H2	8.1292E-05	3.1178E-05	1.0286E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4379E+03	1.7374E+04	3.5068E+04
T	1.5652E+02	2.6932E+02	3.8896E+02
RHO	7.5309E+00	1.9848E+01	2.5961E+01
H	6.0449E+02	1.0001E+03	1.4445E+03
A	2.1356E+01	3.0610E+01	3.8024E+01
S	2.6049E+00	2.6745E+00	2.7957E+00
Z	2.9166E+00	3.2501E+00	3.4728E+00
GAME	9.991UE-01	1.0704E+00	1.0703E+00
U	4.5609E+01	1.7293E+01	1.8659E+01

SPECIES	MOLE FRACTIONS		
E-	3.8300E-01	4.4624E-01	4.8171E-01
HE	3.1458E-02	2.1420E-02	9.5929E-03
HE+	3.7101E-02	3.7815E-02	3.1334E-02
HE++	1.2973E-05	2.3007E-03	1.6063E-02
H	2.0242E-01	8.9339E-02	4.3628E-02
H+	3.4587E-01	4.0382E-01	4.1705E-01
H2	1.4631E-04	6.1856E-05	1.9771E-05

P1 = 5.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0915E+03	1.9638E+04	4.0763E+04
T	1.8016E+02	3.1475E+02	4.6555E+02
RHO	7.2881E+00	1.9407E+01	2.4392E+01
H	7.2205E+02	1.1835E+03	1.7369E+03
A	2.4155E+01	3.3608E+01	4.2992E+01
S	2.7081E+00	2.7720E+00	2.8954E+00
Z	3.1161E+00	3.3896E+00	3.5897E+00
GAME	1.0393E+00	1.0587E+00	1.1060E+00
U	4.9629E+01	1.9634E+01	2.1126E+01

SPECIES	MOLE FRACTIONS		
E-	4.2242E-01	4.6899E-01	4.9857E-01
HE	2.2533E-02	1.4420E-02	3.7874E-03
HE+	4.1558E-02	3.6781E-02	2.4047E-02
HE++	9.1754E-05	7.8031E-03	2.7881E-02
H	1.3267E-01	5.5389E-02	2.6951E-02
H+	3.8068E-01	4.1660E-01	4.1876E-01
H2	5.8879E-05	2.2658E-05	7.2936E-06

P1 = 5.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6507E+03	1.8131E+04	3.6970E+04
T	1.6393E+02	2.8399E+02	4.1307E+02
RHO	7.4568E+00	1.9349E+01	2.5454E+01
H	6.4256E+02	1.0596E+03	1.5379E+03
A	2.2265E+01	3.1620E+01	3.9616E+01
S	2.6405E+00	2.7073E+00	2.8301E+00
Z	2.9866E+00	3.2997E+00	3.5162E+00
GAME	1.0126E+00	1.0669E+00	1.0806E+00
U	4.6965E+01	1.9109E+01	1.9433E+01

SPECIES	MOLE FRACTIONS		
E-	3.9741E-01	4.5454E-01	4.8810E-01
HE	2.8058E-02	1.9091E-02	7.2323E-03
HE+	3.9983E-02	3.7902E-02	2.9063E-02
HE++	2.5434E-05	3.6189E-03	2.0584E-02
H	1.7763E-01	7.5412E-02	3.7144E-02
H+	3.5848E-01	4.0940E-01	4.1787E-01
H2	1.0960E-04	4.3971E-05	1.4181E-05

Table II. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M. US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2572E+01	2.6293E+01	6.5073E+01
T	3.1753E+00	3.9838E+00	5.7003E+00
RHO	3.9601E+00	6.6009E+00	1.1403E+01
H	3.2467E+00	4.1057E+00	6.0150E+00
A	1.7739E+00	1.9770E+00	2.3405E+00
S	1.0813E+00	1.0838E+00	1.1073E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9100E-01	9.8108E-01	9.5990E-01
U	2.4570E+00	1.4729E+00	1.3084E+00

SPECIES	MOLE FRACTIONS		
E-	3.9509E-35	2.2168E-42	1.3777E-26
HE	2.0000E-01	2.0000E-01	2.0000E-01
HE+	3.5029E-53	7.1625E-56	1.4579E-46
HE++	0.	0.	0.
H	3.9075E-11	1.2508E-04	9.2405E-06
H+	7.2402E-20	7.2402E-20	7.2402E-20
H2	8.0000E-01	8.0000E-01	7.9999E-01

P1 = 1.00E+05 N/SQ-M. US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9432E+01	1.3670E+02	2.6470E+02
T	7.4070E+00	1.0537E+01	1.3257E+01
RHO	5.2795E+00	1.2911E+01	1.9500E+01
H	8.0003E+00	1.2103E+01	1.6400E+01
A	2.0500E+00	3.0943E+00	3.4535E+00
S	1.2010E+00	1.2144E+00	1.2405E+00
Z	1.0003E+00	1.0048E+00	1.0217E+00
GAME	9.4009E-01	9.0432E-01	8.8131E-01
U	4.6020E+00	1.9055E+00	1.7249E+00

SPECIES	MOLE FRACTIONS		
E-	8.2723E-16	8.2024E-13	2.7340E-10
HE	1.9995E-01	1.9904E-01	1.9300E-01
HE+	[illegible]E-39	4.6281E-26	2.7170E-22
HE++	0.	0.	6.5990E-01
H	5.0187E-04	9.6784E-03	4.1207E-02
H+	8.3447E-16	8.2024E-13	2.7340E-10
H2	7.9950E-01	7.9133E-01	7.6291E-01

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

P1 = 1.00E+05 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9811E+01	5.2080E+01	1.1600E+02
T	4.4065E+00	5.9054E+00	8.1643E+00
RHO	4.4957E+00	8.8174E+00	1.4200E+01
M	4.5041E+00	6.2435E+00	8.9322E+00
A	2.0733E+00	2.3783E+00	2.7640E+00
S	1.1233E+00	1.1289E+00	1.1503E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.7554E-01	9.5781E-01	9.3537E-01
U	3.1952E+00	1.6275E+00	1.4797E+00

SPECIES	MOLE FRACTIONS		
E-	9.1510E-39	1.0233E-24	6.8947E-17
NE	2.0000E-01	2.0000E-01	1.9992E-01
NE+	4.6884E-24	1.2910E-45	1.7274E-34
NE++	0.	0.	0.
N	1.6067E-07	1.8080E-05	8.2934E-04
N+	7.2402E-20	7.2402E-20	6.9000E-17
N2	8.0000E-01	7.9998E-01	7.9926E-01

P1 = 1.00E+05 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1932E+01	2.0131E+02	3.6697E+02
T	9.1987E+00	1.2874E+01	1.5500E+01
RHO	5.0331E+00	1.5337E+01	2.2430E+01
M	1.0279E+01	1.5915E+01	2.1194E+01
A	2.9000E+00	3.3999E+00	3.7810E+00
S	1.2731E+00	1.2554E+00	1.2400E+00
Z	1.0002E+00	1.0196E+00	1.0502E+00
GAME	9.1639E-01	8.8054E-01	8.6316E-01
U	3.4671E+00	1.9843E+00	1.6813E+00

SPECIES	MOLE FRACTIONS		
E-	2.1897E-14	1.6747E-10	8.0352E-09
NE	1.9992E-01	1.9816E-01	1.9049E-01
NE+	1.0261E-31	8.2181E-23	3.7100E-19
NE++	0.	7.9993E-04	1.3496E-03
N	4.0397E-03	3.8443E-02	9.0174E-02
N+	2.1897E-14	1.6747E-10	8.0352E-09
N2	7.9760E-01	7.6540E-01	7.1363E-01

P1 = 1.00E+05 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8751E+01	8.8143E+01	1.8241E+02
T	5.8463E+00	8.1337E+00	1.0783E+01
RHO	4.9178E+00	1.0832E+01	1.6627E+01
M	6.1701E+00	8.8976E+00	1.2453E+01
A	2.3671E+00	2.7582E+00	3.1304E+00
S	1.1633E+00	1.1725E+00	1.2026E+00
Z	1.0000E+00	1.0005E+00	1.0031E+00
GAME	9.2833E-01	9.3492E-01	9.0400E-01
U	3.9284E+00	1.7826E+00	1.6274E+00

SPECIES	MOLE FRACTIONS		
E-	9.1951E-29	1.2117E-16	1.3935E-14
NE	2.0000E-01	1.9991E-01	1.9979E-01
NE+	1.3879E-46	4.1716E-33	3.6042E-27
NE++	0.	0.	0.
N	1.9915E-05	9.1458E-04	1.0149E-02
N+	7.2397E-20	1.2124E-16	1.3935E-14
N2	7.9994E-01	7.9918E-01	7.9803E-01

P1 = 1.00E+05 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0389E+01	2.8604F+02	4.9702E+02
T	1.0897E+01	1.5079E+01	1.7833E+01
RHO	6.0303E+00	1.8117E+01	2.5530E+01
M	1.4281E+01	2.0334E+01	2.6304E+01
A	3.1727E+00	3.7125E+00	4.1399E+00
S	1.2727E+00	1.2964E+00	1.3344E+00
Z	1.0003E+00	1.0471F+00	1.0962E+00
GAME	8.8717E-01	8.7295E-01	8.7997E-01
U	8.1703E+00	2.0550E+00	1.9092E+00

SPECIES	MOLE FRACTIONS		
E-	3.7931E-14	4.9460E-09	9.2609E-08
NE	1.9961E-01	1.9101F-01	1.8314E-01
NE+	2.6990E-27	9.8626E-20	7.1083E-17
NE++	0.	4.4451F-11	9.5000E-06
N	1.0037E-02	8.9895E-02	1.6033E-01
N+	3.7931E-14	4.9460E-09	9.2609E-08
N2	7.9034E-01	7.1909E-01	6.4033E-01

Table II. - Continued

p_1 = 100 kN/ m^2

P1 = 1.000E+05 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.2800E+01	3.9426E+02	6.6426E+02
T	1.2400E+01	1.7224E+01	2.0199E+01
RHO	6.4946E+00	2.1078E+01	2.8718E+01
M	1.5649E+01	2.5363E+01	3.2657E+01
A	3.3339E+00	4.0486E+00	4.5425E+00
S	1.3078E+00	1.3378E+00	1.3603E+00
Z	1.0640E+00	1.0860E+00	1.1452E+00
GAME	8.7110E-01	8.7633E-01	8.9203E-01
U	9.9530E+00	2.1406E+00	2.0321E+00

SPECIES	POLF FRACTIONS		
E-	1.3600E-10	5.7334E-08	6.3951E-07
HE	1.9551E-01	1.8417E-01	1.7965E-01
HE+	1.2950E-23	2.1617E-17	5.6390E-13
HE++	1.3394E-04	1.4182E-62	8.2832E-54
N	4.6931E-02	1.5831E-01	2.5321E-01
N+	1.3600E-10	5.7334E-08	6.3921E-07
N2	7.8780E-01	6.5752E-01	5.7164E-01

P1 = 1.000E+05 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4360E+02	8.4892E+02	1.3901E+03
T	1.6290E+01	2.3897E+01	2.8630E+01
RHO	7.8270E+00	2.8356E+01	3.5703E+01
M	2.0593E+01	4.3751E+01	5.6017E+01
A	3.9693E+00	5.2444E+00	6.1017E+00
S	1.4133E+00	1.4635E+00	1.5108E+00
Z	1.1117E+00	1.2528E+00	1.3569E+00
GAME	8.9317E-01	9.1869E-01	9.3532E-01
U	9.3180E+00	2.5697E+00	2.0054E+00

SPECIES	POLF FRACTIONS		
E-	2.2460E-06	6.3363E-06	4.4049E-05
HE	1.7990E-01	1.5965E-01	1.4139E-01
HE+	2.2703E-18	8.7427E-13	8.1908E-11
HE++	2.0733E-03	1.3957E-43	3.6686E-38
N	2.0009E-01	4.0353E-01	5.2495E-01
N+	2.2460E-06	6.3363E-06	4.4049E-05
N2	6.1961E-01	4.3682E-01	3.2603E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.012[illegible]+02	5.2547E+02	[illegible]
T	[illegible]	1.9377E+01	[illegible]
RHO	[illegible]	[illegible]	[illegible]
M	[illegible]	3.0959E+01	[illegible]
A	[illegible]	4.4131E+00	[illegible]
S	[illegible]	1.3796E+00	[illegible]
L	[illegible]	1.1343E+00	[illegible]
GAME	[illegible]	9.8630E-01	[illegible]
U	[illegible]	[illegible]	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	3.7943E-07	[illegible]
HE	[illegible]	1.7632E-01	[illegible]
HE+	[illegible]	1.4543E-15	[illegible]
HE++	[illegible]	2.6583E-36	[illegible]
H	[illegible]	2.3682E-01	[illegible]
H+	[illegible]	3.7943E-07	[illegible]
H2	[illegible]	5.8687E-01	[illegible]

P1 = 1.00E+05 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	1.0335E+03	[illegible]
T	[illegible]	2.6369E+01	[illegible]
RHO	[illegible]	2.9704E+01	[illegible]
M	[illegible]	5.0889E+01	[illegible]
A	[illegible]	5.7180E+00	[illegible]
S	[illegible]	1.5051E+00	[illegible]
L	[illegible]	1.3195E+00	[illegible]
GAME	[illegible]	9.3968E-01	[illegible]
U	[illegible]	2.7771E+00	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	2.0471E-05	[illegible]
HE	[illegible]	1.5157E-01	[illegible]
HE+	[illegible]	1.1251E-11	[illegible]
HE++	[illegible]	1.6469E-41	[illegible]
H	[illegible]	4.8425E-01	[illegible]
H+	[illegible]	2.0471E-05	[illegible]
H2	[illegible]	3.6414E-01	[illegible]

P1 = 1.00E+05 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	6.7804E+02	[illegible]
T	[illegible]	2.1581E+01	[illegible]
RHO	[illegible]	2.6392E+01	[illegible]
M	[illegible]	3.7097E+01	[illegible]
A	[illegible]	4.8104E+00	[illegible]
S	[illegible]	1.4216E+00	[illegible]
L	[illegible]	1.1904E+00	[illegible]
GAME	[illegible]	9.0073E-01	[illegible]
U	[illegible]	2.3981E+00	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	1.7706E-06	[illegible]
HE	[illegible]	1.6800E-01	[illegible]
HE+	[illegible]	4.6121E-14	[illegible]
HE++	[illegible]	2.1309E-50	[illegible]
H	[illegible]	3.1995E-01	[illegible]
H+	[illegible]	1.7706E-06	[illegible]
H2	[illegible]	5.1204E-01	[illegible]

P1 = 1.00E+05 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	[illegible]	1.2273E+03	[illegible]
T	[illegible]	2.9504E+01	[illegible]
RHO	[illegible]	3.0419E+01	[illegible]
M	[illegible]	5.8488E+01	[illegible]
A	[illegible]	6.2345E+00	[illegible]
S	[illegible]	1.5460E+00	[illegible]
L	[illegible]	1.3887E+00	[illegible]
GAME	[illegible]	9.6335E-01	[illegible]
U	[illegible]	3.0205E+00	[illegible]

SPECIES	MOLE FRACTIONS		
E-	[illegible]	5.7038E-05	[illegible]
HE	[illegible]	1.4402E-01	[illegible]
HE+	[illegible]	1.1876E-10	[illegible]
HE++	[illegible]	1.3902E-37	[illegible]
H	[illegible]	5.5966E-01	[illegible]
H+	[illegible]	5.7038E-05	[illegible]
H2	[illegible]	2.9621E-01	[illegible]

Table II. - Continued

p_1 = 100 kN/ m^2

P1 = 1.00E+05 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2013E+02	1.4245E+03	2.4279E+03
T	2.0320E+01	3.2017E+01	4.1839E+01
RHO	8.6783E+00	3.0518E+01	3.6405E+01
M	5.0084E+01	8.6511E+01	8.7697E+01
A	4.7491E+00	6.7947E+00	8.3540E+00
S	1.5233E+00	1.5859F+00	1.6527E+00
Z	1.2484E+00	1.4579E+00	1.5905E+00
GAME	8.6909E-01	9.8908E-01	1.0400E+00
U	1.1033E+01	3.3070E+00	3.6297E+00

SPECIES	MOLE FRACTIONS		
E-	1.3147E-06	1.4567E-04	1.1514E-03
HE	1.6026E-01	1.3718E-01	1.2579E-01
HE+	8.7813E-13	1.0059F-09	1.4251E-07
HE++	1.4219E-33	4.1537E-34	4.2000E-26
H	5.5790E-01	6.2773F-01	7.3900E-01
H+	1.3142E-06	1.4567F-04	1.1514E-03
H2	4.4101E-01	2.3479F-01	1.3200E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1111E+02	1.9860E+03	3.6530E+03
T	2.4013E+01	4.3317E+01	6.2472E+01
RHO	8.9200E+00	2.8006E+01	3.3040E+01
M	5.9462E+01	9.2829F+01	1.0793E+02
A	5.0977E+00	8.6599F+00	1.0631E+01
S	1.0349E+00	1.6971E+00	1.7093E+00
Z	1.4170E+00	1.6371E+00	1.7305E+00
GAME	9.3073E-01	1.0575F+00	1.0493E+00
U	1.3064E+01	4.4130E+00	4.9907E+00

SPECIES	MOLE FRACTIONS		
E-	1.0021E-03	1.6842E-03	1.2824E-02
HE	1.4114E-01	1.2217E-01	1.1900E-01
HE+	2.5420E-12	2.7419E-07	3.8529E-05
HE++	5.0324E-44	4.1677E-25	5.0057E-17
H	5.0022E-01	7.7325E-01	8.1110E-01
H+	1.0021E-03	1.6839F-03	1.2782E-02
H2	2.7030E-01	1.0121E-01	4.8179E-02

P1 = 1.00E+05 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.40994E+02	1.6195E+03	2.827[illegible]E+03
T	2.1002E+01	3.5335E+01	4.80[illegible]E+01
RHO	8.0203E+00	3.0070E+01	3.56[illegible]E+01
M	3.[illegible]E+01	7.4926E+01	1.0029E+02
A	3.0407E+00	7.3955E+00	9.1854E+00
S	1.2007E+00	1.6246E+00	1.694[illegible]E+00
Z	1.3020E+00	1.5242E+00	1.6514E+00
GAME	9.0000E-01	1.0155E+00	1.0631E+00
U	1.2307E+01	3.6378E+00	4.07[illegible]E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.6992E-06	3.4818E-04	2.9[illegible]E-03
HE	1.0[illegible]E-01	1.3121E-01	1.2[illegible]E-01
HE+	8.[illegible]E-14	7.3687E-09	1.2419E-06
HE++	3.[illegible]E-30	6.0686E-31	1.1969E-22
H	9.0[illegible]E-01	6.8682E-01	7.8[illegible]E-01
H+	3.6992E-06	3.4818E-04	2.9[illegible]E-03
H2	3.0240E-01	1.8127E-01	9.2[illegible]E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4441E+02	2.1486E+03	4.047[illegible]E+03
T	2.0[illegible]E+01	4.7974E+01	8.95[illegible]E+01
RHO	8.8080E+00	2.6658E+01	3.28[illegible]E+01
M	3.0227E+01	1.0225E+02	1.42[illegible]E+02
A	3.0[illegible]E+00	9.2640E+00	1.12[illegible]E+01
S	1.2[illegible]E+00	1.7307E+00	1.80[illegible]E+00
Z	1.4[illegible]E+00	1.6801E+00	1.771[illegible]E+00
GAME	9.4[illegible]E-01	1.0648E+00	1.027[illegible]E+00
U	1.4[illegible]E+01	4.8469E+00	5.39[illegible]E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.[illegible]E-06	3.3623E-03	2.1[illegible]E-02
HE	1.0[illegible]E-01	1.1904E-01	1.12[illegible]E-01
HE+	1.[illegible]E-11	1.3448E-06	1.2[illegible]E-04
HE++	3.0[illegible]E-41	1.3636E-22	2.2[illegible]E-13
H	8.[illegible]E-01	7.9951E-01	8.07[illegible]E-01
H+	3.[illegible]E-06	3.3610E-03	2.1[illegible]E-02
H2	8.1[illegible]E-01	7.4726F-02	3.7[illegible]E-02

P1 = 1.00E+05 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.79[illegible]E+02	1.8092E+03	3.2[illegible]E+03
T	2.3[illegible]E+01	3.9096E+01	5.51[illegible]E+01
RHO	8.9[illegible]E+00	2.9200F+01	3.46[illegible]E+01
M	4.[illegible]E+01	8.3723E+01	1.13[illegible]E+02
A	3.[illegible]E+00	8.02c7F+00	9.9[illegible]E+00
S	1.[illegible]E+00	1.6617E+00	1.73[illegible]E+00
Z	1.3[illegible]E+00	1.5848E+00	1.699[illegible]E+00
GAME	9.1[illegible]E-01	1.0398E+00	1.05[illegible]E+00
U	1.3[illegible]E+01	4.0038E+00	4.54[illegible]E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	0.[illegible]E-01	7.d673E-04	6.6[illegible]E-03
HE	1.[illegible]E-01	1.2c20E-01	1.1[illegible]E-01
HE+	9.[illegible]E-13	4.8018F-06	8.22[illegible]E-06
HE++	0.[illegible]E-71	7.0070E-26	1.16[illegible]E-19
H	9.[illegible]E-01	7.35c7E-01	8.0[illegible]E-01
H+	8.[illegible]E-06	7.8868E-04	6.59[illegible]E-03
H2	3.[illegible]E-01	1.3655F-01	6.5[illegible]E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+02	2.2954E+03	4.41[illegible]E+03
T	2.0[illegible]E+01	5.2939E+01	7.63[illegible]E+01
RHO	8.[illegible]E+00	2.5282E+01	3.20[illegible]E+01
M	4.0[illegible]E+01	1.1196E+02	1.57[illegible]E+02
A	3.[illegible]E+00	9.8148E+00	1.18[illegible]E+01
S	1.[illegible]E+00	1.7627E+00	1.83[illegible]E+00
Z	1.5[illegible]E+00	1.7150E+00	1.80[illegible]E+00
GAME	9.[illegible]E-01	1.0610E+00	1.01[illegible]E+00
U	1.3[illegible]E+01	5.2900E+00	5.74[illegible]E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	0.4[illegible]E-03	6.1975E-03	3.19[illegible]E-02
HE	1.[illegible]E-01	1.1661E-01	1.10[illegible]E-01
HE+	0.[illegible]E-11	5.4923E-06	3.2[illegible]E-04
HE++	2.[illegible]E-38	2.2193F-20	6.40[illegible]E-14
H	8.[illegible]E-01	8.1523E-01	7.95[illegible]E-01
H+	8.4[illegible]E-03	6.1920E-03	3.15[illegible]E-02
H2	1.[illegible]E-01	5.5759E-02	2.9[illegible]E-02

Table II. - Continued

p_1 = 100 kN/ m^2

P1 = 1.00E+05 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.49[illegible]E+02	2.4282E+03	4.7330E+03
T	3.0[illegible]E+01	3.8053E+01	8.2624E+01
RHO	5.0[illegible]E+00	2.3980E+01	3.1219E+01
M	7.6[illegible]E+01	1.2201E+02	1.7213E+02
A	6.9[illegible]E+00	1.0310E+01	1.2306E+01
S	1.6[illegible]E+00	1.7932E+00	1.8626E+00
Z	1.5[illegible]E+00	1.7442E+00	1.8[illegible]E+00
GAME	9.9[illegible]E-01	1.0498E+00	9.9800E-01
U	1.3[illegible]E+01	5.7070E+00	6.0443E+00

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]E-04	1.0497E-02	4.3[illegible]E-02
HE	1.2[illegible]E-01	1.1465E-01	1.0630E-01
HE+	[illegible]	1.8466E-05	6.7313E-04
HE++	1.4[illegible]E-32	1.7430E-18	9.0[illegible]E-13
H	7.[illegible]E-01	8.2188E-01	7.7950E-01
H+	1.[illegible]E-04	1.0479E-02	4.3102E-02
H2	1.3[illegible]E-01	4.2484E-02	2.4[illegible]E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.[illegible]E+02	2.7638E+03	5.4391E+03
T	3.9[illegible]E+01	7.3053E+01	9.8844E+01
RHO	7.[illegible]E+00	2.0784E+01	2.8406E+01
M	9.3[illegible]E+01	1.5442E+02	2.1701E+02
A	8.5[illegible]E+00	1.1583E+01	1.3593E+01
S	1.8[illegible]E+00	1.8786E+00	1.9486E+00
Z	1.7[illegible]E+00	1.8202E+00	1.9317E+00
GAME	1.0[illegible]E+00	1.0084E+00	9.6700E-01
U	1.7[illegible]E+01	6.6920E+00	6.7203E+00

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]E-03	3.2799E-02	8.3254E-02
HE	1.1[illegible]E-01	1.0962F-01	1.0005E-01
HE+	9.[illegible]E-06	2.5442E-04	2.8902E-03
HE++	3.7[illegible]E-27	2.0478E-14	1.8230E-10
H	8.3[illegible]E-01	8.0310E-01	7.1770E-01
H+	1.0[illegible]E-03	3.2545E-02	8.0304E-02
H2	4.0[illegible]E-02	2.1677E-02	1.5086E-02

P1 = 1.000E+05 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0314E+02	2.5489E+03	5.0115E+03
T	3.2901E+01	6.3174E+01	8.8518E+01
RHO	8.3911E+00	2.2791E+01	3.0311E+01
M	4.9197E+01	1.3243E+02	1.8724E+02
A	1.4441E+00	1.0762E+01	1.2706E+01
S	1.7730E+00	1.8226E+00	1.8935E+00
Z	1.0410E+00	1.7703E+00	1.8673E+00
GAMA	1.0240E+00	1.0356E+00	9.8021E-01
U	1.0033E+01	6.0840E+00	6.3049E+00

SPECIES	MOLE FRACTIONS		
E-	3.7804E-04	1.6412E-02	5.0711E-02
NE	1.2102E-01	1.1292E-01	1.0500E-01
NE+	2.7401E-04	5.1640E-05	1.2144E-03
NE++	9.0003E-33	6.9181E-17	7.7039E-12
N	7.8007E-01	8.2108E-01	7.0014E-01
N+	3.7804E-04	1.6360E-02	5.5491E-02
N2	9.0749E-02	3.3171E-02	2.0302E-02

P1 = 1.000E+05 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0700E+02	2.8721E+03	5.6250E+03
T	4.3370E+01	7.7767E+01	1.0361E+02
RHO	7.4990E+00	2.0008E+01	2.7697E+01
M	1.0050E+02	1.6605E+02	2.3351E+02
A	8.9992E+00	1.1969E+01	1.3982E+01
S	1.8040E+00	1.9052E+00	1.9751E+00
Z	1.7459E+00	1.8458E+00	1.9640E+00
GAMA	1.0090E+00	9.9799E-01	9.6035E-01
U	1.0210E+01	6.9363E+00	6.9021E+00

SPECIES	MOLE FRACTIONS		
E-	3.3200E-03	4.2896E-02	9.0070E-02
NE	1.1490E-01	1.0788E-01	9.7778E-02
NE+	4.6977E-07	4.7355E-04	4.0648E-03
NE++	1.5322E-24	1.8803E-13	6.3250E-10
N	8.4440E-01	7.8827E-01	6.9537E-01
N+	3.3201E-03	4.2423E-02	9.2851E-02
N2	3.9325E-02	1.8061E-02	1.3098E-02

P1 = 1.000E+05 N/SQ-M, US1= 2. P/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8922E+02	2.6590E+03	5.2429E+03
T	3.5930E+01	6.8150E+01	9.3807E+01
RHO	8.0004E+00	2.1720E+01	2.9400E+01
M	8.0053E+01	1.4323E+02	2.0249E+02
A	1.9771E+00	1.1183E+01	1.3193E+01
S	1.8007E+00	1.8510E+00	1.9241E+00
Z	1.8031E+00	1.7953E+00	1.8994E+00
GAMA	1.0093E+00	1.0215E+00	9.7042E-01
U	1.7211E+01	6.4117E+00	6.5274E+00

SPECIES	MOLE FRACTIONS		
E-	6.0359E-04	2.3900E-02	6.9070E-02
NE	1.1006E-01	1.1128E-01	1.0334E-01
NE+	1.0629E-06	1.2265E-04	1.9373E-03
NE++	6.0052E-30	1.5187E-15	4.3192E-11
N	8.1006E-01	8.1439E-01	7.3939E-01
N+	6.0359E-04	2.3777E-02	6.7918E-02
N2	8.9913E-02	2.6527E-02	1.7522E-02

P1 = 1.000E+05 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0925E+02	2.9950E+03	5.8248E+03
T	4.7480E+01	8.2374E+01	1.0821E+02
RHO	7.2638E+00	1.9418E+01	2.6946E+01
M	1.0862E+02	1.7821E+02	2.4955E+02
A	9.4293E+00	1.2348E+01	1.4303E+01
S	1.8911E+00	1.9309E+00	2.0019E+00
Z	1.7000E+00	1.8724E+00	1.9977E+00
GAMA	1.0000E+00	9.8861E-01	9.5492E-01
U	1.9153E+01	7.1527E+00	7.0575E+00

SPECIES	MOLE FRACTIONS		
E-	6.0704E-03	5.3984E-02	1.1045E-01
NE	1.1342E-01	1.0601E-01	9.4784E-02
NE+	1.9044E-06	8.0952E-04	5.3343E-03
NE++	2.9268E-22	1.2850E-12	1.8135E-09
N	8.4963E-01	7.7071E-01	6.7283E-01
N+	6.0065E-03	5.3174E-02	1.0511E-01
N2	2.2300E-02	1.5317E-02	1.1494E-02

Table II. - Continued

p_1 = 100 kN/m^2

P1 = 1.006E+05 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5243E+02	3.1392E+03	8.0590E+03
T	5.1047E+01	8.6910E+01	1.1279E+02
RHO	7.0795E+00	1.9010E+01	2.6947E+01
M	1.1624E+02	1.9095E+02	2.6631E+02
A	9.0078E+00	1.2724E+01	1.4701E+01
S	1.9150E+00	1.9557E+00	2.0274E+00
Z	1.7844E+00	1.9000E+00	2.0314E+00
GAME	1.0438E+00	9.8042E-01	9.4959E-01
U	1.9759E+01	7.3527E+00	7.2180E+00

SPECIES	MOLE FRACTIONS		
E-	1.0101E-02	6.5849E-02	1.2410E-01
HE	1.1208E-01	1.0397E-01	9.1030E-02
HE+	8.7938E-06	1.2920E-03	6.8217E-03
HE++	2.0306E-20	6.9516E-12	5.0124E-09
H	8.4866E-01	7.5113E-01	6.4999E-01
H+	1.0154E-02	6.4557E-02	1.1720E-01
H2	1.8921E-02	1.3198E-02	1.0170E-02

P1 = 1.00[illegible]E+05 N/SQ-M, US1= 3.20[illegible]E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4934E+02	3.9524E+03	7.4201E+03
T	6.7290E+01	1.0465[illegible]+02	1.3179E+02
RHO	6.7635E+00	1.8694E+01	2.5934E+01
M	1.3122E+02	2.4818E+02	3.4142E+02
A	1.1110E+01	1.4215E+01	1.6449E+01
S	2.0009E+00	2.0475E+00	2.1249E+00
Z	1.8972E+00	2.0204E+00	2.1134E+00
GAME	9.8757E-01	9.5574E-01	9.4420E-01
U	2.2490E+01	8.1024E+00	7.9013E+00

SPECIES	MOLE FRACTIONS		
E-	9.9393E-02	1.1729E-01	1.7845E-01
HE	1.0[illegible]1E-01	9.3908E-02	7.8179E-02
HE+	1.0819E-04	5.0805E-03	1.3093E-02
HE++	2.7[illegible]0E-19	1.1759E-09	1.2740E-07
H	8.0511E-01	6.6334E-01	5.5020E-01
H+	9.9211E-02	1.1221E-01	1.6960E-01
H2	8.[illegible]26E-03	8.1831E-03	8.0929E-03

P1 = 1.00E+05 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.975BE+02	3.3074E+03	6.3377E+03
T	5.5755E+01	9.1394E+01	1.1791E+02
RHO	6.9455E+00	1.8763E+01	2.6130E+01
M	1.2452E+02	2.0431E+02	2.8304E+02
A	1.0153E+01	1.3037E+01	1.5149E+01
S	1.9393E+00	1.9796E+00	2.0523E+00
Z	1.8014E+00	1.9288E+00	2.0033E+00
GAME	1.0264E+00	9.7315E-01	9.4613E-01
U	2.0400E+01	7.5455E+00	7.3802E+00

SPECIES	MOLE FRACTIONS		
E-	1.5655E-02	7.8287E-02	1.3770E-01
HE	1.1101E-01	1.0175E-01	8.8355E-02
HE+	1.9203E-05	1.9472E-03	8.4279E-03
HE++	8.5726E-19	3.1143E-11	1.2334E-08
H	8.4281E-01	7.3015E-01	6.2705E-01
H+	1.2636E-02	7.6339E-02	1.2930E-01
H2	1.4877E-02	1.1530E-02	9.0734E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5306E+02	4.4854E+03	8.3435E+03
T	7.6344E+01	1.1338E+02	1.4203E+02
RHO	8.7305E+00	1.8974E+01	2.6111E+01
M	1.4705E+02	2.8059E+02	3.8411E+02
A	1.1726E+01	1.4972E+01	1.7430E+01
S	2.0492E+00	2.0909E+00	2.1709E+00
Z	1.9007E+00	2.0850E+00	2.2496E+00
GAME	9.7790E-01	9.4823E-01	9.5097E-01
U	2.3002E+01	8.4632E+00	8.2993E+00

SPECIES	MOLE FRACTIONS		
E-	3.9491E-02	1.4344E-01	2.6024E-01
HE	1.0971E-01	8.7000E-02	7.1390E-02
HE+	3.0089E-04	8.0623E-03	1.7344E-02
HE++	1.1226E-13	7.7316E-09	4.6441E-07
H	7.8790E-01	6.1853E-01	5.1639E-01
H+	5.8971E-02	1.3537E-01	1.8706E-01
H2	6.2234E-03	6.7345E-03	5.4900E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4478E+02	3.4997E+03	6.6611E+03
T	5.9794E+01	9.5839E+01	1.2211E+02
RHO	6.8540E+00	1.8645E+01	2.5902E+01
M	1.3311E+02	2.1830E+02	3.0274E+02
A	1.0480E+01	1.3470E+01	1.5564E+01
S	1.9618E+00	2.0027E+00	2.0767E+00
Z	1.8189E+00	1.9585E+00	2.1015E+00
GAME	1.0108E+00	9.6664E-01	9.4412E-01
U	2.1050E+01	7.7348E+00	7.5527E+00

SPECIES	MOLE FRACTIONS		
E-	2.2470E-02	9.1107E-02	1.5349E-01
HE	1.0991E-01	9.9327E-02	8.4981E-02
HE+	4.6033E-05	2.7937E-03	1.0211E-02
HE++	1.9786E-17	1.1890E-10	2.8381E-08
H	8.3308E-01	7.0827E-01	6.0405E-01
H+	2.2474E-02	8.8313E-02	1.4124E-01
H2	1.2098E-02	1.0192E-02	8.1437E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0701E+03	5.0872E+03	9.3911E+03
T	8.0978E+01	1.2211E+02	1.5306E+02
RHO	8.7804E+00	1.9363E+01	2.6333E+01
M	1.9412E+02	3.1513E+02	4.3032E+02
A	1.2031E+01	1.5757E+01	1.8526E+01
S	2.0893E+00	2.1334E+00	2.2174E+00
Z	1.9408E+00	2.1515E+00	2.3299E+00
GAME	9.6034E-01	9.4502E-01	9.6249E-01
U	2.3221E+01	8.8273E+00	8.7300E+00

SPECIES	MOLE FRACTIONS		
E-	8.4908E-02	1.6906E-01	2.3189E-01
HE	1.0115E-01	8.1473E-02	6.5421E-02
HE+	1.1334E-03	1.1480E-02	2.0462E-02
HE++	2.0004E-16	3.7388E-08	1.5003E-06
H	7.3041E-01	5.7478E-01	4.6699E-01
H+	8.0337E-02	1.5758E-01	2.1194E-01
H2	5.1518E-03	5.6318E-03	4.4101E-03

Table II. - Continued

p_1 = 100 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1936E+03	5.7488E+03	1.0503E+04
T	6.7263E+01	1.3095E+02	1.6404E+02
RHO	6.8335E+00	1.9774E+01	2.6530E+01
M	2.1293E+02	3.5195E+02	4.8016E+02
A	1.2928E+01	1.6589E+01	1.9712E+01
S	2.1253E+00	2.1752E+00	2.2070E+00
Z	2.0000E+00	2.2261E+00	2.4176E+00
GAME	9.5000E-01	9.4661E-01	9.7695E-01
U	2.0053E+01	9.2081E+00	9.2359E+00

SPECIES	MOLE FRACTIONS		
E-	1.0996E-01	1.9397E-01	2.5737E-01
NE	9.1862E-02	7.5085E-02	6.0031E-02
NE+	2.1491E-03	1.5000E-02	2.2049E-02
NE++	2.1151E-11	1.4360E-07	4.3573E-06
N	6.8917E-01	5.3224E-01	4.2120E-01
N+	1.0221E-01	1.7897E-01	2.3412E-01
N2	9.1726E-03	4.7323E-03	3.9570E-03

P1 = 1.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6083E+03	8.0121E+03	1.4802E+04
T	1.6110E+02	1.5915E+02	2.0600E+02
RHO	7.0490E+00	2.0657E+01	2.6731E+01
M	2.6531E+02	4.7446E+02	6.5239E+02
A	1.4009E+01	1.9448E+01	2.3804E+01
S	2.2534E+00	2.2971E+00	2.3903E+00
Z	2.1712E+00	2.4370E+00	2.6794E+00
GAME	9.4432E-01	9.7519E-01	1.0233E+00
U	3.1023E+01	1.0575E+01	1.1107E+01

SPECIES	MOLE FRACTIONS		
E-	1.7330E-01	2.6412E-01	3.2983E-01
NE	8.9122E-02	5.8455E-02	4.7540E-02
NE+	1.9933E-03	2.3608E-02	2.7041E-02
NE++	3.4374E-09	3.3448E-06	6.6330E-05
N	5.0079E-01	4.1058E-01	2.9122E-01
N+	1.6337E-01	2.4051E-01	3.0203E-01
N2	2.4052E-03	2.7243E-03	1.6501E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3249E+03	6.4653E+03	1.1837E+04
T	9.3425E+01	1.3996E+02	1.7773E+02
RHO	6.8992E+00	2.0174E+01	2.6679E+01
M	2.8593E+02	3.9090E+02	5.3370E+02
A	1.3216E+01	1.7474E+01	2.1007E+01
S	2.1608E+00	2.2159E+00	2.3081E+00
L	2.0533E+00	2.2899E+00	2.3003E+00
GAME	9.5144E-01	9.5272E-01	9.9301E-01
U	2.8107E+01	9.6068E+00	9.7952E+00

SPECIES	MOLE FRACTIONS		
E-	1.2700E-01	2.1792E-01	2.8492E-01
NE	9.3085E-02	6.9049E-02	5.5277E-02
NE+	3.0242E-03	1.8291E-02	2.4090E-02
NE++	1.5408E-10	4.6039E-07	1.1078E-05
N	8.4757E-01	4.9114E-01	3.7004E-01
N+	1.2403E-01	1.9963E-01	2.5823E-01
N2	3.4303E-03	3.9806E-03	2.8031E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7607E+03	8.8373E+03	1.6439E+04
T	1.1998E+02	1.6938E+02	2.2273E+02
RHO	7.1147E+00	2.0766E+01	2.6604E+01
M	3.1209E+02	5.1905E+02	7.1703E+02
A	1.5274E+01	2.0515E+01	2.5208E+01
S	2.2723E+00	2.3365E+00	2.4307E+00
L	2.2312E+00	2.5125E+00	2.7671E+00
GAME	9.4277E-01	9.8893E-01	1.0329E+00
U	3.2409E+01	1.1123E+01	1.1814E+01

SPECIES	MOLE FRACTIONS		
E-	1.9530E-01	2.8580E-01	3.5072E-01
NE	7.0883E-02	5.4096E-02	4.4670E-02
NE+	1.0774E-02	2.5498E-02	2.7800E-02
NE++	1.2078E-08	7.8584E-06	1.4401E-04
N	5.2330E-01	3.7210E-01	2.5316E-01
N+	1.8781E-01	2.6029E-01	3.2251E-01
N2	2.0270E-03	2.2165E-03	1.2901E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4630E+03	7.2185E+03	1.3269E+04
T	9.9234E+01	1.4942E+02	1.9139E+02
RHO	6.9709E+00	2.0441E+01	2.6749E+01
M	2.8012E+02	4.3171E+02	5.9103E+02
A	1.4100E+01	1.8439E+01	2.2309E+01
S	2.1983E+00	2.2573E+00	2.3543E+00
L	2.1124E+00	2.3634E+00	2.5849E+00
GAME	9.4736E-01	9.6277E-01	1.0087E+00
U	2.9203E+01	1.0073E+01	1.0412E+01

SPECIES	MOLE FRACTIONS		
E-	1.5073E-01	2.4167E-01	3.0690E-01
NE	8.9098E-02	6.3392E-02	5.1100E-02
NE+	2.5032E-03	2.1232E-02	2.6033E-02
NE++	8.1751E-10	1.3175E-06	2.8503E-05
N	6.0857E-01	4.4996E-01	3.3470E-01
N+	1.4515E-01	2.2044E-01	2.8089E-01
N2	2.8027E-03	3.3012E-03	2.1787E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9196E+03	9.6780E+03	1.8179E+04
T	1.1002E+02	1.8005E+02	2.4042E+02
RHO	7.1793E+00	2.0767E+01	2.6542E+01
M	3.3902E+02	5.6527E+02	7.8593E+02
A	1.5879E+01	2.1618E+01	2.6703E+01
S	2.3099E+00	2.3751E+00	2.4811E+00
L	2.2493E+00	2.5884E+00	2.8532E+00
GAME	9.4293E-01	1.0028E+00	1.0403E+00
U	3.3931E+01	1.1739E+01	1.2601E+01

SPECIES	MOLE FRACTIONS		
E-	2.1071E-01	3.0837E-01	3.7011E-01
NE	7.3412E-02	5.0294E-02	4.1145E-02
NE+	1.3000E-02	2.6957E-02	2.8041E-02
NE++	3.1000E-08	1.7192E-05	3.0233E-04
N	4.9145E-01	3.3521E-01	2.1799E-01
N+	2.0279E-01	2.7938E-01	3.4000E-01
N2	1.7129E-03	1.7801E-03	9.1019E-04

Table II. - Continued

p_1 = 100 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.00E+03	1.3129E+04	2.58[illegible]E+04
T	1.40E+02	2.2770E+02	3.19[illegible]E+02
RHO	7.32E+00	2.0006E+01	2.56[illegible]E+01
M	4.00E+02	7.6631E+02	1.09[illegible]E+03
A	1.05E+01	2.6239E+01	3.26[illegible]E+01
S	2.45E+00	2.5221E+00	2.63[illegible]E+00
L	2.54E+00	2.8822E+00	3.14[illegible]E+00
GAME	9.63E-01	1.0491E+00	1.65[illegible]E+00
U	3.97E+01	1.4540E+01	1.58[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	2.94E-01	3.7614E-01	4.28[illegible]E-01
HE	5.27E-02	3.8589E-02	2.84[illegible]E-02
HE+	2.58E-02	3.0582E-02	3.18[illegible]E-02
HE++	1.27E-06	2.3958E-04	3.10[illegible]E-03
H	3.33E-01	2.0872E-01	1.17[illegible]E-01
H+	2.09E-01	3.4510E-01	3.9[illegible]E-01
H2	8.47E-04	6.5512E-04	2.62[illegible]E-04

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.00[illegible]E+03	1.0533E+04	1.99[illegible]E+04
T	1.22[illegible]E+02	1.9128E+02	2.58[illegible]E+02
RHO	7.22[illegible]E+00	2.0604E+01	2.63[illegible]E+01
M	3.68[illegible]E+02	6.1321E+02	8.58[illegible]E+02
A	1.0[illegible]E+01	2.2760E+01	2.82[illegible]E+01
S	2.34[illegible]E+00	2.4134E+00	2.52[illegible]E+00
L	2.35[illegible]E+00	2.6649E+00	2.93[illegible]E+00
GAME	9.42[illegible]E-01	1.0163E+00	1.05[illegible]E+00
U	3.54[illegible]E+01	1.2376E+01	1.34[illegible]E+01

SPECIES	MOLE FRACTIONS		
E-	2.37[illegible]E-01	3.2595E-01	3.87[illegible]E-01
HE	6.78[illegible]E-02	4.6904E-02	3.81[illegible]E-02
HE+	1.69[illegible]E-02	2.8111E-02	2.94[illegible]E-02
HE++	1.00[illegible]E-07	3.5729E-05	5.94[illegible]E-04
H	4.[illegible]E-01	2.9982E-01	1.87[illegible]E-01
H+	2.20[illegible]E-01	2.9777E-01	3.56[illegible]E-01
H2	1.44[illegible]E-03	1.4069E-03	6.72[illegible]E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.257YE+03	1.1407E+04	2.1901E+04
T	1.2821E+02	2.0289E+02	2.7817E+02
RHO	7.2794E+00	2.0527E+01	2.6140E+01
M	3.9869E+02	6.6277E+02	9.3304E+02
A	1.7150E+02	2.3907E+01	2.9701E+01
S	2.5819E+00	2.4501E+00	2.5615E+00
L	2.4194E+00	2.7389E+00	3.0114E+00
GAME	9.4912E-01	1.0285E+00	1.0500E+00
U	3.6801E+01	1.3067E+01	1.4226E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.5722E-01	3.4392E-01	4.0200E-01
HE	6.2265E-02	4.3928E-02	3.5021E-02
HE+	2.0191E-02	2.9022E-02	3.0273E-02
HE++	2.4830E-07	7.0061E-05	1.1094E-03
H	4.2177E-01	2.6720E-01	1.5986E-01
H+	2.3712E-01	3.1475E-01	3.7037E-01
H2	1.2178E-03	1.1048E-03	4.9007E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8113E+03	1.3955E+04	2.7700E+04
T	1.4681E+02	2.4076E+02	3.4081E+02
RHO	7.5111E+00	1.9652E+01	2.5300E+01
M	4.9011E+02	8.2008E+02	1.1772E+03
A	1.9330E+02	2.7394E+01	3.4030E+01
S	2.4930E+00	2.5570E+00	2.6739E+00
L	2.8109E+00	2.9495E+00	3.2090E+00
GAME	9.7203E-01	1.0567E+00	1.0594E+00
U	4.1131E+01	1.5324E+01	1.6603E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.1283E-01	3.9022E-01	4.3931E-01
HE	4.8005E-02	3.6101E-02	2.4906E-02
HE+	2.6941E-02	3.1289E-02	3.2481E-02
HE++	2.0304E-06	4.1856E-04	4.8716E-03
H	3.4206E-01	1.8337E-01	1.0098E-01
H+	2.0443E-01	3.5810E-01	3.9713E-01
H2	6.9334E-04	4.9717E-04	1.9600E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4363E+03	1.2263E+04	2.3801E+04
T	1.3410E+02	2.1500E+02	2.9801E+02
RHO	7.3097E+00	2.0286E+01	2.5930E+01
M	4.3013E+02	7.1367F+02	1.0125E+03
A	1.7643E+02	2.5069E+01	3.1243E+01
S	2.4180E+00	2.4865E+00	2.6003E+00
L	2.7691E+00	2.8117E+00	3.0853E+00
GAME	9.5241E-01	1.0395E+00	1.0601E+00
U	3.6394E+01	1.3810E+01	1.5071E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.7091E-01	3.6068F-01	4.1000E-01
HE	5.1404E-02	4.1174E-02	3.1780E-02
HE+	2.8218E-02	2.9824F-02	3.1122E-02
HE++	5.7333E-07	1.3187F-04	1.9978E-03
H	3.0873E-01	2.3673E-01	1.3000E-01
H+	2.2332E-01	3.3060E-01	3.8128E-01
H2	8.0197E-03	8.5510F-04	3.5070E-04

P1 = 1.00E+05 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0078E+03	1.4785E+04	2.9753E+04
T	1.5343E+02	2.5437E+02	3.6200E+02
RHO	7.3069E+00	1.9290E+01	2.5119E+01
M	5.3081E+02	8.7534E+02	1.2634E+03
A	2.0111E+02	2.8534E+01	3.5422E+01
S	2.5240E+00	2.5910E+00	2.7091E+00
L	2.8824E+00	3.0132E+00	3.2600E+00
GAME	9.8314E-01	1.0623E+00	1.0599E+00
U	4.2530E+01	1.6125E+01	1.7471E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.2763E-01	4.0300E-01	4.4991E-01
HE	4.3963E-02	3.3668E-02	2.1432E-02
HE+	3.0506E-02	3.2000E-02	3.2783E-02
HE++	2.1774E-06	7.0720E-04	7.0932E-03
H	2.9822E-01	1.6067E-01	8.7291E-02
H+	2.9946E-01	3.6958E-01	4.0222E-01
H2	3.0807E-04	3.7538E-04	1.4524E-04

Table II. - Concluded

p_1 = 100 kN/m^2

P1 = 1.00E+03 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.62[illegible]E+03	1.5586E+04	3.16[illegible]E+04
T	1.00[illegible]E+02	2.68[illegible]E+02	3.84[illegible]E+02
RHO	[illegible]E+00	1.8879E+01	2.48[illegible]E+01
H	[illegible]E+02	9.3195E+02	1.35[illegible]E+03
A	2.00[illegible]E+01	2.9559E+01	3.88[illegible]E+01
S	2.00[illegible]E+00	2.6250E+00	2.74[illegible]E+00
L	2.[illegible]E+00	3.0740E+00	3.31[illegible]E+00
GAMA	9.[illegible]E-01	1.0655E+00	1.06[illegible]E+00
U	4.[illegible]E+01	1.6922E+01	1.82[illegible]E+01

SPECIES	---------- MOLE FRACTIONS ----------		
L-	[illegible]E-01	4.1473E-01	4.5[illegible]E-01
HE	4.00[illegible]E-02	3.1188E-02	1.00[illegible]E-02
HE+	3.27[illegible]E-02	3.2712E-02	3.27[illegible]E-02
HE++	[illegible]E-05	1.1038E-03	9.43[illegible]E-03
N	2.06[illegible]E-01	1.4024E-01	7.01[illegible]E-02
N+	3.13[illegible]E-01	3.7969E-01	4.0[illegible]E-01
N2	4.[illegible]E-04	2.8071E-04	1.10[illegible]E-04

P1 = 1.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.69[illegible]E+03	1.7894E+04	3.73[illegible]E+04
T	1.03[illegible]E+02	3.1267E+02	4.567[illegible]E+02
RHO	7.09[illegible]E+00	1.7714E+01	2.3654E+01
H	6.80[illegible]E+02	1.1105E+03	1.63[illegible]E+03
A	2.30[illegible]E+01	3.2784E+01	4.14[illegible]E+01
S	2.00[illegible]E+00	2.7203E+00	2.84[illegible]E+00
L	2.99[illegible]E+00	3.2307E+00	3.45[illegible]E+00
GAMA	1.03[illegible]E+00	1.0640E+00	1.0861E+00
U	4.80[illegible]E+01	1.9235E+01	2.06[illegible]E+01

SPECIES	---------- MOLE FRACTIONS ----------		
L-	3.69[illegible]E-01	4.4296E-01	4.7934E-01
HE	3.13[illegible]E-02	2.3672E-02	9.20[illegible]E-03
HE+	3.03[illegible]E-02	3.4241E-02	3.0353E-02
HE++	6.21[illegible]E-03	3.9934E-03	1.8[illegible]E-02
N	1.90[illegible]E-01	9.4278E-02	5.01[illegible]E-02
N+	3.52[illegible]E-01	4.0073E-01	4.12[illegible]E-01
N2	2.20[illegible]E-04	1.2058E-04	4.71[illegible]E-05

P1 = 1.000E+05 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.9[illegible]E+03	1.6378E+04	3.357[illegible]E+04
T	1.[illegible]E+02	2.8290E+02	4.07[illegible]E+02
RHO	[illegible]	1.8500E+01	2.447[illegible]E+01
H	[illegible]	9.9012E+02	1.441[illegible]E+03
A	[illegible]	3.0728E+01	3.82[illegible]E+01
S	[illegible]	2.6572E+00	2.77[illegible]E+00
Z	[illegible]	3.1295E+00	3.36[illegible]E+00
GAME	1.[illegible]	1.0665E+00	1.0[illegible]E+00
U	[illegible]	1.7693E+01	1.85[illegible]E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	[illegible]	4.2503E-01	4.6[illegible]E-01
NE	[illegible]	2.8747E-02	1.90[illegible]E-02
NE+	[illegible]	3.3344E-02	3.2[illegible]E-02
NE++	[illegible]	1.8176E-03	1.[illegible]E-02
N	[illegible]	1.2279E-01	8.6[illegible]E-02
N+	[illegible]	3.8805E-01	4.0[illegible]E-01
N2	[illegible]	2.1164E-04	8.[illegible]E-05

P1 = 1.000E+05 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.06[illegible]E+03	1.8640E+04	3.916[illegible]E+04
T	1.926[illegible]E+02	3.2812E+02	4.83[illegible]E+02
RHO	[illegible]	1.7336E+01	2.31[illegible]E+01
H	7.20[illegible]E+02	1.173UE+03	1.730[illegible]E+03
A	2.4[illegible]E+01	3.3796F+01	4.30[illegible]E+01
S	2.09[illegible]E+00	2.7512E+00	2.87[illegible]E+00
Z	3.00[illegible]E+00	3.2770E+00	3.49[illegible]E+00
GAME	1.04[illegible]E+00	1.0623E+00	1.097[illegible]E+00
U	4.93[illegible]E+01	1.9956E+01	2.14[illegible]E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	4.0159[illegible]E-01	4.5081E-01	4.853[illegible]E-01
NE	2.09[illegible]E-02	2.1065E-02	7.0[illegible]E-03
NE+	3.74[illegible]E-02	3.4372E-02	2.8[illegible]E-02
NE++	1.1[illegible]E-04	5.5942E-03	2.[illegible]E-02
N	1.67[illegible]E-01	8.2812E-02	4.354[illegible]E-02
N+	3.03[illegible]E-01	4.0525E-01	4.1[illegible]E-01
N2	1.08[illegible]E-04	9.1558E-05	3.527[illegible]E-05

P1 = 1.000E+05 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+03	1.7150E+04	3.547[illegible]E+04
T	1.[illegible]E+02	2.9760E+02	4.31[illegible]E+02
RHO	[illegible]	1.8114F+01	2.40[illegible]E+01
H	[illegible]	1.0497E+03	1.53[illegible]E+03
A	[illegible]	3.1765E+01	3.98[illegible]E+01
S	[illegible]	2.6889F+00	2.81[illegible]E+00
Z	[illegible]	3.1815E+00	3.41[illegible]E+00
GAME	1.01[illegible]E+00	1.0657E+00	1.07[illegible]E+00
U	4.[illegible]E+01	1.8461F+01	1.977[illegible]E+01

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.[illegible]E-01	4.3438E-01	4.7[illegible]E-01
NE	[illegible]	2.6247F-02	1.[illegible]E-02
NE+	[illegible]	3.3873F-02	3.1[illegible]E-02
NE++	[illegible]	2.7434F-03	1.5[illegible]E-02
N	2.1[illegible]E-01	1.0757E-01	[illegible]E-02
N+	[illegible]	3.9502F-01	4.1[illegible]E-01
N2	[illegible]	1.5971F-04	6.2[illegible]E-05

Table III.- Nondimensional Thermodynamic Properties and Flow Velocity for Incident (moving), Standing, and Reflected Normal Shocks in a 0.05He–0.95H_2 Mixture

[User cautioned about using table at pressures exceeding 10 MN/m^2 and temperatures exceeding 25 000 K]

p_1 = 5 N/m^2

P1 = 5.00E+00 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6531E+01
T	2.8248E+00	3.5080F+00	4.9404E+00
RHO	3.9378F+00	6.5823E+00	1.1423E+01
H	2.8881E+00	3.6101F+00	5.1948F+00
A	1.6757E+00	1.8601E+00	2.1840F+00
S	1.0465E+00	1.0480E+00	1.0426F+00
Z	1.0000E+00	1.0000E+00	1.0001F+00
GAME	9.9407E-01	9.8637F-01	9.8383E-01
U	2.3174F+00	1.3854E+00	1.2205F+00

SPECIES	MOLE FRACTIONS		
E-	5.4860E-62	2.3054E-43	1.6283E-27
HE	5.0000E-02	5.0000E-02	4.9997E-02
HE+	8.8300E-74	7.8232F-63	1.5515E-53
HE++	0.	0.	0.
H	4.3418E-10	5.8338E-08	1.3407E-04
H+	6.3460E-20	6.3460E-20	6.3456F-20
H2	9.5000E-01	9.5000E-01	9.4987E-01

P1 = 5.00E+00 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5063F+01	1.3981E+02	2.[illegible]302E+02
T	6.2963F+00	7.8423F+00	8.[illegible]288F+00
RHO	[illegible]459F+00	1.7132E+01	2.[illegible]537F+01
H	[illegible]797F+00	1.0698E+01	1.3445F+01
A	2.3629F+00	2.[illegible]79AF+00	2.7174F+00
S	[illegible].1223E+00	1.1357F+00	1.1584E+00
Z	[illegible].0043E+00	1.0378F+00	1.0729E+00
GAME	[illegible]837AF-01	8.1[illegible]50F-01	8.0699E-01
U	[illegible]45[illegible]E+00	1.4419F+00	1.2405F+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].2928E-18	5.0776F-14	[illegible].468[illegible]F-13
HE	[illegible].9788F-02	4.8178F-02	4.6607F-02
HE+	1.0[illegible]25F-43	2.[illegible]779F-26	8.9008F-35
HE++	0.	0.	0.
H	8.4954F-03	7.2870E-02	1.[illegible]591E-01
H+	1.3[illegible]60E-18	5.0776F-14	7.[illegible]468[illegible]F-13
H2	9.4172F-01	8.789[illegible]F-01	8.1749F-01

P1 = 5.00E+00 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6653E+01	1.0106E+02
T	3.8703E+00	5.1964E+00	6.7125E+00
RHO	4.5267E+00	9.0442E+00	1.4961E+01
H	3.9996E+00	5.4355E+00	7.5749E+00
A	1.9490E+00	2.2225E+00	2.4287E+00
S	1.0725E+00	1.0762E+00	1.0931E+00
Z	1.0000E+00	1.0002E+00	1.0061E+00
GAME	9.8148E-01	9.5781E-01	8.7332E-01
U	3.0256E+00	1.5130E+00	1.3121E+00

SPECIES	MOLE FRACTIONS		
E-	7.3689E-40	2.0087E-24	8.3664E-17
HE	5.0000E-02	4.9992E-02	4.9896E-02
HE+	2.7413E-81	6.3172E-42	5.0757E-42
HE++	0.	0.	0.
H	1.5818E-06	3.2429E-04	1.2153E-02
H+	6.3460E-20	4.3452E-20	8.3729E-17
H2	9.5000E-01	9.4968E-01	9.3815E-01

P1 = 5.00E+00 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6870E+01	2.3025E+02	3.5289E+02
T	7.1472E+00	8.6435E+00	9.1963E+00
RHO	4.4183E+00	2.4562E+01	3.4012E+01
H	8.8767E+00	1.4238E+01	1.7309E+01
A	2.4557E+00	2.7479E+00	2.8881E+00
S	1.1477E+00	1.1709E+00	1.1975E+00
Z	1.0205E+00	1.0848E+00	1.1280E+00
GAME	8.2672E-01	8.0538E-01	8.0405E-01
U	5.2448E+00	1.3698E+00	1.2209E+00

SPECIES	MOLE FRACTIONS		
E-	2.1016E-15	1.1527E-12	8.3065E-12
HE	4.8998E-02	4.6093E-02	4.4325E-02
HE+	7.5219E-60	4.4286E-33	2.5235E-31
HE++	0.	0.	0.
H	4.2079E-02	1.5430E-01	2.2709E-01
H+	2.1917E-15	1.1527E-12	8.3065E-12
H2	9.1092E-01	7.9761E-01	7.2667E-01

P1 = 5.00E+00 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5419E+01	8.2642E+01	1.5652E+02
T	5.0884E+00	6.7912E+00	7.7796E+00
RHO	4.9946E+00	1.2073E+01	1.9500E+01
H	5.3589E+00	7.7676E+00	1.0262E+01
A	2.2091E+00	2.4300E+00	2.5699E+00
S	1.0978E+00	1.1046E+00	1.1239E+00
Z	1.0002E+00	1.0079E+00	1.0317E+00
GAME	9.5803E-01	8.6263E-01	8.2027E-01
U	3.7268E+00	1.5404E+00	1.2823E+00

SPECIES	MOLE FRACTIONS		
E-	1.6215E-25	1.3516E-16	2.9298E-14
HE	4.9992E-02	4.9607E-02	4.8464E-02
HE+	9.1779E-55	6.3380E-42	6.3426E-37
HE++	0.	0.	0.
H	3.2582E-04	1.5728E-02	6.1452E-02
H+	6.3450E-20	1.3523E-16	2.9298E-14
H2	9.4967E-01	9.3467E-01	8.9008E-01

P1 = 5.00E+00 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0509E+01	3.4085E+02	5.2342E+02
T	7.7281E+00	9.3128E+00	9.8155E+00
RHO	7.4774E+00	3.3881E+01	4.5632E+01
H	1.1034E+01	1.8328E+01	2.1799E+01
A	2.5564E+00	2.9254E+00	3.0734E+00
S	1.1251E+00	1.2109E+00	1.2412E+00
Z	1.0470E+00	1.1439E+00	1.1952E+00
GAME	8.0743E-01	8.0389E-01	8.0532E-01
U	4.0549E+00	1.2374E+00	1.2190E+00

SPECIES	MOLE FRACTIONS		
E-	4.5366E-14	1.1463E-11	5.2977E-11
HE	4.7753E-02	4.3711E-02	4.1835E-02
HE+	4.7434E-37	1.0606E-29	1.8397E-29
HE++	0.	0.	0.
H	8.9865E-02	2.5157E-01	3.2659E-01
H+	4.5366E-14	1.1463E-11	5.2977E-11
H2	8.6238E-01	7.0472E-01	6.3157E-01

Table III. - Continued

$p_1 = 5N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5924E+01	5.3413E+02	7.4609E+02
T	8.1842E+00	9.9208E+00	1.0407E+01
RHO	4.5816E+00	4.4391E+01	5.6330E+01
M	1.3442E+01	2.2920E+01	2.6827E+01
A	2.6613E+00	3.1140E+00	3.2724E+00
S	1.2052E+00	1.2551E+00	1.2892E+00
Z	1.0808E+00	1.2132E+00	1.2727E+00
GAME	8.0065E-01	8.0565E-01	8.0891E-01
U	8.8810E+00	1.3267E+00	1.2333E+00

SPECIES	MOLE FRACTIONS		
E-	3.7416E-13	6.8682E-11	2.4713E-10
HE	4.6262E-02	4.1215E-02	3.9287E-02
HE+	5.7223E-35	2.7334E-29	6.3348E-28
HE++	0.	0.	0.
H	1.4954E-01	3.5141E-01	4.2853E-01
H+	3.7416E-13	6.8682E-11	2.4713E-10
H2	8.0420E-01	6.0738E-01	5.3218E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3213E+02	1.3286E+03	1.7507E+03
T	9.2412E+00	1.1646E+01	1.2233E+01
RHO	1.1760E+01	7.7385E+01	9.1616E+01
M	2.2162E+01	3.9595E+01	4.5262E+01
A	2.9955E+00	3.7517E+00	3.9763E+00
S	1.3106E+00	1.4095E+00	1.4551E+00
Z	1.2157E+00	1.4741E+00	1.5621E+00
GAME	7.9870E-01	8.1987E-01	8.2741E-01
U	9.2369E+00	1.4040E+00	1.3599E+00

SPECIES	MOLE FRACTIONS		
E-	1.9469E-11	3.7910E-09	1.0939E-08
HE	4.1129E-02	3.3918E-02	3.2008E-02
HE+	3.9706E-31	4.5695E-25	6.6717E-24
HE++	0.	2.7017E-91	4.2451E-86
H	3.5484E-01	6.4329E-01	7.1969E-01
H+	1.9469E-11	3.7910E-09	1.0939E-08
H2	6.0403E-01	3.2279E-01	2.4830E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3021E+01	7.5278E+02	1.0237E+03
T	8.5705E+00	1.0499E+01	1.0991E+01
RHO	9.6851E+00	5.5514E+01	6.8489E+01
H	1.6190E+01	2.8000E+01	3.2412E+01
A	2.7690E+00	3.3125E+00	3.4862E+00
S	1.2378E+00	1.3033E+00	1.3411E+00
Z	1.1206E+00	1.2918E+00	1.3600E+00
GAME	7.9837E-01	8.0906E-01	8.1308E-01
U	7.6605E+00	1.3368E+00	1.2403E+00

SPECIES	MOLE FRACTIONS		
E-	1.7972E-12	3.1113E-10	9.5169E-10
HE	4.4620E-02	3.8708E-02	3.6765E-02
HE+	1.8861E-33	5.3739E-28	1.5915E-26
HE++	0.	0.	0.
H	2.1520E-01	4.5149E-01	5.2939E-01
H+	1.7972E-12	3.1113E-10	9.5149E-10
H2	7.4018E-01	5.0960E-01	4.3385E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1175E+02	1.0178E+03	1.3586E+03
T	8.9159E+00	1.1067E+01	1.1590E+01
RHO	1.0754E+01	6.6698E+01	8.0476E+01
H	1.9006E+01	3.3598E+01	3.8543E+01
A	2.8800E+00	3.5240E+00	3.7187E+00
S	1.2730E+00	1.3549E+00	1.3965E+00
Z	1.1647E+00	1.3789E+00	1.4567E+00
GAME	7.9807E-01	8.1375E-01	8.1913E-01
U	8.4519E+00	1.3621F+00	1.3030E+00

SPECIES	MOLE FRACTIONS		
E-	6.2228E-12	1.1513E-09	3.2859E-09
HE	4.7894E-02	3.6260E-02	3.4325E-02
HE+	3.3865E-33	2.2128E-26	3.2719E-25
HE++	0.	0.	7.6011E-91
H	2.8423E-01	5.4959E-01	6.2698E-01
H+	6.2228E-12	1.1513E-09	3.2859E-09
H2	6.7288E-01	4.1419E-01	3.3869E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5413E+02	1.6855E+03	2.2039E+03
T	9.5470E+00	1.2266E+01	1.2981E+01
RHO	1.2707E+01	8.7158E+01	1.0134E+02
H	2.5569E+01	4.6107E+01	5.2570E+01
A	3.1155E+00	4.0018E+00	4.2748E+00
S	1.3504E+00	1.4664E+00	1.5163E+00
Z	1.2705E+00	1.5766E+00	1.6753E+00
GAME	8.0019E-01	8.2815E-01	8.4028E-01
U	1.0016E+01	1.4606E+00	1.4359E+00

SPECIES	MOLE FRACTIONS		
E-	5.0393E-11	1.1843E-08	3.8596E-08
HE	3.9353E-02	3.1715E-02	2.9844E-02
HE+	3.1078E-30	6.8233E-24	1.6150E-22
HE++	0.	3.1030E-85	5.2749E-81
H	4.2587E-01	7.3141E-01	8.0623E-01
H+	5.0393E-11	1.1843E-08	3.8596E-08
H2	5.3478E-01	2.3688E-01	1.6392E-01

P1 = 5.00E+00 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7775E+02	2.0836E+03	2.7185E+03
T	9.8459E+00	1.2980E+01	1.3983E+01
RHO	1.3574E+01	9.5288E+01	1.0839E+02
H	2.9226E+01	5.3084E+01	6.0551E+01
A	3.2411E+00	4.2879E+00	4.6609E+00
S	1.3924E+00	1.5251E+00	1.5795E+00
Z	1.3300E+00	1.6846E+00	1.7936E+00
GAME	8.0220E-01	8.4085E-01	8.6615E-01
U	1.0790E+01	1.5375E+00	1.5448E+00

SPECIES	MOLE FRACTIONS		
E-	1.1973E-10	3.9308E-08	1.6707E-07
HE	3.7594E-02	2.9680E-02	2.7876E-02
HE+	1.5427E-29	1.4570E-22	5.5802E-21
HE++	0.	8.6043E-82	5.4559E-76
H	4.9623E-01	8.1281E-01	8.8496E-01
H+	1.1973E-10	3.9308E-08	1.6707E-07
H2	4.6618E-01	1.5751E-01	8.7167E-02

Table III. - Continued

$p_1 = 5$ N/ m^2

P1 = 5.00E+00 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0297E+02	2.5155E+03	3.3095E+03
T	1.0144E+01	1.3912E+01	1.5956E+01
RHO	1.4353E+01	1.0074E+02	1.0887E+02
H	3.3134E+01	6.0513E+01	6.9572E+01
A	3.3734E+00	4.6488E+00	5.4121E+00
S	1.4363E+00	1.5846E+00	1.6449E+00
Z	1.3939E+00	1.7948E+00	1.9051E+00
GAME	8.0476E-01	8.6551E-01	9.6357E-01
U	1.1559E+01	1.6471E+00	1.7561E+00

SPECIES	MOLE FRACTIONS		
E-	2.7685E-10	1.5690E-07	1.8649E-06
HE	3.5869E-02	2.7858E-02	2.6245E-02
HE+	1.9035E-28	4.4714E-21	2.3544E-18
HE++	0.	2.1715E-76	2.0966E-66
H	5.6526E-01	8.0567E-01	9.5020E-01
H+	2.7685E-10	1.5690E-07	1.8649E-06
H2	3.9887E-01	8.6476E-02	2.3551E-02

P1 = 5.00E+00 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8814E+02	3.7319E+03	5.6554E+03
T	1.1105E+01	2.4481E+01	3.3792E+01
RHO	1.6111E+01	7.8139E+01	8.4055E+01
H	4.6359E+01	8.4711E+01	1.0540E+02
A	3.8239E+00	7.3307E+00	7.8840E+00
S	1.5783E+00	1.7368E+00	1.7967E+00
Z	1.6105E+00	1.9509E+00	1.9911E+00
GAME	8.1722E-01	1.1252E+00	9.2384E-01
U	1.2839E+01	2.8552E+00	3.2794E+00

SPECIES	MOLE FRACTIONS		
E-	2.7761E-09	9.1576E-06	2.0717E-02
HE	3.1047E-02	2.5629E-02	2.5112E-02
HE+	4.1552E-26	1.2512E-11	3.5517E-08
HE++	0.	5.5097E-42	1.7751E-29
H	7.5813E-01	9.7208E-01	9.3338E-01
H+	2.7761E-09	9.1576E-06	2.0717E-02
H2	2.1082E-01	4.6122E-04	7.5092E-05

P1 = 5.00E+00 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2979E+02	2.9642E+03	4.0599E+03
T	1.0445E+01	1.5507E+01	2.2288E+01
RHO	1.5047E+01	1.0089F+02	9.3487E+01
M	3.7292E+01	6.8353F+01	8.1244E+01
A	3.5127F+00	5.2585F+00	7.0723E+00
S	1.4821E+00	1.6428F+00	1.7112E+00
Z	1.4622E+00	1.8946E+00	1.9484E+00
GAME	8.0790E-01	9.4118F-01	1.1517F+00
U	1.2324F+01	1.8382F+00	2.3634E+00

SPECIES	MOLE FRACTIONS		
E-	5.8134E-10	1.1767E-06	2.7292E-04
HE	3.4197E-02	2.6390E-02	2.5662F-02
HE+	5.4440E-28	6.7335F-19	6.6934E-13
HE++	0.	3.4527F-68	1.5470E-46
H	6.3212E-01	9.4438E-01	9.7272F-01
H+	5.8134F-10	1.1767E-06	2.7292E-04
H2	3.3369E-01	2.9226F-02	1.0736E-03

P1 = 5.00E+00 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5818E+02	3.3692E+03	4.8755E+03
T	1.0763E+01	1.9202E+01	2.9453E+01
RHO	1.5631E+01	9.0288E+01	8.4387E+01
M	4.1700E+01	7.6431E+01	9.3766F+01
A	3.6620F+00	6.4971E+00	7.6464F+00
S	1.5295E+00	1.6949E+00	1.7603E+00
Z	1.5344E+00	1.9436E+00	1.9617E+00
GAME	8.1195E-01	1.1312E+00	1.0120F+00
U	1.3084E+01	2.2667E+00	2.9711E+00

SPECIES	MOLE FRACTIONS		
E-	1.2975E-09	3.7655E-05	6.0981E-03
HE	3.2583E-02	2.5728E-02	2.5489F-02
HE+	7.3652E-27	4.2585F-15	1.5965F-09
HE++	0.	1.7021F-94	2.5134F-34
H	6.9466E-01	9.7075F-01	9.6216E-01
H+	1.2975E-09	3.7655E-05	6.0981F-03
H2	2.7075E-01	2.4454E-03	1.5903F-04

P1 = 5.00E+00 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1960E+02	4.1146F+03	6.4100E+03
T	1.1494E+01	2.9218E+01	3.6738E+01
RHO	1.6457E+01	7.1790E+01	8.5955E+01
M	5.1267E+01	9.3426E+01	1.1685E+02
A	4.0022E+00	7.6080E+00	8.1454E+00
S	1.6283E+00	1.7717E+00	1.8292E+00
Z	1.6897E+00	1.9617E+00	2.0299E+00
GAME	8.2478E-01	1.0099E+00	8.8991E-01
U	1.4588E+01	3.3457E+00	3.6540E+00

SPECIES	MOLE FRACTIONS		
E-	6.2072E-09	6.1210E-03	3.5295E-02
HE	2.9592E-02	2.5488E-02	2.4432E-02
HE+	2.0301E-25	1.4053E-09	1.5040E-07
HE++	5.7855E-90	9.2776E-36	8.5083E-27
H	8.1632E-01	9.6213E-01	8.9653E-01
H+	6.2072E-09	6.1210E-03	3.9395E-02
H2	1.5408E-01	1.4189E-04	4.9524E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5248E+02	4.5486E+03	7.1213E+03
T	1.1975E+01	3.2711E+01	3.9024E+01
RHO	1.6622E+01	7.0533E+01	8.7993E+01
M	5.6424E+01	1.0282E+02	1.2847E+02
A	4.2143E+00	7.7469E+00	8.4121E+00
S	1.6790E+00	1.8030E+00	1.8606E+00
Z	1.7708E+00	1.9857E+00	2.0739E+00
GAME	8.3795E-01	9.3366E-01	8.7437E-01
U	1.5227E+01	3.6143E+00	3.9670E+00

SPECIES	MOLE FRACTIONS		
E-	1.6061E-08	1.8117F-02	5.9769E-02
HE	2.8236F-02	2.5179E-02	2.4109E-02
HE+	2.1599F-24	1.5670E-08	5.8526E-07
HE++	3.4778E-84	3.5895E-32	5.1650E-26
H	8.7057F-01	9.3948E-01	8.5632E-01
H+	1.6061E-08	1.8117F-02	5.9769F-02
H2	1.0119F-01	1.0645E-04	3.6791E-05

Table III. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8657E+02	4.9862E+03	7.7203E+03
T	1.2661E+01	3.5106E+01	4.0908E+01
RHO	1.6497E+01	7.1685E+01	8.8957E+01
H	6.1824E+01	1.1284E+02	1.4020E+02
A	4.5044E+00	8.0080E+00	8.6705E+00
S	1.7298E+00	1.8332E+00	1.8923E+00
Z	1.8508E+00	2.0212E+00	2.1215E+00
GAME	8.6586E-01	9.1774E-01	8.6624E-01
U	1.6049E+01	3.6944E+00	3.6494E+00

SPECIES	MOLE FRACTIONS		
E-	5.6257E-08	3.5613E-02	8.0877E-02
HE	2.7019E-02	2.4731E-02	2.3567E-02
HE+	6.9254E-23	7.9280E-08	1.3481E-06
HE++	1.1644E-83	6.1027E-30	1.0849E-23
H	9.1940E-01	9.0394E-01	8.1465E-01
H+	5.6257E-08	3.5613E-02	8.0874E-02
H2	5.3785E-02	1.0592E-04	2.8585E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8670E+02	4.6303E+03	6.9278E+03
T	2.0860E+01	4.0091E+01	4.4225E+01
RHO	1.1964E+01	5.2984E+01	6.9038E+01
H	7.9282E+01	1.4222E+02	1.7324E+02
A	6.8471E+00	8.5832E+00	9.2648E+00
S	1.8596E+00	1.9411E+00	2.0024E+00
Z	1.9502E+00	2.1394E+00	2.2690E+00
GAME	1.1525E+00	8.5892E-01	8.5539E-01
U	1.7791E+01	3.9467E+00	3.7295E+00

SPECIES	MOLE FRACTIONS		
E-	3.2481E-04	8.8556E-02	1.4061E-01
HE	2.5639E-02	2.3370E-02	2.2030E-02
HE+	2.1242E-13	1.2053E-06	5.6114E-06
HE++	2.6400E-49	4.9334E-24	1.6687E-21
H	9.7248E-01	7.9950E-01	6.9673E-01
H+	3.2481E-04	8.8555E-02	1.4061E-01
H2	2.3001E-04	1.8216E-05	1.3042E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2105E+02	5.1599E+03	7.9661E+03
T	1.3972E+01	3.7334E+01	4.2421E+01
RHO	1.5701E+01	6.7558E+01	8.6484E+01
H	6.7454E+01	1.2279E+02	1.5191E+02
A	5.0794E+00	8.2304E+00	8.9076E+00
S	1.7796E+00	1.8667E+00	1.9263E+00
Z	1.9193E+00	2.0572E+00	2.1713E+00
GAME	9.6211E-01	8.8903E-01	8.6142E-01
U	1.6724E+01	3.8900E+00	2.7099E+00

SPECIES	MOLE FRACTIONS		
E-	4.3360E-07	5.2302E-02	1.0196E-01
HE	2.6051E-02	2.4301E-02	2.3025E-02
HE+	1.1900E-20	2.9731E-07	2.5404E-06
HE++	1.9073E-75	4.8087E-27	1.0797E-22
H	9.5796E-01	8.7105E-01	7.7304E-01
H+	4.3360E-07	5.2302E-02	1.0195E-01
H2	1.5988E-02	4.2442E-05	2.2351E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5405E+02	4.9253E+03	7.5037E+03
T	1.6901E+01	3.8948E+01	4.3433E+01
RHO	1.3801E+01	6.0318E+01	7.7817E+01
H	7.3271E+01	1.3249E+02	1.6272E+02
A	6.1403E+00	8.4073E+00	9.0954E+00
S	1.8232E+00	1.9039E+00	1.9642E+00
Z	1.9466E+00	2.0966E+00	2.2202E+00
GAME	1.1461E+00	8.6562E-01	8.5790E-01
U	1.7286E+01	3.9584E+00	3.7271E+00

SPECIES	MOLE FRACTIONS		
E-	1.3698E-05	6.9928E-02	1.2171E-01
HE	2.5656E-02	2.3848E-02	2.2517E-02
HE+	7.4703E-17	6.7892E-07	3.9500E-06
HE++	1.7267E-61	6.6809E-25	5.0297E-22
H	9.7259E-01	8.3627E-01	7.3404E-01
H+	1.3698E-05	6.9927E-02	1.2171E-01
H2	1.7583E-03	2.4479E-05	1.7022E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2132E+02	4.5364E+03	6.6796E+03
T	2.4622E+01	4.1199E+01	4.5085E+01
RHO	1.0830E+01	5.0385E+01	6.3843E+01
H	8.5539E+01	1.5253E+02	1.8445E+02
A	7.1309E+00	8.7730E+00	9.4527E+00
S	1.8902E+00	1.9758E+00	2.0284E+00
Z	1.9550E+00	2.1853E+00	2.3206E+00
GAME	1.0964E+00	8.5485E-01	8.5403E-01
U	1.8326E+01	3.9400E+00	3.7393E+00

SPECIES	MOLE FRACTIONS		
E-	2.6189E-03	1.0769E-01	1.5972E-01
HE	2.5575E-02	2.2878E-02	2.1538E-02
HE+	3.9532E-11	2.0067E-06	7.9231E-06
HE++	6.9107E-41	3.0474E-23	5.6388E-21
H	9.6913E-01	7.6172E-01	6.5902E-01
H+	2.6189E-03	1.0769E-01	1.5971E-01
H2	6.1275E-05	1.4191E-05	1.0320E-05

P1 = 5.00E+00 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5920E+02	4.6659E+03	6.7873E+03
T	2.7583E+01	4.2368E+01	4.6107E+01
RHO	1.0303E+01	4.9269E+01	6.1927E+01
H	9.2085E+01	1.6377E+02	1.9694E+02
A	7.2119E+00	8.9858E+00	9.6731E+00
S	1.9174E+00	2.0084E+00	2.0726E+00
Z	1.9678E+00	2.2352E+00	2.3771E+00
GAME	9.5828E-01	8.5262E-01	8.5373E-01
U	1.8932E+01	3.9599E+00	3.7744E+00

SPECIES	MOLE FRACTIONS		
E-	9.0570E-03	1.2761E-01	1.7968E-01
HE	2.5410E-02	2.2366E-02	2.1023E-02
HE+	8.8759E-10	3.2641E-06	1.1419E-05
HE++	5.0379E-36	1.7863E-22	2.1046E-20
H	9.5645E-01	7.2241E-01	6.1960E-01
H+	9.0570E-03	1.2760E-01	1.7967E-01
H2	2.7976E-05	1.1498E-05	8.4010E-06

Table III. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0027E+02	4.9585E+03	7.1445E+03
T	2.9789E+01	4.3589E+01	4.7251E+01
RHO	1.0137E+01	4.9697E+01	6.2013E+01
H	9.8926E+01	1.7592E+02	2.1063E+02
A	7.3191E+00	9.2181E+00	9.9206E+00
S	1.9430E+00	2.0399E+00	2.1060E+00
Z	1.9981E+00	2.2890E+00	2.4383E+00
GAME	9.0463E-01	8.5166E-01	8.5429E-01
U	1.9509E+01	3.9986E+00	3.8262E+00

SPECIES	MOLE FRACTIONS		
F-	1.9198E-02	1.4812E-01	2.0026E-01
HE	2.5149E-02	2.1838E-02	2.0490E-02
HE+	5.9874E-09	5.1986E-06	1.4614E-05
HE++	5.3592E-33	9.9558E-22	8.3502E-20
H	9.3644E-01	6.8197E-01	5.7898E-01
H+	1.9198E-02	1.4871E-01	2.0024E-01
H2	1.7253E-05	9.5488E-06	6.9487E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8734E+02	6.9056E+03	9.7072E+03
T	3.5246E+01	4.8510E+01	5.2274E+01
RHO	1.0588E+01	5.6191E+01	6.8382E+01
H	1.2901E+02	2.3115E+02	2.7370E+02
A	7.9344E+00	1.0248E+01	1.1057E+01
S	2.0415E+00	2.1691E+00	2.2405E+00
Z	2.1097E+00	2.5334E+00	2.7156E+00
GAME	8.4666E-01	8.5463E-01	8.6131E-01
U	2.2502E+01	4.2412E+00	4.1208E+00

SPECIES	MOLE FRACTIONS		
F-	7.5725E-02	2.3028E-01	2.8193E-01
HE	2.3699E-02	1.9711E-02	1.8343E-02
HE+	2.3378E-07	2.5896E-05	6.9241E-05
HE++	3.5133E-27	3.9791E-19	1.7059E-17
H	8.2484E-01	5.1973E-01	4.1780E-01
H+	7.5725E-02	2.3025E-01	2.8186E-01
H2	6.4436E-06	4.8438E-06	3.2528E-06

P1 = 5.00E+00 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4393E+02	5.3538E+03	7.6542E+03
T	3.1502E+01	4.4824E+01	4.8466E+01
RHO	1.0151E+01	5.0909E+01	6.3079E+01
M	1.0605E+02	1.8883E+02	2.2528E+02
A	7.4588E+00	9.4635E+00	1.0188E+01
S	1.9678E+00	2.0711E+00	2.1396E+00
Z	2.0137E+00	2.3462E+00	2.5037E+00
GAME	8.7700E-01	8.5159E-01	8.5537E-01
U	2.0392E+01	4.0490E+00	3.8892E+00

SPECIES	MOLE FRACTIONS		
E-	3.1663E-02	1.6887E-01	2.2115E-01
HE	2.4829E-02	2.1303E-02	1.9947E-02
HE+	2.1903E-08	8.0613E-06	2.4131E-05
HE++	6.0881E-31	5.0508E-21	3.3542E-19
H	9.1183E-01	6.4096E-01	5.3775E-01
H+	3.1663E-02	1.6884E-01	2.2113E-01
H2	1.2252E-05	8.0299E-06	5.7692E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9214E+02	8.1697E+03	1.1400E+04
T	3.7150E+01	5.0964E+01	5.4967E+01
RHO	1.0999E+01	6.0359E+01	7.2789E+01
M	1.4560E+02	2.6205E+02	3.0932E+02
A	8.2574E+00	1.0806E+01	1.1694E+01
S	2.0904E+00	2.2291E+00	2.3097E+00
Z	2.1834E+00	2.6691E+00	2.8690E+00
GAME	8.4060E-01	8.5848E-01	8.6717E-01
U	2.4001E+01	4.3964E+00	4.3061E+00

SPECIES	MOLE FRACTIONS		
E-	1.0691E-01	2.6941E-01	3.2033E-01
HE	2.2899E-02	1.8682E-02	1.7292E-02
HE+	6.4185E-07	5.1563E-05	1.3523E-04
HE++	1.4728E-25	5.2547E-18	2.0298E-16
H	7.6328E-01	4.4250E-01	3.4205E-01
H+	1.0691E-01	2.6936E-01	3.2019E-01
H2	4.7106E-06	3.3956E-06	2.1116E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8981E+02	5.8192E+03	8.2666E+03
T	3.2920E+01	4.6058E+01	4.9707E+01
RHO	1.0257E+01	5.2509E+01	6.4676E+01
M	1.1344E+02	2.0237E+02	2.4073E+02
A	7.6125E+00	9.7179E+00	1.0466E+01
S	1.9923E+00	2.1022E+00	2.1727E+00
Z	2.0430E+00	2.4061E+00	2.5714E+00
GAME	8.6165E-01	8.5215E-01	8.5697E-01
U	2.1025E+01	4.1105E+00	3.9802E+00

SPECIES	MOLE FRACTIONS		
E-	4.5526E-02	1.8958E-01	2.4166E-01
HE	2.4474E-02	2.0768E-02	1.9410E-02
HE+	5.7426E-08	1.2169E-05	3.4584E-05
HE++	2.0238E-29	2.3550E-20	1.2856E-18
H	8.8444E-01	6.0007E-01	4.9727E-01
H+	4.5526E-02	1.8957E-01	2.4162E-01
H2	9.5677E-06	6.7870E-06	4.7999E-06

P1 = 5.00E+00 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0037E+03	9.5735E+03	1.3294E+04
T	3.8840E+01	5.3453E+01	5.7839E+01
RHO	1.1414E+01	6.3694E+01	7.6859E+01
M	1.6321E+02	2.9490E+02	3.4746E+02
A	8.5805E+00	1.1392E+01	1.2382E+01
S	2.1406E+00	2.2942E+00	2.3802E+00
Z	2.2640E+00	2.8118E+00	3.0299E+00
GAME	8.3817E-01	8.6352E-01	8.7479E-01
U	2.5505E+01	4.5716E+00	4.5170E+00

SPECIES	MOLE FRACTIONS		
E-	1.2869E-01	3.0550E-01	3.5642E-01
HE	2.2084E-02	1.7684E-02	1.6240E-02
HE+	1.4437E-06	9.8325E-05	2.6245E-04
HE++	2.3784E-24	5.7843E-17	2.3065E-15
H	7.0054E-01	3.6931E-01	2.7092E-01
H+	1.3868E-01	3.0640E-01	3.5616E-01
H2	3.5500E-06	2.2989E-06	1.2806E-06

Table III. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1219E+03	1.1106E+04	1.5389E+04
T	4.0391E+01	5.6037E+01	6.1021E+01
RHO	1.1819E+01	6.6946E+01	7.8888E+01
M	1.8183E+02	3.2969E+02	3.8830E+02
A	8.9170E+00	1.2013E+01	1.3139E+01
S	2.1912E+00	2.3604E+00	2.4521E+00
Z	2.3502E+00	2.9606E+00	3.1968E+00
GAME	8.3743E-01	8.6991E-01	8.8496E-01
U	2.7013E+01	4.7736E+00	4.7650E+00

SPECIES	MOLE FRACTIONS		
E-	1.7028E-01	3.4134E-01	3.9002E-01
HE	2.1272E-02	1.6705E-02	1.5121E-02
HE+	2.8508E-06	1.8375E-04	5.1971E-04
HE++	3.7976E-23	5.7870E-16	7.7496E-14
H	6.3816E-01	3.0041E-01	2.0484E-01
H+	1.7028E-01	3.4115E-01	3.8950E-01
H2	2.7113E-06	1.4787E-04	7.0143E-07

P1 = 5.00E+00 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5152E+03	1.6310E+04	2.2816E+04
T	4.4641E+01	6.5332E+01	7.5464E+01
RHO	1.2864E+01	7.2946E+01	8.2037E+01
M	2.4372E+02	4.4496E+02	5.2862E+02
A	9.9564E+00	1.4213E+01	1.6282E+01
S	2.3523E+00	2.5617E+00	2.6708E+00
Z	2.6388E+00	3.4223E+00	3.6855E+00
GAME	8.4160E-01	9.0343E-01	9.4319E-01
U	3.1513E+01	5.5581E+00	5.8561E+00

SPECIES	MOLE FRACTIONS		
E-	2.6096E-01	4.3021E-01	4.7090E-01
HE	1.8935E-02	1.3312E-02	8.2552E-03
HE+	1.4862E-05	1.2979E-03	5.3114E-03
HE++	1.7391E-20	6.7829E-13	1.9638E-10
H	4.5915E-01	1.2626E-01	4.9940E-02
H+	2.6094E-01	4.2892E-01	4.6559E-01
H2	1.1877E-06	2.2447E-07	3.1410E-08

P1 = 5.00E+00 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2446E+03	1.2754E+04	1.7666E+04
T	4.1853E+01	5.8792E+01	6.4702E+01
RHO	1.2199E+01	4.9672E+01	8.1119E+01
M	2.0146E+02	3.6632E+02	4.3175E+02
A	9.2551E+00	1.2678E+01	1.3993E+01
S	2.2442E+00	2.4273E+00	2.5247E+00
Z	2.4416E+00	3.1136E+00	3.3659E+00
GAME	8.3823E-01	8.7805E-01	8.9911E-01
U	2.[illegible]16E+01	4.9943E+00	5.0475E+00

SPECIES	MOLE FRACTIONS		
E-	2.0134E-01	3.7371E-01	4.2066E-01
HE	2.0473E-02	1.5715E-02	1.3780E-02
HE+	5.2136E-06	3.4330E-04	1.0745E-03
HE++	3.5567E-22	5.6364E-15	3.7799E-13
H	5.7485E-01	2.3487E-01	1.4490E-01
H+	2.0133E-01	3.7337E-01	4.1959E-01
H2	2.0750E-06	8.8268E-07	3.3057E-07

P1 = 5.00E+00 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6589E+03	1.8170E+04	2.5767E+04
T	4.6016E+01	6.9594E+01	8.4954E+01
RHO	1.3140E+01	7.2159E+01	7.9625E+01
M	2.6639E+02	4.8682E+02	5.8430E+02
A	1.0323E+01	1.5140E+01	1.8207E+01
S	2.4079E+00	2.6280E+00	2.7439E+00
Z	2.7439E+00	3.5687E+00	3.8091E+00
GAME	8.4416E-01	9.2417E-01	1.0243E+00
U	3.3003E+01	5.9289E+00	6.5285E+00

SPECIES	MOLE FRACTIONS		
E-	2.8924E-01	4.5358E-01	4.8807E-01
HE	1.8201E-02	1.1327E-02	3.2770E-03
HE+	2.4001E-05	2.6841E-03	9.8493E-03
HE++	1.0256E-19	1.0060E-11	9.4313E-09
H	4.0332E-01	8.1510E-02	2.0580E-02
H+	2.8921E-01	4.5090E-01	4.7822E-01
H2	8.7752E-07	8.5151E-08	4.3202E-09

P1 = 5.00E+00 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3777E+03	1.4495E+04	2.0138E+04
T	4.3261E+01	6.1830E+01	6.9282E+01
RHO	1.2549E+01	7.1721E+01	8.2282E+01
M	2.2209E+02	4.0476E+02	4.7834E+02
A	9.6009E+00	1.3402E+01	1.5005E+01
S	2.2977E+00	2.4945E+00	2.5979E+00
Z	2.5378E+00	3.2687E+00	3.5325E+00
GAME	8.3960E-01	8.8876E-01	9.1998E-01
U	3.0017E+01	5.2531E+00	5.4001E+00

SPECIES	MOLE FRACTIONS		
E-	2.3162E-01	4.0343E-01	4.6799E-01
HE	1.9693E-02	1.4642E-02	1.1782E-02
HE+	8.9751E-06	6.5450E-04	2.2718E-03
HE++	2.6781E-21	5.7674E-14	7.0073E-12
H	5.1707E-01	1.7851E-01	9.2247E-02
H+	2.3161E-01	4.0277E-01	4.6561E-01
H2	1.5792E-06	4.7951E-07	1.2258E-07

P1 = 5.00E+00 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8088E+03	2.0033E+04	2.9151E+04
T	4.7407E+01	7.5079E+01	1.0212E+02
RHO	1.3376E+01	7.2140E+01	7.3624E+01
M	2.8999E+02	5.3021E+02	6.4929E+02
A	1.0704E+01	1.6286E+01	2.1230E+01
S	2.4644E+00	2.6925E+00	2.8174E+00
Z	2.8524E+00	3.6987E+00	3.8773E+00
GAME	8.4732E-01	9.5519E-01	1.1383E+00
U	3.4488E+01	6.3958E+00	7.6605E+00

SPECIES	MOLE FRACTIONS		
E-	3.1637E-01	4.7278E-01	4.9797E-01
HE	1.7491E-02	8.0674E-03	4.7323E-04
HE+	3.8215E-05	5.4511E-03	1.2421E-02
HE++	5.6337E-19	1.9574E-10	1.0522E-06
H	3.4976E-01	4.8371E-02	5.3869E-03
H+	3.1633E-01	4.6733E-01	4.8465E-01
H2	6.3298E-07	2.4139E-08	2.1071E-10

Table III. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9648E+03	2.1829E+04	3.2864E+04
T	4.8841E+01	8.2610E+01	1.2524E+02
RHO	1.3569E+01	6.9518E+01	6.7382E+01
H	3.1462E+02	5.7487E+02	7.2148E+02
A	1.1102E+01	1.7830E+01	2.3896E+01
S	2.5218E+00	2.7544E+00	2.8814E+00
Z	2.9649E+00	3.8010E+00	3.8945E+00
GAME	8.5119E-01	1.0125E+00	1.1707E+00
U	3.5967E+01	7.0218E+00	9.0590E+00

SPECIES	MOLE FRACTIONS		
E-	3.4230E-01	4.8698E-01	4.9929E-01
HE	1.6804E-02	3.8493E-03	6.8440E-05
HE+	6.0626E-05	9.3051E-03	1.2699E-02
HE++	3.0099E-18	4.8621E-09	7.1026E-05
H	2.9860E-01	2.2193E-02	1.4277E-03
H+	3.4224E-01	4.7767E-01	4.8645E-01
H2	4.4224E-07	4.5924E-09	1.0651E-11

P1 = 5.00E+00 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4680E+03	2.6153E+04	4.4034E+04
T	5.2750E+01	1.2241E+02	1.9210E+02
RHO	1.3942E+01	6.4857E+01	5.8194E+01
H	3.9446E+02	7.1221E+02	9.4740E+02
A	1.2455E+01	2.3436E+01	3.0151E+01
S	2.6973E+00	2.9073E+00	3.0240E+00
Z	3.2173E+00	3.9648E+00	3.9357E+00
GAME	8.7004E-01	1.1718E+00	1.1229E+00
U	4.0336E+01	1.0178E+01	1.2564E+01

SPECIES	MOLE FRACTIONS		
E-	4.1218E-01	4.9933E-01	5.0504E-01
HE	1.4807E-02	4.4906E-05	1.2070E-04
HE+	2.4543E-04	1.2711E-02	2.4610E-02
HE++	5.6883E-16	5.7209E-05	1.0229E-02
H	1.6082E-01	1.3253E-03	1.5374E-04
H+	4.1191E-01	4.8450E-01	4.8212E-01
H2	1.1001E-07	7.6576E-12	7.6810E-14

P1 = 5.00E+00 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1269E+03	2.3450E+04	3.6726E+04
T	5.0346E+01	9.3415E+01	1.5005E+02
RHO	1.3715E+01	6.4992E+01	6.2703E+01
H	3.4025E+02	6.2032E+02	7.9759E+02
A	1.1522E+01	1.9940E+01	2.5593E+01
S	2.5798E+00	2.8118E+00	2.9374E+00
Z	3.0002E+00	3.8624E+00	3.9035E+00
GAMF	8.5598E-01	1.1020E+00	1.1183E+00
U	3.7437E+01	7.9038E+00	1.0485E+01

SPECIES	MOLE FRACTIONS		
E-	3.6695E-01	4.9514E-01	5.0045E-01
HE	1.6135E-02	1.0564E-02	1.7391E-05
HE+	9.6851E-05	1.1889E-02	1.1358E-02
HE++	1.6217E-17	1.4740E-07	1.4340E-03
H	2.4996E-01	8.6687E-03	5.0986E-04
H+	3.6686E-01	4.8327E-01	4.8623E-01
H2	2.9627E-07	5.4516E-10	1.0700E-12

P1 = 5.00E+00 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6448E+03	2.7282E+04	4.2740E+04
T	[illegible]	1.2819E+02	2.1857E+02
RHO	1.3804E+01	5.0444E+01	5.5358E+01
H	4.2308E+02	7.4058E+02	9.2703E+02
A	1.2998E+01	2.4892E+01	3.1758E+01
S	2.7562E+00	3.0487E+00	3.0647E+00
Z	3.4362E+00	3.8[illegible]E+00	3.9472E+00
GAMF	8.8106E-01	1.1498E+00	1.1[illegible]E+00
U	4.1774E+01	1.1381E+01	1.2862E+01

SPECIES	MOLE FRACTIONS		
E-	4.3252E-01	4.9557E-01	5.0598E-01
HE	1.6079E-02	2.4560E-05	2.1713E-07
HE+	4.7219E-06	1.2287E-02	4.1018E-06
HE++	4.1596E-15	5.1087E-04	1.2057E-02
H	1.2088E-01	4.2754E-04	8.4[illegible]E-05
H+	4.3225E-01	4.8543E-01	4.8124E-01
H2	5.7855E-08	1.4056E-12	2.1867E-14

P1 = 5.00F+00 N/SQ-M, US1= 5.40F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2945E+03	2.4860E+04	4.0286E+04
T	5.1962E+01	1.0713E+02	1.7076E+02
RHO	1.3807E+01	5.9708E+01	6.0300E+01
H	3.6697E+02	6.6628E+02	8.7115E+02
A	1.1969E+01	2.1959E+01	2.6857E+01
S	2.6384E+00	2.8523E+00	2.9829E+00
Z	3.1982E+00	3.8864E+00	3.9221E+00
GAMF	8.6206E-01	1.1581E+00	1.1776E+00
U	3.8893E+01	9.0103E+00	1.1549E+01

SPECIES	MOLE FRACTIONS		
E-	3.9028E-01	4.9827E-01	5.0282E-01
HE	1.6476E-02	2.4058E-06	5.5985E-04
HE+	1.5766E-04	1.2431E-02	6.8334E-03
HE++	8.1353E-17	3.6946E-06	5.9092E-03
H	2.0397E-01	3.2217E-03	2.4594E-04
H+	3.9012E-01	4.8564E-01	4.8417E-01
H2	1.9764E-07	5.7504E-11	2.5523E-13

P1 = 5.00E+00 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8306E+03	2.8336E+04	4.1281E+04
T	5.8267E+01	1.0334E+02	2.4784E+02
RHO	1.9267E+01	6.7708E+01	5.2662E+01
H	4.5245E+02	8.1017E+02	1.1144E+03
A	1.3629E+01	2.5596E+01	3.2988E+01
S	2.8163E+00	2.9837E+00	3.1022E+00
Z	3.5521E+00	3.9089E+00	3.9691E+00
GAMF	8.9653E-01	1.0923E+00	1.1816E+00
U	4.2183E+01	1.2445E+01	1.5162E+01

SPECIES	MOLE FRACTIONS		
E-	4.5104E-01	5.0103E-01	5.0422E-01
HE	1.3169E-02	1.1163E-05	4.1202E-08
HE+	9.0741E-06	1.0347E-02	1.6436E-06
HE++	2.9341E-14	2.4157E-03	1.2497E-02
H	8.4768E-02	3.5340E-04	5.1503E-05
H+	4.5013E-01	4.8583E-01	4.8136E-01
H2	2.5987E-08	4.4844E-13	4.0417E-15

Table III. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0178E+02	2.9304E+04	5.4397E+04
T	6.1394E+01	1.4697E+02	2.7779E+02
RHO	1.3429E+01	4.4822E+01	4.9780E+01
H	4.8316E+02	8.6132E+02	1.2060E+03
A	1.4377E+01	2.6405E+01	3.6046E+01
S	2.8722E+00	3.0238E+00	3.1275E+00
Z	3.6603E+00	3.9237E+00	3.9497E+00
GAME	9.1985E-01	1.0442E+00	1.1843E+00
U	4.4558E+01	1.3319E+01	1.6503E+01

SPECIES	MOLE FRACTIONS		
E-	4.6726E-01	5.0302E-01	5.0629E-01
HE	1.1742E-02	5.4122E-06	9.8696E-09
HE+	1.9177E-03	6.4429E-03	5.4408E-05
HE++	5.4032E-13	6.2945E-03	1.2605E-02
H	5.3747E-02	2.4312E-04	3.2407E-05
H+	4.6594E-01	4.9399E-01	4.8102E-01
H2	9.2384E-09	3.0690E-13	2.5361E-15

P1 = 5.00E+00 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5894E+02	2.9234E+04	5.8402E+04
T	7.9666E+01	2.1272E+02	3.4960E+02
RHO	1.1797E+01	3.4834E+01	4.0004E+01
H	5.8904E+02	1.0129E+03	1.4750E+03
A	1.8174E+01	3.1344E+01	4.1594E+01
S	3.0211E+00	3.1257E+00	3.2360E+00
Z	3.8712E+00	3.9472E+00	3.9499E+00
GAME	1.0944E+00	1.2498E+00	1.1852E+00
U	4.8324E+01	1.6292E+01	2.0111E+01

SPECIES	MOLE FRACTIONS		
E-	4.9628E-01	5.0598E-01	5.0632E-01
HE	1.5783E-03	2.2127E-07	3.859?E-10
HE+	1.1738E-03	6.5170E-04	5.7707E-06
HE++	8.7309E-09	1.2015E-02	1.2653E-02
H	5.8613E-03	6.2041E-05	1.0738E-05
H+	4.8494E-01	4.8129E-01	4.8101E-01
H2	4.0381E-11	9.0388E-15	2.1C80E-16

P1 = 5.00E+00 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2080E+03	2.9895E+04	5.6809E+04
T	8.9518E+01	1.8047E+02	3.0873E+02
RHO	1.3044E+01	4.7C8SE+01	4.6587E+01
H	5.1460E+07	9.1294E+02	1.7966E+03
A	1.5288E+01	2.8111E+01	3.8012E+01
S	2.9281E+00	3.0593E+00	3.1713E+00
Z	3.7537E+00	3.9392E+00	3.9498E+00
GAME	9.5041E-01	1.1131E+00	1.1849E+00
U	4.5886E+01	1.4180E+01	1.7797E+01

SPECIES	MOLE FRACTIONS		
E-	4.8051E-01	5.0498E-01	5.0631E-01
HE	9.0875E-03	2.3278E-06	2.8742E-09
HE+	4.2328E-03	2.5744E-03	2.1886E-05
HE++	1.1056E-11	1.0116E-02	1.2637E-02
H	2.9894E-02	1.6174E-04	2.1653E-05
H+	4.7628E-01	4.8217E-01	4.8101E-01
H2	2.4517E-09	1.3702E-13	1.0251E-15

P1 = 5.00E+00 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.776EE+03	2.9214E+04	5.7378E+04
T	8.8491E+01	2.2894E+02	3.9872E+02
RHO	1.0946E+01	3.12C9E+01	3.6432E+01
	6.1389E+02	1.0419E+03	1.5604E+03
A	1.9945E+01	3.2655E+01	4.2704E+01
S	3.0761E+00	3.1537E+00	3.2677E+00
Z	3.8902E+00	3.9490E+00	3.9805E+00
GAME	1.1529E+00	1.1756E+00	1.1852E+00
U	4.9391E+01	1.7245E+01	2.1114E+01

SPECIES	MOLE FRACTIONS		
E-	4.9874E-01	5.C67CE-01	5.0432E-01
HE	3.5041E-04	4.0137E-08	1.4406E-10
HE+	1.25C2E-03	2.1923E-06	3.5247E-08
HE++	2.5279E-07	1.2642E-03	1.2655E-03
H	2.1709E-03	4.1053E-05	7.8700E-05
H+	4.8524E-01	4.8110E-01	4.8101E-01
H2	5.2877E-13	2.7356E-15	1.0253E-16

P1 = 5.00E+00 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3993E+03	2.9840E+04	5.8241E+04
T	7.1049E+01	1.9639E+02	3.7962E+02
RHO	1.2505E+01	3.8517E+01	4.3416E+01
H	5.4492E+02	9.4920E+02	1.3865E+03
A	1.8475E+01	3.0023E+01	3.9872E+01
S	2.9817E+00	3.0944E+00	3.2040E+00
Z	3.8761E+00	3.9447E+00	3.9499E+00
GAME	9.9844E-01	1.1639E+00	1.1851E+00
U	4.7150E+01	1.5260E+01	1.8994E+01

SPECIES	MOLE FRACTIONS		
E-	4.9034E-01	5.0566E-01	5.0432E-01
HE	4.9654E-03	9.2750E-07	9.8502E-10
HE+	8.1078E-02	1.2506E-03	1.0441E-05
HE++	2.9760E-10	1.1424E-02	1.2448E-02
H	1.4954E-02	9.7484E-05	1.4990E-05
H+	4.8224E-01	4.8156E-01	4.8101E-01
H2	4.6340E-10	3.4239E-14	4.5041E-16

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6534E+01
T	2.8248E+00	3.5080E+00	4.9495E+00
RHO	3.9378E+00	6.5823E+00	1.1422E+01
H	2.8881E+00	3.6101E+00	5.1951E+00
A	1.6757E+00	1.8601E+00	2.1852E+00
S	1.0478E+00	1.0493E+00	1.0643E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9407E-01	9.8637E-01	9.6474E-01
U	2.3176E+00	1.3854E+00	1.2208E+00

SPECIES	MOLE FRACTIONS		
E-	1.9390E-62	8.1511E-44	6.9147E-28
HE	5.0000E-02	5.0000E-02	4.9998E-02
HE+	1.2482E-73	1.1064E-62	2.2942E-53
HE++	0.	0.	0.
H	3.0738E-10	4.0710E-08	9.5230E-05
H+	6.3460E-20	6.3460E-20	6.3457E-20
H2	9.5000E-01	9.5000E-01	9.4991E-01

P1 = 1.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5010E+01	1.3742E+02	2.3200E+02
T	6.3376E+00	8.0150E+00	8.7540E+00
RHO	5.5064E+00	1.6583E+01	2.4808E+01
H	6.9769E+00	1.0661E+01	1.3479E+01
A	2.3852E+00	2.6084E+00	2.7542E+00
S	1.1256E+00	1.1385E+00	1.1616E+00
Z	1.0053E+00	1.0337E+00	1.0683E+00
GAME	8.9478E-01	8.2115E-01	8.1111E-01
U	4.4491E+00	1.4765E+00	1.2694E+00

SPECIES	MOLE FRACTIONS		
E-	1.9784E-18	6.6207E-14	1.1529E-12
HE	4.9835E-02	4.8372E-02	4.6804E-02
HE+	9.4083E-44	9.1832E-36	2.0449E-33
HE++	0.	0.	0.
H	6.5956E-03	6.5109E-02	1.2780E-01
H+	2.0415E-18	6.6207E-14	1.1529E-12
H2	9.4357E-01	8.8652E-01	8.2534E-01

P1 = 1.00E+01 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6633E+01	1.0129E+02
T	3.8703E+00	5.1580E+00	6.7783E+00
RHO	4.5267E+00	9.0380E+00	1.4867E+01
M	3.9996E+00	5.4349E+00	7.5902E+00
A	1.9490E+00	2.2250E+00	2.4533E+00
S	1.0745E+00	1.0783E+00	1.0957E+00
Z	1.0000E+00	1.0001E+00	1.0049E+00
GAME	9.8150E-01	9.5967E-01	8.8351E-01
U	3.0250E+00	1.5140E+00	1.3241E+00

SPECIES	MOLE FRACTIONS		
E-	2.6073E-40	7.2046E-25	7.7807E-17
ME	5.0000E-02	4.9994E-02	4.9754E-02
ME+	3.8795E-01	9.0504E-52	7.9870E-42
ME++	0.	0.	0.
M	1.1186E-06	2.3077E-04	9.8200E-03
M+	6.3400E-20	6.3454E-20	7.7870E-17
M2	9.5000E-01	9.4977E-01	9.4042E-01

P1 = 1.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0085E+01	2.2432E+02	3.4784E+02
T	7.2605E+00	8.8597E+00	9.4700E+00
RHO	6.3180E+00	2.3477E+01	3.2749E+01
M	8.8704E+00	1.4177E+01	1.7329E+01
A	2.4832E+00	2.7809E+00	2.9295E+00
S	1.1514E+00	1.1736E+00	1.2005E+00
Z	1.0178E+00	1.0786E+00	1.1219E+00
GAME	8.3440E-01	8.0927E-01	8.0705E-01
U	5.2294E+00	1.4061E+00	1.2526E+00

SPECIES	MOLE FRACTIONS		
E-	2.0591E-15	1.7948E-12	1.3000E-11
ME	4.9126E-02	4.6355E-02	4.4566E-02
ME+	1.1604E-38	6.1887E-33	1.6071E-30
ME++	0.	0.	0.
M	3.4973E-02	1.4580E-01	2.1738E-01
M+	2.0594E-15	1.7948E-12	1.3000E-11
M2	9.1590E-01	8.0784E-01	7.3800E-01

P1 = 1.00E+01 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5416E+01	8.2021E+01	1.5700E+02
T	5.0907E+00	6.8510E+00	7.9444E+00
RHO	4.9916E+00	1.1896E+01	1.9221E+01
M	5.3587E+00	7.7525E+00	1.0300E+01
A	2.2109E+00	2.4542E+00	2.5983E+00
S	1.1005E+00	1.1073E+00	1.1271E+00
Z	1.0001E+00	1.0063E+00	1.0286E+00
GAME	9.6004E-01	8.7356E-01	8.2014E-01
U	3.7264E+00	1.5622E+00	1.3066E+00

SPECIES	MOLE FRACTIONS		
E-	5.8289E-26	1.2730E-16	3.8200E-14
ME	4.9994E-02	4.9686E-02	4.8600E-02
ME+	1.3183E-52	1.4357E-41	2.0449E-36
ME++	0.	0.	0.
M	2.3921E-04	1.2567E-02	5.5600E-02
M+	6.3453E-20	1.2736E-16	3.8200E-14
M2	9.4977E-01	9.3775E-01	8.9373E-01

P1 = 1.00E+01 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.0317E+01	3.4998E+02	5.1333E+02
T	7.8963E+00	9.5796E+00	1.0130E+01
RHO	7.3240E+00	3.2162E+01	4.2631E+01
M	1.1027E+01	1.8250E+01	2.1807E+01
A	2.5870E+00	2.9644E+00	3.1207E+00
S	1.1787E+00	1.2131E+00	1.2438E+00
Z	1.0431E+00	1.1362E+00	1.1870E+00
GAME	8.1250E-01	8.0738E-01	8.0866E-01
U	6.0354E+00	1.3755E+00	1.2524E+00

SPECIES	MOLE FRACTIONS		
E-	6.0436E-14	1.8575E-11	9.0301E-11
ME	4.7935E-02	4.4008E-02	4.2098E-02
ME+	2.3214E-36	2.5887E-30	1.3301E-28
ME++	0.	0.	0.
M	8.2602E-02	2.3908E-01	3.1624E-01
M+	6.0436E-14	1.8575E-11	9.0301E-11
M2	8.6946E-01	7.1631E-01	6.4167E-01

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5693E+01	5.1710E+02	7.2973E+02
T	8.3909E+00	1.0234E+01	1.0773E+01
RHO	8.3834E+00	4.1972E+01	5.3575E+01
H	1.3434E+01	2.2828E+01	2.6851E+01
A	2.6952E+00	3.1576E+00	3.3200E+00
S	1.2087E+00	1.2568E+00	1.2912E+00
Z	1.0759E+00	1.2040E+00	1.2642E+00
GAME	8.0463E-01	8.0912E-01	8.1223E-01
U	8.8398E+00	1.3668E+00	1.2694E+00

SPECIES	MOLE FRACTIONS		
E-	5.4768E-13	1.1576E-10	4.3021E-10
HE	4.0473E-02	4.1528E-02	3.9349E-02
HE+	1.3743E-34	1.6922E-29	5.0826E-27
HE++	0.	0.	0.
H	1.4109E-01	3.3888E-01	4.1803E-01
H+	5.4768E-13	1.1576E-10	4.3021E-10
H2	8.1243E-01	6.1960E-01	5.4241E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3177E+02	1.2812E+03	1.7047E+03
T	9.5356E+00	1.2088E+01	1.2739E+01
RHO	1.1435E+01	7.2562E+01	8.6302E+01
H	2.2153E+01	3.9461E+01	4.5322E+01
A	3.0400E+00	3.8145E+00	4.0544E+00
S	1.3133E+00	1.4085E+00	1.4547E+00
Z	1.2085E+00	1.4607E+00	1.5504E+00
GAME	8.0197E-01	8.2407E-01	8.3225E-01
U	9.2118E+00	1.4521E+00	1.4006E+00

SPECIES	MOLE FRACTIONS		
E-	3.3494E-11	6.4459E-09	1.9264E-08
HE	4.1375E-02	3.4230E-02	3.2248E-02
HE+	2.4461E-30	3.1194E-24	5.0399E-23
HE++	0.	6.5594E-88	1.1326E-82
H	3.4500E-01	6.3081E-01	7.1008E-01
H+	3.3494E-11	6.4459E-09	1.9264E-08
H2	6.1362E-01	3.3496E-01	2.5767E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.2751E+01	7.2754E+02	9.9936E+02
T	8.8116E+00	1.0857E+01	1.1403E+01
RHO	9.4427E+00	5.2368E+01	6.4894E+01
M	1.6091E+01	2.7896E+01	3.2450E+01
A	2.8004E+00	3.3622E+00	3.5474E+00
S	1.2412E+00	1.3043E+00	1.3425E+00
Z	1.1148E+00	1.2812E+00	1.3506E+00
GAME	8.0177E-01	8.1269E-01	8.1711E-01
U	7.6381E+00	1.3792E+00	1.3009E+00

SPECIES	MOLE FRACTIONS		
E-	2.8883E-12	5.3212E-10	1.6770E-09
HE	4.4852E-02	3.9026E-02	3.7022E-02
HE+	1.7012E-33	6.7438E-27	1.2614E-25
HE++	0.	0.	0.
H	2.0593E-01	4.3896E-01	5.1914E-01
H+	2.8883E-12	5.3212E-10	1.6776E-09
H2	7.4922E-01	5.2202E-01	4.4304E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5375E+02	1.6239E+03	2.1440E+03
T	9.8669E+00	1.2750E+01	1.3537E+01
RHO	1.2342E+01	8.1557E+01	9.5255E+01
M	2.5560E+01	4.5959E+01	5.2653E+01
A	3.1639E+00	4.0718E+00	4.3620E+00
S	1.3527E+00	1.4644E+00	1.5148E+00
Z	1.2027E+00	1.5617E+00	1.6620E+00
GAME	8.0350E-01	8.3264E-01	8.4536E-01
U	9.9910E+00	1.5122E+00	1.4871E+00

SPECIES	MOLE FRACTIONS		
E-	8.8200E-11	1.9939E-08	6.5193E-08
HE	3.9600E-02	3.2017E-02	3.0073E-02
HE+	1.3240E-29	4.4213E-23	9.1986E-22
HE++	0.	2.0687E-82	5.0030E-79
H	4.1601E-01	7.1933E-01	7.9704E-01
H+	8.8200E-11	1.9939E-08	6.5193E-08
H2	5.4439E-01	2.4866E-01	1.7283E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1144E+02	9.8177E+02	1.3231E+03
T	9.1894E+00	1.1466E+01	1.2047E+01
RHO	1.0401E+01	6.2643E+01	7.5949E+01
M	1.8997E+01	3.3438E+01	3.8596E+01
A	2.9212E+00	3.5798E+00	3.7876E+00
S	1.2761E+00	1.3550E+00	1.3971E+00
Z	1.1591E+00	1.3669E+00	1.4461E+00
GAME	8.0117E-01	8.1764E-01	8.2322E-01
U	8.4277E+00	1.4078E+00	1.3454E+00

SPECIES	MOLE FRACTIONS		
E-	1.1198E-11	1.9502E-09	5.8065E-09
HE	4.3138E-02	3.6578E-02	3.4576E-02
HE+	2.5169E-31	1.5468E-25	2.6004E-24
HE++	0.	1.3248E-91	1.4969E-87
H	2.7446E-01	5.3687E-01	6.1695E-01
H+	1.1198E-11	1.9502E-09	5.8065E-09
H2	6.8240E-01	4.2655E-01	3.4848E-01

P1 = 1.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7731E+02	2.0049E+03	2.6412E+03
T	1.0191E+01	1.3504E+01	1.4589E+01
RHO	1.5100E+01	8.8990E+01	1.0171E+02
M	2.9216E+01	5.2918E+01	6.0655E+01
A	3.2937E+00	4.3642E+00	4.7552E+00
S	1.3942E+00	1.5218E+00	1.5788E+00
Z	1.3214E+00	1.6683E+00	1.7799E+00
GAME	8.0562E-01	8.4541E-01	8.7072E-01
U	1.0764E+01	1.5927E+00	1.6004E+00

SPECIES	MOLE FRACTIONS		
E-	2.1992E-10	6.4501E-08	2.7305E-07
HE	3.7836E-02	2.9971E-02	2.8091E-02
HE+	2.2664E-28	8.6160E-22	3.2031E-20
HE++	0.	5.9986E-79	4.5942E-73
H	4.8650E-01	8.0116E-01	8.7636E-01
H+	2.1992E-10	6.4501E-08	2.7305E-07
H2	4.7560E-01	1.6887E-01	9.5548E-02

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M. US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0249E+02	2.4201E+03	3.2116E+03
T	1.0509E+01	1.4466E+01	1.6498E+01
RHO	1.3915E+01	9.4128E+01	1.0286E+02
M	3.3124E+01	6.0331E+01	6.9636E+01
A	3.4298E+00	4.7260E+00	5.4526E+00
S	1.4376E+00	1.5801E+00	1.6406E+00
Z	1.3848E+00	1.7773E+00	1.8926E+00
GAME	8.0833E-01	8.6671E-01	9.5254E-01
U	1.1532E+01	1.7052E+00	1.8033E+00

SPECIES	MOLE FRACTIONS		
E-	4.8758E-10	2.4153E-07	2.3872E-06
HE	3.6109E-02	2.8133E-02	2.6427E-02
HE+	1.0373E-27	2.1930E-20	7.4793E-18
HE++	0.	7.7557E-73	2.9854E-64
H	5.5566E-01	8.7467E-01	9.4293E-01
H+	4.8758E-10	2.4153E-07	2.3872E-06
H2	4.0823E-01	9.7191E-02	3.0641E-02

P1 = 1.00E+01 N/SQ-M. US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8749E+02	3.6026E+03	5.4763E+03
T	1.1540E+01	2.4450E+01	3.4539E+01
RHO	1.5578E+01	7.5579E+01	7.9842E+01
M	4.6347E+01	8.4526E+01	1.0522E+02
A	3.8933E+00	7.3603E+00	8.0302E+00
S	1.5776E+00	1.7327E+00	1.7945E+00
Z	1.5993E+00	1.9495E+00	1.9852E+00
GAME	8.2134E-01	1.1365E+00	9.4022E-01
U	1.3600E+01	2.8478E+00	3.3400E+00

SPECIES	MOLE FRACTIONS		
E-	4.9237E-09	6.4914E-04	1.8139E-02
HE	3.1265E-02	2.5647E-02	2.5179E-02
HE+	2.6657E-25	8.6803E-12	4.0787E-06
HE++	3.0624E-90	2.4774E-62	4.9381E-29
H	7.4939E-01	9.7215E-01	9.3841E-01
H+	4.9237E-09	6.4914E-04	1.8139E-02
H2	2.1934E-01	8.9941E-04	1.2986E-04

P1 = 1.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2926E+02	2.8505E+03	3.9194E+03
T	1.0836E+01	1.5997E+01	2.2228E+01
RHO	1.4568E+01	9.4863E+01	9.0598E+01
M	3.7281E+01	6.8154E+01	8.1013E+01
A	3.5739E+00	5.2892E+00	7.0458E+00
S	1.4828E+00	1.6373E+00	1.7060E+00
Z	1.4523E+00	1.8784E+00	1.9462E+00
GAME	8.1168E-01	9.3100E-01	1.1475E+00
U	1.2295E+01	1.8884E+00	2.3551E+00

SPECIES	MOLE FRACTIONS		
E-	1.0828E-09	1.4711E-06	1.8949E-04
HE	3.4427E-02	2.6619E-02	2.5090E-02
HE+	8.8593E-27	1.9732E-18	4.4050E-13
HE++	0.	9.2561E-66	4.8503E-47
H	6.2291E-01	9.3525E-01	9.7181E-01
H+	1.0828E-09	1.4711E-06	1.8949E-04
H2	3.4267E-01	3.8125E-02	2.1175E-03

P1 = 1.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1888E+02	3.9601E+03	6.2092E+03
T	1.1953E+01	2.9400E+01	5.7805E+01
RHO	1.5901E+01	6.8769E+01	8.1203E+01
M	5.1254E+01	9.3191E+01	1.1714E+02
A	4.0773E+00	7.7250E+00	8.3036E+00
S	1.6208E+00	1.7684E+00	1.8273E+00
Z	1.6777E+00	1.9587E+00	2.0220E+00
GAME	8.2911E-01	1.0363E+00	9.0172E-01
U	1.4555E+01	3.3662E+00	3.5443E+00

SPECIES	MOLE FRACTIONS		
E-	1.1089E-08	4.7053E-03	3.5992E-02
HE	2.9803E-02	2.5527E-02	2.4720E-02
HE+	1.7627E-24	1.1977E-09	2.4002E-07
HE++	1.5729E-86	1.2185E-34	3.2677E-26
H	8.0789E-01	9.6480E-01	9.0321E-01
H+	1.1089E-08	4.7053E-03	3.5992E-02
H2	1.6231E-01	2.6284E-04	8.3828E-05

P1 = 1.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5760E+02	3.2513E+03	4.7152E+03
T	1.1175E+01	1.9294E+01	2.9725E+01
RHO	1.5126E+01	8.6961E+01	8.0960E+01
M	4.1689E+01	7.6251E+01	9.3714E+01
A	3.7275E+00	6.4196E+00	7.7676E+00
S	1.5295E+00	1.6896E+00	1.7571E+00
Z	1.5239E+00	1.9378E+00	1.9589E+00
GAME	8.1589E-01	1.1023E+00	1.0362E+00
U	1.3054E+01	2.2723E+00	2.9998E+00

SPECIES	MOLE FRACTIONS		
E-	2.3290E-09	2.9050E-05	4.8168E-03
HE	3.2809E-02	2.5802E-02	2.5525E-02
HE+	5.6744E-26	3.6570E-15	1.4379E-09
HE++	0.	1.3939E-54	2.8299E-34
H	6.8762E-01	9.6783E-01	9.6455E-01
H+	2.3290E-09	2.9050E-05	4.8168E-03
H2	2.7957E-01	6.3086E-03	2.9133E-04

P1 = 1.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5169E+02	4.3734E+03	6.9017E+03
T	1.2450E+01	3.3261E+01	4.0324E+01
RHO	1.6059E+01	6.6304E+01	8.2869E+01
M	5.6409E+01	1.0245E+02	1.2882E+02
A	4.2934E+00	7.9108E+00	8.5807E+00
S	1.6767E+00	1.8002E+00	1.8507E+00
Z	1.7582E+00	1.9790E+00	2.0652E+00
GAME	8.4173E-01	9.5242E-01	8.8409E-01
U	1.5292E+01	3.7051E+00	3.6735E+00

SPECIES	MOLE FRACTIONS		
E-	2.7902E-08	1.4828E-02	5.5824E-02
HE	2.8439E-02	2.5265E-02	2.4210E-02
HE+	1.8411E-23	1.7894E-08	7.7500E-07
HE++	4.2596E-83	2.8148E-31	2.3425E-24
H	8.6245E-01	9.4493E-01	8.6488E-01
H+	2.7902E-08	1.4828E-02	5.5823E-02
H2	1.0911E-01	1.4726E-04	6.1019E-05

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8573E+02	4.7553E+03	7.4956E+03
T	1.3149E+01	3.6064E+01	4.2409E+01
RHO	1.5962E+01	6.6292E+01	8.3716E+01
H	6.1809E+01	1.1233E+02	1.4069E+02
A	4.5787E+00	8.1356E+00	8.8569E+00
S	1.7266E+00	1.8307E+00	1.8902E+00
Z	1.8379E+00	2.0106E+00	2.1113E+00
GAME	8.6752E-01	9.2013E-01	8.7482E-01
U	1.6014E+01	3.8577E+00	3.7686E+00

SPECIES	MOLE FRACTIONS		
E-	8.9317E-08	3.0393E-02	7.6534E-02
HE	2.7205E-02	2.4865E-02	2.3078E-02
HE+	3.7918E-22	9.6855E-08	1.8305E-06
HE++	5.8020E-80	4.5091E-29	5.4813E-23
H	9.1179E-01	9.1422E-01	8.2321E-01
H+	8.9317E-08	3.0392E-02	7.6532E-02
H2	6.1002E-02	1.2987E-04	4.7764E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8663E+02	4.5770E+03	6.9607E+03
T	2.0896E+01	4.1506E+01	4.6214E+01
RHO	2.1945E+01	5.1872E+01	6.6731E+01
H	7.9281E+01	1.4195E+02	1.7432E+02
A	6.8670E+00	8.7487E+00	9.4874E+00
S	1.8571E+00	1.9359E+00	1.9980E+00
Z	1.9490E+00	2.1259E+00	2.2571E+00
GAME	1.1575E+00	8.6744E-01	8.6293E-01
U	1.7708E+01	4.0989E+00	3.8787E+00

SPECIES	MOLE FRACTIONS		
E-	2.3528E-04	8.2752E-02	1.3607E-01
HE	2.5647E-02	2.3518E-02	2.2149E-02
HE+	1.5967E-13	1.6077E-06	8.1714E-06
HE++	1.9733E-69	2.3280E-23	1.0873E-20
H	9.7343E-01	8.1095E-01	7.0570E-01
H+	2.3528E-04	8.2750E-02	1.3606E-01
H2	4.5273E-04	3.1327E-05	2.2127E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2037E+02	4.9882E+03	7.8190E+03
T	1.4360E+01	3.8400E+01	4.4110E+01
RHO	1.5343E+01	6.3801E+01	8.2042E+01
M	6.7441E+01	1.2238E+02	1.5258E+02
A	5.0845E+00	8.3716E+00	9.1030E+00
S	1.7753E+00	1.8630E+00	1.9234E+00
Z	1.9080E+00	2.0462E+00	2.1604E+00
GAME	9.4357E-01	8.9479E-01	8.6946E-01
U	1.6697E+01	4.0171E+00	3.8411E+00

SPECIES	MOLE FRACTIONS		
E-	5.2704E-07	4.7167E-02	9.7411E-02
HE	2.6205E-02	2.4433E-02	2.3141E-02
HE+	3.5004E-20	3.6287E-07	3.5520E-06
HE++	2.9329E-73	1.7798E-26	5.9009E-22
H	9.5179E-01	8.8116E-01	7.8200E-01
H+	5.2704E-07	4.7166E-02	9.7408E-02
H2	2.2005E-02	7.0543E-05	3.7501E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2101E+02	4.4630E+03	6.6800E+03
T	2.4766E+01	4.2718E+01	4.7140E+01
RHO	1.0767E+01	4.8140E+01	6.1400E+01
M	8.5531E+01	1.5217E+02	1.8553E+02
A	7.2293E+00	8.9429E+00	9.6865E+00
S	1.8884E+00	1.9705E+00	2.0339E+00
Z	1.9537E+00	2.1702E+00	2.3070E+00
GAME	1.0801E+00	8.6267E-01	8.6135E-01
U	1.8313E+01	4.1000E+00	3.8950E+00

SPECIES	MOLE FRACTIONS		
E-	1.9883E-03	1.0149E-01	1.5499E-01
HE	2.5593E-02	2.3037E-02	2.1050E-02
HE+	3.3270E-11	2.7109E-06	1.1240E-05
HE++	8.6936E-41	1.4926E-22	3.6194E-20
H	9.7031E-01	7.7396E-01	6.6834E-01
H+	1.9883E-03	1.0149E-01	1.5498E-01
H2	1.1731E-04	2.4298E-05	1.7470E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5380E+02	4.8487E+03	7.5070E+03
T	1.7011E+01	4.0212E+01	4.5315E+01
RHO	1.3727E+01	5.7851E+01	7.5047E+01
M	7.3267E+01	1.3219E+02	1.6369E+02
A	6.0896E+00	8.5645E+00	9.3087E+00
S	1.8196E+00	1.8991E+00	1.9602E+00
Z	1.9437E+00	2.0843E+00	2.2009E+00
GAME	1.1216E+00	8.7518E-01	8.6509E-01
U	1.7279E+01	4.1020E+00	3.8707E+00

SPECIES	MOLE FRACTIONS		
E-	1.0792E-05	6.4474E-02	1.1722E-01
HE	2.5724E-02	2.3988E-02	2.2630E-02
HE+	6.9626E-17	8.7787E-07	5.6876E-06
HE++	2.0768E-61	3.7496E-24	3.1476E-21
H	9.7099E-01	8.4702E-01	7.4269E-01
H+	1.0792E-05	6.4473E-02	1.1722E-01
H2	3.2614E-03	4.2195E-05	2.8825E-05

P1 = 1.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.3834E+02	4.5503E+03	6.7214E+03
T	2.7982E+01	4.3971E+01	4.8219E+01
RHO	1.0157E+01	4.6651E+01	5.9009E+01
M	9.2060E+01	1.6325E+02	1.9763E+02
A	7.3422E+00	9.1586E+00	9.9023E+00
S	1.9164E+00	2.0030E+00	2.0679E+00
Z	1.9646E+00	2.2183E+00	2.3623E+00
GAME	9.8064E-01	8.5994E-01	8.6086E-01
U	1.8903E+01	4.1163E+00	3.9257E+00

SPECIES	MOLE FRACTIONS		
E-	7.4824E-03	1.2096E-01	1.7455E-01
HE	2.5455E-02	2.2536E-02	2.1150E-02
HE+	9.1366E-10	4.4236E-06	1.6480E-05
HE++	1.0194E-35	8.7306E-22	1.3078E-19
H	9.5953E-01	7.3553E-01	6.2977E-01
H+	7.4824E-03	1.2095E-01	1.7454E-01
H2	5.0946E-05	1.9596E-05	1.4197E-05

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9901E+02	4.8097E+03	7.0345E+03
T	3.0387E+01	4.5287E+01	4.9443E+01
RHO	9.9413E+00	4.6779E+01	5.8740E+01
M	9.8889E+01	1.7528E+02	2.1145E+02
A	7.4503E+00	9.3960E+00	1.0136E+01
S	1.9419E+00	2.0341E+00	2.1099E+00
Z	1.9829E+00	2.2703E+00	2.4219E+00
GAME	9.2120E-01	8.5867E-01	8.6129E-01
U	1.9558E+01	4.1572E+00	3.9801E+00

SPECIES	MOLE FRACTIONS		
E-	1.6628E-02	1.4111E-01	1.9465E-01
HE	2.5215E-02	2.2016E-02	2.0621E-02
HE+	6.6753E-09	7.0704E-06	2.3804E-05
HE++	1.5406E-32	4.9170E-21	5.0892E-19
H	9.4150E-01	6.9574E-01	5.8908E-01
H+	1.6628E-02	1.4111E-01	1.9466E-01
H2	3.0638E-05	1.6241E-05	1.1740E-05

P1 = 1.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8465E+02	6.6233E+03	9.4459E+03
T	3.6394E+01	5.0602E+01	5.4805E+01
RHO	1.0275E+01	5.2200E+01	6.3938E+01
M	1.2694E+02	2.3010E+02	2.7446E+02
A	8.0785E+00	1.0454E+01	1.1327E+01
S	2.0394E+00	2.1566E+00	2.2325E+00
Z	2.0989E+00	2.5075E+00	2.6927E+00
GAME	8.5434E-01	8.6123E-01	8.6841E-01
U	2.2431E+01	4.4162E+00	4.2929E+00

SPECIES	MOLE FRACTIONS		
E-	7.0956E-02	2.2234E-01	2.7383E-01
HE	2.3822E-02	1.9905E-02	1.8471E-02
HE+	3.1924E-07	3.5289E-05	9.7552E-05
HE++	1.8164E-26	1.9622E-18	9.4693E-17
H	8.3426E-01	5.3541E-01	4.2986E-01
H+	7.0955E-02	2.2230E-01	2.7374E-01
H2	1.1042E-05	8.2945E-06	5.5057E-06

P1 = 1.00E+01 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4230E+02	5.1700E+03	7.5068E+03
T	3.2286E+01	4.6619E+01	5.0742E+01
RHO	9.9128E+00	4.7685E+01	5.9481E+01
M	1.0600E+02	1.8806E+02	2.2605E+02
A	7.5911E+00	9.6472E+00	1.0428E+01
S	1.9607E+00	2.0648E+00	2.1336E+00
Z	2.0069E+00	2.3257E+00	2.4852E+00
GAME	8.8934E-01	8.5840E-01	8.6237E-01
U	2.0250E+01	4.2106E+00	4.0405E+00

SPECIES	MOLE FRACTIONS		
E-	2.8384E-02	1.6155E-01	2.1537E-01
HE	2.4914E-02	2.1488E-02	2.0085E-02
HE+	2.7197E-08	1.0984E-05	3.4410E-05
HE++	2.2179E-30	2.5162E-20	1.9604E-18
H	9.1830E-01	6.5539E-01	5.4917E-01
H+	2.8384E-02	1.6154E-01	2.1533E-01
H2	2.1549E-05	1.3651E-05	9.7737E-06

P1 = 1.00E+01 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8781E+02	5.6014E+03	8.0727E+03
T	3.3650E+01	4.7950E+01	5.2084E+01
RHO	9.9856E+00	4.9004E+01	6.0742E+01
M	1.1338E+02	2.0149E+02	2.4145E+02
A	7.7482E+00	9.9081E+00	1.0716E+01
S	1.9910E+00	2.0953E+00	2.1603E+00
Z	2.0349E+00	2.3838E+00	2.5518E+00
GAME	8.7150E-01	8.5884E-01	8.6397E-01
U	2.0964E+01	4.2729E+00	4.1217E+00

SPECIES	MOLE FRACTIONS		
E-	4.1709E-02	1.8200E-01	2.3501E-01
HE	2.4572E-02	2.0958E-02	1.9546E-02
HE+	7.4853E-08	1.6592E-05	4.9178E-05
HE++	8.9223E-29	1.1729E-19	7.4041E-18
H	8.9199E-01	6.1503E-01	5.0684E-01
H+	4.1769E-02	1.8199E-01	2.3378E-01
H2	1.0516E-05	1.1551E-05	8.1411E-06

P1 = 1.00E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8915E+02	7.8104E+03	1.1050E+04
T	3.8493E+01	5.3250E+01	5.7775E+01
RHO	1.0639E+01	5.5570E+01	6.7318E+01
M	1.4552E+02	2.6081E+02	3.1012E+02
A	8.4147E+00	1.1027E+01	1.1984E+01
S	2.0880E+00	2.2189E+00	2.3000E+00
Z	2.1711E+00	2.6395E+00	2.8428E+00
GAME	8.4725E-01	8.6507E-01	8.7436E-01
U	2.3921E+01	4.5808E+00	4.4891E+00

SPECIES	MOLE FRACTIONS		
E-	1.0186E-01	2.6122E-01	3.1405E-01
HE	2.3029E-02	1.8873E-02	1.7401E-02
HE+	9.0701E-07	6.9850E-05	1.8786E-04
HE++	8.5597E-25	2.5219E-17	1.0786E-15
H	7.7324E-01	4.5869E-01	3.5449E-01
H+	1.0186E-01	2.6115E-01	3.1387E-01
H2	8.0205E-06	5.8716E-06	3.6615E-06

P1 = 1.00E+01 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0003E+03	9.1351E+03	1.2870E+04
T	4.0339E+01	5.5939E+01	6.0872E+01
RHO	1.1021E+01	5.8767E+01	7.0477E+01
M	1.6312E+02	2.9350E+02	3.4835E+02
A	8.7541E+00	1.1630E+01	1.2692E+01
S	2.1374E+00	2.2825E+00	2.3686E+00
Z	2.2499E+00	2.7789E+00	3.0002E+00
GAME	8.4438E-01	8.7016E-01	8.8202E-01
U	2.5418E+01	4.7681E+00	4.7118E+00

SPECIES	MOLE FRACTIONS		
E-	1.3329E-01	2.9828E-01	3.5004E-01
HE	2.2221E-02	1.7861E-02	1.6369E-02
HE+	2.0708E-06	1.3208E-04	3.5726E-04
HE++	1.0383E-23	2.6980E-16	1.1500E-14
H	7.1116E-01	3.8558E-01	2.8364E-01
H+	1.3329E-01	2.9815E-01	3.4908E-01
H2	6.6418E-06	4.0280E-06	2.2682E-06

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.11[illegible]E+03	1.0583E+04	1.4871E+04
T	4.2031E+01	5.8704E+01	6.4209E+01
RHO	1.1395E+01	6.1674E+01	7.3153E+01
M	1.8173E+02	3.2810E+02	3.8920E+02
A	9.0979E+00	1.2264E+01	1.3405E+01
S	2.1877E+00	2.3463E+00	2.4383E+00
Z	2.3343E+00	2.9231E+00	3.1634E+00
GAME	8.4306E-01	8.7650E-01	8.9195E-01
U	2.6916E+01	4.9746E+00	4.9066E+00

SPECIES	POLE FRACTIONS		
E-	1.0464E-01	3.3289E-01	3.8[illegible]E-01
NE	2.1415E-02	1.6863E-02	1.5[illegible]E-02
NE+	4.1308E-06	2.4231E-04	6.8440E-04
NE++	2.3936E-22	2.5419E-15	1.2[illegible]
N	6.4930E-01	3.1735E-01	2.1[illegible]E-01
N+	1.6464E-01	3.3265E-01	3.8[illegible]E-01
N2	4.6223E-06	2.6525E-06	1.2860E-06

P1 = 1.00E+01 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5100E+03	1.5498E+04	2.1909E+04
T	4.6061E+01	6.8441E+01	7.8977E+01
RHO	1.2363E+01	6.7123E+01	7.6300E+01
M	2.4360E+02	4.4288E+02	5.2958E+02
A	1.0174E+01	1.4478E+01	1.6567E+01
S	2.3449E+00	2.5413E+00	2.6509E+00
Z	2.6174E+00	3.3735E+00	3.6458E+00
GAME	8.4759E-01	9.0781E-01	9.5326E-01
U	3.1405E+01	5.7857E+00	6.0665E+00

SPECIES	POLE FRACTIONS		
E-	2.5500E-01	4.2197E-01	4.6513E-01
NE	1.9081E-02	1.3307E-02	8.2468E-03
NE+	2.1607E-05	1.514[illegible]E-03	5.4678E-05
NE++	1.1195E-19	2.0690[illegible]E-12	4.1178E-10
N	4.7091E-01	1.4275E-[illegible]	6.1487E-02
N+	2.5498E-01	4.2046E-[illegible]	4.5967E-01
N2	2.0503E-06	4.6952E-[illegible]	8.0434E-08

P1 = 1.00E+01 N/SQ-M. US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2424E+03	1.2140E+04	1.7059E+04
T	4.3624E+01	6.1639E+01	6.8164E+01
RHO	1.1749E+01	6.4110E+01	7.5176E+01
M	2.0135E+02	3.6460E+02	4.3269E+02
A	9.4479E+00	1.2941E+01	1.4333E+01
S	2.2390E+00	2.4112E+00	2.5094E+00
Z	2.6239E+00	3.0721E+00	3.3290E+00
GAME	8.4417E-01	8.8444E-01	9.0533E-01
U	2.8412E+01	5.2092E+00	5.2670E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	1.9532E-01	3.6525E-01	4.1424E-01
HE	2.0062E-02	1.5834E-02	1.3673E-02
HE+	7.2705E-06	4.4159E-04	1.3469E-03
HE++	2.2083E-21	2.2899E-14	1.4014E-12
H	5.6834E-01	2.5366F-01	1.5785E-01
H+	1.9551E-01	3.6481E-01	4.1289E-01
H2	3.5488E-06	1.6391E-06	6.4012E-07

P1 = 1.00E+01 N/SQ-M. US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6533E+03	1.7265E+04	2.4767E+04
T	4.6150E+01	7.2707E+01	8.7909E+01
RHO	1.2623E+01	6.7494E+01	7.4609E+01
M	2.6622E+02	4.8459E+02	5.8463E+02
A	1.0552E+01	1.5389E+01	1.8326E+01
S	2.3990E+00	2.6057E+00	2.7216E+00
Z	2.7201E+00	3.5183E+00	3.7762E+00
GAME	8.5022E-01	9.2581E-01	1.0117E+00
U	3.2892E+01	6.1529E+00	6.6957E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.8311E-01	4.4576E-01	4.8360E-01
HE	1.8347E-02	1.1333E-02	3.7666E-03
HE+	3.4711E-05	2.8779E-03	9.4543E-03
HE++	6.4611E-19	2.3506E-11	1.1893E-08
H	4.1542E-01	9.7150E-02	2.9008E-02
H+	2.8308E-01	4.4288E-01	4.7415E-01
H2	1.5286E-06	2.0101E-07	1.5066E-08

P1 = 1.00E+01 N/SQ-M. US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3730E+03	1.3785E+04	1.9422E+04
T	4.5157E+01	6.4833E+01	7.2862E+01
RHO	1.2076E+01	6.5966E+01	7.6342E+01
M	2.2197E+02	4.0287E+02	4.8[illegible]E+02
A	9.8058E+00	1.3673E+01	1.5334E+01
S	2.2914E+00	2.4763F+00	2.5749E+00
Z	2.5183E+00	3.2232E+00	3.4924E+00
GAME	8.4554E-01	8.9455E-01	9.2409E-01
U	2.9914E+01	5.4766E+00	5.6213E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.2366E-01	3.9502E-01	[illegible]-01
HE	1.9842E-02	1.4702E-02	[illegible]2
HE+	1.3047E-05	8.1007E-04	[illegible]
HE++	1.7192E-20	2.0874E-13	[illegible]
H	5.2883E-01	1.9526E-01	1.05[illegible]
H+	2.2565E-01	3.9421E-01	4.3897E[illegible]
H2	2.7130E-06	9.3063E-07	2.6303E-07

P1 = 1.00E+01 N/SQ-M. US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8027E+03	1.9041E+04	2.7913E+04
T	4.9657E+01	7.7992E+01	1.0268E+02
RHO	1.2842E+01	6.6877E+01	7.[illegible]+01
M	2.3985E+02	5.2785E+02	6.[illegible]+02
A	1.0946E+01	1.6463E+01	2.1024E+01
S	2.4241E+00	2.6687E+00	2.7924E+00
Z	2.8269E+00	3.6505E+00	3.8596E+00
GAME	8.5340E-01	9.5199E-01	1.1131E+00
U	3.4373E+01	6.6013E+00	7.6923E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	3.1020E-01	4.6502E-01	4.9470E-01
HE	1.7032E-02	8.3715E-03	8.1004E-04
HE+	5.4929E-05	5.3254E-03	1.2144E-02
HE++	3.4847E-18	3.1986E-10	6.40[illegible]E-07
H	3.6197E-01	5.9983E-02	9.6627E-03
H+	3.1014E-01	4.6050E-01	4.8262E-01
H2	1.1138E-06	6.8683E-08	1.2754E-09

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.03E+01 N/SQ-M. US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9583E+03	2.0726E+04	3.1437E+04
T	5.1205E+01	8.4928E+01	1.2527E+02
RHO	1.3021E+01	6.5052E+01	6.4536E+01
M	3.1447E+02	5.7246E+02	7.1921E+02
A	1.1356E+01	1.7845E+01	2.3838E+01
S	2.5099E+00	2.7293E+00	2.8594E+00
Z	2.9371E+00	3.7606E+00	3.8891E+00
GAME	8.5739E-01	9.9710E-01	1.1664E+00
U	3.5846E+01	7.1747E+00	9.0685E+00

SPECIES	MOLE FRACTIONS		
E-	3.3609E-01	4.8147E-01	4.9859E-01
HE	1.6937E-02	4.6145E-03	1.3036E-04
HE+	8.6345E-05	8.6813E-03	1.2689E-02
HE++	1.4088E-17	5.1796E-09	3.7322E-05
H	3.1088E-01	3.2454E-02	2.7197E-03
H+	3.3601E-01	4.7278E-01	4.8583E-01
H2	7.8846E-07	1.7340E-08	7.3910E-11

P1 = 1.00E+01 N/SQ-M. US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4601E+03	2.5041E+04	4.2142E+04
T	5.6437E+01	1.2237E+02	1.9249E+02
RHO	1.3279E+01	5.2676E+01	5.5525E+01
M	3.9431E+02	7.1132E+02	9.4505E+02
A	1.2734E+01	2.3763E+01	2.8976E+01
S	2.6806E+00	2.7851E+00	3.0044E+00
Z	3.2827E+00	3.8997E+00	3.9337E+00
GAME	8.7587E-01	1.1670E+00	1.1062E+00
U	4.0213E+01	1.0141E+01	1.2634E+01

SPECIES	MOLE FRACTIONS		
E-	4.0594E-01	4.9868E-01	5.0429E-01
HE	1.4875E-02	1.2893E-04	3.8326E-06
HE+	3.5650E-04	1.2696E-02	3.8434E-03
HE++	2.8341E-15	2.9390E-05	8.8030E-03
H	1.7316E-01	2.5457E-03	2.8752E-04
H+	4.0563E-01	4.8592E-01	4.8272E-01
H2	2.1173E-07	5.4199E-11	5.1079E-13

P1 = [illegible] N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1198E+03	2.2379E+04	3.5088E+04
T	5.2822E+01	9.4555E+01	1.4955E+02
RHO	1.3156E+01	6.1686E+01	6.0176E+01
H	3.4010E+02	6.1802E+02	7.9438E+02
A	1.1787E+01	1.9721E+01	2.5808E+01
S	2.5664E+00	2.7863E+00	2.9144E+00
Z	3.0504E+00	3.8368E+00	3.8989E+00
GAME	8.6220E-01	1.0720E+00	1.1423E+00
U	3.7312E+01	7.9618E+00	1.0450E+01

SPECIES	MOLE FRACTIONS		
E-	3.6073E-01	4.9177E-01	4.9986E-01
HE	1.6255E-02	1.6488E-03	3.5920E-05
HE+	1.3613E-04	1.1383E-02	1.2034E-02
HE++	9.3357E-17	1.0070E-07	7.5373E-04
H	2.6228E-01	1.4813E-02	9.9276E-04
H+	3.6059E-01	4.8039E-01	4.8632E-01
H2	5.3753E-07	2.9477E-09	7.7985E-12

P1 = 1.00E+01 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6382E+03	2.6110E+04	4.5631E+04
T	5.8590E+01	1.3799E+02	2.1769E+02
RHO	1.3238E+01	4.8565E+01	5.3138E+01
H	4.2289E+02	7.5853E+02	1.0264E+03
A	1.3289E+01	2.4992E+01	3.1514E+01
S	2.7388E+00	2.9276E+00	3.0448E+00
Z	3.4010E+00	3.8961E+00	3.9447E+00
GAME	8.8621E-01	1.1617E+00	1.1565E+00
U	4.1637E+01	1.1356E+01	1.3826E+01

SPECIES	MOLE FRACTIONS		
E-	4.2664E-01	4.9950E-01	5.0507E-01
HE	1.4089E-02	4.8563E-05	8.0480E-07
HE+	6.1213E-04	1.2519E-02	1.1677E-03
HE++	1.8715E-14	2.6535E-04	1.1501E-02
H	1.3202E-01	1.2104E-03	1.6921E-04
H+	4.2603E-01	4.8645E-01	4.8149E-01
H2	1.1025E-07	1.0031E-11	1.5903E-13

P1 = 1.00E+01 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2871E+03	2.3793E+04	3.8656E+04
T	5.4548E+01	1.0739E+02	1.7161E+02
RHO	1.3244E+01	5.7180E+01	5.7537E+01
H	3.6671E+02	6.6419E+02	8.6909E+02
A	1.2245E+01	2.1776E+01	2.7013E+01
S	2.6234E+00	2.8383E+00	2.9616E+00
Z	3.1059E+00	3.8750E+00	3.9144E+00
GAME	8.6819E-01	1.1396E+00	1.0863E+00
U	3.8768E+01	8.9821E+00	1.1594E+01

SPECIES	MOLE FRACTIONS		
E-	3.8405E-01	4.9677E-01	5.0184E-01
HE	1.5576E-02	4.4169E-04	1.3108E-05
HE+	2.1750E-04	1.2460E-02	8.5011E-03
HE++	4.9526E-16	2.0155E-06	4.1792E-03
H	2.1631E-01	6.0239E-03	4.9503E-04
H+	3.8384E-01	4.8430E-01	4.8490E-01
H2	3.4878E-07	3.8284E-10	1.6784E-12

P1 = 1.00E+01 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8217E+03	2.7147E+04	4.9103E+04
T	6.1075E+01	1.5352E+02	2.4659E+02
RHO	1.3148E+01	4.5307E+01	5.0494E+01
H	4.5246E+02	8.0746E+02	1.1133E+03
A	1.3898E+01	2.5918E+01	3.3869E+01
S	2.7948E+00	2.9665E+00	3.0837E+00
Z	3.5139E+00	3.9029E+00	3.9483E+00
GAME	9.0005E-01	1.1211E+00	1.1782E+00
U	4.3050E+01	1.2489E+01	1.5172E+01

SPECIES	MOLE FRACTIONS		
E-	4.4506E-01	5.0037E-01	5.0612E-01
HE	1.3133E-02	2.2331E-05	1.5801E-07
HE+	1.0962E-03	1.1376E-02	3.2451E-04
HE++	1.4329E-13	1.4132E-03	1.2339E-02
H	9.6749E-02	6.5763E-04	1.6077E-04
H+	4.4396E-01	4.8616E-01	4.8142E-01
H2	5.7173E-08	2.5253E-12	5.1145E-14

Table III. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0091E+03	2.8060E+04	5.2290E+04
T	6.4146E+01	1.6794E+02	2.7664E+02
RHO	1.2951E+01	4.2691E+01	4.7861E+01
H	4.8297E+02	8.5788E+02	1.2020E+03
A	1.4616E+01	2.6666E+01	3.5950E+01
S	2.8510E+00	3.0033E+00	3.1195E+00
Z	3.6221E+00	3.9149E+00	3.9493E+00
GAME	9.1939E-01	1.0818E+00	1.1833E+00
U	4.4430E+01	1.3471E+01	1.6475E+01

SPECIES	MOLE FRACTIONS		
E-	4.6164E-01	5.0190E-01	5.0624E-01
HE	1.1701E-02	1.0811E-05	3.8323E-08
HE	2.1031E-03	8.5321E-03	1.0838E-04
HE++	1.4622E-12	4.2288E-03	1.2552E-02
H	6.5019E-04	4.1102E-04	6.3630E-05
H+	4.5954E-01	4.8491E-01	4.8103E-01
H2	2.3331E-08	9.6066E-13	1.8783E-14

P1 = 1.00E+01 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5845E+03	2.8734E+04	5.7464E+04
T	8.0088E+01	2.1253E+02	3.6840E+02
RHO	1.1616E+01	3.4268E+01	3.9491E+01
H	5.7992E+02	1.0111E+03	1.4726E+03
A	1.8054E+01	3.1186E+01	4.1527E+01
S	3.0082E+00	3.1083E+00	3.2175E+00
Z	3.8542E+00	3.9454E+00	3.9494E+00
GAME	1.0562E+00	1.1597E+00	1.1851E+00
U	4.8258E+01	1.6353E+01	2.0094E+01

SPECIES	MOLE FRACTIONS		
E-	4.9393E-01	5.0575E-01	5.0631E-01
HE	2.2843E-03	5.7143E-07	1.5479E-09
HE+	1.0692E-02	1.0503E-03	1.1600E-05
HE++	6.9637E-09	1.1623E-02	1.2647E-02
H	9.8656E-03	1.2087E-04	2.1402E-05
H+	4.8323E-01	4.8146E-01	4.8101E-01
H2	3.2482E-10	5.8279E-14	1.6535E-15

P1 = 1.00E+01 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1998E+03	2.8764E+04	5.4892E+04
T	6.8056E+01	1.8181E+02	3.0693E+02
RHO	1.2644E+01	4.0281E+01	4.5278E+01
H	5.1441E+02	9.0946E+02	1.2925E+03
A	1.5469E+01	2.7915E+01	3.7896E+01
S	2.9058E+00	3.0388E+00	3.1529E+00
Z	3.7187E+00	3.9299E+00	3.9497E+00
GAME	9.4548E-01	1.0915E+00	1.1846E+00
U	4.5769E+01	1.4354E+01	1.7753E+01

SPECIES	MOLE FRACTIONS		
E-	4.7562E-01	5.0381E-01	5.0629E-01
HE	9.3012E-03	4.6971E-06	1.1493E-08
HE+	4.1444E-03	4.8171E-03	4.4358E-05
HE++	2.0004E-11	7.9010E-03	1.2615E-02
H	3.9455E-02	2.7719E-04	4.2872E-05
H+	4.7148E-01	4.8319E-01	4.8101E-01
H2	7.5186E-09	4.5608E-13	7.8204E-15

P1 = 1.00E+01 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7743E+03	2.7946E+04	5.7002E+04
T	8.9411E+01	2.2872E+02	3.9835E+02
RHO	1.0874E+01	3.0948E+01	3.6226E+01
H	6.1383E+02	1.0606E+03	1.5603E+03
A	1.9823E+01	3.2567E+01	4.3163E+01
S	3.0540E+00	3.1427E+00	3.2495E+00
Z	3.8819E+00	3.9480E+00	3.9499E+00
GAME	1.1322E+00	1.1746E+00	1.1852E+00
U	4.9361E+01	1.7338E+01	2.1156E+01

SPECIES	MOLE FRACTIONS		
E-	4.9767E-01	5.0608E-01	5.0632E-01
HE	6.1680E-04	1.5293E-07	6.6194E-10
HE+	1.2263E-02	4.2659E-04	7.0407E-06
HE++	1.5357E-07	1.2238E-02	1.2631E-02
H	4.0396E-03	8.1608E-05	1.5693E-05
H+	4.8541E-01	4.8118E-01	4.8101E-01
H2	4.2611E-11	2.1271E-14	8.1061E-16

P1 = 1.00E+01 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3927E+03	2.9052E+04	5.6758E+04
T	7.3124E+01	1.9668E+02	3.3770E+02
RHO	1.2218E+01	3.7491E+01	4.2552E+01
H	5.4676E+02	9.6083E+02	1.3829E+03
A	1.6537E+01	2.9629E+01	3.9757E+01
S	2.9581E+00	3.0736E+00	3.1852E+00
Z	3.7972E+00	3.9404E+00	3.9498E+00
GAME	9.8488E-01	1.1330E+00	1.1854E+00
U	4.7058E+01	1.5323E+01	1.8944E+01

SPECIES	MOLE FRACTIONS		
E-	4.8647E-01	5.0512E-01	5.0630E-01
HE	5.7393E-03	1.7740E-06	3.9892E-09
HE+	7.4281E-03	2.2630E-03	2.1202E-05
HE++	3.3849E-10	1.0424E-02	1.2638E-02
H	2.1320E-02	1.8288E-04	2.9894E-05
H+	4.7904E-01	4.8201E-01	4.8101E-01
H2	1.8698E-09	1.7190E-13	3.5140E-15

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6537E+01
T	2.8248E+00	3.5080E+00	4.9503E+00
RHO	3.9378E+00	6.5823E+00	1.1420E+01
M	2.6881E+00	3.6101E+00	5.1952E+00
A	1.6757E+00	1.8601E+00	2.1861E+00
S	1.0491E+00	1.0507E+00	1.0661E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9407E-01	9.8637E-01	9.6539E-01
U	2.3176E+00	1.3854E+00	1.2210E+00

SPECIES	MOLE FRACTIONS		
E-	6.8471E-63	2.8819E-44	2.7388E-28
HE	5.0000E-02	5.0000E-02	4.9998E-02
HE+	1.7671E-73	1.5647E-62	3.3423E-53
HE++	0.	0.	0.
H	2.1754E-10	2.8917E-08	6.7550E-05
H+	6.3460E-20	6.3460E-20	6.3458E-20
H2	9.5000E-01	9.5000E-01	9.4993E-01

P1 = 2.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4960E+01	1.3530E+02	2.3131E+02
T	6.3715E+00	8.1634E+00	8.9891E+00
RHO	5.4744E+00	1.6097E+01	2.4202E+01
M	6.9745E+00	1.0627E+01	1.3517E+01
A	2.4046E+00	2.6377E+00	2.7922E+00
S	1.1291E+00	1.1417E+00	1.1654E+00
Z	1.0025E+00	1.0297E+00	1.0636E+00
GAME	9.0521E-01	8.2771E-01	8.1549E-01
U	4.4433E+00	1.5099E+00	1.2985E+00

SPECIES	MOLE FRACTIONS		
E-	2.3177E-18	7.8399E-14	1.7987E-12
HE	4.9674E-02	4.8560E-02	4.7012E-02
HE+	6.8261E-44	2.3356E-35	8.1299E-33
HE++	0.	0.	0.
H	5.0327E-03	5.7600E-02	1.1953E-01
H+	2.3810E-18	7.8399E-14	1.7987E-12
H2	9.4969E-01	8.9384E-01	8.3346E-01

P1 = 2.00E+01 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6618E+01	1.7149E+02
T	3.8703E+00	5.1592E+00	6.0[illegible]E+00
RHO	4.5267E+00	9.0335E+00	1.4[illegible]E+01
M	3.9996E+00	5.4344E+00	7.6033E+00
A	1.9490E+00	2.2268E+00	2.4701E+00
S	1.0700E+00	1.0805E+00	1.0985E+00
Z	1.0000E+00	1.0001E+00	1.0039E+00
GAME	9.8151E-01	9.6101E-01	8.9343E-01
U	3.0256E+00	1.5148E+00	1.3343E+00

SPECIES	MOLE FRACTIONS		
E-	9.2232E-41	2.5732E-25	6.4202E-17
HE	5.0000E-02	4.9996E-02	4.9805E-02
HE+	5.4890E-01	1.2917E-51	1.0207E-41
HE++	0.	0.	0.
H	7.9106E-07	1.6392E-04	7.7916E-03
H+	6.3460E-20	6.3456E-20	6.4205E-17
H2	9.5000E-01	9.4984E-01	9.4240E-01

P1 = 2.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0553E+01	2.1851E+02	3.4303E+02
T	7.3705E+00	9.0804E+00	9.7564E+00
RHO	6.2221E+00	2.2441E+01	3.1512E+01
M	8.8041E+00	1.4114E+01	1.7352E+01
A	2.5109E+00	2.8144E+00	2.9720E+00
S	1.1550E+00	1.1766E+00	1.2038E+00
Z	1.0152E+00	1.0723E+00	1.1150E+00
GAME	8.4259E-01	8.1344E-01	8.1151E-01
U	5.2143E+00	1.4453E+00	1.2840E+00

SPECIES	MOLE FRACTIONS		
E-	2.3019E-15	2.7253E-12	2.2053E-11
HE	4.9251E-02	4.6627E-02	4.4819E-02
HE+	2.0437E-36	5.6243E-32	9.6255E-30
HE++	0.	0.	0.
H	2.9973E-02	1.3493E-01	2.0726E-01
H+	2.3020E-15	2.7253E-12	2.2053E-11
H2	9.2078E-01	8.1844E-01	7.4794E-01

P1 = 2.00E+01 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5414E+01	8.1491E+01	1.5765E+02
T	5.0923E+00	6.9019E+00	8.1100E+00
RHO	4.9899E+00	1.1748E+01	1.8953E+01
M	5.3580E+00	7.7355E+00	1.0337E+01
A	2.2129E+00	2.4770E+00	2.6311E+00
S	1.1033E+00	1.1102E+00	1.1303E+00
Z	1.0001E+00	1.0050E+00	1.0255E+00
GAME	9.6151E-01	8.8458E-01	8.3235E-01
U	3.7260E+00	1.5812E+00	1.3310E+00

SPECIES	MOLE FRACTIONS		
E-	2.0852E-26	1.0708E-16	5.3430E-14
HE	4.9996E-02	4.9754E-02	4.8705E-02
HE+	1.8859E-52	2.1405E-41	9.6780E-30
HE++	0.	0.	0.
H	1.7003E-04	9.8545E-03	4.9800E-02
H+	6.3455E-20	1.0715E-16	5.3408E-14
H2	9.4983E-01	9.4039E-01	9.0144E-01

P1 = 2.00E+01 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0116E+01	3.3909E+02	5.0293E+02
T	8.0698E+00	9.8561E+00	1.0473E+01
RHO	7.1696E+00	3.0502E+01	4.0689E+01
M	1.1018E+01	1.8167E+01	2.1824E+01
A	2.6180E+00	3.0030E+00	3.1691E+00
S	1.1820E+00	1.2157E+00	1.2467E+00
Z	1.0390E+00	1.1281E+00	1.1800E+00
GAME	8.1745E-01	8.1109E-01	8.1204E-01
U	6.0149E+00	1.4146E+00	1.2871E+00

SPECIES	MOLE FRACTIONS		
E-	9.3483E-14	2.9655E-11	1.5154E-10
HE	4.8125E-02	4.4322E-02	4.2371E-02
HE+	1.5533E-35	2.2917E-30	9.0292E-28
HE++	0.	0.	0.
H	7.5004E-02	2.2714E-01	3.0516E-01
H+	9.3483E-14	2.9655E-11	1.5154E-10
H2	8.7687E-01	7.2854E-01	6.5247E-01

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5444E+01	4.9975E+02	7.1278E+02
T	8.6095E+00	1.0562E+01	1.1806E+01
RHO	8.1837E+00	3.9619E+01	5.0870E+01
M	1.3425E+01	2.2730E+01	2.6872E+01
A	2.7299E+00	3.2021E+00	3.3814E+00
S	1.2120E+00	1.2588E+00	1.2930E+00
Z	1.0707E+00	1.1944E+00	1.2552E+00
GAME	8.0843E-01	8.1279E-01	8.1619E-01
U	6.8170E+00	1.4085E+00	1.3076E+00

SPECIES	MOLE FRACTIONS		
E-	9.0928E-13	1.9105E-10	7.3874E-10
HE	4.0699E-02	4.1863E-02	3.9833E-02
HE+	2.1511E-33	8.4436E-28	3.7023E-26
HE++	0.	0.	0.
H	1.3202E-01	3.2549E-01	4.0670E-01
H+	9.0928E-13	1.9105E-10	7.3874E-10
H2	8.2126E-01	6.3265E-01	5.5347E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3141E+02	1.2345E+03	1.6592E+03
T	9.8478E+00	1.2558E+01	1.3284E+01
RHO	1.1113E+01	6.7957E+01	8.1204E+01
M	2.2144E+01	3.9322E+01	4.5389E+01
A	3.0862E+00	3.8794E+00	4.1363E+00
S	1.3164E+00	1.4079E+00	1.4546E+00
Z	1.2008E+00	1.4465E+00	1.5380E+00
GAME	8.0540E-01	8.2853E-01	8.3741E-01
U	9.1863E+00	1.5026E+00	1.4564E+00

SPECIES	MOLE FRACTIONS		
E-	5.7676E-11	1.0826E-08	3.3611E-08
HE	4.1638E-02	3.4566E-02	3.2509E-02
HE+	1.3477E-29	2.0101E-23	3.6262E-22
HE++	0.	5.8619E-85	1.7409E-79
H	3.3448E-01	6.1735E-01	6.9962E-01
H+	5.7676E-11	1.0826E-08	3.3611E-08
H2	6.2389E-01	3.4808E-01	2.6787E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.2469E+01	7.0243E+02	9.7484E+02
T	9.0647E+00	1.1232E+01	1.1841E+01
RHO	9.2006E+00	6.9239E+01	8.1414E+01
M	1.6082E+01	2.7786E+01	3.2484E+01
A	2.8449E+00	3.4130E+00	3.6107E+00
S	1.2449E+00	1.3056E+00	1.3442E+00
Z	1.1087E+00	1.2701E+00	1.3404E+00
GAME	8.0529E-01	8.1655E-01	8.2139E-01
U	7.6146E+00	1.4232E+00	1.3419E+00

SPECIES	MOLE FRACTIONS		
E-	4.8458E-12	8.8143E-10	2.9220E-09
HE	4.5098E-02	3.9368E-02	3.7302E-02
HE+	7.7508E-32	4.3565E-26	9.6556E-25
HE++	0.	0.	4.6781E-89
H	1.9609E-01	4.2527E-01	5.0794E-01
H+	4.8458E-12	8.8143E-10	2.9220E-09
H2	7.5882E-01	5.3536E-01	4.5470E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5333E+02	1.5624E+03	2.0839E+03
T	1.0207E+01	1.3267E+01	1.4139E+01
RHO	1.1975E+01	7.6181E+01	8.9382E+01
M	2.5550E+01	4.5802E+01	5.2740E+01
A	3.2143E+00	4.1442E+00	4.4541E+00
S	1.3554E+00	1.4626E+00	1.5136E+00
Z	1.2243E+00	1.5458E+00	1.6469E+00
GAME	8.0698E-01	8.3743E-01	8.5095E-01
U	9.9640E+00	1.5667E+00	1.5414E+00

SPECIES	MOLE FRACTIONS		
E-	1.5940E-10	3.3421E-08	1.1188E-07
HE	3.9863E-02	3.2345E-02	3.0323E-02
HE+	2.2101E-28	2.9781E-22	6.3133E-21
HE++	0.	3.6436E-80	1.4826E-75
H	4.0547E-01	7.0619E-01	7.8709E-01
H+	1.5940E-10	3.3421E-08	1.1188E-07
H2	5.5467E-01	2.6146E-01	1.8258E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1112E+02	9.4741E+02	1.2898E+03
T	9.4706E+00	1.1889E+01	1.2538E+01
RHO	1.0184E+01	5.8839E+01	7.1698E+01
M	1.8988E+01	3.3316E+01	3.8647E+01
A	2.9633E+00	3.6376E+00	3.8599E+00
S	1.2795E+00	1.3554E+00	1.3979E+00
Z	1.1522E+00	1.3543E+00	1.4390E+00
GAME	8.0469E-01	8.2178E-01	8.2822E-01
U	8.4037E+00	1.4549E+00	1.3904E+00

SPECIES	MOLE FRACTIONS		
E-	1.8537E-11	3.2824E-09	1.0179E-08
HE	4.3394E-02	3.6919E-02	3.4846E-02
HE+	9.2297E-31	1.0887E-24	1.9502E-23
HE++	0.	9.0664E-90	3.7127E-84
H	2.6423E-01	5.2322E-01	6.0609E-01
H+	1.8537E-11	3.2824E-09	1.0179E-08
H2	6.9237E-01	4.3986E-01	3.5900E-01

P1 = 2.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7686E+02	1.9283E+03	2.5666E+03
T	1.0554E+01	1.4067E+01	1.5247E+01
RHO	1.2769E+01	8.3033E+01	9.5369E+01
M	2.9206E+01	5.2744E+01	6.0769E+01
A	3.3481E+00	4.4437E+00	4.8548E+00
S	1.3964E+00	1.5189E+00	1.5744E+00
Z	1.3149E+00	1.6508E+00	1.7651E+00
GAME	8.0927E-01	8.5029E-01	8.7578E-01
U	1.0736E+01	1.6514E+00	1.6597E+00

SPECIES	MOLE FRACTIONS		
E-	3.8453E-10	1.0484E-07	4.4467E-07
HE	3.8099E-02	3.0288E-02	2.8327E-02
HE+	1.4125E-27	4.7649E-21	1.8020E-19
HE++	0.	9.0695E-75	1.8791E-69
H	4.7605E-01	7.8848E-01	8.6693E-01
H+	3.8453E-10	1.0484E-07	4.4467E-07
H2	4.8586E-01	1.8123E-01	1.0474E-01

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0199E+02	2.3248E+03	3.115[illegible]E+03
T	1.0900E+01	1.5064E+01	1.7125E+01
RHO	1.3478E+01	8.7764E+01	9.689[illegible]E+01
M	3.3113E+01	6.0136E+01	6.973[illegible]E+01
A	3.4887E+00	4.8073E+00	5.51[illegible]E+00
S	1.4393E+00	1.5758E+00	1.6368E+00
Z	1.3750E+00	1.7584E+00	1.8776E+00
GAME	8.1214E-01	8.7248E-01	9.4600E-01
U	1.1503E+01	1.7670E+00	1.8586E+00

SPECIES	MOLE FRACTIONS		
E-	8.7496E-10	3.7211E-07	3.1929E-06
HE	3.6366E-02	2.8434E-02	2.6630E-02
HE+	8.0968E-27	1.0868E-19	2.62[illegible]E-17
HE++	0.	6.3975E-70	4.8[illegible]E-62
H	5.4538E-01	8.6262E-01	9.3477E-01
H+	8.7496E-10	3.7211E-07	3.1929E-06
H2	4.1826E-01	1.0894E-01	3.85[illegible]E-02

P1 = 2.00E+01 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.868[illegible]E+02	3.4763E+03	5.29[illegible]E+03
T	1.2000E+01	2.4388E+01	3.524[illegible]E+01
RHO	1.5[illegible]E+01	7.3193E+01	7.58[illegible]E+01
M	4.0333E+01	8.4338E+01	1.05[illegible]E+02
A	3.9669E+00	7.3622E+00	8.179[illegible]E+00
S	1.5772E+00	1.7280E+00	1.79[illegible]E+00
Z	1.5872E+00	1.9474E+00	1.9805E+00
GAME	8.2579E-01	1.1412E+00	9.5849E-01
U	1.3774E+01	2.8332E+00	3.40[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	8.7899E-09	4.5311E-04	1.56[illegible]E-02
HE	3.1502E-02	2.5675E-02	2.5[illegible]E-02
HE+	2.0154E-24	5.7966E-12	4.46[illegible]E-08
HE++	1.[illegible]E-86	9.3507E-43	1.17[illegible]E-28
H	7.3990E-01	9.7165E-01	9.433[illegible]E-01
H+	8.7899E-09	4.5311E-04	1.56[illegible]E-02
H2	2.2854E-01	1.7687E-03	2.26[illegible]E-04

P1 = 2.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2870E+02	2.7378E+03	3.7836E+03
T	1.1251E+01	1.6556E+01	2.2247E+01
RHO	1.4097E+01	8.8900E+01	8.7558E+01
M	3.7269E+01	6.7942E+01	8.0821E+01
A	3.6376E+00	5.3370E+00	7.0004E+00
S	1.4838E+00	1.6320E+00	1.7006E+00
Z	1.4418E+00	1.8602E+00	1.9424E+00
GAME	8.1569E-01	9.2489E-01	1.1341E+00
U	1.2265E+01	1.9452E+00	2.3508E+00

SPECIES	MOLE FRACTIONS		
E-	1.9537E-09	1.9161E-06	1.3775E-04
HE	3.4678E-02	2.6879E-02	2.5741E-02
HE+	7.3939E-26	6.5914E-18	3.2724E-13
HE++	0.	6.8108E-64	3.1307E-47
H	6.1286E-01	9.2482E-01	9.6994E-01
H+	1.9537E-09	1.9161E-06	1.3775E-04
H2	3.5246E-01	4.8295E-02	4.0433E-03

P1 = 2.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1812E+02	3.8097E+03	6.0084E+03
T	1.2440E+01	2.9527E+01	3.8874E+01
RHO	1.5352E+01	6.5965E+01	7.6694E+01
M	5.1239E+01	9.2943E+01	1.1741E+02
A	4.1505E+00	7.8305E+00	8.4638E+00
S	1.6255E+00	1.7650E+00	1.8250E+00
Z	1.6649E+00	1.9560E+00	2.0153E+00
GAME	8.3374E-01	1.0617E+00	9.1483E-01
U	1.4520E+01	3.3806E+00	3.6346E+00

SPECIES	MOLE FRACTIONS		
E-	1.9703E-08	3.5464E-03	3.2531E-02
HE	3.0032E-02	2.5563E-02	2.4810E-02
HE+	1.5424E-23	9.5985E-10	2.9570E-07
HE++	1.8867E-63	9.2426E-35	1.1305E-25
H	7.9870E-01	9.6685E-01	9.6996E-01
H+	1.9703E-08	3.5464E-03	3.2531E-02
H2	1.7127E-01	4.9392E-04	1.4280E-04

P1 = 2.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5698E+02	3.1317E+03	4.5525E+03
T	1.1615E+01	1.9497E+01	2.9923E+01
RHO	1.4626E+01	8.3268E+01	7.7746E+01
M	4.1670E+01	7.6050E+01	9.3571E+01
A	3.7959E+00	6.3404E+00	7.8778E+00
S	1.5298E+00	1.6843E+00	1.7536E+00
Z	1.5127E+00	1.9291E+00	1.9562E+00
GAME	8.2010E-01	1.0689E+00	1.0602E+00
U	1.3022E+01	2.2892E+00	3.0152E+00

SPECIES	MOLE FRACTIONS		
E-	4.1398E-09	2.4355E-05	3.7086E-03
HE	3.3055E-02	2.5919E-02	2.5500E-02
HE+	4.0019E-25	3.8928E-15	1.2170E-09
HE++	6.0149E-91	2.7421E-54	2.6912E-34
H	6.7781E-01	9.6315E-01	9.6048E-01
H+	4.1398E-09	2.4355E-05	3.7086E-03
H2	2.8913E-01	1.0878E-02	5.4120E-04

P1 = 2.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5066E+02	4.1695E+03	6.6826E+03
T	1.2973E+01	3.3720E+01	4.1670E+01
RHO	1.5502E+01	6.2698E+01	7.7995E+01
M	5.0394E+01	1.0209E+02	1.2922E+02
A	4.3762E+00	8.0509E+00	8.7554E+00
S	1.6746E+00	1.7974E+00	1.8576E+00
Z	1.7490E+00	1.9732E+00	2.0502E+00
GAME	8.4010E-01	9.7451E-01	8.9470E-01
U	1.5256E+01	3.7736E+00	3.7833E+00

SPECIES	MOLE FRACTIONS		
E-	4.7946E-08	1.1990E-02	5.1732E-02
HE	2.8660E-02	2.5340E-02	2.4310E-02
HE+	1.3569E-22	1.8922E-08	1.6062E-06
HE++	4.1305E-80	1.7092E-30	9.8412E-24
H	8.5306E-01	9.5044E-01	8.7212E-01
H+	4.7946E-08	1.1990E-02	5.1731E-02
H2	1.1774E-01	2.3791E-04	1.0304E-04

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M. US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8484E+02	4.5376E+03	7.2707E+03
T	1.3679E+01	3.6912E+01	4.3973E+01
RHO	1.5426E+01	6.1734E+01	7.8696E+01
H	6.1792E+01	1.1184E+02	1.4119E+02
A	4.6587E+00	8.2728E+00	9.0384E+00
S	1.7237E+00	1.8261E+00	1.8803E+00
Z	1.8239E+00	2.0009E+00	2.1011E+00
GAME	8.6995E-01	9.2981E-01	8.8421E-01
U	1.5977E+01	3.9942E+00	3.8919E+00

SPECIES	MOLE FRACTIONS		
E-	1.4314E-07	2.5682E-02	7.1983E-02
HE	2.7414E-02	2.4987E-02	2.3795E-02
HE+	2.2271E-21	1.1371E-07	2.4570E-06
HE++	1.9955E-77	3.0802E-28	2.5677E-12
H	9.9344E-01	9.2347E-01	8.3216E-01
H+	1.4314E-07	2.5682E-02	7.1980E-02
H2	6.9150E-02	1.7618E-04	8.0144E-05

P1 = 2.00E+01 N/SQ-M. US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8654E+02	4.5199E+03	6.9934E+03
T	2.0942E+01	4.2965E+01	4.8344E+01
RHO	1.1923E+01	4.9812E+01	6.4455E+01
H	7.9279E+01	1.4164E+02	1.7547E+02
A	6.8740E+00	8.9199E+00	9.7220E+00
S	1.8544E+00	1.9308E+00	1.9937E+00
Z	1.9488E+00	2.1119E+00	2.2444E+00
GAME	1.1579E+00	8.7686E-01	8.7111E-01
U	1.7785E+01	4.2587E+00	4.0367E+00

SPECIES	MOLE FRACTIONS		
E-	1.7150E-04	7.6713E-02	1.3119E-01
HE	2.5659E-02	2.3673E-02	2.2600E-02
HE+	1.2206E-13	2.0980E-06	1.1746E-05
HE++	1.5076E-49	1.0158E-22	6.7204E-20
H	9.7311E-01	8.2285E-01	7.1531E-01
H+	1.7150E-04	7.6711E-02	1.3118E-01
H2	6.8686E-04	5.4163E-05	3.7703E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1955E+02	5.7955E+03	7.6378E+03
T	1.4829E+01	3.9463E+01	4.5880E+01
RHO	1.4927E+01	5.9921E+01	7.7479E+01
M	6.7425E+01	1.2190E+02	1.5320E+02
A	5.1184E+00	8.5144E+00	9.3044E+00
S	1.7718E+00	1.8597E+00	1.9208E+00
Z	1.8955E+00	2.0348E+00	2.1486E+00
GAME	9.3203E-01	9.0472E-01	8.7820E-01
U	1.6654E+01	4.1542E+00	3.9719E+00

SPECIES	MOLE FRACTIONS		
E-	6.8718E-07	4.1854E-02	9.2511E-02
HE	2.0378E-02	2.4570E-02	2.3260E-02
HE+	1.1735E-19	4.3285E-07	4.8041E-06
HE++	4.1499E-71	7.4587E-26	3.0572E-21
H	9.4490E-01	8.9161E-01	7.9165E-01
H+	6.8718E-07	4.1854E-02	9.2500E-02
H2	2.8726E-02	1.1381E-04	6.3072E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2079E+02	4.3982E+03	6.6960E+03
T	2.4808E+01	4.4308E+01	4.9362E+01
RHO	1.0726E+01	4.6069E+01	5.9194E+01
M	8.5524E+01	1.5182E+02	1.8609E+02
A	7.3130E+00	9.1204E+00	9.9200E+00
S	1.8864E+00	1.9652E+00	2.0293E+00
Z	1.9524E+00	2.1547E+00	2.2936E+00
GAME	1.1015E+00	8.7128E-01	8.6931E-01
U	1.8307E+01	4.2649E+00	4.0500E+00

SPECIES	MOLE FRACTIONS		
E-	1.4754E-03	9.5036E-02	1.4980E-01
HE	2.5809E-02	2.3202E-02	2.1783E-02
HE+	2.6431E-11	3.6025E-06	1.6012E-05
HE++	4.8809E-41	6.8697E-22	2.2420E-19
H	9.7121E-01	7.8668E-01	6.7048E-01
H+	1.4754E-03	9.5032E-02	1.4984E-01
H2	2.2785E-04	4.1865E-05	2.9790E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5354E+02	4.7532E+03	7.4827E+03
T	1.7194E+01	4.1486E+01	4.7305E+01
RHO	1.3605E+01	5.5303E+01	7.2033E+01
M	7.3260E+01	1.3184E+02	1.6466E+02
A	6.0279E+00	8.7255E+00	9.5309E+00
S	1.8103E+00	1.8945E+00	1.9565E+00
Z	1.9388E+00	2.0718E+00	2.1900E+00
GAME	1.0900E+00	8.8582E-01	8.7613E-01
U	1.7207E+01	4.2508E+00	4.0208E+00

SPECIES	MOLE FRACTIONS		
E-	9.0803E-06	5.8845E-02	1.1239E-01
HE	2.5784E-02	2.4133E-02	2.2752E-02
HE+	7.4652E-17	1.1029E-06	8.0510E-06
HE++	6.3581E-61	1.0410E-23	1.8275E-20
H	9.6842E-01	8.5810E-01	7.5242E-01
H+	9.0803E-06	5.8844E-02	1.1238E-01
H2	5.7714E-03	7.3029E-05	4.8934E-05

P1 = 2.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5707E+02	4.4504E+03	6.6845E+03
T	2.8296E+01	4.5661E+01	5.0508E+01
RHO	1.0047E+01	4.4734E+01	5.6393E+01
M	9.2040E+01	1.6275E+02	1.9800E+02
A	7.4716E+00	9.3397E+00	1.0147E+01
S	1.9148E+00	1.9976E+00	2.0632E+00
Z	1.9015E+00	2.2009E+00	2.3409E+00
GAME	1.0058E+00	8.6798E-01	8.6861E-01
U	1.8880E+01	4.2869E+00	4.0800E+00

SPECIES	MOLE FRACTIONS		
E-	5.9053E-03	1.1404E-01	1.6914E-01
HE	2.5491E-02	2.2712E-02	2.1284E-02
HE+	8.8213E-10	5.9145E-06	2.3018E-05
HE++	1.4546E-35	4.0834E-21	7.8852E-19
H	9.6248E-01	7.4918E-01	6.4045E-01
H+	5.9053E-03	1.1403E-01	1.6911E-01
H2	9.4924E-05	3.3611E-05	2.4136E-05

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.977bE+02	4.6661E+03	6.936ZE+03
T	3.0962E+01	4.7071E+01	5.1807E+01
RHO	9.7604E+00	4.4039E+01	5.5601E+01
M	9.8851E+01	1.7460E+02	2.1236E+02
A	7.5865E+00	9.5807E+00	1.0404E+01
S	1.9408E+00	2.0285E+00	2.0958E+00
Z	1.9779E+00	2.2510E+00	2.4045E+00
GAME	9.3983E-01	8.6631E-01	8.6899E-01
U	1.9517E+01	4.3295E+00	4.1446E+00

SPECIES	MOLE FRACTIONS		
E-	1.4173E-02	1.3373E-01	1.8900E-01
HE	2.5279E-02	2.2203E-02	2.0760E-02
HE+	7.5901E-09	9.4672E-06	3.3920E-05
HE++	3.7979E-32	2.2796E-20	2.9400E-18
H	9.4632E-01	7.1031E-01	6.0111E-01
H+	1.4173E-02	1.3372E-01	1.8902E-01
H2	5.4945E-05	2.7770E-05	1.9939E-05

P1 = 2.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8220E+02	6.3441E+03	9.1870E+03
T	3.7596E+01	5.2821E+01	5.7603E+01
RHO	9.9637E+00	4.8420E+01	5.9700E+01
M	1.2880E+02	2.2898E+02	2.7520E+02
A	8.2302E+00	1.0666E+01	1.1610E+01
S	2.0378E+00	2.1485E+00	2.2240E+00
Z	2.0883E+00	2.4805E+00	2.6603E+00
GAME	8.8270E-01	8.6831E-01	8.7600E-01
U	2.2357E+01	4.6016E+00	4.4780E+00

SPECIES	MOLE FRACTIONS		
E-	6.0228E-02	2.1388E-01	2.6920E-01
HE	2.3943E-02	2.0110E-02	1.8601E-02
HE+	4.3124E-07	4.7431E-05	1.3287E-04
HE++	9.1034E-26	9.1493E-18	5.0783E-16
H	8.4358E-01	5.5212E-01	4.4280E-01
H+	6.0228E-02	2.1383E-0.	2.6913E-01
H2	1.8961E-05	1.4260E-05	9.5043E-06

P1 = 2.00E+01 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4059E+02	4.9899E+03	7.3501E+03
T	3.3062E+01	4.8507E+01	5.3200E+01
RHO	5.6000E+00	4.4643E+01	5.6071E+01
M	1.6595E+02	1.8724E+02	2.2687E+02
A	7.7269E+00	9.8373E+00	1.0683E+01
S	1.9650E+00	2.0586E+00	2.1280E+00
L	2.0002E+00	2.3043E+00	2.4661E+00
GAME	9.0321E-01	8.6578E-01	8.6992E-01
U	2.0196E+01	4.3866E+00	4.2144E+00

SPECIES	POLE FRACTIONS		
E-	2.5127E-02	1.5379E-01	2.0929E-01
HE	2.4998E-02	2.1683E-02	2.0226E-02
HE+	3.2746E-08	1.4734E-05	4.8053E-05
HE++	7.5897E-30	1.1755E-19	1.1193E-17
H	9.2471E-01	6.7071E-01	5.6117E-01
H+	2.5127E-02	1.5378E-01	2.0924E-01
H2	3.7880E-05	2.3322E-05	1.6013E-05

P1 = 2.00E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8602E+02	7.4545E+03	1.0715E+04
T	3.9916E+01	5.5684E+01	6.0813E+01
RHO	1.0281E+01	5.1321E+01	6.2591E+01
M	1.4543E+02	2.5950E+02	3.1097E+02
A	8.5813E+00	1.1255E+01	1.2200E+01
S	2.0863E+00	2.2091E+00	2.2900E+00
L	2.1590E+00	2.6085E+00	2.8149E+00
GAME	8.5447E-01	8.7212E-01	8.8202E-01
U	2.3837E+01	4.7762E+00	4.6837E+00

SPECIES	POLE FRACTIONS		
E-	9.6826E-02	2.5246E-01	3.0727E-01
HE	2.3157E-02	1.9075E-02	1.7505E-02
HE+	1.2722E-06	9.3382E-05	2.5775E-04
HE++	4.9016E-24	1.1494E-16	5.4733E-15
H	7.8318E-01	4.7600E-01	3.6795E-01
H+	9.6825E-02	2.5236E-01	3.0701E-01
H2	1.3670E-05	1.0190E-05	6.3702E-06

P1 = 2.00E+01 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6577E+02	5.3894E+03	7.8887E+03
T	3.4792E+01	4.9949E+01	5.4650E+01
RHO	5.7230E+00	4.5707E+01	5.7055E+01
M	1.5332E+02	2.0056E+02	2.4220E+02
A	7.8694E+00	1.0105E+01	1.0979E+01
S	1.9899E+00	2.0885E+00	2.1610E+00
L	2.0266E+00	2.3606E+00	2.5306E+00
GAME	8.8274E-01	8.6607E-01	8.7151E-01
U	2.0902E+01	4.4486E+00	4.2941E+00

SPECIES	POLE FRACTIONS		
E-	3.7849E-02	1.7397E-01	2.2953E-01
HE	2.4671E-02	2.1158E-02	1.9887E-02
HE+	9.5170E-08	2.2303E-05	6.9210E-05
HE++	3.0149E-28	5.4849E-19	4.1920E-17
H	8.9902E-01	6.3088E-01	5.2124E-01
H+	3.7849E-02	1.7395E-01	2.2940E-01
H2	2.6593E-05	1.9753E-05	1.3071E-05

P1 = 2.00E+01 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.9500E+02	8.7069E+03	1.2425E+04
T	4.1923E+01	5.8583E+01	6.4103E+01
RHO	1.0635E+01	5.4177E+01	6.5300E+01
M	1.6302E+02	2.9201E+02	3.4931E+02
A	8.9305E+00	1.1873E+01	1.3010E+01
S	2.1340E+00	2.2705E+00	2.3572E+00
L	2.2352E+00	2.7433E+00	2.9665E+00
GAME	8.5113E-01	8.7720E-01	8.8960E-01
U	2.3324E+01	4.9735E+00	4.9190E+00

SPECIES	POLE FRACTIONS		
E-	1.2759E-01	2.8920E-01	3.4511E-01
HE	2.2367E-02	1.8051E-02	1.6303E-02
HE+	2.9518E-06	1.7458E-04	4.8022E-04
HE++	1.0775E-22	1.1835E-15	5.4707E-14
H	7.2244E-01	4.0355E-01	2.9742E-01
H+	1.2759E-01	2.8902E-01	3.4403E-01
H2	1.0326E-05	7.1099E-06	4.0300E-06

Table III. -- Continued

P_1 = 20 N/m^2

P1 = 2.00E+01 N/SQ-M. US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.114[illegible]E+03	1.0071E+04	1.43[illegible]E+04
T	4.3773E+01	6.1563E+01	6.7807E+01
RHO	1.0[illegible]E+01	5.6724E+01	6.77[illegible]E+01
M	1.81[illegible]E+02	3.2644E+02	3.40[illegible]E+02
A	9.2870E+00	1.2524E+01	1.381[illegible]E+01
S	2.1[illegible]E+00	2.[illegible]326E+00	2.4249E+00
Z	2.3177E+00	2.8838E+00	3.12[illegible]E+00
GAME	[illegible].5[illegible]E-01	8.8350E-01	8.99[illegible]E-01
U	2.[illegible]2[illegible]E+01	5.1929E+00	5.18[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.5[illegible]E-[illegible]	3.2381E-01	3.7 [illegible]E-01
NE	2.15[illegible]E-02	1.7023E-02	1.5[illegible]E-02
NE+	[illegible].9116E-06	3.1571E-04	8.9[illegible]E-04
NE++	1.[illegible]E-21	1.0648E-14	5.[illegible]E-13
N	[illegible].6114E-01	3.3535E-01	2.31[illegible]E-01
N+	1.5[illegible]E-01	3.2350E-01	3.[illegible]E-01
N2	7.[illegible]E-06	4.7733E-06	2.3[illegible]E-06

P1 = 2.00E+01 N/SQ-M. US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5[illegible]E+03	1.4709E+04	2.1159E+04
T	4.[illegible]E+01	7.1811E+01	8.2947E+01
RHO	1.1878E+01	6.1657E[illegible]	7.0795E+01
M	2.43[illegible]E+02	4.4067E+02	5.3[illegible]E+02
A	1.0401E+01	1.4757E+01	1.6[illegible]E+01
S	2.3[illegible]E+00	2.5212E+00	2.6316E+00
Z	2.5944E+00	3.3220E+00	3.60[illegible]E+00
ME	[illegible].5402E-01	9.1287E-01	9.551[illegible]E-01
U	3.1292E+01	6.0297E+00	6.3116E+00

SPECIES	MOLE FRACTIONS		
E-	2.4839E-01	[illegible].1301E-01	4.5883E-01
NE	1.9241E-02	1.3290E-02	8.1[illegible]E-03
NE+	3.0985E-05	1.7609E-03	5.7158E-03
NE++	[illegible].8114E-19	6.1536E-12	9.1[illegible]E-10
N	4.8397E-01	1.6069E-01	7.4188E-0[illegible]
N+	2.4836E-01	4.1125E-01	4.5311E-01
N2	3.5639E-06	9.7290E-07	1.9[illegible]E-07

P1 = 2.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2378E+03	1.1535E+04	1.6450E+04
T	4.5514E+01	6.4716E+01	7.1916E+01
RHO	1.1300E+01	5.8831E+01	6.9573E+01
H	2.0123E+02	3.6272E+02	4.3397E+02
A	9.6497E+00	1.3220E+01	1.4687E+01
S	2.2340E+00	2.3960E+00	2.4932E+00
Z	2.4053E+00	3.0298E+00	3.2894E+00
GAME	8.5058E-01	8.9128E-01	9.1196E-01
U	2.8313E+01	5.4381E+00	5.4939E+00

SPECIES	MOLE FRACTIONS		
E-	1.8929E-01	3.5639E-01	4.0711E-01
HE	2.0777E-02	1.5939E-02	1.3938E-02
HE+	1.0869E-05	5.6376E-04	1.6043E-03
HE++	1.3974E-20	9.0321E-14	5.5270E-12
H	6.0063E-01	2.7128E-01	1.7223E-01
H+	1.8928E-01	3.5582E-01	4.0545E-01
H2	6.0939E-06	3.0244E-06	1.2449E-06

P1 = 2.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.[illegible]73E+03	1.6376E+04	2.3795E+04
T	5.0447E+01	7.6119E+01	9.1348E+01
RHO	1.2115E+01	6.2098E+01	6.9717E+01
H	2.6608E+02	4.8218E+02	5.8522E+02
A	1.0793E+01	1.5649E+01	1.8500E+01
S	2.3902E+00	2.5837E+00	2.6995E+00
Z	2.6953E+00	3.4645E+00	3.7363E+00
GAME	8.5671E-01	9.2869E-01	1.0028E+00
U	3.2774E+01	6.3954E+00	6.8915E+00

SPECIES	MOLE FRACTIONS		
E-	2.7051E-01	4.3715E-01	4.7810E-01
HE	1.8501E-02	1.1320E-02	4.2290E-03
HE+	4.9665E-05	3.1119E-03	9.1525E-03
HE++	3.8958E-18	5.6074E-11	1.6438E-08
H	4.2847E-01	1.1439E-01	3.9577E-02
H+	2.7646E-01	4.3403E-01	4.6894E-01
H2	2.6753E-06	4.6142E-07	4.8780E-08

P1 = 2.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3081E+03	1.3094E+04	1.8726E+04
T	4.7180E+01	6.8071E+01	7.6782E+01
RHO	1.1012E+01	6.0577E+01	7.0703E+01
H	2.2185E+02	4.0084E+02	4.8069E+02
A	1.0019E+01	1.3954E+01	1.5068E+01
S	2.2849E+00	2.4583E+00	2.5620E+00
Z	2.4972E+00	3.1754E+00	3.4494E+00
GAME	8.5194E-01	9.0079E-01	9.2905E-01
U	2.9807E+01	5.7149E+00	5.8562E+00

SPECIES	MOLE FRACTIONS		
E-	2.1912E-01	3.8591E-01	4.3469E-01
HE	2.0004E-02	1.4752E-02	1.1367E-02
HE+	1.8713E-05	9.9353E-04	3.1279E-03
HE++	1.0513E-19	7.3018E-13	6.4343E-11
H	5.4176E-01	2.1342E-01	1.1925E-01
H+	2.1910E-01	3.8492E-01	4.3156E-01
H2	4.6895E-06	1.8041E-06	5.5918E-07

P1 = 2.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7962E+03	1.8062E+04	2.6716E+04
T	5.2084E+01	8.1286E+01	1.0456E+02
RHO	1.2318E+01	6.1768E+01	6.6650E+01
H	2.8970E+02	5.2528E+02	6.4618E+02
A	1.1199E+01	1.6676E+01	2.0876E+01
S	2.4439E+00	2.6450E+00	2.7674E+00
Z	2.7998E+00	3.5973E+00	3.8333E+00
GAME	8.6003E-01	9.5102E-01	1.0873E+00
U	3.4249E+01	6.8311E+00	7.7578E+00

SPECIES	MOLE FRACTIONS		
E-	3.0353E-01	4.5793E-01	4.9130E-01
HE	1.7780E-02	8.5854E-03	1.2962E-03
HE+	7.8102E-05	5.3138E-03	1.1797E-02
HE++	2.0589E-17	5.6637E-10	4.7326E-07
H	3.7516E-01	7.5553E-02	1.6152E-02
H+	3.0345E-01	4.5262E-01	4.7950E-01
H2	1.9693E-06	1.8418E-07	6.5719E-09

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M. US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9512E+03	1.9725E+04	3.0014E+04
T	5.3759E+01	8.7779E+01	1.2515E+02
RHO	1.2483E+01	6.0525E+01	6.1825E+01
M	3.1431E+02	5.6979E+02	7.1624E+02
A	1.1622E+01	1.7935E+01	2.3683E+01
S	2.4982E+00	2.7041E+00	2.8341E+00
Z	2.9077E+00	3.7127E+00	3.8789E+00
GAME	8.6402E-01	9.8701E-01	1.1524E+00
U	3.5718E+01	7.3685E+00	9.0423E+00

SPECIES	MOLE FRACTIONS		
E-	3.2937E-01	4.7478E-01	4.9729E-01
HE	1.7074E-02	5.2493E-03	2.4898E-04
HE+	1.2164E-04	8.2180E-03	1.2622E-02
HE++	1.0381E-16	6.3615E-09	1.9152E-05
H	3.2418E-01	4.5201E-02	5.1984E-03
H+	3.2925E-01	4.6656E-01	4.8463E-01
H2	1.4127E-06	5.8454E-08	5.1657E-10

P1 = 2.00E+01 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4512E+03	2.3940E+04	4.0274E+04
T	5.9351E+01	1.222RE+02	1.9291E+02
RHO	1.2724E+01	5.0455E+01	5.2902E+01
M	3.9411E+02	7.0857E+02	9.4262E+02
A	1.2072E+01	2.3419E+01	2.9895E+01
S	2.4641E+00	2.8611E+00	2.9836E+00
Z	3.2459E+00	3.8803E+00	3.9760E+00
GAMF	8.8210E-01	1.1559E+00	1.0967E+00
U	4.0044E+01	1.0090E+01	1.2494E+01

SPECIES	MOLE FRACTIONS		
E-	3.9924E-01	4.974AF-01	5.0331F-01
HF	1.4931E-02	2.4494E-04	1.0350E-05
HF+	4.7352E-06	1.2625E-02	5.5510E-03
HF++	1.3574E-14	1.5266E-05	7.1742E-07
H	1.8640E-01	4.8507E-03	5.3523E-04
H+	3.987AE-01	4.8480E-01	4.8341E-01
H2	4.0840E-07	3.7640E-10	3.3561E-12

P1 = 2.00E+01 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1124E+03	2.1295E+04	3.3500E+04
T	5.5502E+01	9.6479E+01	1.4943E+02
RHO	1.2608E+01	5.8061E+01	5.7574E+01
M	3.3992E+02	6.1541E+02	7.9131E+02
A	1.2065E+01	1.9594E+01	2.5932E+01
S	2.5531E+00	2.7607E+00	2.8918E+00
Z	3.0185E+00	3.8016E+00	3.8939E+00
GAME	8.6884E-01	1.0468E+00	1.1557E+00
U	3.7181E+01	8.0821E+00	1.0431E+01

SPECIES	MOLE FRACTIONS		
E-	3.5399E-01	4.8706E-01	4.9921E-01
HE	1.6375E-02	2.3124E-03	7.0777E-05
HE+	1.8926E-04	1.0840E-02	1.2369E-02
HE++	5.1357E-16	8.3389E-08	4.0073E-04
H	2.7565E-01	2.3570E-02	1.9015E-03
H+	3.5380E-01	4.7622E-01	4.8004E-01
H2	9.8021E-07	1.3514E-08	5.4710E-11

P1 = 2.00E+01 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2790E+03	2.2699E+04	3.6955E+04
T	5.7349E+01	1.0816E+02	1.7284E+02
RHO	1.2690E+01	5.4435E+01	5.4721E+01
M	3.6652E+02	6.6167E+02	8.6726E+02
A	1.2534E+01	2.1564E+01	2.7294E+01
S	2.6085E+00	2.8134E+00	2.9411E+00
Z	3.1315E+00	3.8554E+00	3.9074E+00
GAME	8.7473E-01	1.1151E+00	1.1031E+00
U	3.8630E+01	9.0084E+00	1.1672E+01

SPECIES	MOLE FRACTIONS		
E-	3.7730E-01	4.9422E-01	5.0054E-01
HE	1.5670E-02	7.6037E-04	2.8023E-05
HE+	2.9678E-04	1.2207E-02	9.9490E-03
HE++	2.5795E-15	1.2175E-06	2.8194E-03
H	2.2973E-01	1.0798E-02	9.0917E-04
H+	3.7700E-01	4.8201E-01	4.8535E-01
H2	6.5117E-07	2.3094E-09	1.0698E-11

P1 = 2.00E+01 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6290E+03	2.5041E+04	4.3415E+04
T	6.1580E+01	1.3776E+02	2.1730E+02
RHO	1.2705E+01	4.6720E+01	5.0938E+01
M	4.2268E+02	7.5625E+02	1.0223E+03
A	1.3582E+01	2.4988E+01	3.1242E+01
S	2.7197E+00	2.9045E+00	3.0239E+00
Z	3.3603E+00	3.8910E+00	3.9406E+00
GAME	8.9154E-01	1.1651E+00	1.1400E+00
U	4.1492E+01	1.1258E+01	1.3759E+01

SPECIES	MOLE FRACTIONS		
E-	4.1970E-01	4.9885E-01	5.0513E-01
HE	1.4103E-02	9.5051E-05	2.7782E-06
HE+	7.7680E-04	1.2420E-02	9.0573E-03
HE++	7.8219E-14	1.3522E-04	1.0588E-02
H	1.4650E-01	2.3427E-03	2.2625E-04
H+	4.1852E-01	4.8596E-01	4.8185E-01
H2	2.3759E-07	7.2330E-11	1.1374E-12

P1 = 2.00E+01 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8118E+03	2.6005E+04	4.4929E+04
T	6.4141E+01	1.5250E+02	2.4481E+02
RHO	1.2623E+01	4.7437E+01	4.8572E+01
M	4.5223E+02	8.0477E+02	1.1070E+03
A	1.4190E+01	2.6151E+01	3.3442E+01
S	2.7750E+00	2.9448E+00	3.0631E+00
Z	3.4720E+00	3.8690E+00	3.9466E+00
GAME	9.0396E-01	1.1423E+00	1.1714E+00
U	4.2855E+01	1.2441E+01	1.5037E+01

SPECIES	MOLE FRACTIONS		
E-	4.3851E-01	4.9974E-01	5.0591E-01
HE	1.3077E-02	4.4947E-05	6.2106E-07
HE+	1.3219E-03	1.1998E-02	6.8247E-04
HE++	5.1421E-13	7.8436E-04	1.2016E-02
H	1.0991E-01	1.2852E-03	1.9883E-04
H+	4.3719E-01	4.8618E-01	4.8122E-01
H2	1.2443E-07	1.7607E-11	3.8427E-13

Table III. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9991E+03	2.4904E+04	5.0050E+04
T	6.7191E+01	1.6856E+02	2.7421E+02
RHO	1.2446E+01	4.0847E+01	4.6224E+01
H	4.8273E+02	8.5481E+02	1.1954E+03
A	1.4881E+01	2.6941E+01	3.5763E+01
S	2.8297E+00	2.9818E+00	3.0993E+00
Z	3.5806E+00	3.9275E+00	3.9486E+00
GAME	9.2047E-01	1.1019E+00	1.1813E+00
U	4.4281E+01	1.3485E+01	1.6332E+01

SPECIES	MOLE FRACTIONS		
E-	4.5540E-01	5.0096E-01	5.0616E-01
HE	1.1628E-02	2.3361E-05	1.5608E-07
HE+	2.3358E-02	1.0068E-02	2.2390E-04
HE++	4.0999E-12	2.7042E-03	1.2439E-02
H	7.7571E-02	7.6111E-04	1.2701E-04
H+	4.5306E-01	4.8548E-01	4.8105E-01
H2	5.6871E-08	5.4936E-12	1.4397E-13

P1 = 2.00E+01 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5782E+03	2.8231E+04	5.6251E+04
T	8.1945E+01	2.1291E+02	3.6644E+02
RHO	1.1409E+01	3.3634E+01	3.8864E+01
H	5.7975E+02	1.0097E+03	1.4678E+03
A	1.7988E+01	3.0585E+01	4.1414E+01
S	2.9839E+00	3.0866E+00	3.1980E+00
Z	3.8277E+00	3.9420E+00	3.9457E+00
GAME	1.0316E+00	1.1439E+00	1.1850E+00
U	4.8174E+01	1.6275E+01	1.9982E+01

SPECIES	MOLE FRACTIONS		
E-	4.9055E-01	5.0532E-01	5.0630E-01
HE	3.0602E-03	1.7005E-06	6.2816E-09
HE+	1.0003E-02	1.7984E-03	2.3511E-05
HE++	6.3131E-09	1.0884E-07	1.2636E-12
H	1.5841E-02	2.3399E-04	4.2782E-05
H+	4.8055E-01	4.8174E-01	4.8100E-01
H2	1.5485E-09	2.9853E-13	1.2014E-14

P1 = 2.00E+01 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1901E+03	2.7475E+04	5.2758E+04
T	7.0948E+01	1.8289E+02	3.0502E+02
RHO	1.2221E+01	3.8594E+01	4.3796E+01
M	5.1418E+02	9.0625E+02	1.2852E+03
A	1.5686E+01	2.7925E+01	3.7765E+01
S	2.8833E+00	3.0175E+00	3.1341E+00
Z	3.6792E+00	3.9210E+00	3.9493E+00
GAMF	9.4247E-01	1.0875E+00	1.1840E+00
U	4.5630E+01	1.4406E+01	1.7580E+01

SPECIES	MOLE FRACTIONS		
E-	4.6999E-01	5.0248E-01	5.0624E-01
HE	9.4153E-03	1.1294E-05	4.5683E-08
HE+	4.1746E-03	6.8703E-03	8.9690E-05
HE++	4.0167E-11	5.8703E-03	1.2571E-02
H	5.0595E-02	5.0225E-04	8.4618E-05
H+	4.6582E-01	4.8407E-01	4.8101E-01
H2	2.1705E-08	2.2725E-12	5.9007E-14

P1 = 2.00E+01 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7687E+03	2.7693E+04	5.6272E+04
T	9.0497E+01	2.2887E+02	3.9672E+02
RHO	1.0766E+01	3.0642E+01	3.5912E+01
M	6.1368E+02	1.0597E+03	1.5563E+03
A	1.9672E+01	3.2452E+01	4.3093E+01
S	3.0204E+00	3.1208E+00	3.2300E+00
Z	3.8680E+00	3.9462E+00	3.9498E+00
GAMF	1.1057E+00	1.1441E+00	1.1851E+00
U	4.9288E+01	1.7227E+01	2.1073E+01

SPECIES	MOLE FRACTIONS		
E-	4.9587E-01	5.0585E-01	5.0631E-01
HE	1.0192E-02	5.7005E-07	2.6916E-09
HE+	1.1907E-02	8.0924E-04	1.4235E-05
HE++	1.0245E-09	1.1841E-02	1.2445E-02
H	7.2482E-03	1.4115E-04	2.1472E-05
H+	4.8296E-01	4.8132E-01	4.8100E-01
H2	2.4554E-11	1.4364E-13	6.4664E-15

P1 = 2.00E+01 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3836E+03	2.8160E+04	5.4934E+04
T	7.5719E+01	1.9741E+02	3.3653E+02
RHO	1.1873E+01	3.6263E+01	4.1230E+01
M	5.4653E+02	9.5819E+02	1.3774E+03
A	1.4673E+01	2.9365E+01	3.9683E+01
S	2.9351E+00	3.0523E+00	3.1674E+00
Z	3.7636E+00	3.9338E+00	3.9496E+00
GAMF	9.7576E-01	1.1105E+00	1.1848E+00
U	4.6932E+01	1.5312E+01	1.8855E+01

SPECIES	MOLE FRACTIONS		
E-	4.8188E-01	5.0429E-01	5.0628E-01
HE	5.2808E-03	4.6916E-06	1.5532E-08
HE+	7.0043E-02	3.7702E-03	4.2191E-05
HE++	4.7261E-10	8.9355E-03	1.2617E-02
H	1.9951E-02	3.4246E-04	5.8688E-05
H+	4.7488E-01	4.9265E-01	4.8100E-01
H2	6.6377E-09	9.6767E-13	2.6321E-14

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1126E+01	2.3087E+01	5.4F39E+01
T	2.8248E+00	2.5380E+00	4.9511E+00
RHO	3.9378E+00	4.5833E+00	1.1619E+01
M	2.8881E+00	2.4131E+00	5.1954E+00
A	1.4787E+00	1.8501E+00	2.1869E+00
S	1.0510E+00	1.0527E+00	1.0697E+00
Z	1.0033E+00	1.0000E+00	1.0000E+00
GAME	9.9637E-01	9.8438E-01	9.6598E-01
U	2.2174E+00	1.3854E+00	1.2212E+00

SPECIES	MOLE FRACTIONS		
E-	1.7246E-62	7.2005E-45	7.6007E-29
HE	5.0000E-02	5.0000E-02	4.9999E-02
HE+	2.7061E-73	2.4741E-62	5.4277E-53
HE++	0.	0.	0.
H	1.3768E-10	1.8343E-08	4.2850E-05
H+	4.7440E-20	4.7440E-20	4.2459E-20
H2	9.5000E-01	9.5000E-01	9.4996E-01

P1 = 5.00E+01 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4921E+01	1.3781E+02	2.3107E+02
T	6.4058E+00	8.3537E+00	9.3099E+00
RHO	5.4421E+00	1.5519E+01	2.3478E+01
M	6.0720E+00	1.0585E+01	1.3575E+01
A	2.4263E+00	2.6767E+00	2.8439E+00
S	1.1341E+00	1.1642E+00	1.1701E+00
Z	1.0017E+00	1.0245E+00	1.0572E+00
GAME	9.1740E-01	8.3718E-01	8.2178E-01
U	4.6376E+00	1.5549E+00	1.3386E+00

SPECIES	MOLE FRACTIONS		
E-	2.0553E-18	8.7182E-14	3.1729E-12
HE	4.9914E-02	4.8803E-02	4.7297E-02
HE+	3.2380E-44	2.7058E-34	3.1470E-31
HE++	0.	0.	0.
H	3.4396E-02	4.7865E-02	1.0813E-01
H+	2.1187E-18	8.7182E-14	3.1729E-12
H2	9.4665E-01	9.0333E-01	8.4457E-01

P1 = 5.00E+01 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4388E+01	2.1140E+02	3.3741E+02
T	7.5061E+00	9.3772E+00	1.0153E+01
RHO	4.1044E+00	2.1184E+01	3.0075E+01
M	8.8562E+00	1.4033E+00	1.7387E+01
a	2.5674E+00	2.8595E+00	3.0302E+00
S	1.1505E+00	1.1811E+00	1.2087E+00
Z	1.0120E+00	1.0440E+00	1.1049E+00
GAME	8.5437E-01	8.1951E-01	8.1700E-01
U	7.1954E+00	1.4367E+00	1.3277E+00

SPECIES	MOLE FRACTIONS		
E-	3.0153E-15	4.4335E-12	4.0015E-11
HE	4.9404E-02	4.6056E-02	4.5171E-02
HE+	3.9045E-38	7.6075E-31	7.1888E-29
HE++	0.	0.	0.
H	2.3747E-02	1.2031E-01	1.0316E-01
H+	3.0100E-15	4.4335E-12	4.0015E-11
H2	9.2685E-01	8.3280E-01	7.6168E-01

P1 = 5.00E+01 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9841E+01	3.2563E+02	4.9059E+02
T	8.2935E+00	1.0237E+01	1.0964E+01
RHO	6.9831E+00	2.8474E+01	3.8324E+01
M	1.1008E+01	1.8058E+01	2.1856E+01
a	2.6507E+00	3.0555E+00	3.2258E+00
S	1.1883E+00	1.2198E+00	1.2512E+00
Z	1.0334E+00	1.1171E+00	1.1692E+00
GAME	8.2521E-01	8.1634E-01	8.1803E-01
U	5.0860E+00	1.4700E+00	1.3350E+00

SPECIES	MOLE FRACTIONS		
E-	1.2843E-12	5.2603E-11	2.9391E-10
HE	4.8772E-02	4.6758E-02	4.2763E-02
HE+	5.1845E-35	1.6388E-28	1.0504E-26
HE++	0.	0.	0.
H	4.5111E-02	2.0965E-01	2.8950E-01
H+	1.2840E-12	5.3603E-11	2.9391E-10
H2	8.8652E-01	7.4558E-01	6.6774E-01

P1 = 5.00E+01 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.4405E+01	1.0171E+02
T	3.8703E+00	5.1402E+00	6.8980E+00
RHO	4.5747E+00	9.0205E+00	1.4703E+01
M	3.9994E+00	5.4240E+00	7.6174E+00
a	1.9401E+00	2.2286E+00	2.5020E+00
S	1.0756E+00	1.0837E+00	1.1024E+00
Z	1.0000E+00	1.0001E+00	1.0028E+00
GAME	8.8155E-01	8.4224E-01	8.0564E-01
U	3.0254E+00	1.5154E+00	1.3457E+00

SPECIES	MOLE FRACTIONS		
E-	2.3366E-41	6.5487E-26	4.3767E-17
HE	5.0000E-02	4.9997E-02	4.9841E-02
HE+	9.6826E-41	2.0591E-51	1.1743E-41
HE++	0.	0.	0.
H	5.0036E-02	1.0609E-04	5.5600E-03
H+	4.3648E-20	4.3687E-20	4.2830E-17
H2	9.5000E-01	9.6930E-01	9.6458E-01

P1 = 5.00E+01 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6612E+01	8.0926E+01	1.5839E+02
T	5.0934E+00	6.9541E+00	8.3246E+00
RHO	6.0885E+00	1.4509E+01	1.8625E+01
M	5.3588E+00	7.2725E+00	9.0388E+00
a	2.2167E+00	2.5062E+00	2.6750E+00
S	1.1074E+00	1.1144E+00	1.1351E+00
Z	1.0001E+00	1.0003E+00	1.0021E+00
GAME	8.6388E-01	8.5867E-01	8.4142E-01
U	3.7257E+00	1.4217E+00	1.3624E+00

SPECIES	MOLE FRACTIONS		
E-	5.2207E-27	7.6412E-17	7.6656E-14
HE	4.9507E-02	4.9834E-02	4.8047E-02
HE+	2.2008E-53	2.7204E-41	1.0681E-34
HE++	0.	0.	0.
H	1.0834E-04	4.9640E-02	4.2160E-02
H+	4.3657E-20	7.6657E-17	7.6656E-14
H2	9.4980E-01	9.4333E-01	9.0891E-01

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5130E+01	4.7814E+02	4.9215E+02
T	8.0003E+00	1.1019E+01	1.1710E+01
RHO	7.9375E+00	3.4741E+01	4.7664E+01
H	1.3612E+01	2.2559E+01	2.6908E+01
A	2.7767E+00	3.2627E+00	3.4579E+00
S	1.2182E+00	1.2622E+00	1.2976E+00
Z	1.0637E+00	1.1810E+00	1.2426E+00
GAMF	8.1461E-01	8.1881E-01	8.2183E-01
U	6.7876E+00	1.4662E+00	1.2594E+00

SPECIES	MOLE FRACTIONS		
E-	1.4690E-12	2.5709E-10	1.4832E-09
HE	4.7005E-02	4.2336E-02	4.0239E-02
HE+	2.0073E-26	1.2757E-25	4.7386E-25
HE++	0.	0.	1.9026E-90
H	1.1081E-01	3.0657E-01	3.9064E-01
H+	1.4689E-12	2.5709E-10	1.4832E-09
H2	8.3318E-01	6.5109E-01	5.6932E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3091E+02	1.1734E+03	1.5998E+03
T	1.0287E+01	1.3227E+01	1.4068E+01
RHO	1.0652E+01	6.2202E+01	7.4815E+01
H	2.2130E+01	3.9126E+01	4.5483E+01
A	3.1405E+00	3.9684E+00	4.2501E+00
S	1.3212E+00	1.4078E+00	1.4550E+00
Z	1.1901E+00	1.4263E+00	1.5200E+00
GAMF	8.1025E-01	8.3484E-01	8.4475E-01
U	9.1507E+00	1.5733E+00	1.5253E+00

SPECIES	MOLE FRACTIONS		
E-	1.1892E-10	2.1031E-08	6.8113E-08
HE	4.2014E-02	3.5056E-02	3.2895E-02
HE+	2.9113E-28	2.1247E-22	4.0884E-21
HE++	0.	1.2318E-79	1.8126E-76
H	2.1943E-01	5.5778E-01	6.8418E-01
H+	1.1892E-10	2.1031E-08	6.8113E-08
H2	6.3854E-01	3.4717E-01	2.8292E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.53755+03	1.4829E+03	2.0067E+03
T	1.0486E+01	1.4007E+01	1.5010E+01
RHO	1.1505E+01	4.9501E+01	8.2063E+01
M	2.553SE+01	4.5578E+01	5.2863E+01
A	2.2833E+00	4.2441E+00	4.5829E+00
S	1.2566E+00	1.6609E+00	1.5126E+00
Z	1.2424E+00	1.5232E+00	1.6291E+00
GAMF	8.1198E-01	8.4423E-01	8.5893E-01
U	9.9241E+00	1.6435E+00	1.4184E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.2543E-10	6.5145E-08	2.2564E-07
NE	4.0263E-02	3.2825E-02	3.0692E-02
NE+	2.0440E-27	2.4801E-21	7.6916E-20
NE++	0.	2.1812E-74	3.1442E-71
N	2.9028E-01	8.8700E-01	7.7231E-01
N+	3.7963E-10	8.5145E-08	2.2564E-07
N2	7.4048E-01	2.9017E-01	1.9700E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7423E+03	1.8277E+03	2.4686E+03
T	1.1272E+01	1.4874E+01	1.6203E+01
RHO	1.2366E+01	7.5547E+01	8.7382E+01
M	2.9101E+01	5.2497E+01	6.0930E+01
A	2.6233E+00	4.5537E+00	4.9963E+00
S	1.4000E+00	1.5155E+00	1.5718E+00
Z	1.3996E+00	1.4259E+00	1.7436E+00
GAMF	8.1446E-01	8.5732E-01	8.8325E-01
U	1.0467E+01	1.7343E+00	1.7439E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	8.1215E-10	1.0846E-07	8.4509E-07
NE	3.8477E-02	3.0753E-02	2.8477E-02
NE+	2.1333E-24	5.0241E-20	1.0062E-18
NE++	0.	1.5387E-71	8.0786E-66
N	4.4059E-01	7.4986E-01	8.5294E-01
N+	8.1215E-10	1.0846E-07	8.4509E-07
N2	5.0063E-01	1.5934E-01	1.1838E-01

P1 = 5.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9606E+03	2.0221E+03	2.7459E+03
T	1.2484E+01	1.5241E+01	1.7421E+01
RHO	1.5165E+01	8.4054E+01	9.4776E+01
M	3.2716E+01	5.9716E+01	6.8718E+01
A	2.9911E+00	5.3564E+00	5.8601E+00
S	1.5984E+00	1.7564E+00	1.8067E+00
Z	1.5334E+00	1.6334E+00	1.9186E+00
GAMF	8.1357E-01	8.5743E-01	8.7601E-01
U	1.0429E+01	1.5238E+00	1.4533E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.6060E-11	5.3978E-09	2.1004E-08
NE	4.2775E-02	3.7413E-02	3.5264E-02
NE+	1.3114E-20	1.2084E-22	2.6046E-22
NE++	0.	2.2101E-85	5.2148E-80
N	2.6083E-01	5.0240E-01	5.9017E-01
N+	3.6060E-11	6.3978E-09	2.1004E-08
N2	7.0661E-01	4.5809E-01	3.7458E-01

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0128E+02	2.2007E+02	2.9902E+02
T	1.3[illegible]E+01	1.5978E+01	1.8073E+01
RHO	1.2911E+01	7.9800E+01	8.9160E+01
H	3.3097E+01	5.585[illegible]E+01	6.9874E+01
A	3.[illegible]70[illegible]E+00	4.9217E+00	5.6205E+00
S	1.4421E+00	1.5708E+00	1.6372E+00
Z	1.3[illegible]10E+00	1.7314E+00	1.8557E+00
GAME	8.17[illegible]E-01	8.783[illegible]E-01	9.4191E-01
U	1.146[illegible]E+01	1.8[illegible]49E+00	1.9387E+00

SPECIES	MOLE FRACTIONS		
E-	1.8658E-09	6.6010E-07	4.8779E-06
HE	3.6739E-02	2.8879E-02	2.6944E-02
HE+	1.2690E-2[illegible]	9.[illegible]87[illegible]E-19	1.515[illegible]E-16
HE++	9.782[illegible]E-01	[illegible].[illegible]50[illegible]E-67	[illegible].1737E-59
H	[illegible].304[illegible]E-01	8.4484E-01	9.2224E-01
H+	1.8[illegible]8E-09	6.6010E-07	4.8779E-06
H2	4.328[illegible]E-01	1.2628E-01	[illegible].0803E-02

P1 = 5.00E+01 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9582E+02	3.2055E+02	[illegible].0[illegible]0E+02
T	1.[illegible]47[illegible]E+01	[illegible].4467E+01	[illegible].4059E+01
RHO	1.4360E+01	[illegible].[illegible]60[illegible]E+01	[illegible].1053E+01
H	[illegible].[illegible]316E+01	[illegible].[illegible]047E+01	1.[illegible]772E+02
A	[illegible].0698E+00	[illegible].[illegible]781E+00	[illegible].[illegible]755E+00
S	1.5771E+00	1.7223E+00	1.[illegible]89[illegible]E+00
Z	1.5[illegible]09E+00	1.[illegible]626E+00	1.[illegible]736E+00
GAME	[illegible].3217E-01	1.1[illegible]9E+00	[illegible].[illegible]582E-01
U	1.[illegible]727E+01	[illegible].[illegible]38E+00	[illegible].[illegible]81[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	[illegible].[illegible]0[illegible]E-08	[illegible].[illegible]31[illegible]E-06	1.[illegible]33[illegible]E-05
HE	[illegible].1[illegible]40E-02	[illegible].[illegible]739E-02	[illegible].[illegible]737E-02
HE+	[illegible].[illegible]203E-[illegible]3	[illegible].[illegible]504E-[illegible]3	[illegible].[illegible]47[illegible]E-08
HE++	[illegible].[illegible]39[illegible]E-[illegible]7	[illegible].[illegible]5[illegible]4E-[illegible]3	[illegible].[illegible]71[illegible]E-28
H	[illegible].[illegible]8[illegible]E-01	[illegible].[illegible]49[illegible]E-01	[illegible].[illegible]49[illegible]E-01
H+	[illegible].[illegible]0[illegible]E-08	[illegible].[illegible]31[illegible]E-06	1.[illegible]33[illegible]E-05
H2	[illegible].[illegible]311E-01	[illegible].[illegible]087E-[illegible]2	[illegible].[illegible]842E-04

P1 = 5.00E+01 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2791E+02	2.5904E+03	3.6093E+03
T	1.1845E+01	1.7397E+01	2.2464E+01
RHO	1.3488E+01	8.1236E+01	8.3104E+01
M	3.7252E+01	6.7637E+01	8.0598E+01
A	3.7258E+00	5.4201E+00	6.9237E+00
S	1.4857E+00	1.6253E+00	1.6940E+00
Z	1.4267E+00	1.8329E+00	1.9332E+00
GAME	8.2141E-01	9.2124E-01	1.1038E+00
U	1.2223E+01	2.0296E+00	2.3664E+00

SPECIES	MOLE FRACTIONS		
E-	4.1671E-09	2.8264E-06	1.0102E-04
ME	3.5045E-02	2.7279E-02	2.5844E-02
ME+	1.0532E-24	3.5748E-17	2.9177E-17
ME++	8.5838E-90	1.8697E-41	3.5856E-47
M	5.9821E-01	9.0883E-01	8.6516E-01
M+	4.1671E-09	2.8264E-06	1.0102E-04
M2	3.4474E-01	8.3884E-02	8.7895E-02

P1 = 5.00E+01 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3706E+02	3.8137E+03	5.7446E+03
T	1.2157E+01	1.8428E+01	4.0209E+01
RHO	1.6626E+01	8.2534E+01	7.1084E+01
M	5.1318E+01	9.2612E+01	1.1773E+02
A	4.2466E+00	7.0434E+00	8.4893E+00
S	1.6246E+00	1.7802E+00	1.8736E+00
Z	1.5464E+00	1.9524E+00	2.0057E+00
GAME	8.6034E-01	1.0009E+00	9.7613E-01
U	1.6467E+01	2.2877E+00	3.7540E+00

SPECIES	MOLE FRACTIONS		
E-	5.7465E-09	2.3852E-03	2.8056E-03
ME	3.0326E-02	2.5430E-02	2.6920E-02
ME+	2.3788E-22	6.7928E-16	2.7640E-17
ME++	1.1665E-80	5.7763E-35	5.1968E-35
M	7.8523E-01	9.4847E-01	9.1847E-01
M+	5.7465E-09	2.3852E-03	2.8056E-03
M2	1.8643E-01	1.1504E-02	2.5790E-04

P1 = 5.00E+01 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5510E+02	3.0706E+03	4.3287E+03
T	1.2248E+01	1.6069E+01	3.0110E+01
RHO	1.3972E+01	7.7817E+01	7.3798E+01
M	4.1488E+01	7.5744E+01	9.3356E+01
A	3.8913E+00	6.2447E+00	7.9984E+00
S	1.5308E+00	1.6772E+00	1.7488E+00
Z	1.4946E+00	1.9114E+00	1.9936E+00
GAME	8.2415E-01	1.0288E+00	1.0882E+00
U	1.2978E+01	2.3322E+00	3.0342E+00

SPECIES	MOLE FRACTIONS		
E-	8.9402E-09	2.7274E-05	2.6584E-03
ME	3.3411E-02	2.8178E-02	2.6897E-02
ME+	6.4709E-24	6.0884E-18	9.1771E-10
ME++	1.3781E-84	2.4494E-33	1.8836E-34
M	6.4384E-01	9.5344E-01	9.6803E-01
M+	8.9402E-09	2.7274E-05	2.6584E-03
M2	3.0203E-01	2.0136E-02	1.2433E-03

P1 = 5.00E+01 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6067E+02	3.9615E+03	6.3931E+03
T	1.2731E+01	1.8728E+01	4.7685E+01
RHO	1.4777E+01	8.8400E+01	7.1031E+01
M	5.4377E+01	1.0145E+02	1.2971E+02
A	4.4692E+00	8.2286E+00	9.6057E+00
S	1.6777E+00	1.7934E+00	1.8550E+00
Z	1.5750E+00	1.9446E+00	2.0435E+00
GAME	8.5241E-01	1.0044E+00	9.1068E-01
U	1.5704E+01	2.8219E+00	3.9255E+00

SPECIES	MOLE FRACTIONS		
E-	9.7869E-09	8.9583E-03	4.6140E-03
ME	3.8285E-02	2.5637E-02	2.6447E-02
ME+	1.9701E-21	1.7503E-18	1.2688E-04
ME++	1.4120E-77	6.8750E-30	5.7437E-33
M	9.6456E-01	9.5434E-01	8.8305E-01
M+	9.7849E-09	8.9583E-03	4.6130E-03
M2	1.3043E-01	5.1356E-04	2.0871E-04

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8354E+02	4.2704E+03	6.9609E+03
T	1.4449E+01	3.7879E+01	4.6127E+01
RHO	1.4719E+01	5.4720E+01	7.2412E+01
M	6.1767E+01	1.1123E+02	1.6185E+02
A	4.7731E+00	8.4432E+00	9.2971E+00
S	1.7202E+00	1.8247E+00	1.8842E+00
Z	1.8034E+00	1.9805E+00	2.0857E+00
GAME	8.7425E-01	9.5104E-01	8.9802E-01
U	1.5926E+01	4.1306E+00	4.0602E+00

SPECIES	MOLE FRACTIONS		
E-	2.4981E-07	2.0223E-02	4.5642E-02
HE	2.7773E-02	2.5130E-02	2.2958E-02
HE+	2.3780E-20	1.2980E-07	3.5029E-06
HE++	1.3490E-33	3.1145E-27	1.7554E-21
H	8.9108E-01	9.3611E-01	8.4454E-01
H+	2.4881E-07	2.0223E-02	6.5659E-02
H2	8.1156E-02	2.1648E-04	1.5998E-04

P1 = 5.00E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8427E+02	4.6357E+03	7.0274E+03
T	2.1045E+01	4.6944E+01	5.1378E+01
RHO	1.1875E+01	4.7183E+01	6.1443E+01
M	7.0276E+01	1.4119E+02	1.7702E+02
A	4.8593E+00	9.1548E+00	1.0050E+01
S	1.8538E+00	1.9763E+00	1.9883E+00
Z	1.9441E+00	2.0930E+00	2.2262E+00
GAME	1.1488E+00	8.9092E-01	8.8302E-01
U	1.7770E+01	4.4740E+00	4.2542E+00

SPECIES	MOLE FRACTIONS		
E-	1.1558E-06	4.8428E-02	9.2414E-01
HE	2.5492E-02	2.3885E-02	2.2441E-02
HE+	9.1774E-16	2.8710E-06	1.8530E-05
HE++	1.4154E-60	4.1434E-32	6.7880E-19
H	9.7104E-01	8.2916E-01	7.2921E-01
H+	1.1508E-06	4.8425E-02	1.2417E-01
H2	2.1158E-02	1.1264E-04	7.6805E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1837E+02	4.5372E+03	7.3784E+03
T	1.5546E+01	4.0813E+01	4.8343E+01
RHO	1.4340E-01	5.5105E-01	7.1574E-01
H	6.7400E+01	1.2123E+02	1.5405E+02
A	5.1889E+00	8.7104E+00	9.5835E+00
S	1.7477E+00	1.8558E+00	1.9180E+00
Z	1.8745E+00	2.0201E+00	2.1324E+00
GAMF	9.2293E-01	9.2100E-01	8.9093E-01
U	1.6615E+01	4.2215E+00	4.1589E+00

SPECIES	MOLE FRACTIONS		
E-	1.0220E-04	3.4957E-02	8.5684E-02
HE	2.6685E-02	2.4758E-02	2.2460E-02
HE+	6.5100E-10	5.2201E-07	7.1759E-06
HE++	1.0201E-17	5.0136E-25	2.3684E-20
H	9.3619E-01	9.0512E-01	8.0807E-01
H+	1.0220E-04	3.4958E-02	8.5677E-02
H2	3.9161E-02	2.1883E-04	1.2598E-04

P1 = 5.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2045E+02	4.2041E+03	6.7162E+03
T	2.5022E+01	4.6456E+01	5.2540E+01
RHO	1.9442E-01	4.3411E-01	5.6178E-01
H	8.5514E+01	1.5130E+02	1.8825E+02
A	7.4025E+00	9.2[illegible]E+00	1.0242E+01
S	1.8846E+00	1.9584E+00	2.0240E+00
Z	1.9509E+00	2.1335E+00	2.2784E+00
GAMF	1.1225E+00	9.8403E-01	9.0084E-01
U	1.8207E+01	4.4972E+00	4.2878E+00

SPECIES	MOLE FRACTIONS		
E-	1.0037E-02	8.6098E-02	1.4276E-01
HE	2.5629E-02	2.3631E-02	2.1856E-02
HE+	1.8864E-11	5.0748E-06	2.6473E-05
HE++	3.3539E-21	4.6356E-21	2.2615E-18
H	9.7182E-01	8.8429E-01	6.9247E-01
H+	1.0037E-02	8.6203E-02	1.4273E-01
H2	5.6394E-06	9.6512E-05	6.0523E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5784E+02	4.5895E+03	7.3925E+03
T	1.7404E+01	4.3157E+01	5.0084E+01
RHO	1.3337E-01	5.1760E-01	6.7724E-01
H	7.0264E+01	1.3178E+02	1.6596E+02
A	5.9624E+00	8.9430E+00	9.8341E+00
S	1.8131E+00	1.8891E+00	1.9521E+00
Z	1.9287E+00	2.0550E+00	2.1754E+00
GAMF	1.0670E+00	9.0179E-01	8.8436E-01
U	1.7240E+01	4.4436E+00	4.2224E+00

SPECIES	MOLE FRACTIONS		
E-	9.4268E-06	5.1733E-02	1.0536E-01
HE	2.5926E-02	2.4330E-02	2.2930E-02
HE+	1.2768E-16	1.4188E-06	1.2336E-05
HE++	5.4343E-26	5.0932E-23	1.6477E-19
H	9.6301E-01	8.7708E-01	7.6425E-01
H+	8.4268E-06	5.1231E-02	1.0533E-01
H2	1.1071E-02	1.5116E-04	9.8833E-05

P1 = 5.00E+01 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5462E+02	6.3242E+03	8.4512E+03
T	2.8477E+01	4.8217E+01	5.3814E+01
RHO	9.9180E+00	6.1781E+01	5.3152E+01
H	9.2218E+01	1.6211E+02	2.0046E+02
A	7.6276E+00	9.5037E+00	1.0403E+01
S	1.9133E+00	1.9378E+00	2.0573E+00
Z	1.9581E+00	2.1773E+00	2.3253E+00
GAMF	1.0398E+00	9.7082E-01	8.7087E-01
U	1.8855E+01	4.5227E+00	4.3307E+00

SPECIES	MOLE FRACTIONS		
E-	4.3478E-02	1.0644E-01	1.4164E-01
HE	2.6609E-02	2.2856E-02	2.1664E-02
HE+	7.6446E-10	8.6557E-06	3.7337E-05
HE++	1.8012E-19	2.8709E-20	7.0822E-18
H	9.4555E-01	7.4805E-01	6.5559E-01
H+	4.3478E-02	1.0644E-01	1.4161E-01
H2	2.1507E-04	4.9145E-05	4.0044E-05

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9A26E+02	4.2917E+03	4.8206E+03
T	3.1466E+01	4.9573E+01	5.5728E+01
RHO	9.5406E+00	4.0731E+01	5.1967E+01
M	9.8805E+01	1.7371E+02	2.1776E+02
A	7.7727E+00	9.8373E+00	1.0755E+01
S	1.0796E+00	2.0213E+00	2.0895E+00
Z	1.0718E+00	2.2265E+00	2.2896E+00
GAME	9.6757E-01	8.7753E-01	8.7686E-01
U	1.9A6AE+01	4.5A66E+00	4.2796E+00

SPECIES	MOLE FRACTIONS		
E-	1.1175E-02	1.2367E-01	1.8085E-01
HE	2.5358E-02	2.7A67E-02	2.0952E-02
HE+	8.1706E-05	1.3401E-05	5.2178E-05
HE++	9.6011E-3,	1.6036E-19	2.8586E-17
H	9.5217E-01	7.3056E-01	6.1731E-01
H+	1.1175E-02	1.2366E-01	1.8079E-01
H2	1.7[illegible]E-06	5.6316E-05	4.0696E-05

P1 = 5.00E+01 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.78AAE+02	5.6944E+03	8.8405E+03
T	3.9263E+01	6.5958E+01	8.1720E+01
RHO	9.5A83E+00	4.3774E+01	5.4499E+01
M	1.2A75E+02	2.2738E+02	2.7A63E+02
A	8.4401E+00	1.0959E+01	1.2008E+01
S	2.0761E+00	2.1382E+00	2.2161E+00
Z	2.0738E+00	2.4430E+00	2.6362E+00
GAME	8.7534E-01	8.7A0E-01	8.8686E-01
U	2.2256E+01	4.8A86E+00	4.7270E+00

SPECIES	MOLE FRACTIONS		
E-	5.5744E-02	2.0182E-01	2.5976E-01
HE	2.4110E-02	2.0308E-02	1.8774E-02
HE+	4.2171E-07	4.8519E-05	2.0656E-04
HE++	4.8A29E-25	4.6019E-17	4.3324E-15
H	9.5A76E-01	5.7503E-01	4.6169E-01
H+	5.5763E-02	2.0174E-01	2.5955E-01
H2	3.2081E-05	2.6207E-05	1.3728E-05

P1 = 5.005E+01 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.384EE+02	6.747BE+02	7.1874E+03
T	3.4062E+01	5.1143E+01	5.6740E+01
RHO	9.4117E+00	6.0540E+01	6.1900E+01
M	1.0598E+02	1.9815E+02	2.7813E+02
A	7.9155E+00	1.0101E+01	1.1044E+01
S	1.9664E+00	2.0509E+00	2.1211E+00
Z	1.9915E+00	2.2752E+00	2.4394E+00
GAME	8.7455E-01	8.7455E-01	8.8084E-01
U	2.0129E+01	4.6282E+00	4.6541E+00

SPECIES	MOLE FRACTIONS		
E-	2.0037E-02	1.6234E-01	2.0066E-01
HE	2.5104E-02	2.1955E-02	2.0421E-02
HE+	3.9714E-08	2.1342E-05	7.5467E-05
HE++	3.0934E-20	8.2481E-10	1.0434E-16
H	9.3206E-01	6.9207E-01	6.7822E-01
H+	2.0637E-02	1.4306E-01	2.0059E-01
H2	8.0017E-05	4.7727E-05	3.3773E-05

P1 = 5.005E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9170E+02	7.0077E+03	1.0298E+04
T	4.1864E+01	5.9150E+01	6.5226E+01
RHO	9.8398E+00	6.5178E+01	5.6856E+01
M	1.4453E+02	2.5744E+02	3.1222E+02
A	8.8057E+00	1.1570E+01	1.271EE+01
S	2.0833E+00	2.1944E+00	2.2785E+00
Z	2.1408E+00	2.5654E+00	2.7755E+00
GAME	8.4578E-01	8.8221E-01	8.9293E-01
U	2.3770E+01	5.0543E+00	4.9622E+00

SPECIES	MOLE FRACTIONS		
E-	8.9145E-02	2.2882E-01	2.9743E-01
HE	2.3252E-02	1.8256E-02	1.7431E-02
HE+	1.8044E-06	1.3621E-04	3.8416E-04
HE++	6.1977E-23	7.8726E-14	6.3721E-14
H	7.9828E-01	5.0070E-01	3.8750E-01
H+	8.9144E-02	2.3978E-01	2.9704E-01
H2	2.8084E-05	2.1288E-05	1.2610E-05

P1 = 5.005E+01 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8335E+02	5.1706E+03	7.4642E+03
T	3.4062E+01	5.2742E+01	5.8348E+01
RHO	9.6721E+00	6.1474E+01	6.2734E+01
M	1.1226E+02	2.0028E+02	2.6436E+02
A	8.0865E+00	1.0378E+01	1.1247E+01
S	1.9887E+00	2.0891E+00	2.1519E+00
Z	2.0158E+00	2.3387E+00	2.5008E+00
GAME	8.8648E-01	8.7455E-01	8.8235E-01
U	2.0832E+01	4.7038E+00	4.5400E+00

SPECIES	MOLE FRACTIONS		
E-	2.2744E-02	1.6245E-01	2.2028E-01
HE	2.6806E-02	2.1639E-02	1.9887E-02
HE+	1.2547E-07	2.2211E-05	1.0642E-04
HE++	1.9873E-27	3.8449E-15	2.6847E-15
H	9.0673E-01	6.5232E-01	6.3085E-01
H+	2.2705E-02	1.4262E-01	2.2017E-01
H2	4.2007E-05	4.0648E-05	2.8371E-05

P1 = 5.005E+01 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9163E+02	7.0077E+03	1.0322E+04
T	4.1864E+01	5.9150E+01	6.8968E+01
RHO	9.8398E+00	6.5178E+01	5.9113E+01
M	1.4453E+02	2.8690E+02	3.5067E+02
A	8.8057E+00	1.2211E+01	1.3477E+01
S	2.0833E+00	2.2554E+00	2.3430E+00
Z	2.1408E+00	2.6365E+00	2.9243E+00
GAME	8.4152E-01	8.8722E-01	9.0055E-01
U	2.5200E+01	5.2676E+00	5.2153E+00

SPECIES	MOLE FRACTIONS		
E-	1.1055E-01	2.7632E-01	3.2318E-01
HE	2.2572E-02	1.8308E-02	1.6402E-02
HE+	4.8304E-06	2.4770E-04	6.9647E-04
HE++	1.0222E-21	7.7512E-15	4.0224E-13
H	7.9830E-01	4.9033E-01	3.1724E-01
H+	1.1055E-01	2.7409E-01	3.3248E-01
H2	2.1120E-05	1.5132E-05	8.7062E-06

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.005E+01 N/SQ-M, US1= 7.805E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1083E+03	9.6103E+03	1.3733E+04
T	4.6253E+01	4.6557E+01	7.2566E+01
RHO	1.0544E+01	5.0543E+01	6.1126E+01
H	1.8167E+02	2.2604E+02	2.9178E+02
E	9.5501E+00	1.2883E+01	1.6292E+01
S	2.1705E+00	2.2155E+00	2.4076E+00
Z	2.2966E+00	2.8200E+00	3.0768E+00
GAME	8.5642E-01	8.9342E-01	9.0587E-01
U	2.4894E+01	5.5027E+00	5.4557E+00

SPECIES	MOLE FRACTIONS		
E-	1.5012E-01	3.1072E-01	3.6672E-01
HE	2.1782E-02	1.7225E-02	1.5017E-02
HE+	9.2868E-04	4.2875E-04	1.2344E-03
HE++	1.4655E-10	4.5746E-14	3.4538E-12
H	4.2726E-01	3.4133E-01	2.5256E-01
H+	1.5011E-01	2.1029E-01	3.4499E-01
H2	1.6211E-05	1.0436E-05	5.3402E-06

P1 = 5.005E+01 N/SQ-M, US1= 6.605E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4947E+03	1.2682E+04	2.0089E+04
T	5.1936E+01	7.6684E+01	8.8731E+01
RHO	1.1247E+01	5.4908E+01	6.7996E+01
H	2.4326E+02	4.3743E+02	5.3236E+02
E	1.0718E+01	1.5146E+01	1.7352E+01
S	2.3279E+00	2.4953E+00	2.6048E+00
Z	2.5425E+00	3.2498E+00	3.5379E+00
GAME	9.4327E-01	9.2053E-01	9.5914E-01
U	3.1129E+01	6.2773E+00	6.6369E+00

SPECIES	MOLE FRACTIONS		
E-	2.3902E-01	3.9991E-01	4.4882E-01
HE	1.9663E-02	1.3257E-02	8.0771E-03
HE+	4.9099E-05	2.1299E-03	6.0557E-03
HE++	4.9654E-18	2.5094E-11	2.5880E-09
H	5.0269E-01	1.8493E-01	9.4277E-02
H+	2.3867E-01	3.9778E-01	4.4277E-01
H2	7.4427E-06	2.5189E-06	6.3004E-07

P1 = 5.00E+01 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.23[illegible]E+03	1.27[illegible]E+04	1.56[illegible]E+04
T	4.83[illegible]E+01	4.90[illegible]E+01	7.74[illegible]E+01
RHO	1.07[illegible]E+01	5.24[illegible]E+01	4.36[illegible]E+01
U	3.01[illegible]E+03	3.60[illegible]E+02	4.35[illegible]E+03
A	9.83[illegible]E+00	1.25[illegible]E+01	1.51[illegible]E+01
S	3.23[illegible]E+00	3.27[illegible]E+00	2.47[illegible]E+00
Z	3.37[illegible]E+00	3.04[illegible]E+00	3.23[illegible]E+00
GAMF	8.50[illegible]E-01	8.30[illegible]E-01	8.31[illegible]E-01
U	3.81[illegible]E+01	5.74[illegible]E+00	5.82[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.80[illegible]E-01	2.42[illegible]E-01	2.96[illegible]E-01
HE	2.05[illegible]E-02	1.40[illegible]E-02	1.33[illegible]E-02
HE+	1.33[illegible]E-05	7.55[illegible]E-06	2.14[illegible]E-13
HE++	1.46[illegible]E-10	4.05[illegible]E-13	2.96[illegible]E-11
H	4.17[illegible]E-01	3.58[illegible]E-01	1.03[illegible]E-01
H+	1.80[illegible]E-01	2.42[illegible]E-01	2.96[illegible]E-01
H2	1.25[illegible]E-05	4.93[illegible]E-06	2.60[illegible]E-06

P1 = 5.00E+01 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.63[illegible]E+03	1.82[illegible]E+04	2.25[illegible]E+04
T	5.37[illegible]E+01	8.11[illegible]E+01	9.48[illegible]E+01
RHO	1.14[illegible]E+01	5.53[illegible]E+01	6.33[illegible]E+01
U	3.65[illegible]E+03	4.78[illegible]E+02	5.86[illegible]E+03
A	1.11[illegible]E+01	1.60[illegible]E+01	1.88[illegible]E+01
S	3.37[illegible]E+00	3.55[illegible]E+00	2.67[illegible]E+00
Z	3.46[illegible]E+00	3.32[illegible]E+00	3.67[illegible]E+00
GAMF	8.46[illegible]E-01	9.34[illegible]E-01	9.96[illegible]E-01
U	3.24[illegible]E+01	4.75[illegible]E+00	7.19[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.46[illegible]E-01	4.26[illegible]E-01	4.69[illegible]E-01
HE	1.87[illegible]E-02	1.12[illegible]E-02	4.66[illegible]E-03
HE+	7.82[illegible]E-05	3.47[illegible]E-03	8.93[illegible]E-03
HE++	3.82[illegible]E-17	1.78[illegible]E-10	2.93[illegible]E-08
H	4.47[illegible]E-01	1.39[illegible]E-01	5.65[illegible]E-02
H+	3.66[illegible]E-01	4.20[illegible]E-01	4.60[illegible]E-01
H2	5.44[illegible]E-06	1.23[illegible]E-05	2.04[illegible]E-07

P1 = 5.00E+01 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.36[illegible]E+03	1.51[illegible]E+04	1.78[illegible]E+04
T	5.03[illegible]E+01	7.27[illegible]E+01	8.25[illegible]E+01
RHO	1.13[illegible]E+01	5.39[illegible]E+01	4.38[illegible]E+01
U	3.31[illegible]E+03	3.97[illegible]E+02	4.82[illegible]E+03
A	1.03[illegible]E+01	1.43[illegible]E+01	1.61[illegible]E+01
S	3.32[illegible]E+00	3.63[illegible]E+00	2.53[illegible]E+00
Z	3.45[illegible]E+00	3.12[illegible]E+00	3.38[illegible]E+00
GAMF	8.51[illegible]E-01	8.99[illegible]E-01	9.36[illegible]E-01
U	3.06[illegible]E+01	5.05[illegible]E+00	6.19[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.13[illegible]E-01	2.77[illegible]E-01	4.24[illegible]E-01
HE	2.02[illegible]E-02	1.48[illegible]E-02	1.10[illegible]E-02
HE+	2.97[illegible]E-05	1.37[illegible]E-03	3.79[illegible]E-03
HE++	1.00[illegible]E-18	2.65[illegible]E-13	2.65[illegible]E-10
H	5.58[illegible]E-01	2.39[illegible]E-01	1.40[illegible]E-01
H+	2.10[illegible]E-01	2.73[illegible]E-01	4.20[illegible]E-01
H2	8.65[illegible]E-06	4.53[illegible]E-06	1.49[illegible]E-06

P1 = 5.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.79[illegible]E+03	1.67[illegible]E+04	2.52[illegible]E+04
T	5.59[illegible]E+01	8.42[illegible]E+01	1.08[illegible]E+02
RHO	1.16[illegible]E+01	5.33[illegible]E+01	6.14[illegible]E+01
H	3.80[illegible]E+03	5.21[illegible]E+02	6.45[illegible]E+03
A	1.15[illegible]E+01	1.49[illegible]E+01	2.09[illegible]E+01
S	3.42[illegible]E+00	3.61[illegible]E+00	2.73[illegible]E+00
Z	3.54[illegible]E+00	3.51[illegible]E+00	3.78[illegible]E+00
GAMF	8.49[illegible]E-01	9.52[illegible]E-01	1.06[illegible]E+00
U	3.40[illegible]E+01	7.16[illegible]E+00	7.95[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.93[illegible]E-01	4.45[illegible]E-01	4.84[illegible]E-01
HE	1.79[illegible]E-02	8.79[illegible]E-03	1.86[illegible]E-03
HE+	1.22[illegible]E-06	5.61[illegible]E-03	1.13[illegible]E-02
HE++	2.01[illegible]E-26	1.29[illegible]E-06	4.43[illegible]E-07
H	2.96[illegible]E-01	9.56[illegible]E-02	2.82[illegible]E-02
H+	2.93[illegible]E-01	4.40[illegible]E-01	4.73[illegible]E-01
H2	4.21[illegible]E-06	8.22[illegible]E-07	8.37[illegible]E-08

Table III. Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9411E+03	1.8741E+04	2.8182E+04
T	5.7485E+01	9.2471E+01	1.2577E+02
RHO	1.1787E+01	5.4474E+01	5.8153E+01
H	2.1406E+02	5.6574E+02	7.1225E+02
A	1.1993E+01	1.8171E+01	2.3404E+01
S	2.4831E+00	2.6723E+00	2.7987E+00
Z	2.8640E+00	3.6411E+00	3.9530E+00
GAMF	8.7348E-01	9.8270E-01	1.1303E+00
U	2.5521E+01	7.6849E+00	9.0246E+00

SPECIES	MOLE FRACTIONS		
E-	3.1942E-01	4.6445E-01	4.9391E-01
HE	1.7258E-02	5.8434E-03	5.4681E-04
HE+	1.8784E-04	7.8887E-03	1.2421E-02
HE++	9.7474E-14	1.0327E-08	8.8978E-06
H	3.4350E-01	6.5259E-02	1.1469E-02
H+	3.1943E-01	4.5656E-01	4.8147E-01
H2	3.0786E-06	2.4799E-07	6.0281E-09

P1 = 5.00E+01 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4388E+03	2.2456E+04	3.7870E+04
T	6.2502E+01	1.0371E+02	1.3538E+02
RHO	1.2000E+01	4.7255E+01	4.9520E+01
H	2.2281E+02	7.0477E+02	8.3613E+02
A	1.2462E+01	2.1150E+01	2.3058E+01
S	2.4426E+00	2.8284E+00	2.9547E+00
Z	2.8935E+00	3.8568E+00	3.9140E+00
GAMF	8.9055E-01	1.1317E+00	1.2556E+00
U	2.9842E+01	1.0137E+01	1.2771E+01

SPECIES	MOLE FRACTIONS		
E-	3.8935E-01	4.9440E-01	5.0170E-01
HE	1.4837E-02	5.2444E-04	3.2544E-05
HE+	6.7751E-04	1.2423E-02	7.9151E-03
HE++	1.9135E-13	7.4835E-06	4.8250E-03
H	2.0424E-01	1.2478E-02	1.2081E-03
H+	3.8371E-01	4.8195E-01	4.8423E-01
H2	9.7021E-07	4.2105E-08	3.0724E-11

P1 = 5.00E+01 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1012E+02	1.9842E+04	3.1399E+04
T	5.9389E+01	1.0020E+02	1.4861E+02
RHO	1.1899E+01	5.2947E+01	5.4624E+01
H	3.3965E+02	8.1129E+02	1.8548E+03
A	1.2453E+01	1.9584E+01	2.5858E+01
S	2.5359E+00	2.7269E+00	2.8579E+00
Z	2.9733E+00	3.7404E+00	3.8822E+00
GAME	8.7829E-01	1.0236E+00	1.1589E+00
U	3.6985E+01	8.2145E+00	1.0256E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.4417E-01	4.7847E-01	4.9770E-01
HE	1.6529E-02	3.1721E-03	1.7377E-04
HE+	2.8714E-04	1.0194E-02	1.2547E-02
HE++	4.5465E-15	8.4570E-08	1.5882E-06
H	2.9514E-01	2.9695E-02	4.5798E-03
H+	3.4388E-01	4.6847E-01	4.8486E-01
H2	2.1857E-04	8.0658E-08	7.5119E-10

P1 = 5.00E+01 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5158E+02	2.2583E+04	4.0973E+04
T	6.5971E+01	1.3787E+02	2.1806E+02
RHO	1.1999E+01	4.4105E+01	4.7793E+01
H	4.2234E+02	7.5267E+02	1.9168E+03
A	1.4004E+01	2.4878E+01	3.0985E+01
S	2.6958E+00	2.9730E+00	2.9963E+00
Z	3.3046E+00	3.8782E+00	3.9316E+00
GAME	8.9955E-01	1.1575E+00	1.1995E+00
U	4.1284E+01	1.1184E+01	1.3782E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.0961E-01	4.9719E-01	5.0401E-01
HE	1.4071E-02	2.2141E-04	1.1996E-05
HE+	1.0590E-02	1.2613E-02	3.9124E-03
HE++	5.9466E-13	5.8527E-05	8.7932E-07
H	1.6610E-01	5.4492E-03	7.5254E-04
H+	4.0885E-01	4.8446E-01	4.8252E-01
H2	5.0341E-07	9.1978E-10	1.4140E-11

P1 = 5.00E+01 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2672E+02	2.1227E+04	3.6602E+04
T	6.1419E+01	1.1934E+02	1.7320E+02
RHO	1.1976E+01	5.0626E+01	5.1600E+01
H	3.6424E+02	6.5749E+02	1.4289E+03
A	1.2938E+01	2.1329E+01	2.7618E+01
S	2.5890E+00	2.7796E+00	2.9104E+00
Z	3.0827E+00	3.8135E+00	3.8970E+00
GAME	8.8402E-01	1.0810E+00	1.1301E+00
U	3.8429E+01	9.1784E+00	1.1681E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.6745E-01	4.8846E-01	4.9969E-01
HE	1.5780E-02	1.3540E-03	7.4030E-05
HE+	4.3927E-04	1.1744E-02	1.1361E-02
HE++	2.1279E-14	7.9643E-07	1.4153E-05
H	2.6933E-01	2.1314E-02	2.1062E-03
H+	3.4701E-01	4.7491E-01	4.8546E-01
H2	1.4970E-06	2.0104E-08	1.3604E-10

P1 = 5.00E+01 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7980E+02	2.4525E+04	4.4055E+04
T	6.8627E+01	1.5309E+02	2.4239E+02
RHO	1.1939E+01	4.1191E+01	4.5957E+01
H	4.5189E+02	8.0101E+02	1.9097E+03
A	1.4406E+01	2.4747E+01	3.3110E+01
S	2.7488E+00	2.9121E+00	3.0260E+00
Z	3.4144E+00	3.8893E+00	3.9421E+00
GAME	9.1028E-01	1.1572E+00	1.1964E+00
U	4.2688E+01	1.2372E+01	1.6033E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.2888E-01	4.5841E-01	5.0534E-01
HE	1.2960E-02	1.1160E-04	2.6506E-06
HE+	1.4841E-03	1.2417E-02	1.5154E-03
HE++	2.7452E-12	3.2740E-04	1.1165E-02
H	1.2928E-01	3.0056E-03	4.7955E-04
H+	4.2720E-01	4.8553E-01	4.8150E-01
H2	3.4647E-07	2.3961E-10	5.2075E-12

Table III. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9849E+03	2.5392E+04	4.7134E+04
T	7.1709E+01	1.6877E+02	2.7178E+02
RHO	1.1823E+01	3.8598E+01	4.3946E+01
H	4.8238E+02	8.5056E+02	1.1870E+03
A	1.5273E+01	2.7273E+01	3.5509E+01
S	2.8016E+00	2.9515E+00	3.0719E+00
Z	3.5206E+00	3.8980E+00	3.9466E+00
GAME	9.2397E-01	1.1306E+00	1.1756E+00
U	4.4072E+01	1.3492E+01	1.6183E+01

SPECIES	MOLE FRACTIONS		
E-	4.4612E-01	4.9974E-01	5.0590E-01
HE	1.1486E-02	5.2074E-05	9.4597E-07
HE+	2.7157E-03	1.1436E-02	5.5967E-04
HE++	1.6554E-11	1.3289E-03	1.2109E-02
H	9.6275E-02	1.7799E-03	3.1094E-04
H+	4.4340E-01	4.8545E-01	4.8112E-01
H2	1.7795E-07	7.3312E-11	2.0550E-12

P1 = 5.00E+01 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5466E+03	2.7184E+04	5.4122E+04
T	8.5465E+01	2.1359E+02	3.6498E+02
RHO	1.1028E+01	3.2352E+01	3.7548E+01
H	5.7944E+02	1.0061E+03	1.4609E+03
A	1.8072E+01	3.0694E+01	4.1324E+01
S	2.9525E+00	3.0573E+00	3.1734E+00
Z	3.7841E+00	3.9340E+00	3.9494E+00
GAME	1.0098E+00	1.1213E+00	1.1847E+00
U	4.8016E+01	1.5299E+01	1.9878E+01

SPECIES	MOLE FRACTIONS		
E-	4.8469E-01	5.0432E-01	5.0625E-01
HE	3.9182E-03	7.6521E-06	3.7868E-08
HE+	9.2948E-03	3.4978E-03	5.7946E-05
HE++	7.6150E-09	9.2042E-03	1.2602E-02
H	2.4701E-02	5.5313E-04	1.0453E-04
H+	4.7540E-01	4.8242E-01	4.8099E-01
H2	9.9050E-09	5.2244E-12	1.8771E-13

P1 = [illegible] N/SQ-M, US1= [illegible] M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1760E+03	2.6213E+04	4.9963E+04
T	7.5351E+01	1.8396E+02	3.0228E+02
RHO	1.1642E+01	3.6448E+01	4.1863E+01
H	5.1383E+03	9.0177E+02	1.2777E+03
A	1.6031E+01	2.8141E+01	3.7560E+01
S	2.8534E+00	2.9881E+00	3.1074E+00
Z	3.6203E+00	3.9094E+00	3.9483E+00
GAME	9.4204E-01	1.1012E+00	1.1820E+00
U	4.5428E+01	1.4454E+01	1.7481E+01

SPECIES	MOLE FRACTIONS		
E-	4.6138E-01	5.0170E-01	5.0611E-01
HE	9.4511E-03	3.6512E-05	2.8272E-07
HE+	4.3598E-03	9.1799E-03	2.2712E-04
HE++	1.1295E-10	3.5755E-03	1.2436E-02
H	6.7799E-02	1.1480E-03	2.0806E-04
H+	4.5702E-01	4.8487E-01	4.8101E-01
H2	8.0968E-08	2.7307E-11	8.5387E-13

P1 = [illegible] N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3704E+03	2.6769E+04	5.2306E+04
T	7.9877E+01	1.9827E+02	3.3311E+02
RHO	1.1371E+01	3.4422E+01	3.9763E+01
H	5.4619E+02	9.5238E+02	1.3692E+03
A	1.6943E+01	2.9227E+01	3.9465E+01
S	2.9046E+00	3.0227E+00	3.1407E+00
Z	3.7105E+00	3.9223E+00	3.9490E+00
GAME	9.6859E-01	1.0984E+00	1.1840E+00
U	4.6749E+01	1.5447E+01	1.8713E+01

SPECIES	MOLE FRACTIONS		
E-	4.7452E-01	5.0285E-01	5.0620E-01
HE	6.7484E-03	1.7642E-05	9.8460E-08
HE+	6.7255E-03	6.7278E-03	1.0803E-04
HE++	8.9665E-10	6.5021E-03	1.2553E-02
H	4.4210E-02	7.9239E-04	1.4559E-04
H+	4.6780E-01	4.8341E-01	4.8099E-01
H2	3.0895E-08	1.1809E-11	3.9015E-13

P1 = 5.00E+01 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7626E+03	2.7068E+04	5.5086E+04
T	9.2842E+01	2.2938E+02	3.9573E+02
RHO	1.0560E+01	2.9939E+01	3.5245E+01
H	6.1351E+02	1.0573E+03	1.5528E+03
A	1.9521E+01	3.2230E+01	4.2036E+01
S	2.9983E+00	3.0915E+00	3.2045E+00
Z	3.8279E+00	3.9415E+00	3.9696E+00
GAME	1.0465E+00	1.1490E+00	1.1850E+00
U	4.9209E+01	1.7316E+01	2.1028E+01

SPECIES	MOLE FRACTIONS		
E-	4.9191E-01	5.0524E-01	5.0627E-01
HE	1.7290E-03	3.0171E-06	1.6518E-08
HE+	1.1299E-02	1.7496E-03	3.5300E-05
HE++	7.5206E-08	1.0913E-02	1.2624E-02
H	1.4447E-02	3.8937E-04	7.7750E-05
H+	4.8041E-01	4.8166E-01	4.8099E-01
H2	2.4476E-09	2.3257E-12	9.6840E-14

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 4.30E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6543E+01
T	2.8248E+00	3.5080E+00	4.9514E+ 0
RHO	3.9373E+00	5.3823E+00	1.1419E+01
H	2.8881E+00	3.6101E+00	5.1955E+00
A	1.6757E+03	1.8601E+00	2.1874E+00
S	1.0526E+00	1.0543E+00	1.0708E+00
Z	1.0000E+00	1.0000E+00	1.0000E+ 0
GAME	9.9407E-01	9.8638E-01	9.6627E-01
U	2.3176E+00	1.3854E+00	1.2212E+ 0

SPECIES	MOLE FRACTIONS		
E-	6.1334E-64	2.5778E-45	2.8083E-29
HE	5.0000E-02	5.0000E-02	4.9999E-02
HE+	3.9514E-73	3.4990E-62	7.7789E-53
HE++	0.	0.	0.
H	9.7392E-11	1.3121E-08	3.0344E-05
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.4997E-01

P1 = 1.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4895E+01	1.3114E+02	2.3118E+02
T	6.4252E+00	8.4917E+00	9.5587E+00
RHO	5.4241E+00	1.5129E+01	2.2983E+ 1
H	6.9706E+ 0	1.0555E+01	1.3643E+01
A	2.4355E+00	2.7063E+00	2.8841E+00
S	1.1381E+00	1.1500E+00	1.1743E+00
Z	1.0013E+00	1.0238E+00	1.0522E+00
GAME	9.2507E-01	8.4494E-01	8.2658E-01
U	4.4341E+00	1.5884E+00	1.3694E+00

SPECIES	MOLE FRACTIONS		
E-	1.6060E-18	1.0556E-13	4.6612E-12
HE	4.9536E-02	4.8980E-02	4.7519E-02
HE+	1.1312E-44	1.5545E-34	1.9643E-30
HE++	0.	0.	0.
H	2.5412E-03	4.0782E-02	9.9259E-02
H+	1.6693E-18	1.0556E-13	4.6812E-12
H2	9.4752E-01	9.1024E-01	8.5322E-01

P1 = 1.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7523E+01	4.6598E+01	1.0183E+02
T	3.3703E+00	5.1607E+00	6.9347E+ 0
RHO	4.5267E+00	9.0274E+00	1.4653E+01
H	3.9996E+00	5.4337E+00	7.6251E+ 0
A	1.9491E+00	2.2292E+00	2.5201E+00
S	1.0820E+00	1.0862E+00	1.1055E+00
Z	1.0000E+00	1.0000E+00	1.0021E+00
GAME	9.8153E-01	9.6286E-01	9.1391E-01
U	3.0256E+00	1.5158E+00	1.3517E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	8.2554E-42	2.3329E-26	3.0439E-17
HE	5.0000E-02	4.9998E-02	4.9855E-02
HE+	1.2282E-60	2.9241E-51	1.1884E-41
HE++	0.	0.	0.
H	3.5306E-07	7.3754E-05	4.2094E-03
H+	6.3460E-20	6.3453E-20	3.0502E-17
H2	9.5000E-01	9.4993E-01	9.4590E-01

P1 = 1.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6277E+01	2.0655E+02	3.3353E+02
T	7.5575E+00	9.5028E+00	1.0468E+01
RHO	6.0303E+00	2.0334E+01	2.9001E+01
H	8.8507E+00	1.3575E+01	1.7421E+01
A	2.5746E+00	2.8542E+00	3.0759E+00
S	1.1651E+00	1.1850E+00	1.2129E+00
Z	1.0093E+00	1.0576E+00	1.1001E+00
GAME	8.6351E-01	8.2468E-01	8.2163E-01
U	5.1827E+00	1.5361E+00	1.3620E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.1503E-15	6.0604E-12	6.1409E-11
HE	4.9512E-02	4.7276E-02	4.5452E-02
HE+	9.0164E-38	3.0122E-30	1.9052E-28
HE++	0.	0.	0.
H	1.9503E-02	1.0855E-01	1.8191E-01
H+	3.1506E-15	6.0603E-12	6.1409E-11
H2	9.3098E-01	8.4378E-01	7.7264E-01

P1 = 1.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5411E+01	8.0588E+01	1.5854E+02
T	5.0343E+00	6.9879E+00	8.4756E+00
RHO	4.9876E+00	1.1502E+01	1.8402E+01
H	5.3584E+00	7.7167E+00	1.0420E+01
A	2.2156E+00	2.5222E+00	2.7081E+00
S	1.1163E+00	1.1178E+00	1.1391E+00
Z	1.0002E+00	1.0026E+00	1.0186E+00
GAME	9.6353E-01	9.0738E-01	8.4955E-01
U	3.7255E+00	1.5139E+00	1.3847E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.9547E-27	5.2657E-17	8.8521E-14
HE	4.9993E-02	4.9836E-02	4.9587E-02
HE+	4.2776E-52	2.8955E-41	2.1618E-34
HE++	0.	0.	0.
H	7.6577E-05	5.2209E-03	3.6535E-02
H+	5.3458E-20	5.2731E-17	3.8521E-14
H2	9.4563E-01	9.4490E-01	9.1438E-01

P1 = 1.00E+02 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9670E+01	3.1607E+02	4.8184E+02
T	8.4603E+00	1.0536E+01	1.1326E+01
RHO	6.8456E+00	2.7059E+01	3.6652E+01
H	1.0999E+01	1.3976E+01	2.1880E+01
A	2.6516E+00	3.0960E+00	3.2680E+00
S	1.1931E+00	1.2234E+00	1.2551E+00
Z	1.0297E+00	1.1085E+00	1.1606E+00
GAME	8.3163E-01	8.2068E-01	8.2243E-01
U	5.9690E+00	1.5103E+00	1.3726E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.6551E-13	8.0478E-11	4.7496E-10
HE	4.8560E-02	4.5105E-02	4.3081E-02
HE+	1.2222E-34	1.0773E-27	6.3007E-26
HE++	0.	0.	0.
H	5.7416E-02	1.9573E-01	2.7677E-01
H+	1.6551E-13	8.0479E-11	4.7496E-10
H2	8.9382E-01	7.5911E-01	6.8015E-01

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4PE[illegible]+01	4.[illegible]+02	5.7673E+02
T	9.1283E+00	1.1391E+01	1.2154E+01
RHO	7.7459E+00	3.[illegible]+01	4.5179E+01
H	1.3404E+01	2.2494E+01	2.6936E+ 1
A	2.4123E+00	3.3095E+00	3.5181E+00
S	1.2231E+00	1.2652E+00	1.3008E+00
Z	1.0593E+00	1.1704E+00	1.2323E+00
GAME	8.1911E-01	8.2226E-01	8.2641E-01
U	6.7643E+00	1.5128E+00	1.4008E+00

SPECIES	MOLE FRACTIONS		
E-	2.2465E-12	5.5411E-10	2.4675E-09
HE	4.7244E-02	4.2719E-02	4.0575E-02
HE+	1.0264E-31	7.2252E-26	3.0614E 24
HE++	0.	0.	1.5319E 17
H	1.1009E-01	2.9123E-01	3.7702E 01
H+	2.2465E-12	5.5411E-10	2.4675E-09
H2	8.4286E-01	6.6635E-01	5.8241E-01

P1 = 1.00E+02 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3051E+02	1.1296E+03	1.5564E+03
T	1.0638E+01	1.3772E+01	1.4717E+01
RHO	1.0384E+01	5.8120E+01	7.0261E+01
H	2.2119E+01	3.8970E+01	4.5561E+01
A	3.1590E+00	4.0387E+00	4.3412E+00
S	1.3253E+00	1.4082E+00	1.4559E+ 0
Z	1.1814E+00	1.4103E+00	1.5051E+00
GAME	8.1423E-01	8.3996E-01	8.5078E-01
U	9.1223E+00	1.6303E+00	1.5815E+00

SPECIES	MOLE FRACTIONS		
E-	1.9908E-10	3.4452E-08	1.1637E-07
HE	4.2321E-02	3.5462E-02	3.3219E-02
HE+	1.9952E-27	1.3163E-21	2.7854E 20
HE++	0.	4.6493E-77	8.0516E-73
H	3.0715E-01	5.8152E-01	6.7123E-01
H+	1.9908E-10	3.4452E-08	1.1637E-07
H2	8.5029E-01	3.8302E-01	2.9555E-01

P1 = 1.00E+02 N/SQ-M, USI= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.1768E+01	5.4611E+02	9.2022E+02
T	9.6863E+00	1.2184E+01	1.2976E+01
RHO	8.6612E+00	4.2699E+01	5.3961E+01
H	1.6C59E+01	2.7509E+01	3.2568E+01
A	2.9372E+00	3.5363E+00	3.7674E+ 0
S	1.2550E+00	1.3102E+00	1.3498E+00
Z	1.0937E+00	1.2419E+00	1.3141E+00
GAME	9.1456E-01	8.2641E-01	8.3243E-01
U	7.5562E+00	1.5332E+00	1.4450E+00

SPECIES	-- MOLE FRACTIONS		
E-	1.4168E-11	2.6972E-09	1.0114E-08
HE	4.9717E-02	4.0261E-02	3.8049E-02
HE+	5.7494E-33	3.1755E-24	8.6035E-23
HE++	0.	5.0459E-88	6.2321E-82
H	1.7421E-01	3.8957E-01	4.7806E-01
H+	1.4169E-11	2.6972E-09	1.0114E-08
H2	7.8257E-01	5.7017E-01	4.8389E-01

P1 = 1.00E+02 N/SQ-M, USI= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5231E+02	1.4244E+03	1.9502E+03
T	1.1072E+01	1.4613E+01	1.5735E+01
RHO	1.1158E+01	5.4770E+01	7.6855E+01
H	2.5523E+01	4.5402E+01	5.2968E+01
A	3.3375E+00	4.3228E+00	4.6863E+00
S	1.3634E+00	1.4602E+00	1.5123E+00
Z	1.2329E+00	1.5049E+00	1.6127E+00
GAME	8.1605E-01	8.4975E-01	8.6546E-01
U	9.8969E+00	1.7054E+00	1.6808E+00

SPECIES	---------- MOLE FRACTIONS		
E-	5.5894E-10	1.0635E-07	3.7975E-07
HE	4.0555E-02	3.3225E-02	3.1004E-02
HE+	1.8834E-26	2.0919E-20	4.9150E-19
HE++	0.	2.6609E-73	3.5789E-68
H	3.7773E-01	6.7099E-01	7.5983E-01
H+	5.5894E-10	1.0635E-07	3.7975E-07
H2	5.8166E-01	2.9578E-01	2.0516E-01

P1 = 1.00E+02 N/SQ-M, USI= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1033E+02	8.3805E+02	1.2133E+03
T	1.0182E+01	1.2974E+01	1.3817E+01
RHO	8.5473E+00	5.3645E+01	6.2486E+01
H	1.3546E+01	3.3094E+01	3.8770E+01
A	3.0663E+00	3.7763E+00	4.0394E+00
S	1.2491E+00	1.3591E+00	1.4016E+00
Z	1.1349E+00	1.3220E+00	1.4052E+00
GAME	8.1351E-01	8.3235E-01	8.4036E-01
U	8.3432E+00	1.6732E+00	1.5035E+00

SPECIES	---------- MOLE FRACTIONS		
E-	8.0131E-11	1.0404E-08	3.5446E-08
HE	4.4053E-02	3.7321E-02	3.5581E-02
HE+	1.4083E-28	7.9590E-23	1.5756E-21
HE++	0.	1.6508E-82	1.0156E-77
H	2.3773E-01	4.8718E-01	5.7676E-01
H+	8.0104E-11	1.0404E-08	3.5446E-08
H2	7.1817E-01	4.7500E-01	3.8766E-01

P1 = 1.00E+02 N/SQ-M, USI= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7572E+02	1.7532E+03	2.3562E+03
T	1.1492E+01	1.5542E+01	1.7001E+ 1
RHO	1.1883E+01	7.0225E+01	8.1674E+01
H	2.9178E+01	5.2296E+01	6.1062E+01
A	3.4825E+00	4.6407E+00	5.1085E+00
S	1.4032E+00	1.5435E+00	1.5703E+ 0
Z	1.2850E+00	1.6055E+00	1.7257E+00
GAME	8.1867E-01	8.6306E-01	8.8952E-01
U	1.0667E+01	1.8014E+00	1.8125E+00

SPECIES	---------- MOLE FRACTIONS		
E-	1.4046E-09	3.1966E-07	1.3669E-06
HE	3.8790E-02	3.1144E-02	2.8575E-02
HE+	1.4027E-25	2.5627E-19	1.1079E-17
HE++	7.8757E-91	4.7972E-69	6.7574E-64
H	4.4840E-01	7.5426E-01	8.4162E-01
H+	1.4046E-09	3.1966E-07	1.3669E-06
H2	5.1281E-01	2.1463E-01	1.3001E-01

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SC-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0071E+02	2.1082E+03	2.8979E+03
T	1.1510E+01	1.6645E+01	1.8890E+01
RHO	1.2488E+01	7.4109E+01	8.3501E+ 1
H	3.3083E+01	5.9632E+01	7.0010E+01
A	3.6248E+00	5.0131E+00	5.7167E+00
S	1.4447E+00	1.5674E+00	1.6253E+00
Z	1.3456E+00	1.7091E+00	1.8372E+00
GAME	8.2155E-01	8.8342E-01	9.4165E-01
U	1.1431E+01	1.9264E+00	2.0026E+00

SPECIES	MOLE FRACTIONS		
E-	3.2570E-09	1.0145E-06	6.8875E-06
HE	3.7049E-02	2.9255E-02	2.7215E-02
HE+	1.1400E-24	4.9489E-18	6.0876E-16
HE++	8.582CE-88	1.4107E-64	1.2807E-56
H	5.1805E-01	8.2980E-01	9.1139E-01
H+	3.2570E-09	1.0145E-06	6.8875E-06
H2	4.4490E-01	1.4094E-01	6.1385E-02

P1 = 1.00E+02 N/SC-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0[illegible]E+02	3.1775E+03	4.8743E+03
T	1.3232E+01	2.4561E+01	3.6663E+01
RHO	1.3847E+01	6.6830E+01	6.7546E+01
H	4.6257E+01	9.3907E+01	1.0569E+02
A	4.1317E+00	7.2854E+00	9.5246E+00
S	1.5775E+00	1.7177E+00	1.7863E+00
Z	1.5557E+00	1.[illegible]358E+00	1.9634E+00
GAME	9.3737E-01	1.1176E+00	1.007CE+00
U	1.3685E+01	2.3381E+00	3.5279E+00

SPECIES	MOLE FRACTIONS		
E-	3.3[illegible]E-09	2.2554E-06	1.0232E-02
HE	3.2143E-02	2.5829E-02	2.5401E-02
HE+	2.8[illegible]E-22	3.3580E-12	4.5780E-08
HE++	2.0154E-32	3.3405E-43	4.6602E-28
H	7.1433E-01	9.6614E-01	9.5527E-01
H+	3.3402E-09	2.2954E-06	1.0232E-02
H2	2.534HE-01	7.5687E-03	3.6125E-04

P1 = 1.00E+02 N/SC-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2727E+02	2.4804E+03	3.4840E+ 3
T	1.2332E+01	1.8112E+01	2.2847E+01
RHO	1.3030E+01	7.5677E+01	7.9334E+01
H	3.7238E+01	6.7388E+01	8.0518E+ 1
A	3.7558E+00	5.4941E+00	6.8753E+00
S	1.4877E+00	1.6205E+00	1.6854E+00
Z	1.4146E+00	1.8096E+00	1.9222E+00
GAME	8.2607E-01	9.2095E-01	1.0776E+00
U	1.2188E+02	2.0993E+00	2.3945E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.3618E-09	3.8570E-06	8.5882E-05
HE	3.535CE-02	2.7630E-02	2.6012E-02
HE+	7.5805E-24	1.3236E-16	3.6138E-13
HE++	2.1512E-86	3.4453E-59	1.4588E-46
H	5.8600E-01	8.9480E-01	9.5524E-01
H+	7.3618E-09	3.8570E-06	8.5882E-05
H2	3.7865E-01	7.7567E-02	1.4572E-02

P1 = 1.00E+02 N/SC-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1618E+02	4.4754E+03	5.5418E+03
T	1.3744E+01	2.9582E+01	4.1297E+01
RHO	1.4122E+01	8.0390E+01	6.7168E+01
H	5.1200E+01	9.2350E+01	1.1788E+02
A	4.3544E+00	8.0324E+00	9.4581E+00
S	1.6239E+00	1.7564E+00	1.8216E+00
Z	1.5214E+00	1.9494E+00	1.9978E+00
GAME	8.4573E-01	1.1044E+00	9.5104E-01
U	1.4432E+01	3.3941E+00	3.8315E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.2322E-09	1.7521E-05	2.4455E-02
HE	3.0652E-02	2.5452E-02	2.5027E-02
HE+	1.7732E-21	5.1259E-16	4.2049E-07
HE++	1.8164E-77	3.4985E-55	1.3050E-24
H	7.7350E-01	9.6106E-01	9.2556E-01
H+	7.2322E-09	1.7521E-05	2.4455E-02
H2	1.9544E-01	2.1881E-03	5.0612E-04

P1 = 1.00E+02 N/SC-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5539E+02	2.8473E+03	4.1777E+03
T	1.2768E+01	2.0489E+01	3.0222E+01
RHO	1.3486E+01	7.3385E+01	7.0521E+01
H	4.1643E+01	7.5488E+01	9.3133E+01
A	3.9671E+00	6.2485E+00	8.0636E+00
S	1.5321E+00	1.6719E+00	1.7449E+00
Z	1.4832E+00	1.8937E+00	1.9452E+00
GAME	8.3107E-01	1.0063E+00	1.1039E+00
U	1.2542E+01	2.3805E+00	3.0404E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5740E-09	2.3063E-05	1.9130E-03
HE	3.3710E-02	2.6404E-02	2.5652E-02
HE+	4.7960E-23	1.1159E-14	7.2434E-10
HE++	2.8502E-83	4.6165E-52	1.3499E-34
H	6.5160E-01	9.4373E-01	9.6818E-01
H+	1.5740E-09	2.3063E-05	1.9130E-03
H2	3.1469E-01	2.9771E-02	2.3392E-03

P1 = 1.00E+02 N/SC-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4972E+02	5.7752E+03	6.1744E+03
T	1.4340E+01	3.4503E+01	4.4876E+01
RHO	1.4233E+01	9.0779E+01	6.7633E+ 1
H	5.6350E+01	1.0133E+02	1.3006E+02
A	4.3852E+00	9.3549E+00	9.1837E+00
S	1.6705E+00	1.7906E+00	1.8537E+00
Z	1.5048E+00	1.9617E+00	2.0343E+00
GAME	8.5753E-01	1.0312E+00	9.2385E- 1
U	1.5152E+01	3.8066E+00	4.0402E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.6424E-07	6.9275E-03	4.1806E-02
HE	2.5252E-02	2.5488E-02	2.4577E-02
HE+	1.3483E-22	1.5240E-03	1.6737E-06
HE++	3.6150E-76	6.9330E-30	1.9467E-22
H	8.2961E-01	9.5972E-01	8.9146E-01
H+	1.6624E-07	6.9275E-03	4.1804E-02
H2	1.4113E-01	9.4134E-04	3.5643E-04

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SC-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8252E+02	4.0759E+03	6.7414E+03
T	1.5C90E+01	3.8499E+01	4.7815E+01
RHO	1.4198E+01	5.3476E+01	6.7935E+01
H	6.1745E+01	1.1078E+02	1.4233E+ 2
A	4.9657E+00	8.5092E+00	9.5008E+ C
S	1.7179E+00	1.8221E+00	1.8848E+CC
Z	1.7E67E+00	1.9819E+00	2.0754E+ C
GAME	8.7E12E-01	9.7148E-01	9.0564E-01
U	1.588UE+01	4.2106E+00	4.19C6E+CC

SPECIES	MOLE FRACTIONS		
E-	4.2804E-07	1.6624E-02	6.C672E-C2
HE	2.7965E-02	2.5229E-02	2.4C88E-C2
HE+	1.2597E-19	1.3249E-17	4.4629E-C6
HE++	1.101AE-69	1.2412E-26	6.8837E-21
H	8.8C91E-01	9.4098E-01	8.5430E-01
H+	4.2804E-07	1.6624E-02	6.C667E-C2
H2	9.1405E-02	5.4637E-04	2.7146E-04

P1 = 1.00E+02 N/SC-M, US1= 2.50E+04 M/SEC

	MOVIAC SHOCK	STANDING SHOCK	REFLECTED SHICK
P	4.E61JE+02	4.3592E+03	7.0395E+03
T	2.1187E+01	4.646UE+01	5.3048E+01
RHO	1.1812E+01	4.5144E+01	5.9112E+01
H	7.9268E+01	1.4079E+02	1.7826E+ 2
A	6.8275E+00	9.3376E+00	1.0312E+ 1
S	1.8480E+00	1.9197E+00	1.9846E+00
Z	1.9423E+00	2.0784E+00	2.2115E+00
GAME	1.1326E+00	9.0295E-01	8.9252E-01
U	1.7770E+01	4.5478E+00	4.4328E+00

SPECIES	MOLE FRACTIONS		
E-	8.5E25E-05	6.1965E-02	1.1E39E-01
HE	2.5742E-02	2.4C54E-02	2.2583E-02
HE+	8.1757E-14	3.5170E-06	2.5655E-05
HE++	1.5565E-49	2.1161E-21	3.6211E-18
H	7.7C11E-01	8.5182E-01	7.4C5CE-01
H+	8.5825E-05	6.1961E-02	1.1837E-01
H2	3.5683E-03	1.9731E-04	1.3213E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1729E+02	4.3417E+03	7.1704E+03
T	1.6165E+01	4.1760E+01	5.0256E+01
RHO	1.3877E+01	5.1759E+01	6.7259E+01
H	6.7378E+01	1.2071E+02	1.5468E+02
A	5.2565E+00	8.8638E+00	9.8038E+00
S	1.7642E+00	1.9531E+00	1.9162E+00
Z	1.8801E+00	2.0095E+00	2.1156E+00
GAME	9.1957E-01	9.3648E-01	9.0158E-01
U	1.6574E+01	4.4359E+00	4.3054E+00

SPECIES	-------	--- MOLE FRACTIONS	----------
E-	1.4526E-06	2.9985E-02	8.0217E-02
HE	2.6880E-02	2.4881E-02	2.3580E-02
HE+	2.6326E-18	5.7440E-07	9.4032E-06
HE++	2.6107E-65	1.9254E-24	1.0243E-19
H	9.2480E-01	9.1478E-01	8.1577E-01
H+	1.4526E-06	2.9984E-02	8.0207E-02
H2	4.6316E-02	3.7163E-04	2.1362E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2031E+02	4.2421E+03	6.7394E+ 3
T	2.5119E+01	4.8212E+01	5.5170E+01
RHO	1.0626E+01	4.1360E+01	5.4050E+01
H	8.5511E+01	1.5092E+02	1.8965E+ 2
A	7.4483E+00	9.5573E+00	1.0523E+01
S	1.9820E+00	1.9537E+00	2.0197E+00
Z	1.9494E+00	2.1172E+00	2.2564E+00
GAME	1.1330E+00	8.9488E-01	8.9047E-01
U	1.8290E+01	4.6716E+00	4.4661E+00

SPECIES	----------	MOLE FRACTIONS	----------
E-	7.4276E-04	7.9102E-02	1.3666E-01
HE	2.5649E-02	2.3610E-02	2.2103E-02
HE+	1.5812E-11	6.4135E-06	3.6848E-05
HE++	2.7431E-41	1.7600E-20	1.2748E-17
H	9.7181E-01	8.1803E-01	7.0447E-01
H+	7.4276E-04	7.9055E-02	1.3663E-01
H2	1.0561E-03	1.5123E-04	1.0445E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5213E+02	4.4549E+03	7.2983E+ 3
T	1.8013E+01	4.4398E+01	5.2316E+ 1
RHO	1.3054E+01	4.9132E+01	6.4422E+01
H	7.3229E+01	1.3080E+02	1.6679E+02
A	5.9272E+00	9.1114E+00	1.0078E+ 1
S	1.9084E+00	1.9853E+00	1.9453E+00
Z	1.9172E+00	2.0422E+00	2.1655E+00
GAME	1.0175E+00	9.1559E-01	8.9654E-01
U	1.7213E+01	4.5841E+00	4.3870E+00

SPECIES	----------	MOLE FRACTIONS	----------
E-	8.5594E-06	4.5430E-02	9.9671E-02
HE	2.6080E-02	2.4481E-02	2.3073E-02
HE+	2.2929E-16	1.6483E-06	1.6658E-05
HE++	9.7661E-59	1.4402E-22	7.9738E-19
H	9.5677E-01	8.8439E-01	7.7742E-01
H+	8.5554E-06	4.5429E-02	9.9655E-02
H2	1.7136E-02	2.6552E-04	1.6883E-04

P1 = 1.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5033E+02	4.2375E+03	6.6359E+03
T	2.8918E+01	4.9879E+01	5.6545E+ 1
RHO	9.8375E+00	3.9352E+01	5.0883E+01
H	9.2002E+01	1.6157E+02	2.0175E+02
A	7.7531E+00	9.7888E+00	1.0772E+01
S	1.9117E+00	1.9858E+00	2.0591E+00
Z	1.9553E+00	2.1585E+00	2.3079E+00
GAME	1.0628E+00	8.9584E-01	8.6924E-01
U	1.8836E+01	4.7091E+00	4.5102E+00

SPECIES	----------	MOLE FRACTIONS	----------
E-	3.3569E-03	9.6864E-02	1.5517E-01
HE	2.5565E-02	2.3153E-02	2.1612E-02
HE+	6.7033E-10	1.0817E-05	5.2092E-05
HE++	2.1197E-35	1.1409E-19	4.3162E-17
H	9.6731E-01	7.8300E-01	6.6797E-01
H+	3.3569E-03	9.6853E-02	1.5512E-01
H2	4.1365E-04	1.2039E-04	8.4444E-05

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9528E+02	4.3715E+03	6.7738E+03
T	3.2133E+01	5.1572E+01	5.8065E+01
RHO	9.4[illegible]1E+00	3.0460E+01	4.9404E+01
H	5.8775E+01	1.7304E+02	2.1496E+02
A	7.9149E+00	1.0041E+01	1.1041E+01
S	1.9383E+00	2.0161E+00	2.0650E+00
Z	1.9675E+00	2.2043E+00	2.3612E+00
GAME	5.9091E-01	8.0694E-01	8.8911E-01
U	1.9436E+01	4.7624E+00	4.5723E+00

SPECIES	MOLE FRACTIONS		
E-	9.0990E-03	1.1533E-01	1.7421E-01
HE	2.5413E-02	2.2669E-02	2.1102E-02
HE+	8.0155E-05	1.7526E-05	7.3784E 05
HE++	1.6173E-31	6.5421E-19	1.5183E-16
H	9.5617E-01	7.4657E-01	6.3040E 01
H+	9.0990E-03	1.1531E-01	1.7414E-01
H2	2.2275E-04	9.8669E-05	6.9659E-05

P1 = 1.00E+02 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7550E+02	5.7243E+03	8.6275E+03
T	4.0522E+01	5.8457E+01	6.5090E+01
RHO	9.2829E+00	4.0547E+01	5.0851E+01
H	1.2866E+02	2.2611E+02	2.7742E+02
A	8.6062E+00	1.1190E+01	1.2328E+ 1
S	2.0352E+00	2.1308E+00	2.2081E+00
Z	2.0627E+00	2.4134E+00	2.6066E+00
GAME	8.6614E-01	8.8689E-01	8.9575E-01
U	2.2175E+01	5.0801E+00	4.9455E+00

SPECIES	MOLE FRACTIONS		
E-	5.4696E-02	1.9207E-01	2.5193E-01
HE	2.4240E-02	2.0629E-02	1.8503E-02
HE+	7.5817E-07	8.8890E-05	2.7920E-04
HE++	2.8282E-24	2.6078E-16	2.0701E-14
H	8.6630E-01	5.9518E-01	4.7721E-01
H+	5.4695E-02	1.9199E-01	2.5165E-01
H2	6.8029E-05	5.1108E-05	3.4340E-05

P1 = 1.00E+02 N/SQ-M, USI= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3651E+02	4.6100E+03	7.0767E+ 3
T	3.4786E+01	5.3291E+01	5.9710E+01
RHO	9.2225E+00	3.8408E+01	4.9015E+01
H	1.0583E+02	1.8530E+02	2.2922E+02
A	8.0695E+00	1.0310E+01	1.1335E+01
S	1.9637E+00	2.0454E+00	2.1161E+00
Z	1.9853E+00	2.2523E+00	2.4160E+00
GAME	9.4290E-01	8.8556E-01	8.8986E-01
U	2.0080E+01	4.8233E+00	4.6488E+00

SPECIES	MOLE FRACTIONS		
E-	1.7512E-02	1.3431E-01	1.9361E-01
HE	2.5185E-02	2.2172E-02	2.0514E-02
HE+	4.3979E-08	2.7462E-05	1.0420E-04
HE++	7.5187E-29	3.3794E-18	5.3638E-16
H	9.3884E-01	7.0912E-01	5.9215E-01
H+	1.7512E-02	1.3429E-01	1.9351E-01
H2	1.4525E-04	8.2584E-05	5.8150E-05

P1 = 1.00E+02 N/SQ-M, USI= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8103E+02	4.9281E+03	7.5102E+03
T	3.6978E+01	5.6026E+01	6.1447E+ 1
RHO	9.1739E+00	3.8878E+01	4.9318E+01
H	1.1317E+02	1.9829E+02	2.4448E+02
A	8.2393E+00	1.0593E+01	1.1653E+01
S	1.9886E+00	2.0741E+00	2.1468E+00
Z	2.0077E+00	2.3036E+00	2.4782E+ 0
GAME	9.1433E-01	8.6527E-01	8.9131E-01
U	2.0759E+01	4.9306E+00	4.7407E+00

SPECIES	MOLE FRACTIONS		
E-	2.6881E-02	1.9357E-01	2.1320E-01
HE	2.4904E-02	2.1663E-02	2.0029E-02
HE+	1.4884E-07	4.1746E-05	1.4630E-04
HE++	6.2336E-27	1.5786E-17	1.8749E-15
H	9.1727E-01	6.7113E-01	5.5353E-01
H+	2.6861E-02	1.9353E-01	2.1305E-01
H2	1.0645E-04	7.0031E-05	4.8806E-05

P1 = 1.00E+02 N/SQ-M, USI= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7833E+02	6.6754E+03	9.9850E+03
T	4.3414E+01	6.1962E+01	6.8915E+01
RHO	9.5110E+00	4.2561E+01	5.2811E+01
H	1.4520E+02	2.5613E+02	3.1326E+02
A	8.9857E+00	1.1918E+01	1.3058E+01
S	2.0818E+00	2.1876E+00	2.2698E+00
Z	2.1271E+00	2.5313E+00	2.7435E+00
GAME	8.7435E-01	8.9047E-01	9.0180E-01
U	2.3629E+01	5.2842E+00	5.1886E+00

SPECIES	MOLE FRACTIONS		
E-	8.3300E-02	2.2967E-01	2.8926E-01
HE	2.3504E-02	1.9579E-02	1.7714E-02
HE+	2.5472E-06	1.7339E-04	5.1085E-04
HE++	1.5914E-22	3.1488E-15	1.5786E-13
H	8.0585E-01	5.2103E-01	4.0375E-01
H+	8.3297E-02	2.2950E-01	2.8874E-01
H2	4.8569E-05	3.7356E-05	2.3679E-05

P1 = 1.00E+02 N/SQ-M, USI= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8736E+02	7.7479E+03	1.1533E+04
T	4.5941E+01	6.5450E+01	7.2951E+01
RHO	9.7786E+00	4.4577E+01	5.4757E+01
H	1.6276E+02	2.8816E+02	3.5179E+02
A	9.3701E+00	1.2475E+01	1.3839E+ 1
S	2.1286E+00	2.2448E+00	2.3321E+00
Z	2.1595E+00	2.6557E+00	2.8871E+00
GAME	8.6527E-01	8.9540E-01	9.0929E-01
U	2.5058E+01	5.5105E+00	5.4560E+00

SPECIES	MOLE FRACTIONS		
E-	1.1309E-01	2.6574E-01	3.2460E-01
HE	2.2736E-02	1.8511E-02	1.6415E-02
HE+	5.2003E-06	3.1707E-04	9.0278E-04
HE++	5.2537E-21	3.0037E-14	1.6839E-12
H	7.5105E-01	4.4998E-01	3.3436E-01
H+	1.1303E-01	2.6543E-01	3.2370E-01
H2	3.6499E-05	2.6927E-05	1.5745E-05

Table III. - Continued

P_1 = 100 N/m^2

P1 = 1.00E+02 N/SC-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1037E+03	3.9218E+03	1.3247E+04
T	4.8243E+01	6.9003E+01	7.7274E+01
RHO	1.0052E+01	4.5422E+01	5.6472E+01
H	1.8133E+02	3.2208E+02	3.9258E+02
A	5.7594E+00	1.3162E+01	1.4677E+ 1
S	2.1754E+00	2.3023E+00	2.3955E+00
Z	2.2759E+00	2.7852E+00	3.0355E+00
GAMS	8.5749E-01	9.0145E-01	9.1835E-01
U	2.8573E+01	5.7592E+00	5.7543E+00

SPECIES	MOLE FRACTIONS		
E-	1.4321E-01	2.9989E-01	3.5762E-01
HE	2.1957E-02	1.7309E-02	1.4521E-02
HE+	1.2841E-03	5.5300E-04	1.5508E-03
HE++	7.7231E-20	2.4117E-13	1.3261E-11
H	8.5139E-01	3.8285E-01	2.6583E-01
H+	1.4330E-01	2.9934E-01	3.5607E-01
H2	2.8099E-05	1.8942E-05	9.9406E-06

P1 = 1.00E+02 N/SC-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4905E+03	1.2929E+04	1.9308E+04
T	5.4493E+01	8.0722E+01	9.3714E+01
RHO	1.0782E+01	5.0186E+01	5.9121E+01
H	2.4309E+02	4.3479E+02	5.3368E+02
A	1.0972E+01	1.5454E+01	1.7742E+01
S	2.3211E+00	2.4763E+00	2.5854E+00
Z	2.5367E+00	3.1914E+00	3.4749E+00
GAMS	8.7090E-01	9.2706E-01	9.3386E-01
U	3.0958E+01	6.6618E+00	6.9107E+00

SPECIES	MOLE FRACTIONS		
E-	2.3130E-01	3.8899E-01	4.4044E-01
HE	1.9642E-02	1.3227E-02	7.9727E-03
HE+	6.8485E-05	2.4396E-03	6.3750E-03
HE++	3.8137E-17	7.0132E-11	5.8460E-09
H	5.1775E-01	2.0879E-01	1.1114E-01
H+	2.3123E-01	3.8655E-01	4.3407E-01
H2	1.3071E-05	5.1327E-06	1.4639E-06

P1 = 1.00E+02 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.22[illegible]E+03	1.01[illegible]E+04	1.5117E+04
T	5.04[illegible]E+01	7.26[illegible]E+01	8.2014E+01
RHO	1.03[illegible]E+01	4.90[illegible]E+01	5.7E44E+ 1
H	2.00[illegible]E+02	3.57[illegible]E+02	4.3688E+02
A	1.01[illegible]E+01	1.38[illegible]E+01	1.5565E+01
S	2.02[illegible]E+00	2.36[illegible]E+00	2.4582E+00
Z	2.35[illegible]E+00	2.[illegible]E+00	3.1[illegible]E+00
GAMF	8.67[illegible]E-01	9.[illegible]E-01	9.2942E-01
U	2.[illegible]E+01	6.[illegible]E+00	6.0836E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	1.7316E-01	3.3194E-01	3.8807E-01
HE	2.1178E-02	1.6198E-02	1.3658E-02
HE+	2.3944E-05	9.3193E-04	2.5924E-03
HE++	7.7573E-19	1.7183E-12	1.0626E-10
H	6.3247E-01	3.1992E-01	2.1076E-01
H+	1.7314E-01	3.3100E-01	3.8547E-01
H2	2.1772E-05	1.2872E-05	5.8520E-06

P1 = 1.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.35[illegible]E+03	1.15[illegible]E+04	1.7140E+ 4
T	5.24[illegible]E+01	7.6560[illegible]E+01	9.7386E+01
RHO	1.05[illegible]E+01	4.92[illegible]E+01	5.8762E+01
H	2.21[illegible]E+02	3.9[illegible]E+02	4.8375E+02
A	1.05[illegible]E+01	1.46[illegible]E+01	1.6591E+01
S	2.27[illegible]E+00	2.[illegible]E+00	2.5219E+ 0
Z	2.44[illegible]E+00	3.[illegible]E+00	3.3379E+00
GAME	8.[illegible]E-01	9.17[illegible]E-01	9.4369E-01
U	2.[illegible]E+01	6.[illegible]E+00	6.4689E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.02[illegible]E-01	3.61[illegible]E-01	4.1580E-01
HE	2.04[illegible]E-02	1.4840E-02	1.0795E-02
HE+	4.1543[illegible]E-05	1.5274E-03	4.1E50E-03
HE++	5.5802[illegible]E-18	1.1246E-11	7.5603E-10
H	5.7439[illegible]E-01	2.[illegible]181E-01	1.5761E-01
H+	2.0256E-01	3.6014E-01	4.1161E-01
H2	1.6912E-05	8.3644E-06	3.1272E-06

P1 = 1.00E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6319E+03	1.4374E+04	2.1637E+04
T	5.6450E+01	8.5289E+01	1.0167E+02
RHO	1.0976E+01	5.0668E+01	5.8751E+01
H	2.6568E+02	4.7577E+02	5.8740E+02
A	1.1397E+01	1.6324E+01	1.9150E+01
S	2.37C9E+00	2.5340E+00	2.6489E+00
Z	2.6819E+00	3.3261E+00	3.6223E+ 0
GAME	8.7[illegible]3E-01	9.3938E-01	9.9578E-01
U	2.2466[illegible]E+01	7.0389E+00	7.4566E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.5909E-01	4.1374E-01	4.6167E-01
HE	1.8889E-02	1.1258E-02	4.5118E-03
HE+	1.0888E-04	3.7744E-03	8.8515E-03
HE++	2.1202E-16	4.2537E-10	4.9357E-08
H	4.6293E-01	1.6127E-01	7.1749E-02
H+	2.5858E-01	4.0956E-01	4.5278E-01
H2	1.0003E-05	2.9287E-06	5.6069E-07

P1 = 1.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7754E+03	1.5847E+04	2.4163E+04
T	5.8492E+01	9.0448E+01	1.1264E+02
RHO	1.1141E+01	5.0697E+01	5.7349E+01
H	2.8527E+02	5.1838E+02	6.4617E+02
A	1.1836E+01	1.7263E+01	2.1006E+01
S	2.4211E+00	2.5910E+00	2.7125E+00
Z	2.7303E+00	3.4560E+00	3.7407E+00
GAME	8.7713E-01	9.5559E-01	1.0473E+00
U	2.3927E+01	7.4615E+00	8.1841E+00

SPECIES ---------- MOLE FRACTIONS ----------

E-	2.8585E-01	4.3577E-01	4.7871E-01
HE	1.8143E-02	8.8872E-03	2.3154E-03
HE+	1.6872E-04	5.5804E-03	1.1050E-02
HE++	1.0666E-15	2.5626E-09	5.1306E-07
H	4.1014E-01	1.1958E-01	4.0259E-02
H+	2.8569E-01	4.3019E-01	4.6766E-01
H2	7.5463E-06	1.5218E-06	1.56C5E-07

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SC-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9329E+03	1.7322E+04	2.69C2E+C4
T	6.0525E+01	9.6477E+01	1.28C6E+02
RHO	1.1276E+01	5.C154E+01	5.4959E+C1
M	3.1385E+02	5.6247E+02	7.1C74E+C2
A	1.2291E+01	1.8378E+01	2.33C5E+C1
S	2.4719E+00	2.6469E+00	2.7735E+CC
Z	2.8323E+0C	3.5769E+00	3.8224E+C0
GAME	8.8120E-01	9.7873E-01	1.1C55E+CC
U	3.5383E+01	7.9533E+00	9.1236E+CC

SPECIES	MOLE FRACTICNS		
E-	3.1151E-01	4.5484E-C1	4.8586E-C1
HE	1.7397E-02	5.2571E-03	8.7C46E-C4
HE+	2.5703E-C4	7.7213E-03	1.2204E-C2
HE++	5.0C82E-15	1.5634E-08	6.5C51E-C6
H	3.5957E-C1	8.4C61E-C2	1.9425E-02
H+	3.1125E-01	4.4712E-01	4.7764E-C1
H2	5.5E53E-C6	6.9907E-07	3.C849E-C8

P1 = 1.00E+02 N/SC-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.42[illegible]E+C3	2.1361E+04	3.0352E+C4
T	6.713[illegible]E+01	1.2456E+02	1.965CE+ 2
RHO	1.1481E+01	4.4929E+01	4.7051E+C1
M	3.9355E+02	7.0157E+02	9.3613E+ 2
A	1.3784E+01	2.297CE+01	2.9158E+C1
S	2.6263E+00	2.8014E+00	2.9319E+CC
Z	3.1510E+00	3.9250E+00	3.9C38E+CC
GAME	8.982[illegible]E-01	1.1C89E+00	1.1114E+CC
U	3.9657E+01	1.0158E+01	1.2826E+C1

SPECIES	MOLE FRACTICNS		
E-	3.E116E-C1	4.9028E-01	5.0C48E-C1
HE	1.4992E-02	6.797[illegible]E-04	7.4593E-C5
HE+	8.7548E-C4	1.2185E-02	9.4623E-03
HE++	4.3975E-13	4.[illegible]E-C6	3.2713E-C3
H	2.2269E-01	1.[illegible]E-02	2.2314E-C3
H+	3.8028E-01	4.7804E-01	4.8448E-C1
H2	1.9044E-C6	2.37J1E-C8	2.5E06E-1C

P1 = 1.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0924E+03	1.8766E+04	2.9851E+04
T	6.2620E+01	1.0383E+02	1.4889E+02
RHO	1.1378E+01	4.9072E+01	5.1931E+01
H	3.3943E+02	6.0790E+02	7.8249E+02
A	1.2764E+01	1.9682E+01	2.5734E+01
S	2.5231E+00	2.7011E+00	2.8318E+00
Z	2.9367E+00	3.6833E+00	3.8660E+00
GAME	8.8598E-01	1.0130E+00	1.1505E+00
U	3.6836E+01	8.5352E+00	1.0343E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.3599E-01	4.7059E-01	4.9560E-01
HE	1.6638E-02	3.7706E-03	3.2489E-04
HE+	3.8764E-04	9.8040E-03	1.2522E-02
HE++	2.2532E-14	9.9660E-08	8.6223E-05
H	3.1138E-01	5.5354E-02	8.5526E-03
H+	3.3560E-01	4.6078E-01	4.8291E-01
H2	4.0343E-06	2.7256E-07	4.9710E-05

P1 = 1.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2577E+03	2.0105E+04	3.3004E+04
T	6.4822E+01	1.1335E+02	1.7324E+02
RHO	1.1442E+01	4.7200E+01	4.9012E+01
H	3.6600E+02	6.5429E+02	8.5904E+02
A	1.3264E+01	2.1242E+01	2.7760E+01
S	2.5751E+00	2.7530E+00	2.8858E+00
Z	3.0441E+00	3.7679E+00	3.8870E+00
GAME	8.9164E-01	1.0594E+00	1.1444E+00
U	3.8269E+01	9.2843E+00	1.1664E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.5941E-01	4.8247E-01	4.9833E-01
HE	1.5841E-02	1.9208E-03	1.4760E-04
HE+	5.8400E-04	1.1348E-02	1.1929E-02
HE++	1.0043E-13	6.7880E-07	7.8720E-04
H	2.6534E-01	3.3135E-02	3.9831E-03
H+	3.5883E-01	4.7112E-01	4.8483E-01
H2	2.8161E-06	8.7249E-08	9.1332E-10

P1 = 1.00E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4605E+03	2.2453E+04	3.7069E+04
T	6.7041E+01	1.1881E+02	1.8857E+02
RHO	1.1477E+01	4.8087E+01	4.9578E+01
H	4.2209E+02	7.4939E+02	1.0137E+03
A	1.4342E+01	2.4691E+01	3.0661E+01
S	2.6780E+00	2.8467E+00	2.9728E+00
Z	3.2553E+00	3.8595E+00	3.9217E+00
GAME	9.0622E-01	1.1430E+00	1.1111E+00
U	4.1114E+01	1.1201E+01	1.3840E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.0171E-01	4.9475E-01	5.0276E-01
HE	1.4018E-02	4.0898E-04	3.3201E-05
HE+	1.3225E-03	1.2514E-02	5.7396E-03
HE++	1.5544E-12	3.1957E-05	6.5768E-03
H	1.8257E-01	1.0125E-02	1.4167E-03
H+	4.0038E-01	4.8217E-01	4.8207E-01
H2	1.2224E-06	6.3156E-09	9.5246E-11

P1 = 1.00E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7867E+03	2.5405E+04	4.2068E+04
T	7.2411E+01	1.2342E+02	2.0333E+02
RHO	1.1431E+01	3.9326E+01	4.9923E+01
H	4.5160E+02	7.5776E+02	1.0359E+03
A	1.4944E+01	2.6232E+01	3.3075E+01
S	2.7294E+00	2.8895E+00	3.0138E+00
Z	3.3666E+00	3.9731E+00	3.9360E+00
GAME	9.1552E-01	1.1563E+00	1.1422E+00
U	4.2813E+01	1.2349E+01	1.4962E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.2078E-01	4.9717E-01	5.0458E-01
HE	1.2843E-02	2.1081E-04	1.1340E-05
HE+	2.0084E-03	1.2502E-02	2.6134E-03
HE++	9.4752E-12	1.7996E-04	1.0078E-02
H	1.4560E-01	5.6269E-03	9.1527E-04
H+	4.1677E-01	4.8431E-01	4.8181E-01
H2	7.3773E-07	1.5548E-09	3.6799E-11

Table III. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9732E+03	2.4277E+04	4.5011E+04
T	7.5537E+01	1.6893E+02	2.7064E+02
RHO	1.1339E+01	3.6951E+01	4.2175E+ 1
H	4.8208E+02	8.4723E+02	1.1819E+03
A	1.5559E+01	2.7433E+01	3.5303E+01
S	2.7805E+00	2.9279E+00	3.0504E+00
Z	3.4712E+00	3.8893E+00	3.9434E+ 0
GAME	9.2758E-01	1.1455E+00	1.1678E+00
U	4.3858E+01	1.3464E+01	1.6158E+01

SPECIES	MOLE FRACTIONS		
E-	4.3824E-01	4.9862E-01	5.0550E-01
HE	1.1349E-02	1.2360E-04	3.4858E-06
HE+	3.0551E-03	1.1992E-02	1.0670E-03
HE++	4.7974E-11	7.4061E-04	1.1609E-02
H	1.1218E-01	3.3747E-03	6.0457E-04
H+	4.3518E-01	4.8515E-01	4.8122E-01
H2	4.1158E-07	5.0314E-10	1.4917E-11

P1 = 1.00E+02 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5562E+03	2.6232E+04	5.2409E+04
T	8.8691E+01	2.1445E+02	3.6253E+02
RHO	1.0717E+01	3.1163E+01	3.6570E+01
H	5.7516E+02	1.0020E+03	1.4557E+03
A	1.8202E+01	3.0574E+01	4.1196E+01
S	2.9272E+00	3.0345E+00	3.1528E+00
Z	3.7413E+00	3.9252E+00	3.9487E+00
GAME	9.9843E-01	1.1105E+00	1.1842E+ 0
U	4.7877E+01	1.6453E+01	1.9829E+01

SPECIES	MOLE FRACTIONS		
E-	4.7879E-01	5.0321E-01	5.0617E-01
HE	4.4947E-03	2.1709E-05	1.5034E-07
HE+	8.8698E-03	5.2208E-03	1.1605E-04
HE++	9.5165E-09	7.4955E-03	1.2546E-02
H	3.7933E-02	1.0454E-03	2.0692E-04
H+	4.6552E-01	4.8300E-01	4.8096E-01
H2	3.6144E-08	3.5804E-11	1.4334E-12

P1 = 1.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1641E+03	2.5058E+04	4.7825E+ 4
T	7.5152E+01	1.8443E+02	3.0078E+02
RHO	1.1155E+01	3.4839E+01	4.0289E+ 1
H	5.1352E+02	8.5778E+02	1.2718E+03
A	1.6331E+01	2.8369E+01	3.7410E+ 1
S	2.83C8E+CC	2.9648E+00	3.C868E+ C
Z	3.5709E+00	3.9000E+00	3.9466E+CC
GAME	5.43e4E-01	1.1189E+0C	1.1790E+CC
U	4.5258E+01	1.4529E+01	1.7425E+01

SPECIES	MOLE FRACTIONS		
E-	4.5350E-01	4.9999E-01	5.0591E-01
HE	9.4158E-03	7.4623E-05	1.0817E-06
HE+	4.5869E-03	1.0521E-02	4.4618E-04
HE++	2.6214E-1C	2.2253E-03	1.2222E-02
H	8.2782E-02	2.1610E-03	4.0664E-04
H+	4.4931E-01	4.8502E-01	4.8102E-01
H2	2.C8675-C7	1.8424E-10	6.2624E-12

P1 = 1.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3584E+03	2.5696E+04	5.0235E+04
T	8.35C2E+01	1.9946E+02	3.3102E+02
RHO	1.0979E+01	3.2926E+01	3.8440E+ 1
H	5.4588E+02	9.4933E+02	1.3622E+03
A	1.7189E+01	2.9333E+01	3.9316E+01
S	2.8807E+00	3.0005E+00	3.1201E+CC
Z	3.6634E+0C	3.9125E+00	3.948CE+1C
GAME	5.6552E-01	1.1026E+00	1.1828E+CC
U	4.6582E+01	1.5523E+01	1.86C3E+01

SPECIES	MOLE FRACTIONS		
E-	4.6770E-01	5.0160E-01	5.C6C8E-01
HE	7.CCC4E-C3	4.2531E-05	3.8733E-C7
HE+	6.6482E-C3	8.0139E-03	2.1602E-04
HE++	1.5867E-09	4.7230E-03	1.2448E-02
H	5.7554E-02	1.4732E-03	2.6665E-04
H+	4.6105E-01	4.8414E-01	4.8C97E-01
H2	9.2412E-C8	7.7653E-11	2.9305E-12

P1 = 1.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7543E+03	2.6417E+04	5.3773E+04
T	9.5436E+01	2.2964E+02	3.9430E+02
RHO	1.0339E+01	2.9234E+01	3.4534E+01
H	6.1327E+02	1.0545E+03	1.5481E+03
A	1.9455E+01	3.1959E+01	4.2951E+01
S	2.9730E+CC	3.0676E+00	3.1844E+CC
Z	3.8C48E+00	3.9351E+00	3.9491E+CC
GAME	1.0467E+00	1.1331E+00	1.1847E+1C
U	4.91C3E+01	1.7354E+01	2.0966E+01

SPECIES	MOLE FRACTIONS		
E-	4.8749E-01	5.0446E-01	5.0622E-01
HE	2.3244E-03	9.9918E-06	6.5218E-08
HE+	1.C817E-02	3.0182E-03	7.0242E-05
HE++	7.2326E-C8	9.6775E-03	1.2591E-02
H	2.2654E-02	7.5538E-04	1.5389E-04
H+	4.7667E-01	4.3208E-01	4.8097E-01
H2	1.1342E-C8	1.7059E-11	7.4358E-13

Table III. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, USI= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3CE7E+C1	5.6540E+C1
T	2.0248E+00	3.5088E+00	4.9517E+00
RHO	3.9378E+00	6.5823E+00	1.1418E+01
H	2.0E81E+00	3.61C1E+00	5.1955E+00
A	1.0757E+00	1.4601E+00	2.1876E+00
S	1.0E42E+00	1.0E60E+00	1.073CE+00
Z	1.0CCCE+00	1.0000E+00	1.0000E+00
GAME	9.9407E-01	9.8638E-01	5.6643E- 1
U	2.3175E+00	1.3854E+00	1.2213E+00

SPECIES	MOLE FRACTIONS		
E-	2.1695E-64	9.1138E-46	1.0234E-25
HE	5.0000E-02	5.0000E-02	4.9999E-02
HE+	5.5882E-73	4.9483E-62	1.1105E-52
HE++	0.	0.	0.
H	5.8882E-11	5.2577E-09	2.1478E-05
H+	6.3460E-20	6.3460E-20	6.3400E-20
H2	9.5000E-01	9.5000E-01	9.4598E-01

P1 = 2.00E+02 N/SQ-M, USI= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4873E+01	1.2567E+02	2.3150E+02
T	6.4403E+00	9.6205E+00	9.9101E+00
RHO	5.4106E+00	1.4784E+01	2.2532E+01
H	6.5656E+00	1.0528E+01	1.3673E+01
A	2.4952E+00	2.7358E+00	2.9249E+00
S	1.4424E+00	1.1542E+00	1.1750E+00
Z	1.0CC9E+00	1.0174E+00	1.0473E+00
GAME	9.3134E-01	8.5336E-01	8.3265E-01
U	4.4316E+00	1.6203E+00	1.4001E+00

SPECIES	MOLE FRACTIONS		
E-	1.1500E-14	1.1813E-13	6.5599E-12
HE	4.9554E-02	4.9147E-02	4.7744E-02
HE+	3.1033E-4F	1.337AE-33	9.0276E-3C
HE++	0.	0.	0.
H	1.E533E-03	3.4137E-02	9.0240E-02
H+	1.2134E-13	1.1813E-13	6.5595E-12
H2	9.4819E-01	9.1672E-01	8.6202E-01

P1 = 2.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6594E+01	1.0157E+02
T	3.8703E+00	5.1611E+00	6.5664E+00
RHO	4.5267E+00	9.0260E+00	1.4614E+01
H	3.9996E+00	5.4336E+00	7.6343E+00
A	1.9491E+00	2.2298E+00	2.5349E+ 0
S	1.0E46E+00	1.0889E+00	1.1C85E+00
Z	1.0000E+00	1.0000E+00	1.0016E+00
GAME	9.8154E-01	9.6331E-01	9.2057E-01
U	3.7256E+00	1.5160E+00	1.3550E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.5192E-42	8.2747E-27	3.6253E-18
HE	5.0000E-02	4.9999E-02	4.9521E-02
HE+	1.7372E-60	4.1473E-51	1.3862E-39
HE++	0.	0.	0.
N	2.4984E-07	5.2227E-05	3.1547E-03
N+	6.3460E-20	6.3459E-20	3.6E87E-18
N2	9.5000E-01	9.4995E-01	9.4692E-01

P1 = 2.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6179E+01	2.0220E+02	3.3116E+02
T	7.6793E+00	9.8268E+00	1.0797E+01
RHO	5.9659E+00	1.9570E+01	2.8065E+01
H	8.6459E+00	1.3921E+01	1.7462E+01
A	2.6C69E+00	2.9252E+00	3.1229E+ 0
S	1.1700E+00	1.1892E+00	1.2176E+ 0
Z	1.0079E+00	1.0514E+00	1.0953CE+ 0
GAME	8.7351E-01	8.3049E-01	8.2646E-01
U	5.1714E+00	1.5751E+00	1.3574E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.8722E-15	7.5886E-12	9.4C89E-11
HE	4.9607E-02	4.7556E-02	4.5745E-02
HE+	1.5129E-37	9.5006E-30	1.7648E-27
HE++	0.	0.	0.
N	1.5722E-02	9.7746E-02	1.7C18E-01
N+	2.8723E-15	7.5886E-12	9.4089E-11
N2	9.3407E-01	8.5470E-01	7.84C7E-01

P1 = 2.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5410E+01	8.0323E+01	1.5548E+02
T	5.0594E+00	7.0128E+00	8.6275E+00
RHO	4.3870E+00	1.1432E+01	1.8157E+01
H	5.3584E+00	7.7099E+00	1.0452E+01
A	2.2162E+00	2.5374E+00	2.7408E+00
S	1.1141E+00	1.1214E+00	1.1423E+ 0
Z	1.0003E+00	1.0019E+00	1.0158E+00
GAME	9.6402E-01	9.1628E-01	8.5714E-01
U	3.7255E+00	1.5236E+00	1.4060E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	6.7237E-22	3.3404E-17	9.6541E-14
HE	4.9999E-02	4.9903E-02	4.9221E-02
HE+	6.0705E-52	7.6892E-41	1.8743E-34
HE++	0.	0.	0.
N	5.4240E-06	3.8703E-03	3.1148E-02
N+	6.3405E-20	3.3468E-17	9.6541E-14
N2	9.4995E-01	9.4622E-01	9.1963E-01

P1 = 2.00E+02 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9483E+01	2.0660E+02	4.7367E+02
T	8.6247E+00	1.0842E+01	1.1723E+01
RHO	6.7232E+00	2.5727E+01	3.5C93E+01
H	1.0991E+01	1.7892E+01	2.1911E+01
A	2.7217E+00	3.1370E+00	3.3413E+00
S	1.1583E+00	1.2274E+00	1.2593E+00
Z	1.0025E+00	1.0097E+00	1.1514E+00
GAME	8.3E55E-01	8.2534E-01	8.2714E-01
U	5.9505E+00	1.5543E+00	1.4119E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.1328E-13	1.1658E-10	7.4831E-10
HE	4.8745E-02	4.5466E-02	4.3425E-02
HE+	1.5442E-33	5.3771E-27	3.5333E-25
HE++	0.	0.	0.
N	5.C2C8E-02	1.8137E-01	2.6300E-01
N+	2.1328E-13	1.1659E-10	7.4831E-10
N2	9.C105E-01	7.7316E-01	6.9358E-01

Table III. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3009E+02	1.0845E+03	1.5139E+03
T	1.1007E+01	1.4354E+01	1.5419E+01
RHO	1.0081E+01	5.4254E+01	6.5934E+01
H	2.2107E+01	3.8804E+01	4.5643E+ 1
A	3.2500E+00	4.1108E+00	4.4364E+00
S	1.3300E+00	1.4092E+00	1.4574E+00
Z	1.1724E+00	1.3926E+00	1.4851E+00
GAMF	8.1648E-01	8.4539E-01	8.5722E-01
U	9.0933E+00	1.6902E+00	1.6408E+00

SPECIES	MOLE FRACTIONS		
E-	3.2506E-10	5.5777E-08	1.5646E-07
HE	4.2649E-02	3.5905E-02	3.3577E-02
HE+	1.0597E-26	6.1390E-21	1.8260E-19
HE++	0.	4.4945E-75	1.1258E-69
H	2.5405E-01	5.6381E-01	6.5651E-01
H+	3.2506E-10	5.5777E-08	1.9646E-07
H2	6.6330E-01	4.0029E-01	3.0951E-01

P1 = 2.30E+02 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.461[illegible]+01	4.4677E+02	6.6249E+02
T	9.354[illegible]+00	1.1759E+01	1.2625E+01
RHO	7.976[illegible]+00	3.2770E+01	4.2557E+01
H	1.5354[illegible]+01	2.2360E+01	2.6570E+01
A	2.945[illegible]+00	3.3574E+00	3.5804E+00
S	1.2283E+00	1.2686E+00	1.3047E+00
Z	1.0528[illegible]+00	1.1595[illegible]+00	1.2215E+00
GAME	8.2441[illegible]-01	4.2677E-01	8.3149E-01
U	6.7412[illegible]+00	1.5556[illegible]+00	1.4439E+00

SPECIES	MOLE FRACTIONS		
E-	3.0241E-12	8.4666E-10	4.0408E-09
HE	4.7452[illegible]-02	4.3123E-02	4.0535E-02
HE+	1.1241E-31	4.2247E-25	1.8842E-23
HE++	0.	2.2371E-51	1.0163E-84
H	1.0030[illegible]-01	2.7506E-01	3.6261E-01
H+	3.0241E-12	9.4566E-10	4.0408E-09
H2	4.5221E-01	6.8191E-01	5.9645E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.1463E+01	6.2324E+02	8.9838E+02
T	5.9652E+00	1.2631E+01	1.3521E+01
RHO	8.3443E+00	4.9153E+01	5.1045E+01
H	1.6693E+01	2.7385E+01	3.2613E+01
A	2.3733E+00	3.3916E+00	3.8355E+00
S	1.2802E+00	1.3131E+00	1.3531E+00
Z	1.0869E+00	1.2288E+00	1.3015E+00
GAME	8.1513E-01	8.3109E-01	8.3772E-01
U	7.5410E+00	1.5841E+00	1.4528E+00

SPECIES	MOLE FRACTIONS		
E-	2.0943E-11	4.2517E-09	1.6086E-08
HE	4.6032E-02	4.0698E-02	3.8416E-02
HE+	1.6951E-23	1.8801E-23	5.5119E-22
HE++	0.	1.1077E-84	5.0666E-79
H	1.5951E-01	3.7240E-01	4.6335E-01
H+	2.0943E-11	4.2517E-09	1.6086E-08
H2	7.9403E-01	5.8691E-01	4.9823E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5194E+02	1.3668E+03	1.8947E+03
T	1.1481E+01	1.5263E+01	1.6521E+01
RHO	1.0817E+01	6.0292E+01	7.1905E+01
H	2.5511E+01	4.5215E+01	5.3081E+01
A	3.3936E+00	4.4041E+00	4.7947E+00
S	1.3676E+00	1.4600E+00	1.5127E+00
Z	1.2228E+00	1.4853E+00	1.5949E+00
GAME	8.2038E-01	8.5560E-01	8.7245E-01
U	9.8663E+00	1.7705E+00	1.7469E+00

SPECIES	MOLE FRACTIONS		
E-	9.4057E-10	1.7089E-07	6.3198E-07
HE	4.0851E-02	3.3663E-02	3.1350E-02
HE+	1.1755E-25	1.1780E-19	3.0158E-18
HE++	5.4433E-91	6.2237E-70	2.9412E-65
H	3.6436E-01	6.5347E-01	7.4601E-01
H+	9.4057E-10	1.7089E-07	6.3198E-07
H2	5.5477E-01	3.1286E-01	2.2264E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0559E+02	9.3634E+02	1.1822E+03
T	1.0503E+01	1.3488E+01	1.4439E+01
RHO	9.2671E+00	4.7449E+01	5.0861E+01
H	1.9553E+01	3.2863E+01	3.8833E+01
A	3.1121E+00	3.6418E+00	4.1225E+00
S	1.2941E+00	1.3601E+00	1.4040E+00
Z	1.1270E+00	1.3068E+00	1.3910E+00
GAME	8.1782E-01	8.3736E-01	8.4619E-01
U	8.3161E+00	1.6281E+00	1.5566E+00

SPECIES	MOLE FRACTIONS		
E-	9.4363E-11	1.6618E-08	5.9511E-08
HE	4.4347E-02	3.8261E-02	3.5946E-02
HE+	6.4524E-28	4.4761E-22	1.0605E-20
HE++	0.	1.5616E-78	2.4819E-74
H	2.2532E-01	4.6958E-01	5.6217E-01
H+	9.4363E-11	1.6618E-08	5.9511E-08
H2	7.3031E-01	4.9216E-01	4.0188E-01

P1 = 2.00E+02 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7517E+02	1.6753E+03	2.3246E+03
T	1.1546E+01	1.6258E+01	1.7871E+01
RHO	1.1482E+01	6.5224E+01	7.6236E+01
H	2.9164E+01	5.2079E+01	6.1158E+01
A	3.5439E+00	4.7305E+00	5.2277E+00
S	1.4078E+00	1.5120E+00	1.5693E+00
Z	1.2778E+00	1.5836E+00	1.7061E+00
GAME	8.2316E-01	8.6917E-01	8.9633E-01
U	1.0833E+01	1.9723E+00	1.8854E+00

SPECIES	MOLE FRACTIONS		
E-	2.4187E-05	5.0710E-07	2.1543E-06
HE	3.9129E-02	3.1574E-02	2.9307E-02
HE+	1.0664E-24	1.6603E-18	6.3015E-17
HE++	1.7040E-87	5.3303E-66	3.6178E-60
H	4.3485E-01	7.3704E-01	8.2770E-01
H+	2.4187E-05	5.0710E-07	2.1543E-06
H2	5.2602E-01	2.3138E-01	1.4299E-01

Table III. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0011E+02	2.0173E+03	2.8077E+ 3
T	1.2394E+01	1.7420E+01	1.98C0E+ 1
RHO	1.2C72E+01	6.8719E+01	7.80?3E+C1
M	3.3C69E+01	5.9392E+01	7.0162E+C1
A	3.7018E+00	5.1086E+00	5.8251E+CC
S	1.4479E+CC	1.5646E+0C	1.6270E+CC
Z	1.3374E+00	1.6852E+00	1.8168E+CC
GAME	8.2671E-01	8.8902E-01	9.4328E-C1
U	1.1356E+01	2.0024E+00	2.C833E+ 1C

SPECIES	---------- POLE FRACTIONS ----------		
E-	5.7364E-C5	1.5493E-06	9.8486E-C6
HE	3.7386E-02	2.9670E-02	2.7521E-02
HE+	8.8814E-24	2.4868E-17	2.5258E-15
HE++	2.3914E-86	1.3331E-61	3.57C6E-54
H	5.C457E-C1	8.1319E-01	8.9512E-C1
H+	5.7364E-09	1.5490E-C6	9.8486E-C6
H2	4.5805E-01	1.5714E-01	7.3338E C2

P1 = 2.CCE+C2 N/SC-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8419E+02	3.C4c8E+03	4.c929E+03
T	1.382[illegible]E+01	2.4E48E+01	3.7153E+C1
RHO	1.3342E+01	6.1656E+01	8.4342E+C1
M	4.6479E+01	8.3531E+01	1.05E1E+C2
A	4.2373E+CC	7.2575E+00	8.EE44E+CC
S	1.5765E+0C	1.7134E+00	1.7842E+0C
Z	1.54[illegible]3E+00	1.92515+00	1.9E3[illegible]E+CC
GAME	8.4293E-01	1.0551E+0C	1.02[illegible]1E+0C
U	1.3E49E+01	2.9EC5E+00	3.5E74E+0C

SPECIES	---------- POLE FRACTIONS ----------		
E-	5.E2C[illegible]E-C3	1.8995E-C4	9.2553E-C3
HE	3.2460E-02	2.5973E-02	2.5465E-02
HE+	2.C511E-21	3.4397E-12	4.4C34E-Cb
HE++	4.C453E-77	7.4C66E-43	9.2[illegible]8E-28
H	7.C159E-C1	9.[illegible]53E-01	9.5646E-C1
H+	5.82[illegible]E-C4	1.4995E-04	9.2553E-C3
H2	2.[illegible]55E-01	1.3122E-02	1.[illegible]58E-C3

P1 = 2.00E+02 N/SC-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2660E+02	2.3712E+03	3.3631E+
T	1.2853E+01	1.8915E+01	2.3422E+01
RHO	1.2582E+01	7.0225E+01	7.5250E+01
H	3.7222E+01	6.7118E+01	8.0492E+01
A	3.8687E+00	5.5821E+00	6.8626E+00
S	1.4903E+00	1.6168E+00	1.6852E+00
Z	1.4012E+00	1.7851E+00	1.9071E+00
GAME	8.3105E-01	9.2282E-01	1.0543E+00
U	1.2152E+01	2.1777E+00	2.4357E+00

SPECIES	MOLE FRACTIONS		
E-	1.2789E-08	5.3862E-06	8.8069E-05
HE	3.5683E-02	2.8009E-02	2.6217E-02
HE+	5.8166E-23	5.1330E-16	5.7242E-13
HE++	4.5488E-83	7.4297E-57	1.4159E-45
H	5.7267E-01	8.7963E-01	9.5104E-01
H+	1.2789E-08	5.3862E-06	8.8069E-05
H2	3.9165E-01	9.2353E-02	2.2570E-02

P1 = 2.00E+02 N/SC-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1523E+02	3.3365E+03	5.3419E+03
T	1.4337E+01	2.5752E+01	4.2287E+01
RHO	1.3577E+01	5.7072E+01	6.3471E+01
H	5.1182E+01	9.2073E+01	1.1802E+02
A	4.4465E+00	8.0330E+00	9.0314E+00
S	1.6242E+00	1.7528E+00	1.8201E+00
Z	1.6148E+00	1.9044E+00	1.9903E+00
GAME	8.5154E-01	1.1154E+00	9.6915E-01
U	1.4387E+01	3.3870E+00	3.9128E+00

SPECIES	MOLE FRACTIONS		
E-	1.2471E-07	1.0946E-03	2.1112E-02
HE	3.0964E-02	2.5714 -02	2.5122E-02
HE+	1.2579E-20	3.9468E-10	4.6127E-07
HE++	3.2113E-74	2.2601E-35	3.0095E-24
H	7.6144E-01	9.6757E-01	9.3177E-01
H+	1.2471E-07	1.0946E-03	2.1112E-02
H2	2.0763E-01	4.1237E-03	4.8334E-04

P1 = 2.00E+02 N/SC-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5464E+02	2.7239E+03	4.0170E+ 3
T	1.3326E+01	2.1145E+01	3.0283E+01
RHO	1.3007E+01	6.8817E+01	6.8231E+01
H	4.1626E+01	7.5204E+01	9.2846E+01
A	4.0463E+00	6.2626E+00	8.0950E+00
S	1.5339E+00	1.6670E+00	1.7404E+00
Z	1.4650E+00	1.8719E+00	1.9441E+00
GAME	8.3635E-01	9.0085E-01	1.1131E+00
U	1.2904E+01	2.4413E+00	3.0374E+00

SPECIES	MOLE FRACTIONS		
E-	2.7475E-08	2.5590E-05	1.4065E-03
HE	3.4037E-02	2.6711E-02	2.5719E-02
HE+	3.4926E-22	2.4143E-14	5.5045E-10
HE++	4.9849E-80	1.1413E-50	8.7088E-35
H	6.3851E-01	9.3150E-01	9.6704F-01
H+	2.7475E-08	2.5590E-05	1.4065E-03
H2	3.2745E-01	4.1736E-02	4.4307E-03

P1 = 2.00E+02 N/SC-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4787E+02	3.6179E+03	5.9570E+ 3
T	1.5010E+01	3.4710E+01	4.6266E+01
RHO	1.3859E+01	2.3285E+01	6.3557E+01
H	5.0329E+01	1.0097E+02	1.3036E+02
A	4.6821E+00	8.4565E+00	9.3763E+ 0
S	1.6653E+00	1.7879E+00	1.8526E+00
Z	1.6512E+00	1.9566E+00	2.0245E+ 0
GAME	8.6360E-01	1.0553E+00	9.3859E-01
U	1.5117E+01	3.4859E+00	4.1451E+00

SPECIES	MOLE FRACTIONS		
E-	2.7817E-07	5.2773E-03	3.7423E-02
HE	2.9564E-02	2.5951E-02	2.4695E-02
HE+	3.4916E-20	1.2485E-08	1.5563E-06
HE++	2.5416E-71	5.6054E-30	5.9035E-22
H	8.1742E-01	9.6214E-01	8.9564E-01
H+	2.7817E-07	5.2773E-03	3.7426E-02
H2	1.5301E-01	1.7543E-03	6.1279E-04

Table III. - Continued

p_1 = 200 N/ m^2

P1 = 2.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.814UE+02	3.8573E+03	6.5113F+03
T	1.5789F+01	3.9032E+01	4.9541E+01
RHO	1.3660E+01	5.0566E+01	6.3655E+01
H	6.1722F+01	1.1034F+02	1.4279E+02
A	4.9646E+00	8.7532E+00	9.7108E+ 0
S	1.7165E+00	1.8196E+00	1.8837E+00
Z	1.7684E+00	1.9746E+00	2.0636E+00
GAME	8.8277E-01	9.9412E-01	9.2238F-01
U	1.5834E+01	4.2741E+00	4.3223E+00

SPECIES	MOLE FRACTIONS		
E-	6.8971E-07	1.3455F-02	5.5532E-02
HE	2.6275E-02	2.5321F-02	2.4223F-02
HE+	7.1347E-19	1.2542E-07	5.5447E-06
HE++	9.5911E-69	2.2475E-26	2.4427E-20
H	8.6500E-01	9.4679E-01	8.6425E-01
H+	6.8971E-07	1.3455E-02	5.5526E-02
H2	1.0272E-01	9.8249E-04	4.8216E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3573E+02	4.2684E+03	7.0284E+03
T	2.1423E+01	4.7968E+01	5.6466E+01
RHO	1.1710E+01	4.3120E+01	5.6660E+01
H	7.5258E+01	1.4034E+02	1.7953E+02
A	6.7821E+00	9.5240E+00	1.0585E+01
S	1.8451E+00	1.9155E+00	1.9814E+00
Z	1.9363E+00	2.0636E+00	2.1960E+00
GAME	1.1083E+00	9.1635E-01	9.0363E-01
U	1.7755E+01	4.9172E+00	4.6234E+00

SPECIES	MOLE FRACTIONS		
E-	7.3671E-05	5.5413E-02	1.1227E-01
HE	2.5822E-02	2.4225E-02	2.2733E-02
HE+	8.3878E-14	4.1673E-06	3.4823E-05
HE++	2.2555E-49	6.4369E-21	1.7889E-17
H	9.6689E-01	8.6403E-01	7.5251E-01
H+	7.3671E-05	5.5409E-02	1.1223E-01
H2	7.1436E-03	3.4740E-04	2.2804E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1614E+02	4.1477E+03	6.9534E+03
T	1.0856E+01	4.2625E+01	5.2320E+01
RHO	1.3404E+01	4.8671E+01	6.3102E+ 1
H	6.7353E+01	1.2016E+02	1.5530E+02
A	5.3406E+00	9.3158E+00	1.0031E+01
S	1.7615E+00	1.8505E+00	1.9148E+00
Z	1.8419E+00	1.9993E+00	2.1061E+00
GAME	9.1859E-01	9.5466E-01	9.1319E-01
U	1.6528E+01	4.5505E+00	4.4555E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.0578E-06	2.5314E-02	7.4499E-02
HE	2.7146E-02	2.5008E-02	2.3728E-02
HE+	1.1990E-17	6.0080E-07	1.2045E-05
HE++	3.1473E-63	5.7534E-24	4.0597E-19
H	9.1417E-01	9.2371E-01	8.2691E-01
H+	2.0579E-06	2.5313E-02	7.4487E-02
H2	5.8679E-02	6.5046E-04	3.6387E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2010E+02	4.1719E+03	6.7644E+ 3
T	2.5235E+01	4.9957E+01	5.7980E+01
RHO	1.0585E+01	3.9758E+01	5.2044E+01
H	8.5505E+01	1.5047E+02	1.9108E+02
A	7.4744E+00	9.7552E+00	1.0821E+01
S	1.8799E+00	1.9490E+00	2.0159E+00
Z	1.9471E+00	2.1004E+00	2.2417E+00
GAME	1.1370E+00	9.0692E-01	9.0090E-01
U	1.8233E+01	4.8641E+00	4.6624E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	5.5405E-04	7.1886E-02	1.3031E-01
HE	2.5673E-02	2.3797E-02	2.2254E-02
HE+	1.2791E-11	7.8686E-06	5.0604E-05
HE++	2.3319E-41	6.0892E-20	6.5788E-17
H	9.7118E-01	8.3217E-01	7.1655E-01
H+	5.5405E-04	7.1878E-02	1.3026E-01
H2	2.0357E-03	2.3587E-04	1.3094E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5122E+02	4.2952E+03	7.1613E+ 3
T	1.8553E+01	4.0585E+01	5.4637E+01
RHO	1.2781E+01	4.6427E+01	6.0943E+01
H	7.3209E+01	1.3025E+02	1.6766E+02
A	5.9257E+00	9.2808E+00	1.0327E+01
S	1.8052E+00	1.8821E+00	1.9471E+00
Z	1.9023E+00	2.0256E+00	2.1507E+00
GAME	9.9600E-01	9.3101E-01	9.0755E-01
U	1.7176E+01	4.7277E+00	4.5552E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	9.5771E-06	3.9665E-02	9.3608E-02
HE	2.6277E-02	2.4634E-02	2.3226E-02
HE+	5.2116E-16	1.8375E-06	2.1952E-05
HE++	3.0763E-57	3.4534E-22	3.4599E-18
H	9.4889E-01	8.9557E-01	7.8527E-01
H+	9.5771E-06	3.9663E-02	9.3586E-02
H2	2.4813E-02	4.6697E-04	2.8899E-04

P1 = 2.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5595E+02	4.1545E+03	6.6415E+03
T	2.9129E+01	5.1807E+01	5.9454E+01
RHO	9.7701E+00	3.7471E+01	4.8756E+01
H	9.1589E+01	1.6105E+02	2.0218E+02
A	7.8545E+00	9.8943E+00	1.1069E+ 1
S	1.9103E+00	1.9810E+00	2.0491E+00
Z	1.9535E+00	2.1401E+00	2.2857E+00
GAME	1.0843E+00	9.0091E-01	8.9940E-01
U	1.9822E+01	4.9054E+00	4.7124E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.5602E-03	5.9034E-02	1.4849E-01
HE	2.5559E-02	2.3350E-02	2.1766E-02
HE+	5.6857E-10	1.3533E-05	7.1621E-05
HE++	1.9131E-33	4.1745E-19	2.2322E-16
H	9.6643E-01	7.9537E-01	5.8111E-01
H+	2.5602E-03	5.9021E-02	1.4842E-01
H2	7.0593E-04	2.1065E-04	1.4626E-04

Table III. - Continued

p_1 = 200 N/ m^2

P1 = 2.0CE+C2 N/SC-M, USI= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9432E+02	4.2570E+03	6.7239E+C3
T	3.2582C+01	5.3653E+01	6.1133E+C1
RHO	9.2894E+00	3.6346E+01	4.6986E+C1
H	9.8744E+01	1.723	2.1628E+ 2
A	8.C569E+00	1.02	1.1343E+C1
S	1.9377E+00	2.01	2.08C8E+CC
Z	1.9E38E+CC	2.18	2.3409E+CC
GAME	1.0146E+00	8.9729E-01	8.99C3E- 1
U	1.9404E+01	4.9548E+00	4.7775E+CC

SPECIES	MOLE FRACTIONS		
E-	7.3429E-C3	1.C639E-01	1.6710E-C1
HE	2.5463E-C2	2.2883E-02	2.1259E-C2
HE+	7.7650E-09	2.2125E-C5	1.CC86E-C4
HE++	2.5C49E-31	2.4567E-18	7.6233E-16
H	9.5944E-01	7.6317E-01	6.4443E-C1
H+	7.3423E-03	1.0687E-01	1.6700E-C1
H2	4.123CE-C4	1.7212E-C4	1.2C57E-C4

P1 = 2.0CE+C2 N/SC-M, USI= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7310E+02	5.4740E+03	8.4081E+C3
T	4.1823E+01	6.1178E+01	6.6748E+C1
RHO	9.0107E+00	3.7550E+01	4.7452E+C1
H	1.2657E+C2	2.2480E+02	2.7852E+C2
A	8.7786E+00	1.1429E+01	1.2665E+C1
S	2.0345E+CC	2.1234E+0C	2.2C16E+CC
Z	2.0514E+00	2.3829E+0C	2.5774E+CC
GAME	8.9820E-C1	8.8596E-01	9.0527E-C1
U	2.2C55E+01	5.3037E+00	5.1766E+CC

SPECIES	MOLE FRACTIONS		
E-	4.5554E-C2	1.8174E-C1	2.4349E-C1
HE	2.4372E-02	2.0870E-02	1.9C27E-C2
HE+	9.5843E-C7	1.1333E-C4	3.7198E-C4
HE++	1.0741E-23	9.9425E-16	9.3724E-14
H	8.7638E-C1	6.1556E-C1	4.9394E-01
H+	4.5563E-02	1.8163E-01	2.4311E-C1
H2	1.1921E-C4	8.9324E-05	6.C145E-05

P1 = 2.CC[illegible]+C2 N/SC-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3546E+C2	4.4627E+03	6.9831E+C3
T	3.5471E+01	5.5521E+01	6.29C8E+ 1
RHO	9.0511E+00	3.6061E+01	4.6336E+C1
H	1.05795+02	1.8445E+02	2.3046E+C2
A	8.2234E+00	1.0527E+01	1.1644E+ 1
S	1.9631E+00	2.04C2E+00	2.1115E+CC
Z	1.9753E+CC	2.2290E+00	2.3956E+ C
GAME	9.6319E-01	8.9541E-01	8.9562E-C1
U	2.0034E+01	5.0248E+00	4.8595E+CC

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5C68E-02	1.2530E-01	1.8611E-C1
HE	2.5261E-02	2.2357E-02	2.0730E-C2
HE+	4.6775E-08	3.4849E-05	1.4168E-04
HE++	1.6195E-28	1.2798E-17	2.6276E-15
H	9.4434E-01	7.2666E-01	6.0694E-C1
H+	1.5057E-02	1.2526E-01	1.8597E-C1
H2	2.6325E-04	1.4381E-04	1.0073E-C4

P1 = 2.CCE+02 N/SC-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7478E+02	6.3557E+03	9.6862E+C3
T	4.5C26E+C1	6.4948E+01	7.2889E+C1
RHO	9.1949E+00	3.9209E+01	4.9012E+C1
H	1.45C9E+02	2.5455E+C2	3.1438E+ 2
A	9.1729E+00	1.2074E+01	1.3412E+ 1
S	2.0EC6E+0C	2.1792E+00	2.2611E+1C
Z	2.1133E+00	2.4556E+0C	2.7C86E+CC
GAME	8.8440E-01	8.9931E-01	9.1119E-C1
U	2.3534E+01	5.5210E+00	5.4259E+CC

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.72CBE-C2	2.187oE-01	2.8011E-C1
HE	2.3669E-02	1.9813E-02	1.7754E-C2
HE+	3.3321E-06	2.2034E-04	6.6612E-C4
HE++	8.7599E-22	1.1934E-14	8.3455E-13
H	8.2218E-01	5.4259E-01	4.2194E-C1
H+	7.7205E-02	2.1834E-01	2.7544E-C1
H2	8.4573E-05	6.5806E-05	4.2234E-C5

P1 = 2.CCE+C2 N/SC-M, US1= 3.C0E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7514E+02	4.7447E+03	7.3711E+C3
T	3.7e55E+01	5.7402E+01	6.476oE+C1
RHO	8.9618E+CC	3.6288E+01	4.6372E+C1
H	1.1311E+02	1.9726E+02	2.4563E+12
A	8.3992E+00	1.0810E+01	1.1967E+C1
S	1.9375E+00	2.0694E+00	2.1417E+CC
Z	1.9999E+CC	2.2776E+00	2.4535E+CC
GAME	9.3C91E-01	8.9479E-01	9.0C55E-C1
U	2.0700E+01	5.1144E+00	4.9541E+C0

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.51C5E-02	1.4403E-01	2.0531E-C1
HE	2.3022E-02	2.1893E-02	2.0181E-C2
HE+	1.7035E-07	5.3105E-05	1.9756E-C4
HE++	1.7336E-26	6.01E6E-17	3.9333E-15
H	9.2460E-01	6.8991E-01	5.6511E-C1
H+	2.5103E-02	1.4398E-01	2.0512E-C1
H2	1.3891E-04	1.2186E-04	8.4748E-C5

P1 = 2.CCE+C2 N/SC-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8353E+02	7.5549E+03	1.1156E+C4
T	4.7811E+01	6.8737E+01	7.73C2E+C1
RHO	9.4272E+00	4.0145+01	5.0668E+C1
H	1.6263E+02	2.8633E+C2	3.53C0E+ 2
A	9.5727E+00	1.2748E+01	1.4222E+C1
S	2.1266E+00	2.2346E+00	2.3221E+CC
Z	2.1E16E+00	2.6152E+00	2.8484E+CC
GAME	8.7E35E-01	9.0409E-01	9.1856E-C1
U	2.4552E+01	5.7620E+00	5.7123E+1C

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.C63JE-C1	2.5441E-C1	3.1544E-C1
HE	2.2959E-C2	1.8719E-02	1.6400E-C2
HE+	8.3154E-06	3.9963E-C4	1.1534E-C3
HE++	2.9C83E-2C	1.0958E-13	6.7C78E-12
H	7.6443E-01	4.7240E-01	3.5268E-C1
H+	1.0629E-C1	2.5401E-01	3.1429E-C1
H2	6.3403E-05	4.9146E-C5	2.8577E-C5

Table III. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, USI= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4834E+03	1.2194E+04	1.8549E+04
T	5.7242E+01	8.5081E+01	9.9245E+01
RHO	1.0325E+01	4.5783E+01	5.4521E+01
H	2.4291E+02	4.3195E+02	5.3518E+02
A	1.1238E+01	1.5774E+01	1.8164E+01
S	2.3148E+00	2.4580E+00	2.5667E+00
Z	2.5099E+00	3.1305E+00	3.4281E+00
GAME	8.7912E-01	9.3420E-01	9.6575E-01
U	3.0863E+01	6.9671E+00	7.2101E+00

SPECIES	MOLE FRACTIONS		
E-	2.2259E-01	3.7710E-01	4.3118E-01
HE	1.9830E-02	1.3203E-02	7.8724E-03
HE+	9.4167E-03	2.7690E-03	6.7129E-03
HE++	1.9747E-16	1.8884E-10	1.3201E-08
H	5.3418E-01	2.3258E-01	1.2977E-01
H+	2.2289E-01	3.7434E-01	4.2446E-01
H2	2.3079E-05	1.0403E-05	3.3314E-06

P1 = 2.00E+02 N/SQ-M, USI= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4834E+03	1.2194E+04	1.8549E+04
T	5.7242E+01	8.5081E+01	9.9245E+01
RHO	1.0325E+01	4.5783E+01	5.4521E+01
H	2.4291E+02	4.3195E+02	5.3518E+02
A	1.1238E+01	1.5774E+01	1.8164E+01
S	2.3148E+00	2.4580E+00	2.5667E+00
Z	2.5099E+00	3.1305E+00	3.4281E+00
GAME	8.7912E-01	9.3420E-01	9.6575E-01
U	3.0863E+01	6.9671E+00	7.2101E+00

SPECIES	MOLE FRACTIONS		
E-	2.2259E-01	3.7710E-01	4.3118E-01
HE	1.9830E-02	1.3203E-02	7.8724E-03
HE+	9.4167E-03	2.7690E-03	6.7129E-03
HE++	1.9747E-16	1.8884E-10	1.3201E-08
H	5.3418E-01	2.3258E-01	1.2977E-01
H+	2.2289E-01	3.7434E-01	4.2446E-01
H2	2.3079E-05	1.0403E-05	3.3314E-06

P1 = 2.00E+02 N/SQ-M, US1= 4.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2[illegible]E+03	9.5343E+03	1.4571E+04
T	5.2742E+01	7.0559E+01	8.7059E+01
RHO	9.[illegible]E+00	4.3478E+01	5.3332E+01
H	2.[illegible]E+02	3.5559E+02	4.3839E+02
A	1.[illegible]E+01	1.4189E+01	1.6JC8E+01
S	2.2197E+00	2.3462E+00	2.4441E+00
Z	2.[illegible]E+00	2.3681E+00	3.1382E+00
GAME	8.758[illegible]E-01	9.1690E-01	9.3790E-01
U	2.7933E+01	6.2116E+00	6.3731E+00

SPECIES	MOLE FRACTIONS		
E-	1.6544E-01	3.2014E-01	3.7663E-01
HE	2.[illegible]E-02	1.6303E-02	1.2867E-02
HE+	3.2[illegible]E-05	1.1326E-03	3.0653E-03
HE++	3.[illegible]E-13	5.[illegible]E-12	3.2375E-10
H	6.4772E-01	3.4339E-01	2.2586E-01
H+	1.6543E-01	3.1001E-01	3.7557E-01
H2	3.7[illegible]E-[illegible]	2.4061E-05	1.1421E-05

P1 = 2.00E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6246E+03	1.3549E+04	2.0756E+04
T	5.9434E+01	8.9833E+01	1.0720E+ 2
RHO	1.0505E+01	4.6252E+01	5.4320E+01
H	2.6548E+02	4.7268E+02	5.8873E+02
A	1.1678E+01	1.6643E+01	1.9520E+01
S	2.3631E+00	2.5136E+00	2.6279E+00
Z	2.6019E+00	3.2610E+00	3.5645E+00
GAME	8.8193E-01	9.4547E-01	9.9720E-01
U	3.2321E+01	7.3456E+00	7.7482E+00

SPECIES	MOLE FRACTIONS		
E-	2.5057E-01	4.0204E-01	4.5254E-01
HE	1.9067E-02	1.1237E-02	5.1198E-03
HE+	1.4923E-04	4.0951E-03	8.9074E-03
HE++	1.0850E-15	9.9936E-10	8.7135E-08
H	4.7977E-01	1.8468E-01	8.9002E-02
H+	2.5042E-01	3.9794E-01	4.4403E-01
H2	1.7815E-05	6.3172E-06	1.4639E-06

P1 = 2.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3492E+03	1.0884E+04	1.6465E+04
T	5.5302E+01	8.0183E+01	9.2711E+01
RHO	1.0[illegible]E+01	4.6973E+01	5.4150E+01
H	2.2133E+02	3.9289E+02	4.8523E+02
A	1.[illegible]E+01	1.4966E+01	1.7020E+01
S	2.2673E+00	2.4[illegible]E+00	2.5054E+00
Z	2.[illegible]E+00	2.9[illegible]E+00	3.2845E+00
GAME	8.7704E-01	9.2484E-01	9.5129E-01
U	2.9953E+01	6.5243E+00	6.7633E+00

SPECIES	MOLE FRACTIONS		
E-	1.9[illegible]E-01	3.4376E-01	4.0631E-01
HE	2.0[illegible]E-02	1.4372E-02	1.0546E-02
HE+	5.7112E-05	1.8313E-03	4.6765E-03
HE++	3.1[illegible]E-17	3.3815E-11	2.0777E-09
H	5.9023E-01	2.8558E-01	1.7682E-01
H+	1.9446E-01	3.4796E-01	4.0164E-01
H2	2.9665[illegible]E-05	1.6186E-05	8.5024E-06

P1 = 2.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7714E+03	1.4933E+04	2.3124E+04
T	6.1627E+01	9.5092E+01	1.1751E+02
RHO	1.0265E+01	4.6352E+01	5.3390E+01
H	2.6905E+02	5.1503E+02	6.4660E+02
A	1.2132E+01	1.7596E+01	2.1205E+01
S	2.4120E+00	2.5680E+00	2.6867E+00
Z	2.6577E+00	3.3881E+00	3.6858E+00
GAME	8.8538E-01	9.5992E-01	1.0392E+00
U	3.3773E+01	7.7685E+00	8.4185E+00

SPECIES	MOLE FRACTIONS		
E-	2.7718E-01	4.2445E-01	4.7054E-01
HE	1.8305E-02	8.9939E-03	2.7853E-03
HE+	2.2574E-04	5.7738E-03	1.0780E-02
HE++	5.3474E-15	5.0932E-09	6.4158E-07
H	4.2733E-01	1.4211E-01	5.5331E-02
H+	2.7695E-01	4.1958E-01	4.6016E-01
H2	1.3595E-05	3.5698E-06	5.1456E-07

Table III. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9243E+03	1.6323E+04	2.5653E+04
T	6.3849E+01	1.0108E+02	1.3168E+02
RHO	1.0777E+01	4.6029E+01	5.1606E+01
H	3.1362E+02	5.5888E+02	7.1018E+02
A	1.2602E+01	1.8639E+01	2.3307E+01
S	2.4612E+00	2.6228E+00	2.7488E+00
Z	2.7565E+00	3.5084E+00	3.7809E+00
GAME	8.8545E-01	9.7961E-01	1.0911E+00
U	3.5224E+01	8.2507E+00	9.3020E+00

SPECIES	MOLE FRACTIONS		
E-	3.0271E-01	4.4419E-01	4.8425E-01
HE	1.7533E-02	6.5816E-03	1.2748E-03
HE+	3.4661E-04	7.6659E-03	1.1944E-02
HE++	2.4357E-14	2.5594E-08	5.6806E-06
H	3.7704E-01	1.0503E-01	3.0231E-02
H+	3.0236E-01	4.3652E-01	4.7229E-01
H2	1.0192E-05	1.8386E-06	1.3497E-07

P1 = 2.03E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6118E+03	2.0225E+04	3.4323E+04
T	7.3983E+01	1.2717E+02	1.9697E+02
RHO	1.0967E+01	4.2051E+01	4.4784E+01
H	3.9326E+02	6.9773E+02	9.3201E+02
A	1.4133E+01	2.2857E+01	2.9383E+01
S	2.6105E+00	2.7750E+00	2.9068E+00
Z	3.1059E+00	3.7819E+00	3.8910E+00
GAME	9.0601E-01	1.0862E+00	1.1265E+00
U	3.9520E+01	1.0304E+01	1.2828E+01

SPECIES	MOLE FRACTIONS		
E-	3.7216E-01	4.8638E-01	4.9884E-01
HE	1.4983E-02	1.3370E-03	1.5812E-04
HE+	1.1156E-03	1.1880E-02	1.0581E-02
HE++	1.8172E-12	3.7346E-06	2.0109E-03
H	2.4069E-01	2.9905E-02	4.1748E-03
H+	3.7135E-01	4.7249E-01	4.8414E-01
H2	3.7176E-06	1.1149E-07	1.6983E-09

P1 = 2.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0830E+03	1.7652E+04	2.8466E+04
T	6.6126E+01	1.0813E+02	1.5062E+02
RHO	1.0871E+01	4.5227E+01	4.9212E+ 1
H	3.3518E+02	6.0410E+02	7.7999E+02
A	1.3090E+01	1.9849E+01	2.5637E+01
S	2.5108E+00	2.6756E+00	2.8063E+ 0
Z	2.8578E+00	3.6178E+00	3.8404E+00
GAME	8.9418E-01	1.0071E+00	1.1363E+ 0
U	3.6665E+01	8.8149E+00	1.0408E+01

SPECIES	MOLE FRACTIONS		
E-	3.2709E-01	4.6100E-01	4.9225E-01
HE	1.6739E-02	4.3159E-03	5.6520E-04
HE+	5.1570E-04	9.5044E-03	1.2399E-02
HE++	1.0527E-13	1.2966E-07	5.4661E-05
H	3.2907E-01	7.3674E-02	1.4596E-02
H+	3.2657E-01	4.5150E-01	4.7574E-01
H2	7.4889E-06	8.3840E-07	2.8499E-08

P1 = 2.00E+02 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5935E+03	2.1333E+04	3.7231E+04
T	7.3643E+01	1.3966E+02	2.2032E+02
RHO	1.0968E+01	3.9887E+01	4.3217E+01
H	4.2178E+02	7.4574E+02	1.0108E+03
A	1.4697E+01	2.4517E+01	3.0969E+01
S	2.6604E+00	2.8204E+00	2.9506E+00
Z	3.2109E+00	3.8295E+00	3.9101E+00
GAME	9.1344E-01	1.1238E+00	1.1118E+00
U	4.0931E+01	1.1247E+01	1.3936E+01

SPECIES	MOLE FRACTIONS		
E-	3.9270E-01	4.9080E-01	5.0129E-01
HE	1.3941E-02	7.0269E-06	7.9731E-05
HE+	1.6307E-03	1.2334E-02	7.4583E-03
HE++	7.5080E-12	2.0135E-05	5.2496E-03
H	2.0066E-01	1.7724E-02	2.5908E-03
H+	3.9107E-01	4.7842E-01	4.8334E-01
H2	2.4792E-06	3.4350E-08	6.0013E-10

P1 = 2.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2476E+03	1.9001E+04	3.1388E+04
T	5.8491E+01	1.1665E+02	1.7349E+02
RHO	1.0934E+01	4.3901E+01	4.6728E+01
H	3.6573E+02	6.5044E+02	8.5493E+02
A	1.3599E+01	2.1256E+01	2.7780E+01
S	2.5606E+00	2.7263E+00	2.8598E+00
Z	3.0012E+00	3.7105E+00	3.8717E+00
GAME	8.9966E-01	1.0437E+00	1.1489E+00
U	3.8098E+01	9.4972E+00	1.1648E+01

SPECIES	MOLE FRACTIONS		
E-	3.5026E-01	4.7446E-01	4.9634E-01
HE	1.5900E-02	2.5182E-03	2.8388E-04
HE+	7.6046E-04	1.0957E-02	1.2196E-02
HE++	4.4024E-13	6.7750E-07	4.3412E-04
H	2.8357E-01	4.8566E-02	7.4609E-03
H+	3.4950E-01	4.6350E-01	4.8328E-01
H2	5.3619E-06	3.3093E-07	6.0803E-09

P1 = 2.00E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7745E+03	2.3309E+04	4.0029E+04
T	7.6644E+01	1.5614E+02	2.6379E+02
RHO	1.0933E+01	3.7507E+01	4.1815E+01
H	4.5128E+02	7.9435E+02	1.0902E+03
A	1.5290E+01	2.5123E+01	3.2880E+01
S	2.7102E+00	2.8438E+00	2.9902E+00
Z	3.3157E+00	3.9500E+00	3.9267E+00
GAME	9.2229E-01	1.1473E+00	1.1293E+00
U	4.2330E+01	1.2311E+01	1.4830E+01

SPECIES	MOLE FRACTIONS		
E-	4.1188E-01	4.9448E-01	5.0340E-01
HE	1.2703E-02	3.8814E-04	3.3854E-05
HE+	2.3774E-03	1.2467E-02	4.1326E-03
HE++	3.1741E-11	1.0167E-04	9.5468E-03
H	1.4353E-01	1.0248E-02	1.7240E-03
H+	4.0951E-01	4.8201E-01	4.8214E-01
H2	1.5723E-06	1.0201E-08	2.4783E-10

Table III. - Continued

p_1 = 200 N/m^2

P1 = 2.00E+02 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.960[illegible]E+02	2.3188E+04	4.2864E+04
T	7.97[illegible]E+01	1.6948E+02	2.7014E+02
RHO	1.0859E+01	3.5297E+01	4.0295E+01
H	4.8174E+02	8.4378E+02	1.1752E+03
A	1.5949E+01	2.7492E+01	3.5080E+01
S	2.7598E+00	2.9037E+00	3.0284E+00
Z	3.4182E+00	3.8743E+00	3.9378E+00
GAMF	9.3307E-01	1.150[illegible]E+00	1.1568E+00
U	4.3712E+01	1.3408E+01	1.6068E+01

SPECIES	MOLE FRACTIONS		
E-	4.29[illegible]E-01	4.9694E-01	5.0480E-01
HE	1.1192E-02	2.2439E-04	1.2001E-05
HE+	3.43[illegible]E-03	1.2245E-02	1.9172E-03
HE++	1.3819E-10	4.1713E-04	1.0768E-02
H	1.2975E-01	4.2918E-03	1.1597E-03
H+	4.2609E-01	4.9786E-01	4.8134E-01
H2	9.3895E-07	3.3226E-09	1.0479E-10

P1 = 2.00E+02 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.[illegible]E+02	2.5287E+04	5.0333E+04
T	9.24[illegible]E+01	2.1[illegible]E+02	3.6000E+02
RHO	1.03[illegible]E+01	3.0004E+01	3.5419E+01
H	5.78[illegible]E+02	9.9843E+02	1.4472E+03
A	1.862[illegible]E+01	3.05[illegible]E+01	4.1004E+01
S	2.90[illegible]E+00	3.0101E+00	3.1312E+00
Z	3.45[illegible]E+00	3.9163E+00	3.9475E+00
GAMF	9.[illegible]E-01	1.1098E+00	1.1831E+00
U	6.76[illegible]E+01	1.[illegible]E+01	1.9479E+01

SPECIES	MOLE FRACTIONS		
E-	4.71[illegible]E-0[illegible]	5.0178E-01	5.0401E-01
HE	4.9[illegible]E-0[illegible]	5.4[illegible]E-05	6.0043E-07
HE+	8.6[illegible]E-0[illegible]	7.12[illegible]E-03	2.334[illegible]E-04
HE++	1.5[illegible]E-08	5.[illegible]E-03	1.2432E-02
H	5.1200E-02	1.[illegible]E-03	4.1021E-04
H+	4.6231E-01	4.8347E-01	4.8091E-01
H2	1.1734E-07	2.440[illegible]E-10	1.0918E-11

P1 = 2.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1511E+03	2.399[illegible]E+04	4.5600E+04
T	8.3389E+01	1.8502E+02	2.9871E+02
RHO	1.0745E+01	3.3350E+01	3.8712E+01
H	5.1317E+02	8.9431E+02	1.2[illegible]3E+03
A	1.6664E+01	2.857[illegible]E+01	3.7177E+01
S	2.8084E+00	2.9407E+00	3.0643E+00
Z	3.5169E+00	3.8888E+00	3.9434E+00
GAME	9.4682E-01	1.1348E+00	1.1734E+00
U	4.5073E+01	1.4466E+01	1.7257E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.4554E-01	4.9854E-01	5.0550E-01
HE	9.3445E-03	1.5213E-04	4.1304E-06
HE+	4.8724E-03	1.1387E-02	8.7263E-04
HE++	4.2664E-10	1.3184E-03	1.1803E-03
H	9.9577E-02	4.0529E-03	7.9791E-04
H+	4.4067E-01	4.8453E-01	4.8102E-01
H2	5.2030E-07	1.2348E-09	4.6516E-11

P1 = 2.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7432E+03	2.[illegible]94E+04	5.2047E+04
T	9.8872E+01	2.303[illegible]E+02	3.9178E+02
RHO	1.0060E+01	2.879[illegible]E+01	3.3660E+01
H	6.1294E+02	1.0[illegible]08E+03	1.5406E+03
A	1.9581E+01	3.1828E+01	4.2800E+01
S	2.9481E+00	3.0636E+00	3.1631E+00
Z	3.7432E+00	3.9258E+00	3.9482E+00
GAME	1.0305E+00	1.1208E+00	1.1842E+00
U	4.8954E+01	1.7402E+01	2.0822E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.[illegible]183E-01	5.0328E-01	5.0611E-01
HE	2.[illegible]979E-03	2.[illegible]56E-05	2.6010E-07
HE+	1.0408E-02	4.6720E-03	1.4040E-04
HE++	8.3020E-08	8.0[illegible]E-03	1.2522E-03
H	3.3[illegible]68E-02	1.[illegible]395E-03	2.0[illegible]32E-06
H+	4.7142E-01	4.8[illegible]4E-01	4.8092E-01
H2	4.[illegible]125E-08	1.[illegible]50E-10	5.7072E-12

P1 = 2.00E+02 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3444E+03	2.4455E+04	4.8063E+04
T	8.7653E+01	2.0013E+02	3.2885E+02
RHO	1.0567E+01	3.1582E+01	3.7038E+01
H	5.4549E+02	9.4540E+02	1.3542E+03
A	1.7493E+01	2.9501E+01	3.9138E+01
S	2.8571E+00	2.9750E+00	3.0987E+00
Z	3.4106E+00	3.8009E+00	3.9461E+00
GAME	9.6577E-01	1.1148E+00	1.1804E+00
U	4.6398E+01	1.5473E+01	1.8483E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.5952E-01	5.0311E-01	5.0584E-01
HE	7.1558E-03	9.6478E-05	1.5040E-06
HE+	6.4926E-03	9.4744E-03	4.2772E-04
HE++	3.0372E-09	3.0967E-03	1.2242E-02
H	7.3000E-02	2.7717E-03	5.6253E-04
H+	4.5323E-01	4.8633E-01	4.8093E-01
H2	2.5971E-07	5.2473E-10	2.1807E-11

Table III. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3387E+01	5.6541E+01
T	2.8249E+00	3.5083E+00	4.9519E+00
RHO	3.9379E+00	5.5823E+00	1.1418E+01
H	2.8881E+00	3.6101E+00	5.1556E+00
A	1.6757E+00	1.8631E+00	2.1875E+00
S	1.0566E+00	1.0584E+00	1.0762E+00
Z	1.0006E+00	1.0006E+00	1.0063E+00
GAME	9.9437E-01	9.8638E-01	9.6667E-01
U	2.3176E+00	1.3954E+00	1.2213E+00

SPECIES	MOLE FRACTIONS		
E-	5.4960E-65	2.3256E-46	2.6576E-30
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	9.8357E-73	7.3241E-62	1.7704E-52
HE++	0.	0.	0.
H	4.3572E-11	5.8439E-09	1.3597E-05
H+	6.3466E-20	6.3466E-20	6.3463E-20
H2	9.5000E-01	9.5000E-01	9.4999E-01

P1 = 5.00E+02 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4085E+01	1.2795E+02	2.3218E+02
T	6.4533E+00	8.7718E+00	1.0143E+01
RHO	5.3397E+00	1.4394E+01	2.1997E+01
H	6.9694E+00	1.0495E+01	1.3740E+01
A	2.4603E+00	2.7735E+00	2.9793E+00
S	1.1485E+00	1.1602E+00	1.1858E+00
Z	1.0066E+00	1.0133E+00	1.0437E+00
GAME	9.3764E-01	9.0349E-01	8.4093E-01
U	4.4792E+00	1.6603E+00	1.4403E+00

SPECIES	MOLE FRACTIONS		
E-	6.7342E-19	1.1495E-13	9.2786E-12
HE	4.9970E-02	4.9344E-02	4.8045E-02
HE+	1.3646E-44	3.7263E-33	2.0015E-29
HE++	0.	0.	0.
H	1.2129E-03	2.6225E-02	7.8203E-02
H+	7.3684E-19	1.1495E-13	9.2786E-12
H2	9.4952E-01	9.2469E-01	8.7375E-01

P1 = 5.00E+02 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6590E+01	1.0206E+02
T	3.8701E+00	5.1614E+00	6.9954E+00
RHO	4.5267E+00	9.0247E+00	1.4575E+01
H	3.5996E+00	5.4335E+00	7.6407E+00
A	1.9491E+00	2.2303E+00	2.5506E+00
S	1.0982E+00	1.0928E+00	1.1137E+00
Z	1.0000E+00	1.0000E+00	1.0011E+00
GAME	9.8154E-01	9.6371E-01	9.2860E-01
U	3.0256E+00	1.5162E+00	1.3640E+00

SPECIES	MOLE FRACTIONS		
E-	7.3802E-43	2.0993E-27	3.8563E-18
HE	5.0000E-02	4.9995E-02	4.9947E-02
HE+	2.7471E-60	6.5743E-51	2.0419E-39
HE++	0.	0.	0.
H	1.5912E-07	3.3374E-05	2.1016E-03
H+	6.3402E-20	8.3459E-20	3.7929E-19
H2	9.5000E-01	9.4997E-01	9.4795E-01

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5403E+01	8.0065E+01	1.6013E+02
T	5.3953E+00	7.3554E+00	8.9094E+00
RHO	4.5806E+00	1.1364E+01	1.7957E+01
H	5.3598E+00	7.7033E+00	1.0493E+01
A	2.2216E+00	2.5532E+00	2.7928E+00
S	1.1196E+00	1.1206E+00	1.1495E+00
Z	1.0000E+00	1.0013E+00	1.0124E+00
GAME	9.5445E-01	9.2520E-01	9.6940E-01
U	3.7254E+00	1.6332E+00	1.4315E+00

SPECIES	MOLE FRACTIONS		
E-	1.7266E-29	1.6123E-17	1.0942E-13
HE	4.9999E-02	4.9993E-02	4.9387E-02
HE+	9.6283E-37	3.0423E-43	4.1277E-33
HE++	0.	0.	0.
H	3.6436E-05	2.5695E-03	2.4511E-02
H+	3.3629E-20	1.6219E-17	1.0942E-13
H2	9.4999E-01	9.4750E-01	9.2610E-01

P1 = 5.00E+02 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6075E+01	1.9705E+02	3.2853E+02
T	7.7731E+00	1.0119E+01	1.1259E+01
RHO	5.8952E+00	1.9866E+01	2.6055E+01
H	8.8405E+00	1.3352E+01	1.7526E+01
A	2.6325E+00	2.9759E+00	3.1970E+00
S	1.1771E+00	1.1956E+00	1.2245E+00
Z	1.0055E+00	1.0433E+00	1.0834E+00
GAME	8.8705E-01	8.2396E-01	8.3335E-01
U	5.1596E+00	1.6288E+00	1.4455E+00

SPECIES	MOLE FRACTIONS		
E-	2.0210E-15	9.4553E-12	1.6125E-10
HE	4.9713E-02	4.7925E-02	4.6151E-02
HE+	6.8676E-37	2.6227E-29	2.8493E-26
HE++	0.	0.	0.
H	1.1477E-02	8.2589E-02	1.5397E-01
H+	2.0211E-15	9.4553E-12	1.6125E-10
H2	9.3861E-01	8.6009E-01	7.5988E-01

P1 = 5.00E+02 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5425E+01	2.9563E+02	4.6435E+02
T	9.8274E+00	1.1253E+01	1.2293E+01
RHO	6.5755E+00	2.6414E+01	3.3191E+01
H	1.0398E+01	1.7734E+01	2.1961E+01
A	2.7054E+00	3.1919E+00	3.4155E+00
S	1.2035E+00	1.2338E+00	1.2662E+00
Z	1.0209E+00	1.0998E+00	1.1391E+00
GAME	8.4888E-01	8.3213E-01	8.3382E-01
U	5.9271E+00	1.6137E+00	1.4649E+00

SPECIES	MOLE FRACTIONS		
E-	2.3594E-13	1.7771E-10	1.3334E-09
HE	4.9977E-02	4.5956E-02	4.3995E-02
HE+	1.3726E-33	3.4035E-26	2.3594E-24
HE++	0.	0.	1.9140E-94
H	4.0928E-02	1.6175E-01	2.4420E-01
H+	2.3594E-13	1.7771E-10	1.3334E-09
H2	9.1010E-01	7.9229E-01	7.1151E-01

Table III. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2954E+02	1.0281E+03	1.4597E+03
T	1.1524E+01	1.5193E+01	1.6437E+01
RHO	5.[illegible]E+00	5.9494E+01	6.0579E+01
H	2.20[illegible]E+01	3.8579E+01	4.5766E+01
A	3.3195E+00	4.2099E+00	4.5692E+00
S	1.3371E+00	1.4115E+00	1.4603E+00
Z	1.1597E+00	1.3680E+00	1.4660E+00
GAME	9.2456E-01	9.5306E-01	9.6542E-01
U	5.0542E+00	1.7736E+00	1.7241E+00

SPECIES	MOLE FRACTIONS		
E-	6.1414E-10	1.0249E-07	3.9499E-07
HE	4.3116E-02	3.6548E-02	3.4106E-02
HE+	1.2966E-25	9.2995E-20	2.0544E-18
HE++	3.712CE-91	7.720[illegible]E-71	8.3927E-66
H	2.7534E-01	5.[illegible]9C7E-01	6.3575E-01
H+	6.1414E-10	1.0288E-07	3.8499E-07
H2	6.9154E-01	4.2539E-01	3.3014E-01

P1 = 5.00E+02 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2954E+02	1.0281E+03	1.4597E+03
T	1.1524E+01	1.5193E+01	1.6437E+01
RHO	5.[illegible]E+00	5.9494E+01	6.0579E+01
H	2.20[illegible]E+01	3.8579E+01	4.5766E+01
A	3.3195E+00	4.2099E+00	4.5692E+00
S	1.3371E+00	1.4115E+00	1.4603E+00
Z	1.1597E+00	1.3680E+00	1.4660E+00
GAME	9.2456E-01	9.5306E-01	9.6542E-01
U	5.0542E+00	1.7736E+00	1.7241E+00

SPECIES	MOLE FRACTIONS		
E-	6.1414E-10	1.0249E-07	3.9499E-07
HE	4.3116E-02	3.6548E-02	3.4106E-02
HE+	1.2966E-25	9.2995E-20	2.0544E-18
HE++	3.712CE-91	7.720[illegible]E-71	8.3927E-66
H	2.7534E-01	5.[illegible]9C7E-01	6.3575E-01
H+	6.1414E-10	1.0288E-07	3.8499E-07
H2	6.9154E-01	4.2539E-01	3.3014E-01

P1 = 5.00E+02 N/SQ-M, US1= 1.13E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1042E+01	5.9275E+02	7.7035E+02
T	1.0334E+01	1.3256E+01	1.4299E+01
RHO	5.1041E+00	3.7036E+01	4.7423E+01
H	1.0033E+01	2.7713E+01	3.2675E+01
A	3.0341E+00	3.6062E+00	3.9336E+00
S	1.2677E+00	1.3179E+00	1.3594E+00
Z	1.0077E+00	1.2105E+00	1.2836E+00
GAME	9.2561E-01	9.3759E-01	9.4525E-01
U	7.4982E+00	1.0655E+00	1.3590E+00

SPECIES	MOLE FRACTIONS		
E-	3.5271E-11	7.4779E-09	3.2316E-08
HE	9.0399E-02	9.1304E-02	8.8953E-02
HE+	2.3512E-24	1.7253E-22	5.8554E-21
HE++	0.	2.9619E-91	2.3545E-75
H	1.4428E-01	1.4798E-01	4.4199E-01
H+	3.5271E-11	7.4779E-09	3.2316E-08
H2	8.0998E-01	6.1994E-01	5.1916E-01

P1 = 5.00E+02 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5119E+02	1.2925E+03	1.8232E+03
T	1.2058E+01	1.6194E+01	1.7669E+01
RHO	1.0376E+01	5.4764E+01	6.5764E+01
H	2.5495E+01	4.4953E+01	5.3241E+01
A	3.4704E+00	4.5155E+00	4.9462E+00
S	1.3742E+00	1.4608E+00	1.5141E+00
Z	1.2085E+00	1.4575E+00	1.5691E+00
GAME	8.2652E-01	8.6389E-01	8.8245E-01
U	9.8235E+00	1.8618E+00	1.8403E+00

SPECIES	MOLE FRACTIONS		
E-	1.8409E-09	3.1402E-07	1.2213E-06
HE	4.1375E-02	3.4306E-02	3.1866E-02
HE+	1.6057E-24	1.1411E-18	3.2598E-17
HE++	1.7395E-87	2.1594E-66	1.1403E-61
H	3.4499E-01	6.2775E-01	7.2536E-01
H+	1.8409E-09	3.1402E-07	1.2213E-06
H2	6.1363E-01	3.3795E-01	2.4278E-01

P1 = 5.00E+02 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0944E+02	7.9439E+02	1.1419E+03
T	1.0301E+01	1.4213E+01	1.5333E+01
RHO	4.9501E+00	4.3481E+01	5.4343E+01
H	1.8937E+01	3.2651E+01	3.8916E+01
A	3.1745E+00	3.9278E+00	4.2372E+00
S	1.3016E+00	1.3637E+00	1.4083E+00
Z	1.1159E+00	1.2854E+00	1.3704E+00
GAME	8.2391E-01	8.4442E-01	8.5447E-01
U	8.2779E+00	1.7044E+00	1.6305E+00

SPECIES	MOLE FRACTIONS		
E-	1.6952E-10	3.0125E-08	1.1713E
HE	9.4807E-02	9.8998E-02	8.6485E-02
HE+	6.5320E-27	4.3994E-21	1.2234E-19
HE++	0.	3.3024E-75	2.4919E-70
H	2.0771E-01	4.4408E-01	5.4059E-01
H+	1.6915E-10	3.0125E-08	1.1713E-07
H2	7.4749E-01	5.1703E-01	4.2292E-01

P1 = 5.00E+02 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7444E+02	1.5947E+03	2.2350E+03
T	1.2575E+01	1.7290E+01	1.9149E+01
RHO	1.0993E+01	5.9041E+01	6.9512E+01
H	2.9145E+01	5.1780E+01	6.1403E+01
A	3.6283E+00	4.8543E+00	5.3955E+00
S	1.4136E+00	1.5111E+00	1.5690E+00
Z	1.2622E+00	1.5523E+00	1.6775E+00
GAME	8.2955E-01	8.7786E-01	9.0623E-01
U	1.0588E+01	1.9722E+00	1.9889E+00

SPECIES	MOLE FRACTIONS		
E-	4.8362E-09	9.1390E-07	4.0534E-06
HE	3.9620E-02	3.2209E-02	2.9805E-02
HE+	1.4636E-23	1.4961E-17	6.0190E-16
HE++	4.9392E-84	1.8290E-62	2.5611E-56
H	4.1521E-01	7.1163E-01	8.0777E-01
H+	4.8362E-09	9.1390E-07	4.0534E-06
H2	5.4517E-01	2.5616E-01	1.6242E-01

Table III. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9926E+02	1.8996E+03	2.6915E+03
T	1.3085E+01	1.8544E+01	2.1157E+01
RHO	1.1536E+01	6.2057E+01	7.1213E+01
H	3.3047E+01	5.9046E+01	7.0382E+01
A	3.7942E+00	5.2407E+00	5.9852E+00
S	1.4531E+00	1.5619E+00	1.6247E+00
Z	1.3200E+00	1.6508E+00	1.7864E+00
GAME	8.3343E-01	8.9721E-01	9.4781E-01
U	1.1347E+01	2.1098E+00	2.1919E+00

SPECIES	MOLE FRACTIONS		
E-	1.1583E-08	2.6694E-06	1.5964E-05
HE	3.7878E-02	3.0299E-02	2.7990E-02
HE+	1.0935E-22	1.9894E-16	1.6985E-14
HE++	7.6245E-91	3.6907E-59	6.2493E-51
H	4.8487E-01	7.8844E-01	8.8036E-01
H+	1.1583E-08	2.6694E-06	1.5964E-05
H2	4.7725E-01	1.8127E-01	9.1617E-02

P1 = 5.00E+02 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8301E+02	2.8751E+03	4.4563E+03
T	1.4691E+01	2.5435E+01	3.7729E+01
RHO	1.2685E+01	5.9424E+01	6.0405E+01
H	4.6256E+01	8.3127E+01	1.0544E+02
A	4.3563E+00	7.1694E+00	8.6294E+00
S	1.5807E+00	1.7069E+00	1.7807E+00
Z	1.5182E+00	1.9022E+00	1.9352E+00
GAME	9.5084E-01	1.0624E+00	1.0568E+00
U	1.3594E+01	2.9042E+00	3.6139E+00

SPECIES	MOLE FRACTIONS		
E-	1.1860E-07	1.6138E-04	8.0904E-03
HE	3.2933E-02	2.6295E-02	2.3573E-02
HE+	2.5502E-20	4.4672E-12	3.8789E-08
HE++	6.1264E-73	4.0875E-42	7.7286E-28
H	6.8267E-01	9.4011E-01	9.5892E-01
H+	1.1860E-07	1.6138E-04	8.0903E-03
H2	2.8440E-01	2.9286E-02	3.4250E-03

P1 = 5.00E+02 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2566E+02	2.2302E+03	3.2119E+03
T	1.3601E+01	2.0090E+01	2.4502E+01
RHO	1.2004E+01	6.3485E+01	6.9679E+01
H	3.7200E+01	6.6736E+01	8.0574E+01
A	3.9696E+00	5.7070E+00	6.8989E+00
S	1.4946E+00	1.6123E+00	1.6908E+00
Z	1.3823E+00	1.7487E+00	1.8813E+00
GAME	8.3816E-01	9.2710E-01	1.0325E+00
U	1.2102E+01	2.2886E+00	2.5171E+00

SPECIES	MOLE FRACTIONS		
E-	2.6024E-08	8.3875E-06	9.7841E-05
HE	3.6172E-02	2.8593E-02	2.6577E-02
HE+	7.1506E-22	3.1355E-15	1.4518E-12
HE++	6.7338E-78	7.8694E-54	4.4504E-44
H	5.5310E-01	8.5624E-01	9.3661E-01
H+	2.6024E-09	8.3875E-06	9.7841E-05
H2	4.1072E-01	1.1515E-01	3.6613E-02

P1 = 5.00E+02 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1391E+02	3.1541E+03	5.0785E+03
T	1.5299E+01	2.9966E+01	4.3511E+01
RHO	1.2896E+01	5.4426E+01	5.8852E+01
H	5.1156E+01	9.1670E+01	1.1812E+02
A	4.5749E+00	8.0298E+00	9.2595E+00
S	1.6249E+00	1.7477E+00	1.8180E+00
Z	1.5916E+00	1.9339E+00	1.9799E+00
GAME	8.5981E-01	9.1126E+00	9.9505E-01
U	1.4327E+01	3.3957E+00	4.0110E+00

SPECIES	MOLE FRACTIONS		
E-	2.5145E-07	9.0255E-04	1.6954E-02
HE	3.1426E-02	2.5854E-02	2.5254E-02
HE+	1.5490E-19	3.0684E-10	4.9109E-07
HE++	4.8939E-70	1.7349E-35	7.3023E-24
H	7.4294E-01	9.0312E-01	9.3897E-01
H+	2.5145E-07	9.0255E-04	1.6954E-02
H2	2.2506E-01	9.2233E-02	1.8695E-03

P1 = 5.00E+02 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5358E+02	2.5619E+03	3.8142E+03
T	1.4131E+01	2.2213E+01	3.0577E+01
RHO	1.2389E+01	6.2765E+01	6.4532E+01
H	4.1601E+01	7.4739E+01	9.2559E+01
A	4.1560E+00	6.3225E+00	8.1076E+00
S	1.5372E+00	1.6612E+00	1.7349E+00
Z	1.4485E+00	1.8376E+00	1.9330E+00
GAME	9.4387E-01	9.7932E-01	1.1107E+00
U	1.2850E+01	2.5389E+00	3.0551E+00

SPECIES	MOLE FRACTIONS		
E-	5.6109E-09	3.1797E-05	1.0018E-03
HE	3.4519E-02	2.7210E-02	2.5867E-02
HE+	4.3241E-21	8.1747E-14	4.5372E-10
HE++	3.3839E-75	2.1828E-49	8.1899E-35
H	6.1922E-01	9.1150E-01	9.6233E-01
H+	5.6109E-08	3.1797E-05	1.0018E-03
H2	3.4626E-01	6.1225E-02	9.7990E-03

P1 = 5.00E+02 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4621E+02	3.4130E+03	5.6677E+03
T	1.5937E+01	3.4972E+01	4.9073E+01
RHO	1.2998E+01	5.0363E+01	5.3822E+01
H	5.6298E+01	1.0050E+02	1.3069E+02
A	4.8190E+00	8.5850E+00	9.6350E+00
S	1.6696E+00	1.7837E+00	1.8512E+00
Z	1.6068E+00	1.9494E+00	2.0112E+00
GAME	8.7191E-01	1.0911E+00	9.6019E-01
U	1.5056E+01	3.9075E+00	4.2809E+00

SPECIES	MOLE FRACTIONS		
E-	5.4942E-07	3.0719E-03	3.1673E-02
HE	3.0012E-02	2.5649E-02	2.4859E-02
HE+	1.0357E-19	9.5520E-09	2.2569E-06
HE++	4.8532E-67	4.0905E-30	2.1336E-21
H	7.9952E-01	9.4303E-01	9.1353E-01
H+	5.4942E-07	3.6719E-03	3.1671E-02
H2	1.7647E-01	3.9754E-03	1.2672E-03

Table III. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7981E+02	3.6639E+03	6.2079E+03
T	1.6811E+01	3.9613E+01	5.1857E+01
RHO	1.2972E+01	4.7065E+01	5.8466E+01
H	6.1686E+01	1.0973E+02	1.4334E+02
A	5.1043E+00	8.9335E+00	9.9962E+00
S	1.7144E+00	1.9164E+00	1.8826E+00
Z	1.7416E+00	1.9652E+00	2.0475E+00
GAME	8.8984E-01	1.0252E+00	9.4109E-01
U	1.5767E+01	4.3491E+00	4.4960E+00

SPECIES	MOLE FRACTIONS		
E-	1.2814E-06	9.8945E-03	4.8586E-02
HE	2.8709E-02	2.5443E-02	2.4412E-02
HE+	7.7055E-18	1.3821E-07	7.0808E-06
HE++	6.7325E-64	2.6022E-26	1.1202E-19
H	8.5165E-01	9.5260E-01	8.7747E-01
H+	1.2814E-06	9.8944E-03	4.8579E-02
H2	1.1964E-01	2.1710E-03	9.4695E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.9489E+02	4.1172E+03	6.9594E+03
T	2.1942E+01	4.9897E+01	6.0112E+01
RHO	1.1493E+01	4.0369E+01	5.3253E+01
H	7.9236E+01	1.3962E+02	1.8108E+02
A	6.7256E+00	9.7725E+00	1.0959E+01
S	1.8414E+00	1.9106E+00	1.9779E+00
Z	1.9227E+00	2.0440E+00	2.1737E+00
GAME	1.0722E+00	9.3639E-01	9.1912E-01
U	1.7724E+01	5.0440E+00	4.8746E+00

SPECIES	MOLE FRACTIONS		
E-	6.3909E-05	4.6735E-02	1.0338E-01
HE	2.6005E-02	2.4457E-02	2.2952E-02
HE+	1.1644E-13	4.9137E-06	5.0092E-05
HE++	1.6457E-48	2.2432E-20	1.2645E-16
H	9.5961E-01	8.8133E-01	7.6981E-01
H+	6.3909E-05	4.6730E-02	1.0333E-01
H2	1.4261E-02	7.3936E-04	4.7193E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1448E+02	3.9000E+03	6.6576E+03
T	1.7885E+01	4.3643E+01	5.5067E+01
RHO	1.2769E+01	4.4984E+01	5.7923E+01
H	6.7316E+01	1.1943E+02	1.5607E+02
A	5.4648E+00	9.2264E+00	1.0340E+01
S	1.7586E+00	1.8475E+00	1.9133E+00
Z	1.8149E+00	1.9864E+00	2.0972E+00
GAME	9.2007E-01	9.8199E-01	9.3022E-01
U	1.6462E+01	4.6713E+00	4.6575E+00

SPECIES	MOLE FRACTIONS		
E-	3.4639E-06	1.9729E-02	6.6496E-02
HE	2.7550E-02	2.5170E-02	2.3939E-02
HE+	8.7715E-17	5.9012E-07	1.6009E-05
HE++	7.6431E-60	1.1459E-23	2.1337E-18
H	8.9800E-01	9.3397E-01	8.4233E-01
H+	3.4639E-06	1.9729E-02	6.6480E-02
H2	7.4446E-02	1.4007E-03	7.4275E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1971E+02	4.0695E+03	6.7851E+03
T	2.5472E+01	5.2277E+01	6.1986E+01
RHO	1.0509E+01	3.7452E+01	4.9353E+01
H	8.5494E+01	1.4981E+02	1.9305E+02
A	7.4761E+00	1.0023E+01	1.1222E+01
S	1.8771E+00	1.9434E+00	2.0115E+00
Z	1.9416E+00	2.0780E+00	2.2191E+00
GAME	1.1301E+00	9.2486E-01	9.1602E-01
U	1.8269E+01	5.1243E+00	4.9389E+00

SPECIES	MOLE FRACTIONS		
E-	3.9016E-04	6.2171E-02	1.2123E-01
HE	2.5752E-02	2.4052E-02	2.2469E-02
HE+	1.0575E-11	9.8339E-06	7.4692E-05
HE++	2.0669E-41	2.6212E-19	5.1305E-16
H	9.6875E-01	8.5104E-01	7.3769E-01
H+	3.9006E-04	6.2162E-02	1.2116E-01
H2	4.7210E-03	5.6558E-04	3.7697E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4974E+02	4.0702E+03	6.9393E+03
T	1.9453E+01	4.7056E+01	5.7627E+01
RHO	1.2305E+01	4.2969E+01	5.6346E+01
H	7.3172E+01	1.2946E+02	1.6875E+02
A	5.9779E+00	9.5066E+00	1.0665E+01
S	1.8015E+00	1.8785E+00	1.9448E+00
Z	1.8792E+00	2.0131E+00	2.1297E+00
GAME	9.7767E-01	9.5406E-01	9.2356E-01
U	1.7122E+01	4.9039E+00	4.7836E+00

SPECIES	MOLE FRACTIONS		
E-	1.2239E-05	3.2301E-02	8.4968E-02
HE	2.6608E-02	2.4836E-02	2.3447E-02
HE+	1.9659E-15	1.9935E-06	3.0327E-05
HE++	7.0111E-55	9.0086E-22	2.1246E-17
H	9.3566E-01	9.0951E-01	8.0602E-01
H+	1.2239E-05	3.2329E-02	8.4938E-02
H2	3.7710E-02	9.9422E-04	5.9213E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5544E+02	4.0468E+03	6.6578E+03
T	2.9391E+01	5.4425E+01	6.3758E+01
RHO	9.6924E+00	3.5100E+01	4.6118E+01
H	9.1973E+01	1.6032E+02	2.0531E+02
A	7.9609E+00	1.0275E+01	1.1488E+01
S	1.9386E+00	1.9751E+00	2.0443E+00
Z	1.9498E+00	2.1148E+00	2.2642E+00
GAME	1.1059E+00	9.1733E-01	9.1413E-01
U	1.8804E+01	5.1823E+00	5.0354E+00

SPECIES	MOLE FRACTIONS		
E-	1.7749E-03	7.8366E-02	1.3911E-01
HE	2.5643E-02	2.3626E-02	2.1975E-02
HE+	4.5018E-10	1.7469E-05	1.0663E-04
HE++	1.8086E-35	2.0081E-19	1.7931E-15
H	9.6894E-01	9.1920E-01	6.9951E-01
H+	1.7749E-03	7.8349E-02	1.3900E-01
H2	1.9628E-03	4.4634E-04	3.0488E-04

Table III. - Continued

p_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 2.85E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9328E+02	4.1170E+03	6.6893E+03
T	3.3085E+01	5.0515E+01	6.5584E+01
RHO	9.1555E+00	3.2811E+01	4.4134E+01
H	9.9711E+01	1.7144E+02	2.1830E+02
A	8.2335E+00	1.0541E+01	1.1770E+01
S	1.9367E+00	2.0052E+00	2.0759E+00
Z	1.9586E+00	2.1545E+00	2.3126E+00
GAME	1.0461E+00	9.1259E-01	9.1341E-01
U	1.9375E+01	5.2405E+00	5.0740E+00

SPECIES	MOLE FRACTIONS		
E-	3.3643E-03	9.5295E-02	1.5705E-01
HE	2.5528E-02	2.3178E-02	2.1471E-02
HE+	6.9163E-09	2.9049E-05	1.4927E-04
HE++	3.3969E-31	1.2389E-17	5.5526E-15
H	9.6280E-01	7.8597E-01	6.6419E-01
H+	5.3623E-03	9.5266E-02	1.5690E-01
H2	9.4699E-04	3.6335E-04	2.5157E-04

P1 = 5.00E+02 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6931E+02	5.1508E+03	9.1414E+03
T	4.3548E+01	6.4941E+01	7.4065E+01
RHO	8.6751E+00	3.3947E+01	4.3339E+01
H	1.2845E+02	2.2296E+02	2.8013E+02
A	9.0150E+00	1.1756E+01	1.3139E+01
S	2.0339E+00	2.1156E+00	2.1937E+00
Z	2.0364E+00	2.3410E+00	2.5363E+00
GAME	9.1644E-01	9.0936E-01	9.1889E-01
U	2.1996E+01	5.6129E+00	5.4999E+00

SPECIES	MOLE FRACTIONS		
E-	4.2669E-02	1.6720E-01	2.3129E-01
HE	2.4552E-02	2.1207E-02	1.9194E-02
HE+	1.2796E-06	1.5172E-04	5.3001E-04
HE++	5.2041E-23	5.2312E-15	6.3023E-13
H	8.8986E-01	6.4421E-01	5.1811E-01
H+	4.2668E-02	1.6705E-01	2.3076E-01
H2	2.5336E-04	1.8859E-04	1.2752E-04

P1 = 5.00E+02 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3369E+02	4.2916E+03	6.9993E+03
T	3.6284E+01	5.8609E+01	6.7554E+01
RHO	9.9575E+00	3.3249E+01	4.3135E+01
H	1.0573E+02	1.8329E+02	2.3233E+02
A	8.4275E+00	1.0925E+01	1.2090E+01
S	1.9624E+00	2.0339E+00	2.1060E+00
Z	1.9719E+00	2.1972E+00	2.3643E+00
GAME	9.9282E-01	9.0988E-01	9.1371E-01
U	1.9979E+01	5.3188E+00	5.1603E+00

SPECIES	MOLE FRACTIONS		
E-	1.1620E-02	1.1282E-01	1.7543E-01
HE	2.5358E-02	2.2710E-02	2.0940E-02
HE+	4.7113E-08	4.6173E-05	2.0793E-04
HE++	2.4007E-28	6.6351E-17	1.9784E-14
H	9.5081E-01	7.5136E-01	6.2799E-01
H+	1.1620E-02	1.1277E-01	1.7522E-01
H2	5.8853E-04	3.0254E-04	2.1052E-04

P1 = 5.00E+02 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6985E+02	5.9505E+03	9.3151E+03
T	4.7231E+01	6.9162E+01	7.9753E+01
RHO	8.7962E+00	3.5160E+01	4.4427E+01
H	1.4493E+02	2.5231E+02	3.1599E+02
A	9.4309E+00	1.2424E+01	1.3923E+01
S	2.0796E+00	2.1699E+00	2.2519E+00
Z	2.0931E+00	2.4470E+00	2.6624E+00
GAME	9.9937E-01	9.1197E-01	9.2456E-01
U	2.3403E+01	5.8505E+00	5.7727E+00

SPECIES	MOLE FRACTIONS		
E-	6.9804E-02	2.0326E-01	2.6767E-01
HE	2.3875E-02	2.0139E-02	1.7849E-02
HE+	4.5918E-06	2.9399E-04	9.3097E-04
HE++	5.4163E-21	6.1181E-14	5.2889E-12
H	9.3902E-01	5.7321E-01	4.4673E-01
H+	6.8806E-02	2.0296E-01	2.6674E-01
H2	1.7755E-04	1.4063E-04	9.0742E-05

P1 = 5.00E+02 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7654E+02	4.5175E+03	7.2114E+03
T	3.9056E+01	6.0709E+01	6.9626E+01
RHO	9.7066E+00	3.8181E+01	4.2922E+01
H	1.1302E+02	1.9595E+02	2.4735E+02
A	9.6174E+00	1.1122E+01	1.2412E+01
S	1.9872E+00	2.0616E+00	2.1354E+00
Z	1.9937E+00	2.2427E+00	2.4187E+00
GAME	9.5562E-01	9.0972E-01	9.1497E-01
U	2.3622E+01	5.4098E+00	5.2609E+00

SPECIES	MOLE FRACTIONS		
E-	2.0378E-02	1.3076E-01	1.9396E-01
HE	2.5129E-02	2.2224E-02	2.0385E-02
HE+	1.9243E-07	7.0731E-05	2.9673E-04
HE++	5.4449E-26	3.1434E-16	6.4246E-14
H	9.3370E-01	7.1600E-01	5.9151E-01
H+	2.0379E-02	1.3069E-01	1.9367E-01
H2	4.1346E-04	2.5008E-04	1.7773E-04

P1 = 5.00E+02 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7798E+02	6.9543E+03	1.0682E+04
T	5.0432E+01	7.3402E+01	8.3655E+01
RHO	9.6913E+00	3.6495E+01	4.5704E+01
H	1.6245E+02	2.9374E+02	3.5472E+02
A	9.8531E+00	1.3121E+01	1.4756E+01
S	2.1247E+00	2.2221E+00	2.3097E+00
Z	2.1599E+00	2.5594E+00	2.7937E+00
GAME	8.9173E-01	9.1645E-01	9.3160E-01
U	2.4947E+01	6.1199E+00	6.0761E+00

SPECIES	MOLE FRACTIONS		
E-	5.6836E-02	2.3821E-01	3.0208E-01
HE	2.3149E-02	1.9069E-02	1.6347E-02
HE+	1.1878E-05	5.2740E-04	1.5503E-03
HE++	1.7699E-19	5.4719E-13	3.7997E-11
H	7.8304E-01	5.0446E-01	3.7944E-01
H+	9.6828E-02	2.3769E-01	3.0053E-01
H2	1.3275E-04	1.0455E-04	6.3469E-05

Table III. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.092[illegible]E+03	7.9493E+03	1.2202E+04
T	5.333[illegible]E+01	7.7716E+01	8.8855E+01
RHO	9.1843E+00	3.772[illegible]E+01	4.6969E+01
H	1.809[illegible]E+02	3.1706E+02	3.9615E+02
A	1.029[illegible]E+01	1.3852E+01	1.5643E+01
S	2.169[illegible]E+00	2.2759E+00	2.3679E+00
Z	2.229[illegible]E+00	2.6776E+00	2.9304E+00
GAME	8.896[illegible]E-01	9.2206E-01	9.3994E-01
U	2.629[illegible]E+01	6.4055E+00	6.4095E+00

SPECIES	MOLE FRACTIONS		
E-	1.25[illegible]E-01	2.71[illegible]E-01	3.3452E-01
HE	2.23[illegible]E-02	1.77[illegible]E-02	1.4602E-02
HE+	2.55[illegible]E-05	8.9278E-04	2.4631E-03
HE++	2.9372E-18	4.[illegible]E-12	2.4126E-10
H	7.26[illegible]E-01	4.385[illegible]E-01	3.1632E-01
H+	1.25[illegible]E-01	2.70[illegible]E-01	3.3205E-01
H2	1.02[illegible]E-04	7.0[illegible]E-05	4.2924E-05

P1 = 5.00E+02 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4744E+03	1.1257E+04	1.7579E+04
T	6.119[illegible]E+01	9.1374E+01	1.0747E+02
RHO	9.7496E+00	4.0450E+01	4.8873E+01
H	2.426[illegible]E+02	4.2797E+02	5.3730E+02
A	1.160[illegible]E+01	1.6213E+01	1.8766E+01
S	2.307[illegible]E+00	2.4351E+00	2.5431E+00
Z	2.471[illegible]E+00	3.0457E+00	3.3468E+00
GAME	8.90[illegible]E-01	9.4453E-01	9.7909E-01
U	3.066[illegible]E+01	7.3962E+00	7.6390E+00

SPECIES	MOLE FRACTIONS		
E-	2.1105E-01	3.5978E-01	4.1737E-01
HE	2.03[illegible]E-02	1.3196E-02	7.7951E-03
HE+	1.40[illegible]E-04	3.2201E-03	7.1444E-03
HE++	1.5823E-15	6.5478E-10	3.7876E-08
H	5.5775E-01	2.6721E-01	1.5746E-01
H+	2.13[illegible]E-01	3.5656E-01	4.1022E-01
H2	4.9352E-05	2.6296E-05	9.6462E-06

P1 = 5.00E+02 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2134E+03	3.9251E+03	1.3964E+04
T	5.6059E+01	8.2081E+01	9.4439E+01
RHO	9.3866E+00	3.9868E+01	4.7933E+01
H	2.0053E+02	3.5225E+02	4.4032E+02
A	1.0714E+01	1.4602E+01	1.6593E+01
S	2.2153E+00	2.3286E+00	2.4262E+00
Z	2.3066E+00	2.7077E+00	3.0690E+00
GAME	8.8803E-01	9.2955E-01	9.4993E-01
U	2.7752E+01	6.7347E+00	0.7758E+00

SPECIES	MOLE FRACTIONS		
E-	1.5444E-01	3.0305E-01	3.6464E-01
HE	2.1634E-02	1.6444E-02	1.2570E-02
HE+	4.9519E-05	1.4292E-03	3.7216E-03
HE++	3.1391E-17	2.4520E-11	1.3907E-09
H	6.6940E-01	3.7741E-01	2.5913E-01
H+	1.5440E-01	3.0162E-01	3.6092E-01
H2	7.0989E-05	5.5266E-05	2.7909E-05

P1 = 5.00E+02 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6144E+03	1.2500E+04	1.9633E+04
T	6.3680E+01	9.6443E+01	1.1557E+02
RHO	9.9036E+00	4.0995E+01	4.8819E+01
H	2.6519E+02	4.6828E+02	5.9065E+02
A	1.2070E+01	1.7095E+01	2.0074E+01
S	2.3537E+00	2.4880E+00	2.6012E+00
Z	2.5598E+00	3.1701E+00	3.4799E+00
GAME	8.9374E-01	9.5472E-01	1.0020E+00
U	3.2119E+01	7.7919E+00	9.1656E+00

SPECIES	MOLE FRACTIONS		
E-	2.3827E-01	3.8489E-01	4.3965E-01
HE	1.9312E-02	1.1246E-02	5.4050E-03
HE+	2.2087E-04	4.5261E-03	8.9629E-03
HE++	9.5659E-15	7.9761E-09	1.9111E-07
H	5.0411E-01	2.1895E-01	1.1529E-01
H+	2.3905E-01	3.9037E-01	4.3069E-01
H2	3.8550E-05	1.7127E-05	4.9154E-06

P1 = 5.00E+02 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3403E+03	1.0065E+04	1.5659E+04
T	5.8063E+01	8.6620E+01	1.0056E+02
RHO	9.5765E+00	3.9778E+01	4.8525E+01
H	2.2114E+02	3.8920E+02	4.8731E+02
A	1.1150E+01	1.5399E+01	1.7823E+01
S	2.2611E+00	2.3819E+00	2.4847E+00
Z	2.3867E+00	2.9211E+00	3.2087E+00
GAME	8.9807E-01	9.3597E-01	9.6246E-01
U	2.9211E+01	7.0349E+00	7.1822E+00

SPECIES	MOLE FRACTIONS		
E-	2.8312E-01	3.3249E-01	3.9230E-01
HE	2.0815E-02	1.4925E-02	1.0262E-02
HE+	6.4855E-05	2.1914E-03	5.3202E-03
HE++	2.4827E-16	1.3333E-10	7.4360E-09
H	6.1338E-01	3.2336E-01	2.0512E-01
H+	1.8294E-01	3.3033E-01	3.6699E-01
H2	6.3869E-05	3.8754E-05	1.7019E-05

P1 = 5.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7601E+03	1.3762E+04	2.1816E+04
T	6.6164E+01	1.0191E+02	1.2550E+02
RHO	1.0033E+01	4.1022E+01	4.9250E+01
H	2.8872E+02	5.1018E+02	6.4782E+02
A	1.2546E+01	1.8015E+01	2.1615E+01
S	2.4006E+00	2.5403E+00	2.6590E+00
Z	2.6515E+00	3.2920E+00	3.6027E+00
GAME	8.9718E-01	9.6736E-01	1.0333E+00
U	3.3559E+01	8.2093E+00	9.8035E+00

SPECIES	MOLE FRACTIONS		
E-	2.6459E-01	4.0767E-01	4.5874E-01
HE	1.9520E-02	9.1362E-03	3.3955E-03
HE+	3.3719E-04	6.0520E-03	1.0492E-02
HE++	4.1993E-14	1.2637E-09	1.0017E-06
H	4.5227E-01	1.7552E-01	7.9126E-02
H+	2.6425E-01	4.0162E-01	4.4825E-01
H2	2.9825E-05	1.0611E-05	2.1625E-06

Table III. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9120E+03	1.5041E+04	2.4164E+04
T	6.8671E+01	1.0798E+02	1.3828E+02
RHO	1.0139E+01	4.0854E+01	4.7126E+01
H	3.1327E+02	5.5367E+02	7.0993E+02
A	1.3036E+01	1.9031E+01	2.3458E+01
S	2.4478E+00	2.5920E+00	2.7161E+00
Z	2.7463E+00	3.4097E+00	3.7079E+00
GAME	9.3121E-01	9.8367E-01	1.0732E+00
U	3.4999E+01	9.6885E+00	9.5925E+00

SPECIES	MOLE FRACTIONS		
E-	2.8990E-01	4.2811E-01	4.7410E-01
HE	1.7706E-02	6.9856E-03	1.9358E-03
HE+	5.0219E-04	7.6784E-03	1.1543E-02
HE++	1.8018E-13	5.1493E-08	5.7830E-06
H	4.0248E-01	1.3679E-01	4.9879E-02
H+	2.8939E-01	4.2043E-01	4.6254E-01
H2	2.2782E-05	6.1623E-06	7.8508E-07

P1 = 5.00E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4024E+03	1.8736E+04	3.2367E+04
T	7.6612E+01	1.3228E+02	1.9836E+02
RHO	1.0369E+01	3.8254E+01	4.1811E+01
H	3.9293E+02	6.9197E+02	9.2635E+02
A	1.4619E+01	2.2832E+01	2.9557E+01
S	2.5905E+00	2.7395E+00	2.8731E+00
Z	3.0420E+00	3.7029E+00	3.9665E+00
GAME	9.1730E-01	1.0643E+00	1.1390E+00
U	3.9264E+01	1.0574E+01	1.2845E+01

SPECIES	MOLE FRACTIONS		
E-	3.5957E-01	4.7337E-01	4.9567E-01
HE	1.4936E-02	2.3917E-03	3.8515E-04
HE+	1.5312E-03	1.1408E-02	1.1522E-02
HE++	1.3909E-11	3.3091E-06	1.0248E-03
H	2.6721E-01	5.1190E-02	9.3053E-03
H+	3.5747E-01	4.6195E-01	4.8210E-01
H2	9.0539E-06	6.9994E-07	1.9455E-08

P1 = 5.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0697E+03	1.6315E+04	2.6674E+04
T	7.1227E+01	1.1496E+02	1.5491E+02
RHO	1.0221E+01	4.0352E+01	4.5505E+01
H	3.3880E+02	5.9959E+02	7.7728E+02
A	1.3543E+01	2.0157E+01	2.5555E+01
S	2.4952E+00	2.6427E+00	2.7716E+00
Z	2.8429E+00	3.5203E+00	3.7863E+00
GAME	9.0584E-01	1.0050E+00	1.1141E+00
U	3.6430E+01	9.2253E+00	1.0558E+01

SPECIES	MOLE FRACTIONS		
E-	3.1410E-01	4.4603E-01	4.8499E-01
HE	1.6854E-02	4.9843E-03	1.0749E-03
HE+	7.3373E-04	9.2199E-03	1.2095E-02
HE++	7.3862E-13	2.0518E-07	5.6123E-05
H	3.5492E-01	1.0295E-01	2.9985E-02
H+	3.1337E-01	4.3681E-01	4.7282E-01
H2	1.7119E-05	3.3007E-06	2.3741E-07

P1 = 5.00E+02 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2332E+03	1.7561E+04	2.9314E+04
T	7.3863E+01	1.2277E+02	1.7504E+02
RHO	1.0278E+01	3.9536E+01	4.3664E+01
H	3.6532E+02	6.4479E+02	8.4954E+02
A	1.4072E+01	2.1408E+01	2.7671E+01
S	2.5429E+00	2.6913E+00	2.8236E+00
Z	2.9418E+00	3.6181E+00	3.8359E+00
GAME	9.1105E-01	1.0318E+00	1.1434E+00
U	3.7854E+01	9.8371E+00	1.1653E+01

SPECIES	MOLE FRACTIONS		
E-	3.3715E-01	4.6104E-01	4.9165E-01
HE	1.5940E-02	3.3343E-03	6.2932E-04
HE+	1.0561E-03	1.0484E-02	1.2192E-02
HE++	2.8953E-12	8.0640E-07	2.1351E-04
H	3.0975E-01	7.4599E-02	1.6290E-02
H+	3.3609E-01	4.5055E-01	4.7903E-01
H2	1.2605E-05	1.6189E-06	6.6695E-08

P1 = 5.00E+02 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4771E+03	1.8938E+04	3.0481E+04
T	7.6517E+01	1.3334E+02	2.2202E+02
RHO	1.0315E+01	3.6734E+01	4.0329E+01
H	4.2132E+02	7.4913E+02	1.0093E+03
A	1.5192E+01	2.4349E+01	3.1122E+01
S	2.6331E+00	2.7945E+00	2.9173E+00
Z	3.1424E+00	3.7875E+00	3.8988E+00
GAME	9.2399E-01	1.0977E+00	1.1221E+00
U	4.0673E+01	1.1429E+01	1.3990E+01

SPECIES	MOLE FRACTIONS		
E-	3.7953E-01	4.8241E-01	4.9356E-01
HE	1.8360E-02	1.2035E-03	2.7956E-04
HE+	2.1093E-03	1.1965E-02	9.4936E-03
HE++	4.0426E-11	1.3432E-05	3.1443E-03
H	2.6783E-01	3.3994E-02	5.7979E-03
H+	3.7742E-01	4.7342E-01	4.8279E-01
H2	6.3151E-06	2.7797E-07	6.9493E-09

P1 = 5.00E+02 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7574E+03	2.0934E+04	3.7496E+04
T	8.2622E+01	1.5621E+02	2.4514E+02
RHO	1.0289E+01	3.4973E+01	3.9137E+01
H	4.5077E+02	7.8951E+02	1.0853E+03
A	1.5903E+01	2.5902E+01	3.2779E+01
S	2.6856E+00	2.8776E+00	2.9579E+00
Z	3.2433E+00	3.9139E+00	3.9283E+00
GAME	9.3183E-01	1.1261E+00	1.1715E+00
U	4.2065E+01	1.2365E+01	1.5012E+01

SPECIES	MOLE FRACTIONS		
E-	3.9377E-01	4.8872E-01	5.0106E-01
HE	1.2491E-02	9.1217E-04	1.2215E-04
HE+	2.9254E-03	1.2244E-02	6.5159E-03
HE++	1.4951E-10	5.3641E-05	6.1553E-03
H	1.8997E-01	2.1810E-02	3.9172E-03
H+	3.9534E-01	4.7636E-01	4.9243E-01
H2	4.2496E-06	1.0330E-07	2.9737E-09

Table III. - Continued

P_1 = 500 N/m^2

P1 = 5.00E+02 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9423E+03	2.17u6E+04	4.315JE+04
T	8.599ɛE+01	1.7065E+02	2.6491E+02
RHO	1.0236E+01	3.3091E+01	3.790?E+01
H	4.8123E+02	8.3821E+02	1.1o78E+03
A	1.6449E+01	2.7397F+01	3.+?53F+01
S	2.7328E+00	2.8688E+00	2.9964E+00
Z	3.3425E+00	3.8451E+00	3.9242E+00
GAME	9.4132E-01	1.1431E+00	1.1403E+00
U	4.3443E+01	1.3437E+01	1.6059E+01

SPECIES	MOLE FRACTIONS		
E-	4.16c1E-01	4.9286E-01	5.0308E-01
HE	1.0969E-02	5.3142E-04	5.4895E-05
HE+	3.9899E-03	1.2273E-02	3.7468E-03
HE++	5.4566F-10	1.9950E-04	9.9399E-03
H	1.5590E-01	1.3947E-02	2.7176E-03
H+	4.1262E-01	4.9319F-01	4.9146E-01
H2	2.7369E-06	3.7766F-08	1.3491E-09

P1 = 5.00E+02 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5252E+03	2.3551E+04	4.7657E+04
T	9.878ɛE+01	2.1697E+02	3.5814F+02
RHO	9.8650E+00	2.8354E+01	3.3741E+01
H	5.7826E+02	9.9287E+02	1.4279E+03
A	1.8902E+01	3.0744E+01	4.0829E+01
S	2.8705E+00	2.9774E+00	3.1029E+00
Z	3.4173E+00	3.8560E+00	3.9429E+00
GAME	9.8529E-01	1.1189E+00	1.1802E+00
U	4.7459E+01	1.6434E+01	1.9572E+01

SPECIES	MOLE FRACTIONS		
E-	4.4062E-01	4.8934E-01	5.0755E-01
HE	5.3271E-03	1.4822E-04	2.4678E-06
HE+	8.4854E-03	9.2926E-03	5.5783E-04
HE++	2.9449E-09	3.3740E-03	1.2117E-02
H	7.2815E-02	4.4841E-03	9.9002E-04
H+	4.5244E-01	4.9332E-01	4.8077E-01
H2	5.0754E-07	2.0583E-09	1.5141E-10

P1 = 5.00E+02 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1317E+03	2.2545E+04	4.2735E+04
T	8.9729E+01	1.8554E+02	2.5714E+02
RHO	1.0148E+01	3.1365E+01	3.6552E+01
M	5.1261E+02	8.8877E+02	1.2538E+03
A	1.7150E+01	2.9477E+01	3.6849E+01
S	2.7794E+00	2.9070E+00	3.0334E+00
Z	3.4393E+00	3.8656E+00	3.9347E+00
GAME	9.5314E-01	1.1442E+00	1.1614E+00
U	4.4795E+01	1.4427E+01	1.7156E+01

SPECIES	MOLE FRACTIONS		
E-	4.3302E-01	4.9555E-01	5.0441E-01
HE	9.2201E-03	3.6451E-04	2.1923E-05
HE+	5.3179E-03	1.1936E-02	1.9451E-03
HE++	2.0231E-09	4.3401E-04	1.0741E-02
H	1.2474E-01	9.1738E-03	1.9074E-03
H+	4.2770E-01	4.8234E-01	4.8098E-01
H2	1.6703E-06	1.4742E-08	6.2477E-10

P1 = 5.00E+02 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7245E+03	2.4417E+04	4.5686E+04
T	1.0457E+02	2.2195E+02	3.0871E+02
RHO	9.4526E+00	2.6933E+01	3.2311E+01
M	6.1245E+02	1.0458E+03	1.5222E+03
A	1.9870E+01	3.1814E+01	4.2447E+01
S	2.9143E+00	3.0170E+00	3.1349E+00
Z	3.6562E+00	3.9284E+00	3.9567E+00
GAME	1.0177E+00	1.1146E+00	1.1828E+00
U	4.8742E+01	1.7442E+01	2.0734E+01

SPECIES	MOLE FRACTIONS		
E-	4.7211E-01	5.0108E-01	5.0579E-01
HE	3.5432E-03	1.0448E-04	1.5393E-04
HE+	9.9021E-03	7.1142E-03	3.4087E-04
HE++	1.1922E-07	5.5762E-03	1.0330E-02
H	5.2227E-02	3.3107E-03	7.4271E-04
H+	4.4212E-01	4.8282E-01	4.8079E-01
H2	2.3048E-07	1.4631E-09	8.1014E-11

P1 = 5.00E+02 N/SQ-M, US1= 8.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3256E+03	2.3275E+04	4.5280E+04
T	9.3889E+01	2.0114E+02	2.8439E+02
RHO	1.0036E+01	2.9817E+01	3.5206E+01
M	5.4495E+02	9.3587E+02	1.3478E+03
A	1.7914E+01	2.9737E+01	3.8860E+01
S	2.8249E+00	2.9423E+00	3.0683E+00
Z	3.5303E+00	3.8807E+00	3.9405E+00
GAME	9.4831E-01	1.1335E+00	1.1741E+00
U	4.6128E+01	1.5480E+01	1.8328E+01

SPECIES	MOLE FRACTIONS		
E-	4.4764E-01	4.9751E-01	5.0514E-01
HE	7.3240E-03	2.5433E-04	8.6525E-06
HE+	6.8351E-03	1.1018E-02	1.0169E-03
HE++	7.4843E-09	1.4121E-03	1.1463E-02
H	9.7255E-02	5.3278E-03	1.3464E-03
H+	4.4080E-01	4.9327E-01	4.8080E-01
H2	9.4389E-07	6.4051E-09	3.0464E-10

Table III. - Continued

p_1 = 1 kN/ m^2

P1 = 1.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.112+E+01	2.3087E+01	5.6541E+01
T	2.8249E+00	3.5090E+00	4.9570E+00
RHO	3.9374E+00	6.5923E+00	1.1418E+01
H	2.3883E+00	3.6101E+00	5.1956E+00
A	1.6757E+00	1.8601E+00	2.1880E+00
S	1.0594E+00	1.0601E+00	1.0797E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9407E-01	9.8638E-01	9.6477E-01
U	2.8176E+00	1.3824E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	1.9336E-65	9.1517E-47	9.5189E-31
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	1.2496E-72	1.1866E-51	2.5141E-52
HE++	0.	0.	0.
H	3.3912E-11	4.1274E-09	9.6199E-06
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.4999E-01

P1 = 1.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4984E+01	1.2089E+02	2.3293E+02
T	6.4612E+00	9.8713E+00	1.0393E+01
RHO	5.3911E+00	1.4153E+01	2.1633E+01
H	6.9685E+00	1.0474E+01	1.3791E+01
A	2.4660E+00	2.9006E+00	3.3236E+00
S	1.1535E+00	1.1653E+00	1.1915E+00
Z	1.0000E+00	1.0136E+00	1.0359E+00
GAME	9.4112E-01	8.7493E-01	8.4764E-01
U	4.4280E+00	1.6950E+00	1.4699E+00

SPECIES	MOLE FRACTIONS		
E-	4.2[illegible]E-19	9.9732E-14	1.1952E-11
HE	4.9979E-02	4.9475E-02	4.8274E-02
HE+	1.71[illegible]E-44	3.6291E-33	1.7600E-29
HE++	0.	0.	0.
H	8.[illegible]204E-04	2.1314E-02	6.9055E-02
H+	4.8[illegible]1E-19	9.9782E-14	1.1952E-11
H2	9.4[illegible]5E-01	9.2951E-01	8.9207E-01

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.752.E+01	4.6597E+01	1.0211E+02
T	3.8703E+00	5.1616E+00	7.0112E+00
RHO	4.5267E+00	9.0240E+00	1.4554E+01
H	3.9996E+00	5.4334E+00	7.6441E+00
A	1.9491E+00	2.2306E+00	2.5586E+00
S	1.0912E+00	1.0959E+00	1.1175E+00
Z	1.0000E+00	1.0000E+00	1.0006E+00
GAME	9.8154E-01	9.6391E-01	9.3304E-01
U	3.0256E+00	1.5143E+00	1.0769E+00

SPECIES	MOLE FRACTIONS		
E-	2.6116E-43	7.4330E-28	3.8224E-18
HE	5.0000E-02	4.9999E-02	4.9962E-02
HE+	3.8825E-60	9.3099E-51	2.1108E-39
HE++	0.	0.	0.
H	1.1183E-07	2.3402E-05	1.5281E-03
H+	6.3460E-20	6.3460E-20	3.7590E-18
H2	9.5000E-01	9.4999E-01	9.4851E-01

P1 = 1.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6003E+01	1.9365E+02	3.2722E+02
T	7.8261E+00	1.0336E+01	1.1604E+01
RHO	5.8523E+00	1.8042E+01	2.6207E+01
H	8.837.E+00	1.3905E+01	1.7581E+01
A	2.6546E+00	3.6111E+00	3.2365E+00
S	1.1827E+00	1.2010E+00	1.2305E+00
Z	1.0044E+00	1.0373E+00	1.0763E+00
GAME	8.9050E-01	9.4566E-01	9.3897E-01
U	5.1512E+00	1.6694E+00	1.4824E+00

SPECIES	MOLE FRACTIONS		
E-	1.6626E-15	1.1521E-11	2.3364E-10
HE	4.9779E-02	4.9820E-02	4.6473E-02
HE+	1.5869E-36	1.1634E-28	1.6595E-25
HE++	0.	0.	0.
H	8.8400E-03	7.2000E-02	1.4121E-01
H+	1.4621E-15	1.1521E-11	2.3364E-10
H2	9.4158E-01	8.7959E-01	8.1232E-01

P1 = 1.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5403E+01	7.9924E+01	1.6058E+02
T	5.0395E+00	7.3497E+00	8.9297E+00
RHO	4.9833E+00	1.1327E+01	1.7302E+01
H	5.3593E+00	7.4956E+00	1.0519E+01
A	2.2172E+00	2.5623E+00	2.8128E+00
S	1.1233E+00	1.1338E+00	1.1545E+00
Z	1.0000E+00	1.0009E+00	1.0131E+00
GAME	9.6467E-01	9.3042E-01	8.7715E-01
U	3.7253E+00	1.6383E+00	1.4492E+00

SPECIES	MOLE FRACTIONS		
E-	6.0435E-29	9.5990E-18	1.0727E-13
HE	4.9[illegible]E-02	4.9953E-02	4.9500E-02
HE+	1.3[illegible]E-51	3.4998E-40	9.4753E-33
HE++	0.	0.	0.
H	2.4311E-05	1.3611E-03	1.0997E-02
H+	6.3460E-20	9.6424E-18	1.0727E-13
H2	9.49[illegible]E-01	9.4d19E-01	9.3050E-01

P1 = 1.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9091E+01	2.8750E+02	4.5823E+02
T	9.9709E+00	1.1563E+01	1.2729E+01
RHO	6.4742E+00	2.3063E+01	3.1884E+01
H	1.0397E+01	1.7765E+01	2.2066E+01
A	2.7972E+00	3.2338E+00	3.4730E+00
S	1.2122E+00	1.2399E+00	1.2720E+00
Z	1.0175E+00	1.0791E+00	1.1292E+00
GAME	9.5727E-01	9.3773E-01	9.3922E-01
U	5.9106E+00	1.6586E+00	1.5067E+00

SPECIES	MOLE FRACTIONS		
E-	2.5[illegible]9E-13	2.3337E-10	2.0319E-09
HE	4.9142E-02	4.6337E-02	4.4280E-02
HE+	7.1[illegible]3E-33	1.2083E-25	1.5745E-23
HE++	0.	2.2397E-91	2.7569E-82
H	3.4321E-02	1.4654E-01	2.2880E-01
H+	2.5328E-13	2.3337E-10	2.0319E-09
H2	9.1654E-01	8.0712E-01	7.2692E-01

Table III. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4033E+01	4.1393E+02	6.3225E+02
T	9.9914E+00	1.2699E+01	1.3829E+01
RHO	7.2041E+00	2.9604E+01	3.8296E+01
H	1.3371E+01	2.2162E+01	2.7064E+01
A	2.9357E+00	3.4713E+00	3.7326E+00
S	1.2424E+00	1.2796E+00	1.3163E+00
Z	1.0401E+00	1.1326E+00	1.1939E+00
GAME	9.3954E-01	9.3939E-01	9.4395E-01
U	6.0884E+00	1.6721E+00	1.5501E+00

SPECIES	MOLE FRACTIONS		
E-	5.6951E-12	2.0341E-09	1.1739E-09
HE	4.3373E-02	4.3145E-02	4.1879E-02
HE+	5.7317E-13	1.7744E-23	9.6914E-22
HE++	0.	1.4026E-83	2.6720E-75
H	7.7[illegible]E-02	2.3419E-01	3.2494E-01
H+	5.6951E-12	2.0341E-09	1.1739E-09
H2	8.7496E-01	7.2166E-01	6.3329E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2930E+02	9.8674E+02	1.4201E+03
T	1.1936E+01	1.5853E+01	1.7282E+01
RHO	9.4088E+00	4.6182E+01	5.6794E+01
H	2.2076E+01	3.8397E+01	4.5864E+01
A	3.3734E+00	4.2846E+00	4.6746E+00
S	1.3433E+00	1.4139E+00	1.4634E+00
Z	1.1495E+00	1.3478E+00	1.4469E+00
GAME	8.2940E-01	8.5919E-01	8.7391E-01
U	9.0230E+00	1.8390E+00	1.7913E+00

SPECIES	MOLE FRACTIONS		
E-	9.6921E-10	1.5876E-07	6.3048E-07
HE	4.3497E-02	3.7099E-02	3.4557E-02
HE+	8.1420E-25	4.3951E-19	1.2462E-17
HE++	7.4685E-84	3.2212E-69	6.7590E-63
H	2.6011E-01	5.1636E-01	6.1771E-01
H+	9.6921E-10	1.5876E-07	6.3048E-07
H2	6.9640E-01	4.4685E-01	3.4773E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5067E+02	1.2378E+03	1.7708E+03
T	1.2522E+01	1.6957E+01	1.8628E+01
RHO	1.0053E+01	5.0878E+01	6.1427E+01
H	2.5477E+01	4.4741E+01	5.3369E+01
A	3.5303E+00	4.6022E+00	5.0669E+00
S	1.3801E+00	1.4623E+00	1.5166E+00
Z	1.1969E+00	1.4349E+00	1.5475E+00
GAME	8.3151E-01	8.7057E-01	8.9062E-01
U	9.7901E+00	1.9349E+00	1.9157E+00

SPECIES	MOLE FRACTIONS		
E-	2.9852E-09	4.8933E-07	1.9834E-06
HE	4.1773E-02	3.4849E-02	3.2309E-02
HE+	1.0214E-23	6.2849E-18	1.9373E-16
HE++	3.7870E-84	1.0366E-63	3.9662E-58
H	3.2907E-01	6.0608E-01	7.0762E-01
H+	2.9852E-09	4.8933E-07	1.9834E-06
H2	8.2916E-01	3.5907E-01	2.6037E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7386E+02	1.5151E+03	2.1656E+03
T	1.3390E+01	1.8142E+01	2.0222E+01
RHO	1.0633E+01	5.4694E+01	6.4763E+01
H	2.9129E+01	5.1539E+01	6.1561E+01
A	3.6945E+00	4.9512E+00	5.5296E+00
S	1.4183E+00	1.5113E+00	1.5696E+00
Z	1.2491E+00	1.5269E+00	1.6536E+00
GAME	8.3475E-01	8.8492E-01	9.1438E-01
U	1.0553E+01	2.0519E+00	2.0709E+00

SPECIES	MOLE FRACTIONS		
E-	8.0124E-09	1.4049E-06	6.3571E-06
HE	4.0027E-02	3.2745E-02	3.0238E-02
HE+	9.8806E-23	7.5693E-17	3.1707E-15
HE++	5.3164E-81	1.8151E-59	9.2134E-54
H	3.9950E-01	6.9219E-01	7.9047E-01
H+	8.0124E-09	1.4049E-06	6.3571E-06
H2	5.6157E-01	2.7737E-01	1.7928E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0[illegible]E+02	7.6383E+02	1.1127E+03
T	1.1319E+01	1.4794E+01	1.6069E+01
RHO	9.7[illegible]E+00	4.0338E+01	5.1157E+01
H	1.9924E+01	3.2306E+01	3.9986E+01
A	3.2227E+00	3.7344E+00	4.3291E+00
S	1.3091E+00	1.3674E+00	1.4123E+00
Z	1.1071E+00	1.2593E+00	1.3534E+00
GAME	8.2996E-01	8.5010E-01	8.6121E-01
U	9.2496E+00	1.7649E+00	1.6901E+00

SPECIES	MOLE FRACTIONS		
E-	2.5806E-10	4.6226E-08	1.9065E-07
HE	4.0518E-02	3.6624E-02	3.6939E-02
HE+	4.9761E-26	2.4396E-20	7.3561E-19
HE++	0.	9.1065E-73	5.4033E-67
H	1.9335E-01	4.2306E-01	5.2242E-01
H+	2.5809E-10	4.6269E-08	1.9091E-07
H2	7.6125E-01	5.3753E-01	4.4064E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.0730E+01	5.7253E+02	8.5036E+02
T	1.0364E+01	1.3752E+01	1.4933E+01
RHO	7.9629E+00	3.4867E+01	4.4873E+01
H	1.6022E+01	2.7391E+01	3.2728E+01
A	3.0777E+00	3.7237E+00	4.0166E+00
S	1.2745E+00	1.3223E+00	1.3632E+00
Z	1.0704E+00	1.1961E+00	1.2693E+00
GAME	8.3101E-01	8.4302E-01	8.5132E-01
U	7.4699E+00	1.7131E+00	1.6117E+00

SPECIES	MOLE FRACTIONS		
E-	5.0191E-11	1.1150E-08	5.1995E-08
HE	4.0771E-02	4.1303E-02	3.9402E-02
HE+	1.3336E-27	8.5239E-22	3.4659E-20
HE++	0.	1.9821E-77	7.3944E-72
H	1.3136E-01	5.2789E-01	4.2400E-01
H+	5.0191E-11	1.1154E-08	5.1995E-08
H2	8.2173E-01	6.3031E-01	5.3660E-01

Table III. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9863E+02	1.8132E+03	2.6066E+03
T	1.3651E+01	1.9477E+01	2.2318E+01
RHO	1.1141E+01	5.7374E+01	6.6335E+01
M	3.3036E+01	5.8771E+01	7.0572E+01
A	3.8670E+00	5.3451E+00	6.1189E+00
S	1.4579E+00	1.5607E+00	1.6239E+00
Z	1.3058E+00	1.6226E+00	1.7607E+00
GAME	8.3996E-01	9.6403E-01	9.5285E-01
U	1.1309E+01	2.1966E+00	2.2813E+00

SPECIES	MOLE FRACTIONS		
E-	1.9492E-09	3.9790E-06	2.3093E-05
HE	3.8290E-02	3.0816E-02	2.8399E-02
HE+	7.6895E-22	9.1721E-16	7.2332E-14
HE++	2.8526E-78	1.5725E-55	1.6842E-48
H	4.6942E-01	7.6737E-01	8.6399E-01
H+	1.9482E-08	3.9780E-06	2.3093E-05
H2	4.9329E-01	2.3191E-01	1.0757E-01

P1 = 1.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9230E+02	2.7429E+03	4.2795E+03
T	1.5430E+01	2.6144E+01	3.8134E+01
RHO	1.2260E+01	5.5955E+01	5.7619E+01
M	4.6229E+01	9.2772E+01	1.1525E+02
A	4.4511E+00	7.1566E+00	8.9294E+00
S	1.5831E+00	1.7624E+00	1.7779E+00
Z	1.5003E+00	1.8783E+00	1.9472E+00
GAME	8.5735E-01	1.0433E+00	1.0739E+00
U	1.3546E+01	2.9527E+00	3.6426E+00

SPECIES	MOLE FRACTIONS		
E-	2.0315E-07	1.5973E-04	4.7934E-03
HE	3.8334E-02	2.6619E-02	2.5678E-02
HE+	1.8034E-19	7.1245E-13	3.4599E-08
HE++	1.1473E-69	3.0035E-41	9.4641E-29
H	6.6603E-01	9.3476E-01	9.5451E-01
H+	2.0315E-07	1.5970E-04	4.7934E-03
H2	3.0033E-01	3.8307E-02	6.2209E-03

P1 = 1.00E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2489E+02	2.1253E+03	3.1021E+03
T	1.4215E+01	2.1078E+01	2.5557E+01
RHO	1.1575E+01	5.8681E+01	6.5345E+01
H	3.7180E+01	6.6417E+01	8.0702E+01
A	4.0493E+00	5.8089E+00	6.9684E+00
S	1.4987E+00	1.6098E+00	1.6786E+00
Z	1.3668E+00	1.7182E+00	1.8575E+00
GAME	8.4396E-01	9.3169E-01	1.0229E+00
U	1.2060E+01	2.3794E+00	2.5965E+00

SPECIES	MOLE FRACTIONS		
E-	4.4194E-08	1.1743E-05	1.1450E-04
HE	3.6583E-02	2.9099E-02	2.6918E-02
HE+	5.1482E-21	1.2481E-14	3.6062E-12
HE++	4.3913E-76	3.1801E-52	3.0052E-42
H	5.3668E-01	9.3599E-01	9.2295E-01
H+	4.4194E-08	1.1743E-05	1.1450E-04
H2	4.2674E-01	1.3489E-01	4.9903E-02

P1 = 1.00E+03 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1284E+02	3.0159E+03	4.9900E+03
T	1.6066E+01	3.0139E+01	4.4360E+01
RHO	1.2394E+01	5.1819E+01	5.5400E+01
H	5.1125E+01	9.1324E+01	1.1911E+02
A	4.6773E+00	8.0042E+00	9.4235E+00
S	1.6265E+00	1.7466E+00	1.9165E+00
Z	1.5713E+00	1.9203E+00	1.9713E+00
GAPE	9.6[illegible]E-01	1.1639E+00	1.0154E+00
U	1.427[illegible]E+01	3.41[illegible]E+00	4.0753E+00

SPECIES	MOLE FRACTIONS		
E-	4.2229E-07	7.2794E-04	1.4103E-02
HE	3.1833E-02	2.6033E-02	2.5344E-02
HE+	1.3[illegible]E-18	3.9[illegible]E-13	4.9345E-07
HE++	9.6015E-67	2.5267E-35	1.2197E-23
H	7.2730E-01	9.6833E-01	9.4312E-01
H+	4.2229E-07	7.2794E-04	1.4097E-02
H2	2.4068E-01	1.7191E-02	3.3187E-03

P1 = 1.00E+03 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5273E+02	2.4408E+03	3.6671E+03
T	1.4796E+01	2.3170E+01	3.1075E+01
RHO	1.1932E+01	5.8292E+01	6.1483E+01
H	4.1580E+01	7.4444E+01	9.2400E+01
A	4.2432E+00	6.3920E+00	8.1010E+00
S	1.5405E+00	1.6576E+00	1.7314E+00
Z	1.4316E+00	1.9075E+00	1.9194E+00
GAME	8.5002E-01	9.7563E-01	1.1003E+00
U	1.2907E+01	2.6240E+00	3.0829E+00

SPECIES	MOLE FRACTIONS		
E-	9.5735E-08	3.9112E-05	8.4230E-04
HE	3.4926E-02	2.7663E-02	2.6053E-02
HE+	3.1304E-20	2.3195E-13	4.8431E-10
HE++	1.6099E-72	4.4340E-47	1.7330E-34
H	6.0295E-01	8.9336E-01	9.5547E-01
H+	9.5735E-08	3.9112E-05	8.4230E-04
H2	3.6212E-01	7.8902E-02	1.6779E-02

P1 = 1.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4532E+02	3.2634E+03	5.4504E+03
T	1.6432E+01	3.5193E+01	4.9239E+01
RHO	1.2494E+01	4.7761E+01	5.5154E+01
H	5.6268E+01	1.0012E+02	1.3095E+02
A	4.9291E+00	9.6432E+00	1.0912E+01
S	1.6731E+00	1.7407E+00	1.8503E+00
Z	1.6444E+00	2.0413E+00	2.0305E+00
GAME	8.7875E-01	1.0963E+00	1.7935E-01
U	1.5302E+01	3.9206E+00	4.3941E+00

SPECIES	MOLE FRACTIONS		
E-	9.0321E-07	2.9357E-03	2.7453E-02
HE	3.0338E-02	2.5757E-02	2.4991E-02
HE+	6.1400E-18	7.9406E-09	2.5972E-06
HE++	3.3169E-54	3.4736E-30	4.9436E-21
H	7.8414E-01	9.4132E-01	9.1789E-01
H+	9.0321E-07	2.9356E-03	2.7453E-02
H2	1.8546E-01	7.3107E-03	2.2124E-03

Table III. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7851E+02	3.4977E+03	5.9778E+03
T	1.7667E+01	4.0890E+01	5.3615E+01
RHO	1.2466E+01	4.4636E+01	5.4794E+01
H	6.1656E+01	1.0929E+02	1.4370E+02
A	5.2170E+00	9.0578E+00	1.0216E+01
S	1.7139E+00	1.8143E+00	1.8921E+00
Z	1.7193E+00	1.9575E+00	2.0348E+00
GAME	9.9594E-01	1.0470E+00	9.5669E-01
U	1.5713E+01	4.3838E+00	4.6246E+00

SPECIES	MOLE FRACTIONS		
E-	2.0346E-06	7.7816E-03	4.3305E-02
HE	2.9681E-02	2.5543E-02	2.4564E-02
HE+	4.2766E-17	9.5361E-09	9.2307E-06
HE++	9.1943E-61	2.7114E-26	3.1200E-19
H	8.3676E-01	9.5494E-01	9.9719E-01
H+	2.0346E-06	7.7815E-03	4.3296E-02
H2	1.3416E-01	3.9554E-03	1.6376E-33

P1 = 1.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8394E+02	3.9323E+03	6.8615E+03
T	2.2526E+01	5.1283E+01	6.3323E+01
RHO	1.1263E+01	3.8268E+01	5.0506E+01
H	7.9212E+01	1.3900E+02	1.8220E+02
A	6.7077E+00	9.9606E+00	1.1252E+01
S	1.8389E+00	1.9077E+00	1.9762E+00
Z	1.9074E+00	2.0292E+00	2.1559F+00
GAME	1.0471E+00	9.5339F-01	9.3185E-01
U	1.7691E+01	5.2034E+00	5.0730E+00

SPECIES	MOLE FRACTIONS		
E-	6.3403E-05	4.0341E-02	9.6330E-02
HE	2.6213E-02	2.4635E-02	2.3128E-02
HE+	1.9849E-13	5.3136E-06	6.4175E-05
HE++	2.1274E-47	4.8678E-23	4.9964E-16
H	9.5127E-01	8.9337E-01	7.9339E-01
H+	6.3403E-05	4.0335E-02	9.6266E-02
H2	2.2398E-02	1.3161E-03	8.1944E-34

P1 = 1.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1307E+02	3.7179E+03	6.4293E+03
T	1.976xE+01	4.4319E+01	5.7237E+01
RHO	1.2287E+01	4.2440E+01	5.4189E+01
H	6.729xE+01	1.1996E+02	1.5663E+02
A	5.5703E+00	9.3781E+00	1.0584E+01
S	1.7571E+00	1.9455E+00	1.9131E+00
Z	1.7920E+00	1.9767E+00	2.0729E+00
GAME	9.2297E-01	1.0039E+00	9.4427E-01
U	1.c40EE+01	4.747?E+00	4.8163E+00

SPECIES	MOLE FRACTIONS		
E-	5.1J55E-06	1.6039E-02	6.3527E-02
HE	2.7932E-02	2.5295E-02	2.4162E-02
HE+	3.9972E-16	5.5480E-07	1.9+32E-05
HE++	5.5857E-59	1.5053E-23	6.9164E-19
H	8.8391E-01	9.4017E-01	8.5357E-01
H+	5.1055E-06	1.6307E-02	6.3508E-02
H2	8.9173E-02	2.5245E-03	1.2770E-03

P1 = 1.00E+03 N/SQ-M, US1= 2.60F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1923E+02	3.9771E+03	6.7773E+03
T	2.5775E+01	5.4037E+01	6.5221E+01
RHO	1.0416E+01	3.5732E+01	4.7239E+01
H	8.549CE+01	1.4924E+02	1.9453E+02
A	7.4565E+00	1.0229E+01	1.1539E+01
S	1.9751E+00	1.9397E+00	2.0099E+00
Z	1.9340E+00	2.0639E+00	2.1988E+00
GAME	1.1154E+00	9.4011E-01	9.2949E-01
U	1.8252E+01	5.3178E+00	5.1567E+00

SPECIES	MOLE FRACTIONS		
E-	3.1536E-04	5.4912E-02	1.1380E-01
HE	2.3853E-02	2.4250E-02	2.2642E-02
HE+	1.0520E-11	1.1175E-05	9.7550E-05
HE++	4.0694E-41	6.P083E-19	2.1859E-15
H	9.6494F-01	9.6512F-01	7.4939E-01
H+	3.1536E-04	5.4801E-02	1.1371E-01
H2	8.5748E-03	1.0375E-03	6.6030E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4942E+02	3.8946E+03	6.7477E+03
T	2.0266E+01	4.8075E+01	6.0356E+01
RHO	1.1911E+01	4.2689E+01	5.2901F+01
H	7.3144E+01	1.2983E+02	1.6951E+02
A	6.0430E+00	9.6765E+00	1.0931E+01
S	1.7992E+00	1.8703E+00	1.9440E+00
Z	1.8578E+00	2.0038E+00	2.1133E+00
GAME	9.6997E-01	9.7344E-01	9.3676E-01
U	1.7372E+01	5.0191F+00	4.9592E+00

SPECIES	MOLE FRACTIONS		
E-	1.5537E-05	2.7151E-02	7.9312E-02
HE	2.6914E-02	2.4988E-02	2.3021E-02
HE+	6.1532E-15	2.6217E-06	3.7799E-05
HE++	1.8760E-53	1.5491E-21	7.5597E-17
H	9.2340E-01	9.1994E-01	7.1873E-01
H+	1.5557E-05	2.7149E-02	7.9274E-02
H2	4.9659E-02	1.7735E-03	1.6239F-03

P1 = 1.00E+03 N/SQ-M, US1= 2.70F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5505E+02	3.9645E+03	6.6690E+03
T	2.9615E+01	5.6432E+01	6.722?E+01
RHO	9.6325E+00	3.3528E+01	4.4223E+01
H	9.1961E+01	1.5972E+02	2.0692E+02
A	8.0145E+00	1.0494E+01	1.1819E+01
S	1.9372E+00	1.9711E+00	2.0412E+00
Z	1.9454E+00	2.1954E+00	2.2431E+00
GAME	1.1143E+00	9.3127E-01	9.2433E-01
U	1.8791E+01	5.3963E+00	5.2292E+00

SPECIES	MOLE FRACTIONS		
E-	1.3549E-03	7.0169E-02	1.3122E-01
HE	2.5697E-02	2.3842E-02	2.2153E-02
HE+	3.3441E-13	2.0479E-05	1.4018E-04
HE++	1.6724E-35	5.3207E-18	7.8254E-15
H	9.6806E-01	9.3503E-01	7.1487E-01
H+	1.3549E-03	7.0148E-02	1.3109E-01
H2	3.5391E-03	7.9372E-04	5.3637E-04

Table III. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 2.80F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9263E+02	4.2169F+03	6.6766E+03
T	3.3423E+01	5.8743E+01	6.9256E+01
RHO	9.0694E+00	3.2364F+01	4.2103E+01
H	9.868FE+01	1.7072F+02	2.1995E+02
A	9.3525E+00	1.0764E+01	1.2113E+01
S	1.930JE+00	2.0011E+00	2.0724E+00
Z	1.9547E+00	2.1326E+00	2.2897E+00
GAME	1.0677E+00	9.2553E-01	9.6527E-01
U	1.9344F+01	5.4706E+00	5.3383E+00

SPECIES	MOLE FRACTIONS		
E-	4.1711E-03	9.6294E-02	1.4881F-01
HE	2.55P6E-02	2.3613E-02	2.1640E-02
HE+	6.1448E-09	3.4620E-08	1.9653E-04
HE++	3.7902E-31	3.7839E-17	2.6025E-14
H	9.6629E-01	8.0338E-01	6.8029F-01
H+	4.1711E-03	8.6250E-02	1.4962F-01
H2	1.7874E-03	6.4371E-04	4.4261F-04

P1 = 1.CJE+03 N/SQ-M, US1= 3.20F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6646E+02	4.933JE+03	7.9557F+03
T	4.4862F+01	6.7939F+01	7.8475F+01
RHO	8.4354E+00	3.1450F+01	4.0536F+01
H	1.2835E+02	2.215JF+02	2.8150F+02
A	9.2021F+00	1.2011E+01	1.3514F+01
S	2.0342E+00	2.1103E+00	2.1983E+00
Z	2.0251E+00	2.3393E+00	2.5029E+00
GAME	9.3198E-01	9.1998F-01	9.2993E-01
U	2.1935F+01	5.9706E+00	5.7621E+00

SPECIES	MOLE FRACTIONS		
E-	3.7614E-02	1.5555F-01	2.2114E-01
HE	2.4697E-02	2.1477E-02	1.9299F-02
HE+	1.4946E-06	1.9452F-04	6.7743F-04
HE++	1.5367E-22	1.6739F-14	2.4595E-12
H	8.9963E-01	6.6708F-01	5.3819E-01
H+	3.7612E-02	1.5537E-01	2.2346E-01
H2	4.5122E-04	3.1408E-04	2.2724F-04

P1 = 1.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.325?E+02	4.153?E+03	6.8321E+03
T	3.6873E+01	6.103?E+01	7.1403E+01
RHO	8.723?E+00	3.1314E+01	4.0907E+01
H	1.0569E+02	1.3242E+02	2.3392E+02
A	8.581?E+00	1.1058E+01	1.2431E+01
S	1.9624E+00	2.0296E+00	2.1324E+00
Z	1.9564E+00	2.1728E+00	2.3391E+00
GAME	1.0157E+00	9.2205E-01	9.2529E-01
U	1.9941E+01	5.5502E+00	5.4018E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	9.4349E-03	1.0307E-01	1.6673E-01
HE	2.5427E-02	2.2956E-02	2.1103E-02
HE+	4.6122E-09	5.5601E-05	2.7244E-04
HE++	5.3623E-23	2.3941E-16	9.4619E-14
H	9.5462E-01	7.7036F-01	6.4507E-01
H+	9.4349E-03	1.0302E-01	1.6646F-01
H2	1.0869E-03	5.3693E-04	3.7055E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.661?E+02	5.6574E+03	9.0533E+03
T	4.8944E+01	7.2549E+01	9.3594E+01
RHO	9.512?E+00	3.2373E+01	4.1284E+01
H	1.448?E+02	2.5357E+02	3.1735E+02
A	9.6343E+00	1.2096E+01	1.4321E+01
S	2.0794E+00	2.1522E+00	2.2449E+00
Z	2.0791E+00	2.4099E+00	2.6233E+00
GAME	9.1213E-01	8.2233E-01	8.3527E-01
U	2.3302E+01	6.1243E+00	6.0510E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	6.2359E-02	1.9072E-01	2.5694E-01
HE	2.4043E-02	2.0409E-02	1.7994E-02
HE+	5.6542E-06	3.2772E-04	1.1655E-03
HE++	1.9?.5E-20	1.3435E-13	1.9373E-11
H	8.5?94E-01	5.9790E-01	4.6826E-01
H+	6.2354E-02	1.9037E-01	2.5567E-01
H2	3.13?2E-04	7.5112E-04	1.6419E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7314E+02	6.4915E+03	1.0337E+04
T	5.2491E+01	7.717?E+01	9.8956E+01
RHO	9.6599E+00	3.3493E+01	4.2266E+01
H	1.622?E+02	2.9162E+02	3.5608E+02
A	1.0074E+01	1.3411E+01	1.5179E+01
S	2.1231E+00	2.2136E+00	2.3311E+00
Z	2.1433E+00	2.5154E+00	2.7494E+00
GAME	9.0335E-01	8.0647E-01	8.4202E-01
U	2.4725E+01	6.4011E+00	6.3706E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	8.9351E-02	2.2693E-01	2.9088E-01
HE	2.3341E-02	1.9241E-02	1.6293E-02
HE+	1.5145E-05	6.3612E-04	1.8927E-03
HE++	7.0151E-19	1.6959E-12	1.2953E-11
H	7.9772E-01	5.3060E-01	4.0184E-01
H+	8.9336E-02	2.2435E-01	2.9999E-01
H2	2.3394E-04	1.8939E-04	1.1703E-04

P1 = 1.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3256E+02	4.1533E+03	6.8321E+03
T	3.6873E+01	6.1038E+01	7.1403E+01
RHO	8.7235E+00	3.1314E+01	4.0907E+01
H	1.0569E+02	1.3242E+02	2.3392E+02
A	8.5815E+00	1.1058E+01	1.2431E+01
S	1.9624E+00	2.0296E+00	2.1324E+00
Z	1.9564E+00	2.1728E+00	2.3391E+00
GAME	1.0157E+00	9.2205E-01	9.2529E-01
U	1.9941E+01	5.5502E+00	5.4018E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	9.4349E-03	1.0307E-01	1.6673E-01
HE	2.5427E-02	2.2956E-02	2.1103E-02
HE+	4.6122E-09	5.5601E-05	2.7244E-04
HE++	5.3623E-23	2.3941E-16	9.4619E-14
H	9.5462E-01	7.7036F-01	6.4507E-01
H+	9.4349E-03	1.0302E-01	1.6646F-01
H2	1.0869E-03	5.3693E-04	3.7055E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.661?E+02	5.6574E+03	9.0533E+03
T	4.8944E+01	7.2549E+01	9.3594E+01
RHO	9.512?E+00	3.2373E+01	4.1284E+01
H	1.448?E+02	2.5357E+02	3.1735E+02
A	9.6343E+00	1.2096E+01	1.4321E+01
S	2.0794E+00	2.1522E+00	2.2449E+00
Z	2.0791E+00	2.4099E+00	2.6233E+00
GAME	9.1213E-01	8.2233E-01	8.3527E-01
U	2.3302E+01	6.1243E+00	6.0510E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	6.2359E-02	1.9072E-01	2.5694E-01
HE	2.4043E-02	2.0409E-02	1.7994E-02
HE+	5.6542E-06	3.2772E-04	1.1655E-03
HE++	1.9?.5E-20	1.3435E-13	1.9373E-11
H	8.5?94E-01	5.9790E-01	4.6826E-01
H+	6.2354E-02	1.9037E-01	2.5567E-01
H2	3.13?2E-04	7.5112E-04	1.6419E-04

P1 = 1.00E+03 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7314E+02	6.4915E+03	1.0337E+04
T	5.2491E+01	7.717?E+01	9.8956E+01
RHO	9.6599E+00	3.3493E+01	4.2266E+01
H	1.622?E+02	2.9162E+02	3.5608E+02
A	1.0074E+01	1.3411E+01	1.5179E+01
S	2.1231E+00	2.2136E+00	2.3311E+00
Z	2.1433E+00	2.5154E+00	2.7494E+00
GAME	9.0335E-01	8.0647E-01	8.4202E-01
U	2.4725E+01	6.4011E+00	6.3706E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	8.9351E-02	2.2693E-01	2.9088E-01
HE	2.3341E-02	1.9241E-02	1.6293E-02
HE+	1.5145E-05	6.3612E-04	1.8927E-03
HE++	7.0151E-19	1.6959E-12	1.2953E-11
H	7.9772E-01	5.3060E-01	4.0184E-01
H+	8.9336E-02	2.2435E-01	2.9999E-01
H2	2.3394E-04	1.8939E-04	1.1703E-04

Table III. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, VS1= 3.83E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.39[illegible]E+03	7.4135E+03	1.1775E+04
T	5.5725E+01	9.1346E+01	9.4635E+01
RHO	8.[illegible]E-03	3.4477E-02	4.3219E-02
H	1.9[illegible]E+02	3.1464E+02	3.9759E+02
A	1.[illegible]E+01	1.4155E+01	1.6088E+01
S	2.[illegible]E+00	2.2652E+00	2.3574E+00
Z	2.2[illegible]E+00	2.6272E+00	2.8798E+00
GAME	9.[illegible]E-01	9.3175E-01	9.5033E-01
U	2.61[illegible]E+01	6.7301E+00	6.7231E+00

SPECIES	MOLE FRACTIONS		
E-	1.17[illegible]E-01	2.5779E-01	3.2295E-01
HE	2.2[illegible]E-02	1.2771E-02	1.4455E-02
HE+	3.3145E-05	1.1054E-03	2.9670E-03
HE++	4.24[illegible]E-17	1.1477E-11	7.5402E-10
H	7.46[illegible]E-01	4.6609E-01	3.3955E-01
H+	1.17[illegible]E-01	2.5684E-01	3.2305E-01
H2	1.4[illegible]E-04	1.4115E-04	9.1394E-05

P1 = 1.00E+03 N/SQ-M, VS1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4069E+03	1.0582E+04	1.6873E+04
T	6.4424E+01	9.6565E+01	1.1445E+02
RHO	9.3282E-03	3.6791E-02	4.4939E-02
H	2.4239E+02	4.2456E+02	5.3902E+02
A	1.1901E+01	1.6556E+01	1.9252E+01
S	2.3022E+00	2.4189E+00	2.5262E+00
Z	2.4403E+00	2.9786E+00	3.2805E+00
GAME	9.0073E-01	9.5299E-01	9.8719E-01
U	3.0508E+01	7.7312E+00	7.9890E+00

SPECIES	MOLE FRACTIONS		
E-	2.0121E-01	3.4539E-01	4.0559E-01
HE	2.0299E-02	1.3228E-02	7.8193E-03
HE+	1.8502E-04	3.5591E-03	7.4223E-03
HE++	7.0444E-15	1.5879E-09	8.1588E-08
H	5.7719E-01	2.9596E-01	1.8097E-01
H+	2.0102E-01	3.4182E-01	3.9817E-01
H2	8.8364E-05	5.2822E-05	2.1259E-05

P1 = 1.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0274E+03	9.4137E+03	1.3353E+04
T	5.9744E+01	9.5605E+01	1.3044E+02
RHO	9.0375E+00	3.5431E+01	4.4033E+01
H	2.6055E+02	3.6956E+02	4.4193E+02
A	1.0937E+01	1.4524E+01	1.7060E+01
S	2.2127E+00	2.3153E+00	2.4134E+00
Z	2.2811E+00	2.7421E+00	3.0131E+00
GAME	9.9914E-01	9.3792E-01	9.5969E-01
U	2.7617E+01	7.0165E+00	7.1040E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.4554E-01	2.9999E-01	3.5299E-01
HE	2.1849E-02	1.9F0EE-02	1.2373E-02
HE+	6.3746E-05	1.6696E-03	4.2206E-03
HE++	1.3749E-14	6.9414E-11	3.9196E-09
H	6.9852E-01	4.0736E-01	2.9179E-01
H+	1.4548E-01	2.9731E-01	3.4867E-01
H2	1.4144E-04	1.0460E-04	5.4676E-05

P1 = 1.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6059E+03	1.1734E+04	1.9812E+04
T	6.7177E+01	1.0191E+02	1.2274E+02
RHO	9.4638E+00	3.7170E+01	4.4959E+01
H	2.6492E+02	4.6460E+02	5.9226E+02
A	1.2382E+01	1.7431E+01	2.0530E+01
S	2.3473E+00	2.4697E+00	2.5817E+00
Z	2.5260E+00	3.0975E+00	3.4092E+00
GAME	9.0344E-01	9.6250E-01	1.0073E+00
U	3.1945E+01	8.1290E+00	9.5178E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.2911E-01	3.7050E-01	4.2833E-01
HE	1.9503E-02	1.1309E-02	5.6910E-03
HE+	2.9111E-04	4.9337E-03	8.9749E-03
HE++	3.7828E-14	6.5130E-09	3.4522E-07
H	5.2421E-01	2.4766E-01	1.3924E-01
H+	2.2782E-01	3.6567E-01	4.1905E-01
H2	6.9624E-05	3.6324E-05	1.1919E-05

P1 = 1.00E+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3346E+03	9.9719E+03	1.5051E+04
T	6.4924E+01	9.1495E+01	1.0717E+02
RHO	9.1794E+00	3.6204E+01	4.4426E+01
H	2.6098E+02	3.8623E+02	4.8894E+02
A	1.1432E+01	1.5723E+01	1.9103E+01
S	2.2573E+00	2.3677E+00	2.4699E+00
Z	2.3594E+00	2.9557E+00	3.1473E+00
GAME	9.0894E-01	9.4497E-01	9.7167E-01
U	2.9304E+01	7.3616E+00	7.5195E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.7301E-01	3.1913E-01	3.8040E-01
HE	2.1490E-02	1.4988E-02	1.0120E-02
HE+	1.1213E-04	2.4901E-03	5.7689E-03
HE++	1.1075E-15	3.5183E-10	1.8438E-08
H	6.3139E-01	3.4856E-01	2.2904E-01
H+	1.7350E-01	3.1569E-01	3.7463E-01
H2	1.1175E-04	7.5363E-05	3.5109E-05

P1 = 1.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7513E+03	1.2915E+04	2.0891E+04
T	6.9916E+01	1.0761E+02	1.3268E+02
RHO	9.5796E+00	3.7339E+01	4.4557E+01
H	2.8845E+02	5.3624E+02	6.4535E+02
A	1.2976E+01	1.8355E+01	2.2004E+01
S	2.3927E+00	2.5199E+00	2.6376E+00
Z	2.6143E+00	3.2145E+00	3.5321E+00
GAME	9.0692E-01	9.7434E-01	1.0335E+00
U	3.3386E+01	9.5623E+00	9.1497E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.5463E-01	3.9339E-01	4.4792E-01
HE	1.9884E-02	9.3096E-03	3.8779E-03
HE+	4.4169E-04	6.2461E-03	1.0277E-02
HE++	1.7863E-13	2.4593E-08	1.4967E-06
H	4.7295E-01	2.0349E-01	1.0027E-01
H+	2.5371E-01	3.9714E-01	4.3764E-01
H2	5.4466E-05	2.3695E-05	5.9442E-06

Table III. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.902uE+03	1.41J8E+J4	2.3073E+04
T	7.2672E+01	1.1384E+02	1.4493E+02
RHO	9.6745E+00	3.7223E+01	4.3754E+01
H	3.1297E+02	5.4939E+02	7.1039E+02
A	1.3381E+01	1.9356E+01	2.3704E+01
S	2.4384E+00	2.5679E+0C	2.6926E+00
Z	2.7053E+00	3.3294E+00	3.6409E+00
GAME	9.1079E-01	9.8850E-01	1.0655E+00
U	3.4816E+01	9.0461E+00	9.8803E+00

SPECIES	MOLE FRACTIONS		
E-	2.7923E-01	4.1433E-01	4.6442E-01
NE	1.7831E-02	7.3172E-03	2.5250E-03
NE+	6.5129E-04	7.7003E-03	1.1201E-02
NE++	7.5928E-13	8.8496E-08	6.7317E-06
N	4.2366E-01	1.6401E-01	6.8631E-02
N+	2.7858E-01	4.[illegible]663E-01	4.5321E-01
N2	4.2173E-05	1.[illegible]773E-05	2.6GG3E-06

P1 = 1.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.389[illegible]E+03	1.7[illegible]J5E+04	3.J441E+04
T	[illegible].1319E+01	1.3741E+02	2.0J42E+02
RHO	[illegible].[illegible]2P1E+00	3.533[illegible]E+01	3.[illegible]59JE+01
H	3.9244E+02	[illegible].9695E+02	[illegible].2233E+02
A	1.5006E+01	2.[illegible]27E+01	2.[illegible]5E+01
S	2.5761E+00	2.7132E+00	2.8456E+00
Z	2.9903E+00	3.[illegible]28E+00	3.[illegible]64E+00
GAME	[illegible].263JE-01	1.[illegible]543E+0[illegible]	1.1391E+00
U	3.9064E+01	1.[illegible]992E+01	1.2994E+01

SPECIES	MOLE FRACTIONS		
E-	3.[illegible]47[illegible]E-01	4.[illegible]6259E-01	4.[illegible]171E-01
NE	1.[illegible]4879E-[illegible]7	7.[illegible]75[illegible]E-03	7.[illegible]749E-04
NE+	1.[illegible]9[illegible]E-03	1.[illegible]1C23E-02	1.[illegible]1654E-02
NE++	3.[illegible]95[illegible]2E-11	3.[illegible]469[illegible]E-[illegible]	[illegible].[illegible]31[illegible]E-06
N	2.[illegible]4[illegible]29E-[illegible]	[illegible].[illegible]255[illegible]E-02	1.[illegible]6566E-02
N+	3.[illegible]4[illegible]26E-[illegible]	4.[illegible]51[illegible]7E-[illegible]	4.7875E-01
N2	1.[illegible]7945E-[illegible]	[illegible].[illegible]416[illegible]E-[illegible]	1.1462E-[illegible]

P1 = 1.00E+03 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0589E+03	1.5303E+04	2.5437E+04
T	7.5471E+01	1.2072E+02	1.6033E+02
RHO	9.7478E+00	3.6867E+01	4.2568E+01
M	3.3848E+02	5.9398E+02	7.7629E+02
A	1.3904E+01	2.3443E+01	2.5625E+01
S	2.4842E+03	2.6189E+03	2.7463E+00
Z	2.7986E+00	3.4384E+00	3.7296E+00
GAME	9.1536E-01	1.0065E+00	1.1002E+00
U	3.6240E+01	9.5778E+00	1.3761E+01

SPECIES	MOLE FRACTIONS		
E-	3.0326E-01	4.3289E-01	4.7716E-01
NE	1.6927E-02	5.4966E-03	1.6170E-03
NE+	9.3953E-04	9.3445E-03	1.1757E-02
NE++	2.9951E-12	3.0493E-07	3.1695E-05
N	3.7652E-01	1.2871E-01	4.4087E-02
N+	3.0232E-01	4.2385E-01	4.6534E-01
N2	3.2222E-05	9.7011E-06	9.8650E-07

P1 = 1.00E+03 N/SQ-M, US1= 5.43E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2226E+03	1.6699E+04	2.7913E+04
T	7.8313E+01	1.2853E+02	1.7382E+02
RHO	9.8292E+00	3.6267E+01	4.1162E+01
M	3.6496E+02	6.3599E+02	8.4761E+02
A	1.4439E+01	2.1632E+01	2.7672E+01
S	2.5294E+00	2.6667E+00	2.7979E+00
Z	2.8925E+00	3.5394E+00	3.7942E+00
GAME	9.2332E-01	1.0286E+00	1.1286E+00
U	3.7653E+01	1.0192E+01	1.1799E+01

SPECIES	MOLE FRACTIONS		
E-	3.2566E-01	4.4906E-01	4.8605E-01
NE	1.5965E-02	3.9526E-03	1.0541E-03
NE+	1.3212E-03	1.0173E-02	1.1973E-02
NE++	1.0673E-11	1.0347E-06	1.5139E-04
N	3.3229E-01	9.7926E-02	2.6994E-02
N+	3.2434E-01	4.3889E-01	4.7379E-01
N2	2.4337E-05	4.7723E-06	3.3669E-07

Table III. - Continued.

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9274E+03	2.0594E+04	3.8163E+04
T	9.1295E+01	1.7293E+02	2.7123E+02
RHO	9.7736E+00	3.1315E+01	3.6005E+01
H	4.8079E+02	9.3351E+02	1.1625E+03
A	1.6857E+01	2.7260E+01	3.4642E+01
S	2.7134E+00	2.8413E+00	2.9720E+00
Z	3.2812E+00	3.8051E+00	3.9079E+00
GAME	9.4867E-01	1.1300E+00	1.1322E+00
U	4.3223E+01	1.3483E+01	1.6093E+01

SPECIES	MOLE FRACTIONS		
E-	4.0571E-01	4.9753E-01	5.3101E-01
HE	1.0800E-02	9.2363E-04	1.4859E-04
HE+	4.4382E-03	1.2090E-02	5.4446E-03
HE++	1.5011E-09	1.2628E-04	7.2014E-03
H	1.7778E-01	2.4143E-02	5.0315E-03
H+	4.0127E-01	4.7519E-01	4.9116E-01
H2	6.0686E-06	2.1021E-07	8.7359E-09

P1 = 1.03E+03 N/SQ-M, US1= 6.8UE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5085E+03	2.2819E+04	4.5487E+04
T	1.0422E+02	2.1798E+02	3.5623E+02
RHO	9.4703E+00	2.7029E+01	3.2424E+01
H	5.7775E+02	9.8725E+02	1.4297E+03
A	1.7155E+01	3.0876E+01	4.0617E+01
S	2.8469E+00	2.9216E+00	3.0796E+00
Z	3.5535E+00	3.8747E+00	3.9381E+00
GAME	9.9043E-01	1.1293E+00	1.1763E+00
U	4.7234E+01	1.6536E+01	1.9502E+01

SPECIES	MOLE FRACTIONS		
E-	4.5124E-01	4.9674E-01	5.0484E-01
HE	5.5849E-03	3.5226E-04	1.2827E-05
HE+	8.4858E-03	1.0343EE-02	1.3503E-03
HE++	5.2861E-08	2.1158E-03	1.1625E-02
H	9.1929E-02	9.2964E-03	1.9266E-03
H+	4.4276E-01	4.8207E-01	4.8353E-01
H2	1.4372E-06	1.9119E-08	1.1011E-09

P1 = 1.06E+03 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1164E+03	2.1423E+04	4.0711E+04
T	9.5129E+01	1.9713E+02	2.9746E+02
RHO	9.7073E+00	2.[illegible]456E+01	3.4890E+01
H	5.1216E+02	9.[illegible]349E+02	1.2495E+03
A	1.7559E+01	2.8606E+01	3.6642E+01
S	2.7582E+00	2.9793E+00	3.0993E+00
Z	3.3752E+00	3.8351E+00	3.9227E+00
GAME	9.5932E-01	1.1434E+00	1.1537E+00
U	4.4582E+01	1.4530E+01	1.7193E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.2226E-01	4.[illegible]54E-01	5.0299E-01
HE	9.1332E-03	6.7274E-04	6.8732E-05
HE+	5.6907E-03	1.1997E-02	3.2222E-03
HE++	4.8739E-09	3.6813E-04	9.4555E-03
H	1.4035E-01	1.6612E-02	3.6052E-03
H+	4.1658E-01	4.7981E-01	4.8076E-01
H2	3.9472E-06	9.0983E-09	4.2609E-09

P1 = 1.0CE+C3 N/SQ-M, US1= 7.COE+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7102E+03	2.3414E+04	4.7833E+04
T	1.0975E+02	2.3322E+02	3.8705E+02
RHO	9.3385E+00	2.5908E+01	3.1223E+01
H	6.1193E+02	1.0403E+03	1.5232E+03
A	2.0091E+01	3.1993E+01	4.2439E+01
S	2.8895E+00	2.9849E+00	3.111[illegible]E+00
Z	3.6319E+00	3.8930E+00	3.9416E+00
GAMF	1.0120E+00	1.1215E+00	1.1805E+00
U	4.8523E+01	1.7499E+01	2.0635E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.[illegible]3.7E-01	4.9972E-01	5.0527E-01
HE	3.9832E-03	2.4160E-04	5.9173E-06
HE+	5.7790E-03	8.7779E-03	6.[illegible]366E-04
HE++	1.7558E-07	3.9338E-03	1.2016E-02
H	6.[illegible]80[illegible]E-02	6.1513E-03	1.4599E-03
H+	4.5329[illegible]-01	4.8227E-01	4.8058E-01
H2	7.6641E-07	9.9104E-09	6.[illegible]462E-10

P1 = 1.00E+03 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3107E+03	2.2161E+04	4.3151E+04
T	9.9393E+01	2.0248E+02	3.2523E+02
RHO	9.6399E+00	2.9374E+01	3.3743E+01
H	5.4449E+02	9.3502E+02	1.3367E+03
A	1.9367E+01	2.9923E+01	3.9421E+01
S	2.8027E+00	2.9166E+00	3.0441E+00
Z	3.4663E+00	3.9574E+00	3.9321E+00
GAME	9.7281E-01	1.1389E+00	1.1644E+00
U	4.5921E+01	1.5544E+01	1.9291E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.3744E-01	4.9448E-01	5.0409E-01
HE	7.3648E-03	4.9019E-04	3.0324E-05
HE+	7.0599E-03	1.1534E-02	1.8487E-03
HE++	1.5897E-03	9.6819E-04	1.0837E-02
H	1.1775E-01	1.1527E-02	2.6360E-03
H+	4.3039E-01	4.9134E-01	4.9056E-01
H2	2.4391E-06	4.0073E-08	2.1697E-09

Table III. - Continued

$p_1 = 2$ kN/ m^2

P1 = 2.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6542E+01
T	2.8248E+00	3.5380E+00	4.9521E+00
RHO	3.9376E+00	6.5823E+00	1.1418E+01
H	2.8891E+06	3.6131E+00	5.1956E+00
A	1.6757E+00	1.8401E+00	2.1881E+00
S	1.0605E+00	1.0625E+00	1.0915E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAMF	9.9437E-01	7.9639E-01	9.6684E-01
U	2.3176E+00	1.3854E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	0.8575E-06	2.9921E-47	3.3962E-31
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	1.7671E-72	1.5649E-61	3.5660E-52
HE++	0.	0.	0.
H	2.1769E-11	2.9767E-09	6.9039E-06
H+	0.3400E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.4999E-01

P1 = 2.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4942E+01	1.2601E+02	2.3360E+02
T	6.4065E+00	8.5569E+00	1.0638E+01
RHO	5.3963E+00	1.3953E+01	2.1299E+01
H	6.9677E+00	1.0457E+01	1.3846E+01
A	2.4767E+00	2.9257E+00	3.0617E+00
S	1.1585E+00	1.1707E+00	1.1977E+00
Z	1.0000E+00	1.0093E+00	1.0310E+00
GAMF	9.4374E-01	8.8411E-01	8.5467E-01
U	4.4271E+00	1.7392E+00	1.5005E+00

SPECIES	MOLE FRACTIONS		
E-	2.5813E-19	7.5606E-14	1.4821E-11
HE	4.9914E-02	4.9597E-02	4.8498E-02
HE+	1.8399E-44	1.6606E-37	9.1945E-28
HE++	0.	0.	0.
H	6.2486E-04	1.6539E-02	6.0093E-02
H+	3.2137E-19	7.5606E-14	1.4821E-11
H2	9.4939E-01	9.3390E-01	9.9141E-01

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.4596E+01	1.0215E+02
T	3.8703E+00	5.1617E+00	7.0229E+00
RHO	4.5267E+00	9.0236E+00	1.4539E+01
H	3.9996E+00	5.4333E+00	7.6467E+00
A	1.9491E+00	2.2309E+00	2.5652E+00
S	1.6944E+00	1.0396E+00	1.1217E+00
Z	1.0000E+00	1.0000E+00	1.0006E+00
GAME	9.8155E-01	9.6406E-01	9.3547E-01
U	3.0256E+00	1.5164E+00	1.3699E+00

SPECIES	MOLE FRACTIONS		
E-	9.2349E-44	2.6306E-28	2.8492E-18
HE	5.0000E-02	5.0000E-02	4.9972E-02
HE+	5.4894E-60	1.3178E-50	2.0031E-39
HE++	0.	0.	0.
H	7.9099E-05	1.6555E-05	1.1029E-03
H+	6.3463E-26	6.3463E-20	2.7958E-18
H2	9.5000E-01	9.4998E-01	9.4892E-01

P1 = 2.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0997E+01	1.9006E+02	3.2645E+02
T	7.8717E+00	1.0543E+01	1.1965E+01
RHO	5.8177E+00	1.7527E+01	2.5535E+01
H	8.0834E+00	1.3761E+01	1.7641E+01
A	2.6737E+00	3.0460E+00	3.2967E+00
S	1.1991E+00	1.2069E+00	1.2137E+00
Z	1.0003E+00	1.0317E+00	1.0685E+00
GAME	9.0514E-01	9.5207E-01	9.4497E-01
U	5.1449E+00	1.7066E+00	1.5194E+00

SPECIES	MOLE FRACTIONS		
E-	1.1163E-15	1.3699E-11	3.2372E-10
HE	4.9912E-02	4.9464E-02	4.6797E-02
HE+	1.4514E-36	6.1240E-29	7.7200E-25
HE++	0.	0.	1.5076E-99
H	8.7308E-03	7.1423E-02	1.2814E-01
H+	1.1114E-15	1.3249E-11	3.2372E-10
H2	9.4347E-01	8.9511E-01	8.2507E-01

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5403E+01	7.8821E+01	1.6039E+02
T	5.0356E+00	7.0592E+00	9.0378E+00
RHO	4.9861E+00	1.1300E+01	1.7871E+01
H	5.3591E+00	7.0369E+00	1.0545E+01
A	2.2173E+00	2.6892E+00	2.8404E+00
S	1.1274E+00	1.1353E+00	1.1395E+00
Z	1.0000E+00	1.0006E+00	1.0091E+00
GAME	9.6488E-01	9.3440E-01	8.9576E-01
U	3.7255E+00	1.6422E+00	1.4654E+00

SPECIES	MOLE FRACTIONS		
E-	2.1334E-29	3.7773E-19	9.4137E-14
HE	5.0000E-02	4.9967E-02	4.9600E-02
HE+	1.9385E-51	3.4774E-40	1.0417E-32
HE++	0.	0.	0.
H	1.7200E-05	1.3397E-03	1.6008E-02
H+	6.3401E-20	5.9413E-10	9.4137E-14
H2	9.4998E-01	9.4809E-01	9.3439E-01

P1 = 2.00E+03 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9932E+01	2.4364E+02	4.5291E+02
T	9.1015E+00	1.1895E+01	1.3192E+01
RHO	6.3935E+00	2.2367E+01	3.0677E+01
H	1.0966E+01	1.7626E+01	2.2354E+01
A	2.8272E+00	3.2756E+00	3.5316E+00
S	1.2191E+00	1.2469E+00	1.2786E+00
Z	1.0143E+00	1.0701E+00	1.1189E+00
GAME	8.6607E-01	9.4265E-01	9.4494E-01
U	5.8944E+00	1.7042E+00	1.5496E+00

SPECIES	MOLE FRACTIONS		
E-	2.6571E-13	2.9932E-10	3.0223E-09
HE	4.9285E-02	4.6725E-02	4.4697E-02
HE+	4.2659E-32	5.0436E-25	1.0071E-22
HE++	0.	7.7661E-91	1.1937E-90
H	2.8216E-02	1.3101E-01	2.1252E-01
H+	2.6571E-13	2.9932E-10	3.0223E-09
H2	9.2249E-01	8.2226E-01	7.4279E-01

Table III. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 1.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3905E+01	4.0399E+02	6.2087E+02
T	1.0101E+01	1.3107E+01	1.4399E+01
RHO	7.0605E+00	2.7301E+01	3.6512E+01
H	1.0336E+01	2.2035E+01	2.7114E+01
A	2.9726E+00	3.5206E+00	3.8014E+00
S	1.2494E+00	1.2952E+00	1.3220E+00
Z	1.0348E+00	1.1206E+00	1.1810E+00
GAME	9.4541E-01	9.4389E-01	8.4778E-01
U	6.6665E+00	1.7235E+00	1.5986E+00

SPECIES	MOLE FRACTIONS		
E-	7.6205E-12	2.8193E-09	1.8254E-08
HE	4.9321E-02	4.4618E-02	4.2336E-02
HE+	4.3063E-29	7.6642E-23	6.3545E-21
HE++	0.	1.3442E-91	4.4224E-75
H	6.7173E-02	2.1527E-01	3.0656E-01
H+	7.6209E-12	2.9193E-09	1.8254E-08
H2	8.8451E-01	7.4012E-01	6.5110E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2864E+02	9.4650E+02	1.3819E+03
T	1.2366E+01	1.6573E+01	1.8199E+01
RHO	9.1338E+00	4.3029E+01	5.3242E+01
H	2.2662E+01	3.9207E+01	4.5970E+01
A	3.4284E+00	4.3639E+00	4.7842E+00
S	1.3503E+00	1.4177E+00	1.4674E+00
Z	1.1389E+00	1.3273E+00	1.4262E+00
GAME	9.3459E-01	8.6572E-01	8.8187E-01
U	8.9911E+00	1.9099E+00	1.8612E+00

SPECIES	MOLE FRACTIONS		
E-	1.4962E-09	2.4233E-07	1.0172E-06
HE	4.3902E-02	3.7671E-02	3.5057E-02
HE+	5.2598E-24	2.2536E-18	7.4179E-17
HE++	7.3236E-87	5.5105E-65	1.1951E-59
H	2.4392E-01	4.9316E-01	5.9771E-01
H+	1.4962E-09	2.4233E-07	1.0172E-06
H2	7.1218E-31	4.6917E-01	3.6723E-31

P1 = 2.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5016E+02	1.1951E+03	1.7205E+03
T	1.3011E+01	1.7774E+01	1.9675E+01
RHO	9.7405E+00	4.7263E+01	5.7369E+01
H	2.5462E+01	4.4523E+01	5.3512E+01
A	3.5917E+00	4.6912E+00	5.1933E+00
S	1.3867E+00	1.4648E+00	1.5189E+00
Z	1.1848E+00	1.4109E+00	1.5242E+00
GAME	8.3681E-01	9.7762E-01	9.9932E-01
U	9.7561F+00	2.0112E+00	1.9951E+00

SPECIES	MOLE FRACTIONS		
E-	4.7436E-09	7.4795E-07	3.1742E-06
HE	4.2201E-02	3.5440E-02	3.2803E-02
HE+	6.3732E-23	3.2615E-17	1.1045E-15
HE++	3.5642E-81	6.5693E-61	3.8789E-55
H	3.1197E-01	5.8239E-01	6.8786E-01
H+	4.7406E-09	7.4795E-07	3.1742E-06
H2	6.4583E-01	3.8217E-01	2.7933E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7325E+02	1.4475E+03	2.1009E+03
T	1.3036E+01	1.9360E+01	2.1404E+01
RHO	1.0293E+01	5.0636E+01	6.0330E+01
H	2.9112E+01	5.1295E+01	6.1749E+01
A	3.7625E+00	5.0567E+00	5.6712E+00
S	1.4245E+00	1.5125E+00	1.5713E+00
Z	1.2355E+00	1.4998E+00	1.6275E+00
GAME	9.4026E-01	9.9239E-01	9.2320E-01
U	1.0515E+01	2.1359E+00	2.1614E+00

SPECIES	MOLE FRACTIONS		
E-	1.3024E-08	2.1295E-06	9.8917E-06
HE	4.0469E-02	3.3338E-02	3.0720E-02
HE+	6.4348E-22	3.8265E-16	1.6421E-14
HE++	2.5322E-78	3.2681E-57	3.0562E-51
H	3.8125E-01	6.6647E-01	7.7118E-01
H+	1.3024E-08	2.1295E-06	9.9917E-06
H2	5.7828E-01	3.0319E-01	1.9808E-01

Table III. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9791E+02	1.7290E+03	2.5242E+03
T	1.4254E+01	2.0489E+01	2.3606E+01
RHO	1.0757E+01	5.2994E+01	6.1726E+01
H	3.3011E+01	5.9479E+01	7.0779E+01
A	3.9422E+00	5.4529E+00	6.2626E+00
S	1.4635E+00	1.5605E+00	1.6241E+00
Z	1.2907E+00	1.5923E+00	1.7323E+00
GAME	8.4472E-01	9.1139E-01	9.5909E-01
U	1.1269E+01	2.2879E+00	2.3768E+00

SPECIES	MOLE FRACTIONS		
E-	3.2211E-08	5.8686E-06	3.3359E-05
HE	3.8738E-02	3.1401E-02	2.8863E-02
HE+	5.1891E-21	4.2275E-15	3.0665E-13
HE++	1.8698E-75	9.9134E-54	2.1283E-46
H	4.5048E-01	7.4396E-01	8.4539E-01
H+	3.2211E-08	5.8686E-06	3.3359E-05
H2	5.1379E-01	2.2463E-01	1.2569E-01

P1 = 2.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8103E+02	2.4135E+03	4.1030E+03
T	1.6174E+01	2.7063E+01	3.9531E+01
RHO	1.1735E+01	5.2193E+01	5.4939E+01
H	4.6265E+01	8.2372E+01	1.0499E+02
A	4.5497E+00	7.1764E+00	9.0319E+00
S	1.5965E+00	1.6793E+00	1.7749E+00
Z	1.6802E+00	1.8497E+00	1.9357E+00
GAME	8.6434E-01	1.0295E+00	1.0853E+00
U	1.3496E+01	3.0136E+00	3.6353E+00

SPECIES	MOLE FRACTIONS		
E-	3.36[illegible]E-07	1.66[illegible]E-04	3.7966E-03
HE	3.3779E-02	2.7046E-02	2.[illegible]30E-02
HE+	1.13[illegible]E-18	1.3[illegible]E-11	3.1468E-09
HE++	2.2530E-66	4.[illegible]7E-40	9.[illegible]19E-28
H	6.4[illegible]96E-01	9.17[illegible]E-01	9.[illegible]541E-01
H+	3.369[illegible]E-07	1.66[illegible]4E-04	3.7965E-03
H2	3.1736E-01	5.4944[illegible]-02	1.11[illegible]E-02

P1 = 2.00E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2410E+02	2.0229E+03	2.9960E+03
T	1.4875E+01	2.2162E+01	2.6793E+01
RHO	1.1158E+01	5.4159E+01	6.1151E+01
H	3.7166E+01	6.6082E+01	8.0848E+01
A	4.1322E+00	5.9173E+00	7.0601E+00
S	1.5036E+00	1.6382E+00	1.6769E+00
Z	1.3501E+00	1.6854E+00	1.9293E+00
GAME	8.5013E-01	9.3732E-01	1.0174E+00
U	1.2019E+01	2.4794E+00	2.6916E+00

SPECIES	MOLE FRACTIONS		
E-	7.3809E-08	1.6411E-05	1.3832E-04
HE	3.7034E-02	2.9666E-02	2.7333E-02
HE+	3.4929E-20	4.9687E-14	9.7100E-12
HE++	2.9144E-72	4.4782E-49	1.7968E-40
H	5.1866E-01	8.1330E-01	9.0625E-01
H+	7.3809E-08	1.6411E-05	1.3832E-04
H2	4.4431E-01	1.5700E-01	6.6140E-02

P1 = 2.00E+03 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5182E+02	2.3225E+03	3.5257E+03
T	1.5512E+01	2.4257E+01	3.1900E+01
RHO	1.1485E+01	5.3973E+01	5.9374E+01
H	4.1557E+01	7.4073E+01	9.2295E+01
A	4.3337E+00	6.4777E+00	9.1009E+00
S	1.5447E+00	1.6548E+00	1.7281E+00
Z	1.4134E+00	1.7739E+00	1.9993E+00
GAME	8.5658E-01	9.7514E-01	1.0965E+00
U	1.2766E+01	2.7128E+00	3.1255E+00

SPECIES	MOLE FRACTIONS		
E-	1.6026E-07	4.9237E-05	7.5324E-04
HE	3.5375E-02	2.8187E-02	2.6325E-02
HE+	2.6650E-19	6.9937E-13	8.0545E-10
HE++	1.6290E-69	7.3347E-45	6.1108E-34
H	5.9560E-01	9.7239E-01	9.4474E-01
H+	1.6026E-07	4.9237E-05	7.5324E-04
H2	3.7963E-01	9.9323E-02	2.7427E-02

P1 = 2.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8116E+02	2.3753E+03	4.0821E+03
T	1.6896E+01	2.5971E+01	4.5179E+01
RHO	1.1501E+01	4.6019E+01	5.2946E+01
H	5.1377E+01	9.0911E+01	1.1931E+02
A	4.7834E+00	7.0773E+00	9.5773E+00
S	1.6298E+00	1.7635E+00	1.8153E+00
Z	1.5508E+00	1.9511E+00	1.9612E+00
GAME	8.7387E-01	1.0849E+00	1.0352E+00
U	1.4225E+01	3.0567E+00	4.1325E+00

SPECIES	MOLE FRACTIONS		
E-	7.0275E-07	6.2777E-04	1.1591E-02
HE	3.2257E-02	2.8814E-02	2.6458E-02
HE+	6.5543E-19	1.7649E-10	4.8378E-07
HE++	1.3014E-63	6.6159E-35	1.8412E-23
H	7.0971E-01	9.6555E-01	9.4542E-01
H+	7.0275E-07	6.2777E-04	1.1591E-02
H2	2.5824E-01	5.6872E-02	5.0316E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4374E+02	3.1152E+03	5.2366E+03
T	1.7699E+01	3.5532E+01	5.0659E+01
RHO	1.1980E+01	4.5454E+01	5.1957E+01
H	5.6237E+01	9.3712E+01	1.3097E+02
A	5.0423E+00	8.6721E+00	1.0622E+01
S	1.6715E+00	1.7779E+00	1.8496E+00
Z	1.6221E+00	1.9239E+00	1.9988E+00
GAME	8.8609E-01	1.0973E+00	9.9705E-01
U	1.4943E+01	3.9376E+00	4.4930E+00

SPECIES	MOLE FRACTIONS		
E-	1.4753E-06	2.1971E-03	2.3430E-02
HE	3.0826E-02	2.5921E-02	2.5139E-02
HE+	3.6941E-17	7.3496E-09	2.7433E-06
HE++	5.7682E-61	3.8053E-30	9.5329E-21
H	7.6679E-01	9.5056E-01	9.2417E-01
H+	1.4753E-06	2.1971E-03	2.3397E-02
H2	2.0218E-01	1.3123E-02	3.8889E-03

Table III. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7709E+02	3.3353E+03	5.7469E+03
T	1.8607E+01	4.0412E+01	5.5358E+01
RHO	1.1956E+01	4.2371E+01	5.1361E+01
H	6.1621E+01	1.0880E+02	1.4397E+02
A	5.3359E+00	9.1593E+00	1.0437E+01
S	1.7141E+00	1.8122E+00	1.8819E+00
Z	1.6956E+00	1.9478E+00	2.0212E+00
GAME	9.0273E-01	1.0658E+00	9.7347E-01
U	1.5654E+01	4.4145E+00	4.7482E+00

SPECIES	MOLE FRACTIONS		
E-	3.2195E-06	6.0550E-03	3.9093E-02
HE	2.9498E-02	2.5670E-02	2.4729E-02
HE+	2.4208E-16	8.2647E-08	9.2733E-06
HE++	6.3741E-58	2.6616E-26	7.7394E-19
H	8.2038E-01	9.5503E-01	8.9624E-01
H+	3.2195E-06	6.0659E-03	3.9094E-02
H2	1.5042E-01	7.2014E-03	2.8467E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
	4.8267E+02	3.8274E+03	6.7176E+03
	2.3314E+01	5.2577E+01	6.5985E+01
RHO	1.0967E+01	3.6140E+01	4.7653E+01
H	7.9179E+01	1.3893E+02	1.9322E+02
A	6.7286E+00	1.0145E+01	1.1545E+01
S	1.8373E+00	1.9054E+00	1.9755E+00
Z	1.8886E+00	2.0142E+00	2.1364E+00
GAME	1.0297E+00	9.7191E-01	9.4551E-01
U	1.7643E+01	5.3033E+00	5.2727E+00

SPECIES	MOLE FRACTIONS		
E-	6.8909E-05	3.4241E-02	8.8659E-02
HE	2.6493E-02	2.4919E-02	2.3325E-02
HE+	4.1809E-13	5.5107E-06	7.9298E-05
HE++	5.3108E-46	9.0441E-20	1.7209E-15
H	9.4047E-01	9.0435E-01	7.9791E-01
H+	6.9909E-05	3.4235E-02	8.8590E-02
H2	3.2909E-02	2.3500E-03	1.4297E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1159E+02	3.5428E+03	6.1960E+03
T	1.9728E+01	4.4936E+01	5.9401E+01
RHO	1.1808E+01	4.0397E+01	5.0705E+01
H	6.7246E+01	1.1830E+02	1.5708E+02
A	5.6850E+00	9.5209E+00	1.0828E+01
S	1.7564E+00	1.8437E+00	1.9129E+00
Z	1.7668E+00	1.9662E+00	2.0572E+00
GAME	9.2722E-01	1.0259E+00	9.5955E-01
U	1.6347E+01	4.8118E+00	4.9628E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.5727E-06	1.2822E-02	5.4300E-02
HE	2.8299E-02	2.5429E-02	2.4283E-02
HE+	1.8846E-15	5.0781E-07	2.2753E-05
HE++	2.5992E-55	1.7958E-23	1.9608E-17
H	8.6800E-01	9.4436E-01	8.6491E-01
H+	7.5737E-06	1.2822E-02	5.4277E-02
H2	1.0369E-01	4.3630E-03	2.7125E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1949E+02	3.9697E+03	6.7379E+03
T	2.6244E+01	5.5692E+01	6.8615E+01
RHO	1.6279E+01	3.4037E+01	4.5082E+01
H	8.5459E+01	1.4960E+02	1.9597E+02
A	7.4322E+00	1.0435E+01	1.1864E+01
S	1.8732E+00	1.9366E+00	2.0069E+00
Z	1.9220E+00	2.0436E+00	2.1782E+00
GAME	1.0950E+00	9.5894E-01	9.4191E-01
U	1.8220E+01	5.5053E+00	5.3808F+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.7277E-06	4.7592E-02	1.0592E-01
HE	2.6014E-02	2.4455E-02	2.2831E-02
HE+	1.2397E-11	1.2224E-05	1.2405E-04
HE++	1.2389E-40	1.5364E-19	8.4092E-15
H	9.5862E-01	9.7856E-01	7.6416E-01
H+	2.7277E-06	4.7590E-02	1.0594E-01
H2	1.4816E-02	1.8023E-03	1.1606E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4695E+02	3.7173E+03	6.5415E+03
T	2.1203E+01	4.9031E+01	6.2936E+01
RHO	1.1497E+01	3.8129E+01	4.9593E+01
H	7.3103E+01	1.2916E+02	1.7022E+02
A	6.1288E+00	9.8440E+00	1.1203E+01
S	1.7976E+00	1.8747E+00	1.9437E+00
Z	1.8333E+00	1.9884E+00	2.0958E+00
GAME	9.6633E-01	9.9395E-01	9.5101E-01
U	1.7016E+01	5.1291E+00	5.1356E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.0483E-05	2.2493E-02	7.1351E-02
HE	2.7273E-02	2.5144E-02	2.3811E-02
HE+	2.1390E-14	1.9873E-06	4.5670E-05
HE++	1.0296E-50	2.3743E-21	2.3969E-16
H	9.0903E-01	9.2670E-01	8.3172E-01
H+	2.0493E-05	2.2499E-02	7.1365E-02
H2	6.3659E-02	3.1720E-03	1.7693E-03

P1 = 2.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5455E+02	3.8757E+03	6.6734E+03
T	2.9514E+01	5.8430E+01	7.0941E+01
RHO	1.6559E+01	3.9504E+01	4.7354E+01
H	9.1946E+01	1.5609E+02	2.0867E+02
A	8.0444E+00	1.0715E+01	1.2166E+01
S	1.9086E+00	1.9576E+00	2.0387E+00
Z	1.9393E+00	2.0757E+00	2.2216E+00
GAME	1.1156E+00	9.4659E-01	9.3933E-01
U	1.9775E+01	5.6112E+00	5.4699E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.0590E-05	4.1930E-02	1.2298E-01
HE	2.5783E-02	2.4065E-02	2.2331E-02
HE+	3.4959E-10	2.3223E-05	1.9061E-04
HE++	2.1523E-35	1.4025E-17	3.1620E-14
H	9.6551E-01	9.5256E-01	7.3077E-01
H+	1.0590E-05	4.1956E-02	1.2340E-01
H2	9.5919E-03	1.9153E-03	9.4759E-04

Table III. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9196E+02	3.9211E+03	6.6729E+03
T	3.3765E+01	6.1005E+01	7.3211E+01
RHO	8.9907E-03	3.0455E-01	4.3230E-01
M	9.8667E+01	1.6999E+02	2.2174E+02
A	8.4526E+00	1.1[illegible]E+01	1.2473E+01
S	1.9354E+00	1.9774E+00	2.0696F+00
Z	1.9497E+00	2.1105E+00	2.2657E+00
GAME	1.0951E+00	9.3974E-01	9.3795E-01
U	1.9327E+01	5.7024F+00	5.5594F+00

SPECIES	MOLE FRACTIONS		
E-	3.2353E-03	7.7194E-02	1.4011F-01
HE	2.5644E-02	2.3851E-02	2.1915E-02
HE+	5.4355E-09	4.0113E-05	2.5390E-04
HE++	4.1335E-31	1.0415E-16	1.0595E-13
H	9.6452E-01	9.2091E-01	6.9719E-01
H+	3.2353E-03	7.7154E-02	1.3985E-01
H2	3.3697E-33	1.1489E-03	7.9374E-04

P1 = 2.00E+02 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6376E+02	4.7204E+03	7.7937E+03
T	4.6143E+01	7.1069E+01	8.3295E+01
RHO	9.2195E-03	2.9196F+01	3.7031E+01
M	1.2825E+02	2.2601E+02	2.8306E+02
A	9.3927E+00	1.2273E+01	1.3914E+01
S	2.0346E+00	2.1052F+00	2.1839E+00
Z	2.0141E+00	2.2750E+00	2.4697E+00
GAME	9.4930E-01	9.3159E-01	9.4148E-01
U	2.1927E+01	6.1423E+00	6.0411F+00

SPECIES	MOLE FRACTIONS		
E-	3.2615E-02	1.4344E-01	2.1051E-01
HE	2.4824E-02	2.1759F-02	1.9401E-02
HE+	1.6960F-06	2.1951E-04	9.5225F-04
HE++	3.9356E-22	4.9397E-14	9.0856E-12
H	9.3913F-01	8.9376E-01	5.5916F-01
H+	3.2614E-02	1.4372E-01	2.3966E-01
H2	9.1137E-04	5.9557E-04	4.0703F-04

P1 = 2.03E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3137E+02	4.0311E+03	6.7923E+03
T	3.740JE+01	5.3520E+01	7.5557E+01
RHO	8.6095E+00	2.9546E+01	3.8872E+01
H	1.056°E+02	1.9149F+02	2.3565E+02
A	8.7269E+00	1.1297F+01	1.2800E+01
	1.5623E+03	2.0257E+0C	2.3992F+03
Z	1.960PE+00	2.1479E+03	2.3126E+00
GAME	1.039°E+00	9.3539F-01	9.3769E-01
U	1.99J5E+01	5.7976E+00	5.660JE+00

SPECIES	MOLE FRACTIONS		
E-	7.5225E-03	9.3.8°E-02	1.5746F-01
HE	2.55.JE-02	2.3214E-02	2.1270E-02
HE+	4.32°7E-0°	6.511°E-05	3.5020F-04
HE++	7.3237E-29	5.91o5E-16	3.3765E-13
H	9.5743F-01	7.8966E-01	6.6316E-01
H+	7.5225E-03	9.3u20E-02	1.5711F-01
H2	2.0258E-03	9.520JE-04	6.5731E-04

P1 = 2.03E+03 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	R.6244E+02	5.390JE+03	9.9039F+03
T	5.C68JE+01	7.e137E+01	8.8874F+01
RHC	P.2441E+00	2.9931E+01	3.9379F+01
H	1.4467E+02	2.4667E+02	3.1884F+02
A	9.9441E+00	1.2975E+01	1.4743F+01
S	2.0797F+00	2.1559E+00	2.239RF+00
Z	2.0642E+03	2.3697E+00	2.5929E+00
GAME	5.e63JF-01	9.3342F-01	9.6F50F-01
U	2.32C1E+01	6.4C5RF+00	6.3458E+00

SPECIES	MOLE FRACTIONS		
E-	5.3977E-02	1.7755E-01	2.4531F-01
HE	2.4216E-02	2.3674F-02	1.7927F-02
HE+	6.7779E-06	4.[illegible]E-06	1.4319F-03
HE++	6.1746F-20	5.7140F-13	6.e5A7F-11
H	9.6347E-01	8.2377E-01	4.9116E-01
H+	5.597UE-02	1.7711E-01	2.43A8E-01
H2	5.53-5E-04	4.5097E-04	2.997CE-04

P1 = 2.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.732JE+02	4.2087E+03	7.0332E+03
T	4.0659E+01	5.6033E+01	7.9033E+01
RHC	8.3834E+00	2.9131E+01	3.8157E+01
H	1.1291E+02	1.9963F+02	2.5053E+02
A	9.953JE+00	1.1o3EE+01	1.3151E+01
S	1.9975E+00	2.05295E+00	2.1230F+00
Z	1.9751F+03	2.1877F+00	2.3622F+00
GAME	9.98J1E-01	9.3246F-01	9.3824F-01
U	2.051VE+01	5.9024E+00	5.7747E+00

SPECIES	MOLE FRACTIONS		
E-	1.e37eE-02	1.0F55E-01	1.7507E-01
HE	2.5315E-02	2.2751F-02	2.0a99E-02
HE+	2.03eRE-07	1.e115E-04	4.774JE-04
HE++	1.9421F-25	2.e0719-15	1.0474E-12
H	9.4515E-01	7.5736F-01	6.2361E-01
H+	1.4074E-02	1.0945E-01	1.7459F-01
H2	1.3P.4E-03	8.0F39E-04	3.5712F-04

P1 = 2.00F+03 N/SJ-M, US1= 3.60F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.695JE+02	6.145oE+03	1.0014E+04
T	5.4o3EF+01	7.1153F+01	9.4730E+01
RHO	1.3521E+00	3.e555E+01	3.9111F+01
H	1.6213E+02	2.7342F+02	3.5759E+02
A	1.0303F+01	1.3706E+01	1.5619E+01
S	2.123JE+00	2.2053E+00	2.2934E+00
Z	2.1224F+00	2.4733E+00	2.7028E+00
GAME	9.1552L-01	9.3710E-01	9.5299E-01
U	2.461JE+01	6.695RE+00	6.6822E+00

SPECIES	MOLE FRACTIONS		
E-	9.1639L-02	2.1337E-01	2.7873E-01
HE	2.3550E-02	1.e498E-02	1.6239E-02
HE+	1.9956F-05	7.5184F-04	2.2613E-03
HE++	2.5431E-1°	4.8787F-12	4.1273E-10
H	8.1277F-01	5.5921E-01	4.2608E-01
H+	8.1o2JE-02	2.1o23E-01	2.7647E-01
H2	4.1458E-04	3.4366F-04	2.1725E-04

Table III. - Continued

$p_1 = 2$ kN/m^2

P1 = 2.00E+03 N/SQ-M, USI= 4.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.459[illegible]E+03	9.9276E+03	1.6192E+04
T	6.799[illegible]E+01	1.0209E+02	1.2211E+02
RHO	8.9215E-03	3.3442E-01	4.1325E-01
H	2.4213E+02	4.2099E+02	5.4082E+02
A	1.2207E+01	1.6899E+01	1.9754E+01
S	2.2979E+00	2.4034E+00	2.5098E+00
Z	2.4059E+00	2.9079E+00	3.2099E+00
GAME	9.1123E-01	9.0186E-01	9.9592E-01
U	3.0343E+01	9.0959E+00	9.3605E+00

SPECIES	MOLE FRACTIONS		
E-	1.5[illegible]E-01	3.2951E-01	3.9233E-01
NE	2.0516[illegible]E-02	1.3332E-02	7.9754E-03
NE+	2.3592E-04	3.9628E-03	7.6369E-03
NE++	2.9189E-14	3.6000E-09	1.6770E-07
N	5.9794E-01	3.2755E-01	2.0731E-01
N+	1.9046E-01	3.2564E-01	3.8473E-01
N2	1.5919E-04	1.0623E-04	4.6637E-05

P1 = 2.00E+03 N/SQ-M, USI= 4.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.[illegible]E+03	9.[illegible]E+03	1.[illegible]E+04
T	6.[illegible]E+01	1.[illegible]E+02	1.[illegible]E+02
RHO	8.[illegible]E-03	3.[illegible]E-01	3.[illegible]E-01
H	1.[illegible]E+02	3.[illegible]E+02	3.[illegible]E+02
A	1.[illegible]E+01	1.[illegible]E+01	1.[illegible]E+01
S	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
Z	2.[illegible]E+00	2.[illegible]E+00	2.[illegible]E+00
GAME	9.[illegible]E-01	9.[illegible]E-01	9.[illegible]E-01
U	2.[illegible]E+01	7.[illegible]E+00	7.[illegible]E+00

SPECIES	MOLE FRACTIONS		
E-	1.[illegible]E-01	2.[illegible]E-01	3.[illegible]E-01
NE	2.[illegible]E-02	1.[illegible]E-02	1.[illegible]E-02
NE+	4.[illegible]E-05	1.[illegible]E-03	[illegible]E-03
NE++	4.[illegible]E-17	[illegible]E-11	2.[illegible]E-09
N	7.[illegible]E-01	4.[illegible]E-01	3.[illegible]E-01
N+	1.[illegible]E-01	2.[illegible]E-01	3.[illegible]E-01
N2	3.[illegible]E-04	2.[illegible]E-04	1.[illegible]E-04

P1 = 2.30E+03 N/SQ-M, US1= 4.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.23[illegible]E+03	7.91A3E+03	1.2857E+04
T	[illegible]E+01	[illegible]E+01	1.0742E+02
RHO	[illegible]E+03	[illegible]E+01	4.0521E+01
H	2.6[illegible]E+02	4.4662E+02	4.4353E+02
A	1.12[illegible]E+01	1.5[illegible]E+01	1.2543E+01
S	2.[illegible]E+02	2.[illegible]E+02	2.4321E+02
Z	2.[illegible]E+02	2.[illegible]E+02	2.9539E+02
GAME	1.[illegible]E-01	1.[illegible]E-01	1.4992E-01
U	2.74[illegible]E+01	7.[illegible]E+00	7.4499E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.3[illegible]E-01	3.73[illegible]E-01	3.3396E-01
HE	2.[illegible]E-02	1.[illegible]E-02	1.2242E-02
HE+	8.1[illegible]E-05	1.[illegible]E-03	4.[illegible]E-03
HE++	5.5[illegible]E-16	1.9[illegible]E-13	1.3316E-09
H	7.05[illegible]E-01	4.34[illegible]E-01	3.0773E-01
H+	1.[illegible]E-01	2.7191E-01	3.3527E-01
H2	2.51[illegible]E-04	1.[illegible]E-04	1.0793E-04

P1 = 2.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3[illegible]E+03	[illegible]	1.4465E+04
T	[illegible]E+01	3.6661E+01	1.1444E+02
RHO	8.74[illegible]E+03	3.[illegible]E+01	4.1311E+01
H	2.7[illegible]E+02	4.[illegible]E+02	4.[illegible]E+02
A	1.17[illegible]E+01	1.[illegible]E+01	1.9639E+01
S	2.29[illegible]E+02	2.3535E+00	2.4563E+00
Z	2.33[illegible]E+02	2.[illegible]E+02	3.[illegible]E+00
GAME	1.[illegible]E-01	1.[illegible]E-01	1.[illegible]E-01
U	2.[illegible]E+01	7.[illegible]E+00	7.[illegible]E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.63[illegible]E-01	3.[illegible]E-01	3.[illegible]E-01
HE	2.13[illegible]E-02	1.5[illegible]E-02	1.[illegible]E-02
HE+	1.45[illegible]E-04	2.[illegible]E-03	6.[illegible]E-03
HE++	4.[illegible]E-15	1.[illegible]E-13	4.3427E-09
H	6.51[illegible]E-01	3.[illegible]E-01	2.5516E-01
H+	1.[illegible]E-01	[illegible]	3.[illegible]E-01
H2	1.[illegible]E-04	1.[illegible]E-04	7.2470E-05

P1 = 2.00E+03 N/SQ-M, US1= 4.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5971E+03	1.0996E+04	1.[illegible]25E+04
T	7.[illegible]E+01	1.0782E+02	1.3093E+02
RHO	9.[illegible]E+03	3.3748E+01	4.1310E+01
H	2.64[illegible]E+02	4.[illegible]E+02	5.9403E+02
A	1.27[illegible]E+01	1.7786E+01	2.1036E+01
S	2.3617E+03	2.4527E+00	2.5641E+00
Z	2.49[illegible]E+03	3.0221E+00	3.3351E+00
GAME	9.1383E-01	9.7087E-01	1.0141E+00
U	3.1774E+01	8.[illegible]E+00	8.8951E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.1718E-01	3.5442E-01	4.1534E-01
HE	1.9609E-02	1.1440E-02	6.0530E-03
HE+	3.7636E-04	5.1046E-03	8.[illegible]384E-03
HE++	1.5553E-13	1.3659E-08	6.2665E-07
H	5.4582E- 1	2.7494E-01	1.6324E-01
H+	2.1[illegible]E-01	3.4972E-01	4.0640E-01
H2	1.2656E-04	7.5135E-05	2.7965E-05

P1 = 2.00E+03 N/SQ-M, US1= 4.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7413E+03	1.2394E+04	1.3974E+04
T	7.3963E+01	1.1383E+02	1.4382E+02
RHO	9.1422E+03	3.3892E+01	4.1057E+01
H	2.9914E+02	5.[illegible]E+02	6.5095E+02
A	1.3217E+01	1.8715E+01	2.2452E+01
S	2.3857E+03	2.5[illegible]E+00	2.6173E+00
Z	2.5752E+03	3.1347E+00	3.4546E+00
GAME	9.1711E-01	9.[illegible]E-01	1.0362E+00
U	3.3201E+01	8.9474E+00	9.5154E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.4298E-01	3.77[illegible]E-01	4.3556E-01
HE	1.8849E-02	9.53[illegible]E-03	4.4617E-03
HE+	5.6744E-04	6.4142E-03	1.0[illegible]9E-02
HE++	7.1960E-13	4.7094E-09	2.2732E-06
H	4.9533E-01	2.3446E-01	1.2441E-01
H+	2.4233E-01	3.7156E-01	4.2554E-01
H2	1.0012E-04	5.1763E-05	1.5597E-05

Table III. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8914E+03	1.3200E+04	2.2040E+04
T	7.7001E+01	1.2031E+02	1.5279E+02
RHO	9.2261E+00	3.3801E+01	4.0455E+01
H	3.1263E+02	5.4469E+02	7.1156E+02
A	1.3741E+01	1.9709E+01	2.4059E+01
S	2.4298E+00	2.5498E+00	2.6707E+00
Z	2.6624E+00	3.2463E+00	3.5658E+00
GAME	9.2096E-01	9.9466E-01	1.0624E+00
U	3.4623E+01	9.4460E+00	1.0233E+01

SPECIES	MOLE FRACTIONS		
E-	2.6767E-01	3.9929E-01	4.5314E-01
HE	1.7951E-02	7.6955E-03	3.2107E-03
HE+	8.2842E-04	7.7079E-03	1.0903E-02
HE++	2.9824E-12	1.5259E-07	8.4446E-06
H	4.4663E-01	1.9369E-01	9.0507E-02
H+	2.6684E-01	3.9159E-01	4.4232E-01
H2	7.8577E-05	3.4234E-05	7.9320E-06

P1 = 2.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3766E+03	1.6513E+04	2.8899E+04
T	8.6450E+01	1.4369E+02	2.0428E+02
RHO	9.3642E+00	3.2423E+01	3.7309E+01
H	3.9205E+02	6.8138E+02	9.1896E+02
A	1.5410E+01	2.3117E+01	2.9622E+01
S	2.5626E+00	2.6881E+00	2.8202E+00
Z	2.9357E+00	3.5444E+00	3.7917E+00
GAME	9.3562E-01	1.04[illegible]E+00	1.1328E+00
U	3.8846E+01	1.1211E+01	1.3002E+01

SPECIES	MOLE FRACTIONS		
E-	3.3580E-01	4.4984E-01	4.8571E-01
HE	1.4911E-02	3.4997E-03	1.2197E-03
HE+	2.2206E-03	1.0603E-02	1.1543E-02
HE++	1.3437E-10	3.2959E-06	4.2494E-04
H	3.1355E-01	9.6809E-02	2.7777E-02
H+	3.3358E-01	4.3923E-01	4.7332E-01
H2	3.5313E-05	7.5162E-06	5.9875E-07

P1 = 2.00E+03 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0474E+03	1.4327E+04	2.4206E+04
T	8.0076E+01	1.2726E+02	1.6684E+02
RHO	9.2912E+00	3.3594E+01	3.9650E+01
H	3.3812E+02	5.8901E+02	7.7592E+02
A	1.4280E+01	2.0755E+01	2.5798E+01
S	2.4740E+00	2.5962E+00	2.7214E+00
Z	2.7519E+00	3.3511E+00	3.6592E+00
GAME	9.2532E-01	1.0100E+00	1.0902E+00
U	3.6038E+01	9.9582E+00	1.1022E+01

SPECIES	MOLE FRACTIONS		
E-	2.9146E-01	4.1813E-01	4.6710E-01
HE	1.6992E-02	6.6602E-03	2.3207E-03
HE+	1.1774E-03	8.8597E-03	1.1313E-02
HE++	1.1329E-11	4.6162E-07	3.1020E-05
H	4.0002E-01	1.5766E-01	6.3537E-02
H+	2.9029E-01	4.0927E-01	4.5573E-01
H2	6.1029E-05	2.1920E-05	3.6293E-06

P1 = 2.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2092E+03	1.5437E+04	2.6502E+04
T	8.3216E+01	1.3490E+02	1.8404E+02
RHO	9.3373E+00	3.3167E+01	3.8550E+01
H	3.6459E+02	6.3463E+02	8.4525E+02
A	1.4835E+01	2.1874E+01	2.7703E+01
S	2.5183E+00	2.6417E+00	2.7719E+00
Z	2.8432E+00	3.4502E+00	3.7355E+00
GAME	9.3019E-01	1.0293E+00	1.1163E+00
U	3.7446E+01	1.0342E+01	1.1963E+01

SPECIES	MOLE FRACTIONS		
E-	3.1419E-01	4.3483E-01	4.7798E-01
HE	1.5951E-02	4.6655E-03	1.6775E-03
HE+	1.6345E-03	9.9250E-03	1.1590E-02
HE++	4.0132E-11	1.3477E-06	1.1772E-04
H	3.5562E-01	1.2566E-01	4.2475E-02
H+	3.1256E-01	4.2501E-01	4.6616E-01
H2	4.6738E-05	1.3359E-05	1.5137E-06

P1 = 2.00E+03 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5495E+03	1.7552E+04	3.1343E+04
T	8.9913E+01	1.5334E+02	2.2618E+02
RHO	9.3717E+00	3.1578E+01	3.6178E+01
H	4.2049E+02	7.2927E+02	9.9540E+02
A	1.6006E+01	2.4408E+01	3.1349E+01
S	2.6067E+00	2.7313E+00	2.8646E+00
Z	3.0290E+00	3.6247E+00	3.8303E+00
GAME	9.4172E-01	1.0719E+00	1.1343E+00
U	4.0237E+01	1.1946E+01	1.4061E+01

SPECIES	MOLE FRACTIONS		
E-	3.5626E-01	4.6203E-01	4.9090E-01
HE	1.3553E-02	2.6321E-03	9.7792E-04
HE+	2.9535E-03	1.1151E-02	1.0906E-02
HE++	4.2970E-10	1.1394E-05	1.2694E-03
H	2.7391E-01	7.3321E-02	1.8582E-02
H+	3.5330E-01	4.5095E-01	4.7746E-01
H2	2.6163E-05	4.0667E-06	2.5028E-07

P1 = 2.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7278E+03	1.8526E+04	3.3795E+04
T	9.3361E+01	1.6449E+02	2.4935E+02
RHO	9.3556E+00	3.0492E+01	3.5114E+01
H	4.4996E+02	7.7909E+02	1.0755E+03
A	1.6632E+01	2.5795E+01	3.2953E+01
S	2.6511E+00	2.7743E+00	2.9064E+00
Z	3.1231E+00	3.6940E+00	3.8598E+00
GAME	9.4972E-01	1.0952E+00	1.1283E+00
U	4.1617E+01	1.2763E+01	1.5124E+01

SPECIES	MOLE FRACTIONS		
E-	3.7564E-01	4.7212E-01	4.9479E-01
HE	1.2161E-02	1.9713E-03	5.9135E-04
HE+	3.8488E-03	1.1531E-02	9.3746E-03
HE++	1.3323E-09	3.2914E-05	2.9882E-03
H	2.3654E-01	5.3816E-02	1.2817E-02
H+	3.7179E-01	4.6053E-01	4.7944E-01
H2	1.8915E-05	2.9440E-06	1.1217E-07

Table III. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9115E+03	1.9456E+04	3.6265E+04
T	9.7087E+01	1.7673E+02	2.7372E+02
RHO	9.3266E+00	2.9371E+01	3.4108E+01
H	4.8029E+02	9.2786E+02	1.1576E+03
A	1.7283E+01	2.7185E+01	3.4655E+01
S	2.6945E+00	2.8143E+00	2.9471E+00
Z	3.2154E+00	3.7482E+00	3.8843E+00
GAME	9.5682E-01	1.1157E+00	1.1296E+00
U	4.2988E+01	1.3643E+01	1.6173E+01

SPECIES	MOLE FRACTIONS		
E-	3.9355E-01	4.7975E-01	4.9798E-01
HE	1.0666E-02	1.5017E-03	3.5440E-04
HE+	4.8839E-03	1.1747E-02	7.0887E-03
HE++	3.9609E-09	9.1246E-05	5.4291E-03
H	2.0221E-01	3.9096E-02	9.1065E-03
H+	3.8867E-01	4.6782E-01	4.8004E-01
H2	1.3391E-05	1.0037E-06	5.3751E-08

P1 = 2.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4911E+03	2.1760E+04	4.3365E+04
T	1.1034E+02	2.1961E+02	3.5455E+02
RHO	9.0874E+00	2.5772E+01	3.1143E+01
H	5.7719E+02	9.8170E+02	1.4204E+03
A	1.9536E+01	3.0956E+01	4.0349E+01
S	2.8229E+00	2.9244E+00	3.0541E+00
Z	3.4815E+00	3.8447E+00	3.9274E+00
GAME	9.9342E-01	1.1350E+00	1.1692E+00
U	4.7000E+01	1.6582E+01	1.9390E+01

SPECIES	MOLE FRACTIONS		
E-	4.3991E-01	4.9291E-01	5.0349E-01
HE	5.8580E-03	6.8468E-04	4.5244E-05
HE+	8.5034E-03	1.1021E-02	1.0267E-03
HE++	9.5816E-08	1.2987E-03	1.0759E-02
H	1.1433E-01	1.4994E-02	3.7292E-03
H+	4.3140E-01	4.7919E-01	4.8005E-01
H2	3.9660E-06	1.1803E-07	7.9077E-09

P1 = 2.00E+03 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1000E+03	2.0305E+04	3.8632E+04
T	1.0114E+02	1.9004E+02	2.9824E+02
RHO	9.2657E+00	2.8198E+01	3.3187E+01
H	5.1164E+02	8.7852E+02	1.2412E+03
A	1.7984E+01	2.8531E+01	3.6449E+01
S	2.7394E+00	2.9521E+00	2.9835E+00
Z	3.3078E+00	3.7893E+00	3.9032E+00
GAME	9.6668E-01	1.1304E+00	1.1413E+00
U	4.4341E+01	1.4561E+01	1.7160E+01

SPECIES	MOLE FRACTIONS		
E-	4.1850E-01	4.8539E-01	5.0041E-01
HE	9.0571E-03	1.1604E-03	1.9460E-04
HE+	6.0587E-03	1.1796E-02	4.8702E-03
HE++	1.1692E-08	2.3919E-04	7.7453E-03
H	1.6994E-01	2.8299E-02	6.7233E-03
H+	4.0444E-01	4.7312E-01	4.8005E-01
H2	9.1254E-06	4.8819E-07	2.8034E-08

P1 = 2.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6926E+03	2.2385E+04	4.5542E+04
T	1.1580E+02	2.3522E+02	3.9554E+02
RHO	8.9527E+00	2.4626E+01	3.0028E+01
H	6.1136E+02	1.0347E+03	1.5141E+03
A	2.0428E+01	3.2030E+01	4.2243E+01
S	2.9642E+00	2.9599E+00	3.0879E+00
Z	3.5618E+00	3.8646E+00	3.9338E+00
GAME	1.0117E+00	1.1296E+00	1.1766E+00
U	4.8292E+01	1.7547E+01	2.0542E+01

SPECIES	MOLE FRACTIONS		
E-	4.5253E-01	4.9541E-01	5.0430E-01
HE	4.4085E-03	5.0407E-04	4.1415E-05
HE+	9.6290E-03	9.9219E-03	1.2369E-03
HE++	2.7629E-07	2.5122E-03	1.1452E-02
H	9.0535E-02	1.1181E-02	2.8263E-03
H+	4.4290E-01	4.9047E-01	4.8016E-01
H2	2.2704E-06	6.1239E-08	4.3512E-09

P1 = 2.00E+03 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2934E+03	2.1072E+04	4.1049E+04
T	1.0549E+02	2.0468E+02	3.2541E+02
RHO	9.1928E+00	2.6943E+01	3.2199E+01
H	5.4395E+02	9.2967E+02	1.3292E+03
A	1.8724E+01	2.9820E+01	3.8405E+01
S	2.7807E+00	2.8895E+00	3.0195E+00
Z	3.3960E+00	3.8210E+00	3.9177E+00
GAME	9.7857E-01	1.1370E+00	1.1569E+00
U	4.5682E+01	1.5576E+01	1.8253E+01

SPECIES	MOLE FRACTIONS		
E-	4.2581E-01	4.8967E-01	5.0225E-01
HE	7.4427E-03	8.9344E-04	9.5711E-05
HE+	7.2803E-03	1.1597E-02	3.0849E-03
HE++	3.3404E-08	5.9526E-04	9.5823E-03
H	1.4093E-01	2.0370E-02	4.9794E-03
H+	4.1853E-01	4.7688E-01	4.8000E-01
H2	6.8423E-06	2.3409E-07	1.4721E-09

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6542E+01
T	2.8249E+00	3.5080E+00	4.9522E+00
RHO	3.9378E+00	6.5823E+00	1.1418E+01
H	2.9881E+00	3.6101E+00	5.1956E+00
A	1.6757E+00	1.8601E+00	2.1882E+00
S	1.0635E+00	1.0655E+00	1.0954E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9437E-01	9.8638E-01	9.6690E-01
U	2.3176E+00	1.3854E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	1.7348E-66	7.2912E-48	8.6610E-32
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	2.7941E-72	2.4742E-61	5.6530E-52
HE++	0.	0.	0.
H	1.3773E-11	1.8321E-09	4.3043E-06
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01

P1 = 5.00E+03 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4935E+01	1.2506E+02	2.3455E+02
T	6.4713E+00	9.0484E+00	1.0944E+01
RHO	5.3819E+00	1.3742E+01	2.0910E+01
H	6.9673E+00	1.0437E+01	1.3909E+01
A	2.4745E+00	2.8552E+00	3.1142E+00
S	1.1660E+00	1.1787E+00	1.2068E+00
Z	1.0032E+00	1.0359E+00	1.0249E+00
GAME	9.4616E-01	8.9569E-01	8.6459E-01
U	4.4262E+00	2.7327E+00	1.5358E+00

SPECIES	MOLE FRACTIONS		
E-	1.2457E-19	5.4519E-14	1.7245E-11
HE	4.9990E-02	4.9709E-02	4.8784E-02
HE+	1.8303E-44	1.7104E-32	3.8092E-27
HE++	0.	0.	0.
H	3.99[illegible]3E-04	1.1651E-02	4.8644E-02
H+	1.88[illegible]2E-19	5.4519E-14	1.7245E-11
H2	9.49[illegible]1E-01	9.3964E-01	9.0257E-01

P1 = 5.00E+03 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.752UE+01	4.6585E+01	1.0219E+02
T	3.8703E+00	5.1618E+00	7.0337E+00
RHO	4.5267E+00	9.0232E+00	1.4524E+01
M	3.9996E+00	5.4333E+00	7.6491E+00
A	1.9491E+00	2.2309E+00	2.5714E+00
S	1.0990E+00	1.1041E+00	1.1276E+00
Z	1.0000E+00	1.0003E+00	1.0004E+00
GAME	9.8155E-01	9.6418E-01	9.3973E-01
U	3.0256E+00	1.5165E+00	1.3707E+00

SPECIES	MOLE FRACTIONS		
E-	2.3361E-44	6.6610E-29	1.6651E-18
HE	5.0000E-02	5.0000E-02	4.9992E-02
HE+	8.6749E-60	2.0854E-50	1.7484E-39
HE++	0.	0.	0.
H	5.0033E-08	1.0475E-05	7.1086E-04
H+	6.3460E-20	6.3460E-20	1.6017E-19
H2	9.5000E-01	9.4999E-01	9.4931E-01

P1 = 5.00E+03 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.540SE+01	7.9725E+01	1.6142E+02
T	5.0959E+00	7.0679E+00	9.1563E+00
RHO	4.9859E+00	1.1275E+01	1.7529E+01
M	5.3593E+00	7.6944E+00	1.0571E+01
A	2.2175E+00	2.5758E+00	2.8734E+00
S	1.1335E+00	1.1419E+00	1.1677E+00
Z	1.0000E+00	1.0004E+00	1.0058E+00
GAME	9.6497E-01	9.3932E-01	9.9653E-01
U	3.7255E+00	1.6457E+00	1.4822E+00

SPECIES	MOLE FRACTIONS		
E-	5.4179E-3C	2.9591E-19	7.3049E-14
HE	5.0000E-02	4.9578E-02	4.9711E-02
HE+	3.0529E-51	3.1166E-40	1.3222E-32
HE++	0.	0.	0.
H	1.0833E-05	9.6126E-04	1.1559E-02
H+	6.3460E-2C	3.0215E-18	7.3049E-14
H2	9.4999E-01	9.4916E-01	9.3973E-01

P1 = 5.00E+03 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5992E+01	1.8732E+02	3.2614E+02
T	7.9174E+00	1.0796E+01	1.2465E+01
RHO	5.7933E+00	1.6930E+01	2.4758E+01
M	8.8313E+00	1.3710E+01	1.7723E+01
A	2.6944E+00	3.0906E+00	3.3531E+00
S	1.1982E+00	1.2157E+00	1.2467E+00
Z	1.0023E+00	1.0249E+00	1.0595E+00
GAME	9.1487E-01	8.6334E-01	8.5349E-01
U	5.1396E+00	1.7543E+00	1.5675E+00

SPECIES	MOLE FRACTIONS		
E-	7.5095E-16	1.3843E-11	4.5570E-10
HE	4.9987E-02	4.9789E-02	4.7236E-02
HE+	7.5281E-37	1.9736E-27	3.5216E-24
HE++	0.	0.	6.8975E-84
H	4.5386E-03	4.8444E-02	1.1056E-01
H+	7.5101E-16	1.3843E-11	4.5570E-10
H2	9.4557E-01	9.0277E-01	8.4221E-01

P1 = 5.00E+03 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8761E+01	2.7237E+02	4.4744E+02
T	9.2526E+00	1.2299E+01	1.3932E+01
RHO	6.2639E+00	2.0923E+01	2.9274E+01
M	1.0958E+01	1.7532E+01	2.2133E+01
A	2.8654E+00	3.3306E+00	3.6107E+00
S	1.2291E+00	1.2540E+00	1.2845E+00
Z	1.0107E+00	1.0586E+00	1.1050E+00
GAME	8.7831E-01	8.5210E-01	8.5299E-01
U	5.8771E+00	1.7638E+00	1.6071E+00

SPECIES	MOLE FRACTIONS		
E-	2.3545E-13	3.8591E-10	4.8662E-09
HE	4.9471E-02	4.7234E-02	4.5251E-02
HE+	1.0107E-31	2.5589E-24	9.2156E-22
HE++	0.	8.2825E-97	1.6073E-77
H	2.1144E-02	1.1063E-01	1.8996E-01
H+	2.3545E-13	3.8591E-10	4.8662E-09
H2	9.2938E-01	8.4214E-01	7.6479E-01

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3505E+01	3.8542E+02	6.0772E+02
T	1.0376E+01	1.3672E+01	1.5196E+01
RHO	6.8905E+00	2.5522E+01	3.4394E+01
H	1.3349E+01	2.1997E+01	2.7191E+01
A	3.0230E+00	3.5862E+00	3.8945E+00
S	1.2604E+00	1.2941E+00	1.3322E+00
Z	1.0291E+00	1.1045E+00	1.1631E+00
GAME	9.552ME-01	9.5164E-01	9.5913E-01
U	6.6355E+00	1.7910E+00	1.6644E+00

SPECIES	MOLE FRACTIONS		
E-	8.1234E-12	4.1179E-09	3.0991E-08
HE	4.8614E-02	4.5269E-02	4.2987E-02
HE+	1.3228E-28	5.2141E-22	5.7075E-20
HE++	0.	6.0675E-79	2.3319E-71
H	5.4621E-02	1.9930E-01	2.8051E-01
H+	8.1234E-12	4.1179E-09	3.0991E-08
H2	8.9674E-01	7.6544E-01	6.7659E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2801E+02	8.9540E+02	1.3337E+03
T	1.2957E+01	1.7585E+01	1.9527E+01
RHO	8.7875E+00	3.9232E+01	4.8910E+01
H	2.2041E+01	3.7941E+01	4.6173E+01
A	3.5022E+00	4.4682E+00	4.9349E+00
S	1.3609E+00	1.4240E+00	1.4743E+00
Z	1.1243E+00	1.2979E+00	1.3964E+00
GAME	8.4199E-01	8.7477E-01	8.9312E-01
U	8.9467E+00	2.0055E+00	1.9589E+00

SPECIES	MOLE FRACTIONS		
E-	2.5038E-09	4.0660E-07	1.8551E-06
HE	4.4471E-02	3.8524E-02	3.5806E-02
HE+	4.5066E-23	1.8901E-17	7.2254E-16
HE++	9.0396E-82	1.0461E-61	9.0220E-56
H	2.2114E-01	4.5905E-01	5.6776E-01
H+	2.5038E-09	4.0660E-07	1.8551E-06
H2	7.3438E-01	5.0242E-01	3.9643E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.0036E+01	5.2711E+02	8.0876E+02
T	1.1332E+01	1.4983E+01	1.6574E+01
RHO	7.5381E+00	3.0312E+01	3.9614E+01
H	1.5994E+01	2.6765E+01	3.2875E+01
A	3.176cE+00	3.8592E+00	4.2068E+00
S	1.2927E+00	1.3359E+00	1.3780E+00
Z	1.0536E+00	1.1636E+00	1.2318E+00
GAPE	9.4514E-01	9.5645E-01	9.6683E-01
U	7.4097E+00	1.8445E+00	1.7415E+00

SPECIES	MOLE FRACTIONS		
E-	9.5276E-11	2.5445E-09	1.4529E-07
HE	4.7455E-02	4.3080E-02	4.0592E-02
HE+	3.7383E-25	3.2122E-20	1.9624E-18
HE++	0.	2.9674E-72	1.8814E-65
H	1.0190E-01	2.7679E-01	3.7631E-01
H+	9.5276E-11	2.5445E-08	1.4529E-07
H2	9.5075E-01	6.9013E-01	5.9310E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4944E+02	1.1178E+03	1.6567E+03
T	1.3654E+01	1.9940E+01	2.1208E+01
RHO	9.3438E+00	4.2863E+01	5.2417E+01
H	2.5439E+01	4.4217E+01	5.3710E+01
A	3.6746E+00	4.8108E+00	5.3679E+00
S	1.3970E+00	1.4696E+00	1.5243E+00
Z	1.1679E+00	1.3769E+00	1.4903E+00
GAPE	8.4431E-01	9.8746E-01	9.1163E-01
U	9.7091E+00	2.1184E+00	2.1061E+00

SPECIES	MOLE FRACTIONS		
E-	8.4051E-09	1.2627E-06	5.7394E-06
HE	4.2812E-02	3.6313E-02	3.3549E-02
HE+	6.7957E-22	2.5797E-16	1.0150E-14
HE++	9.3830E-80	2.3920E-57	2.8544E-52
H	2.8751E-01	5.4749E-01	6.5801E-01
H+	8.4051E-09	1.2627E-06	5.7394E-06
H2	6.6967E-01	4.1619E-01	3.0843E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0813E+02	6.9792E+02	1.0508E+03
T	1.2173E+01	1.6277E+01	1.8033E+01
RHO	8.1902E+00	3.4995E+01	4.4562E+01
H	1.8892E+01	3.2121E+01	3.9175E+01
A	3.3367E+00	4.1523E+00	4.5513E+00
S	1.3262E+00	1.3793E+00	1.4254E+00
Z	1.0963E+00	1.2255E+00	1.3099E+00
GAPE	8.4177E-01	8.6441E-01	8.7845E-01
U	9.1799E+00	1.9136E+00	1.9376E+00

SPECIES	MOLE FRACTIONS		
E-	5.8830E-10	1.1307E-07	5.5450E-07
HE	4.6039E-02	4.0831E-02	3.9174E-02
HE+	1.9414E-24	9.5241E-19	4.3375E-17
HE++	4.0036E-88	4.2692E-66	2.3211E-60
H	1.5842E-01	3.6797E-01	4.7303E-01
H+	5.8830E-10	1.1307E-07	5.5450E-07
H2	7.9554E-01	5.9123E-01	4.8879E-01

P1 = 5.00E+03 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7242E+02	1.3611E+03	2.0185E+03
T	1.4408E+01	2.0379E+01	2.3146E+01
RHO	9.8383E+00	4.5706E+01	5.4864E+01
H	2.9087E+01	5.0929E+01	6.2001E+01
A	3.8551E+00	5.1851E+00	5.8675E+00
S	1.4342E+00	1.5158E+00	1.5750E+00
Z	1.2163E+00	1.4612E+00	1.5895E+00
GAPE	8.4805E-01	9.0286E-01	9.3576E-01
U	1.0465E+01	2.2546E+00	2.2865E+00

SPECIES	MOLE FRACTIONS		
E-	2.3940E-08	3.5770E-06	1.7313E-05
HE	4.1108E-02	3.4219E-02	3.1456E-02
HE+	7.2148E-21	2.9988E-15	1.3913E-13
HE++	9.0912E-75	2.0604E-53	3.9555E-47
H	3.5568E-01	6.3126E-01	7.4171E-01
H+	2.3940E-08	3.5773E-06	1.7313E-05
H2	6.0321E-01	3.3451E-01	2.2680E-01

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, USI= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9695E+02	1.6214E+03	2.4198E+03
T	1.5113E+01	2.1957E+01	2.5531E+01
RHO	1.0268E+01	4.7669E+01	5.6068E+01
H	3.2984E+01	5.8067E+01	7.1077E+01
A	4.0449E+00	5.5997E+00	6.4667E+00
S	1.4725E+00	1.5620E+00	1.6259E+00
Z	1.2692E+00	1.5491E+00	1.6904E+00
GAME	8.5295E-01	9.2187E-01	9.6896E-01
U	1.1215E+01	2.4177E+00	2.5125E+00

SPECIES	MOLE FRACTIONS		
E-	6.0387E-08	9.5888E-06	5.3888E-05
HE	3.9394E-02	3.2276E-02	2.9579E-02
HE+	5.6038E-20	3.0464E-14	2.0703E-12
HE++	8.5192E-71	1.3289E-49	9.4535E-43
H	4.2426E-01	7.0892E-01	8.1672E-01
H+	6.0397E-08	9.5999E-06	5.3999E-05
H2	5.3635E-01	2.5878E-01	1.5359E-01

P1 = 5.00E+03 N/SQ-M, USI= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7962E+02	2.4396E+03	3.9955E+03
T	1.7332E+01	2.8598E+01	3.9636E+01
RHO	1.1132E+01	6.7353E+01	9.1255E+01
H	4.6166E+01	8.1797E+01	1.0481E+02
A	4.6861E+00	7.2478E+00	9.3948E+00
S	1.5924E+00	1.6961E+00	1.7727E+00
Z	1.4518E+00	1.8014E+00	1.9126E+00
GAME	8.7423E-01	1.0200E+00	1.0987E+00
U	1.3429E+01	3.1580E+00	3.7251E+00

SPECIES	MOLE FRACTIONS		
E-	6.5047E-07	1.9337E-04	3.0405E-03
HE	3.4440E-02	2.7756E-02	2.6143E-02
HE+	1.3184E-17	3.8425E-11	3.4648E-08
HE++	8.0729E-63	4.1324E-38	2.6387E-27
H	6.2238E-01	8.8914E-01	9.4518E-01
H+	6.5047E-07	1.9337E-04	3.0404E-03
H2	3.4318E-01	8.2673E-02	2.2631E-02

P1 = 5.00E+03 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2301E+02	1.8930E+03	2.8632E+03
T	1.5921E+01	2.3754E+01	2.8735E+01
RHO	1.0627E+01	4.8649E+01	5.5782E+01
M	3.7130E+01	6.5613E+01	8.1119E+01
A	4.2454E+00	6.0676E+00	7.2222E+00
S	1.5117E+00	1.6079E+00	1.6767E+00
Z	1.3264E+00	1.6381E+00	1.7863E+00
GAME	8.5888E-01	9.4613E-01	1.0162E+00
U	1.1959E+01	2.6144E+00	2.8140E+00

SPECIES	MOLE FRACTIONS		
E-	1.4078E-07	2.5279E-05	1.8690E-04
HE	3.7697E-02	3.0522E-02	2.7991E-02
HE+	3.9427E-19	3.0152E-13	4.0915E-11
HE++	2.9711E-68	7.0574E-46	5.6861E-38
H	4.9212E-01	7.7903E-01	8.7979E-01
H+	1.4078E-07	2.5279E-05	1.8690E-04
H2	4.7019E-01	1.9040E-01	9.1846E-02

P1 = 5.00E+03 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1010E+02	2.6914E+03	4.4279E+03
T	1.9109E+01	3.2044E+01	4.6316E+01
RHO	1.1273E+01	4.5138E+01	4.9199E+01
M	5.1056E+01	9.3331E+01	1.1782E+02
A	4.9326E+00	7.9739E+00	9.7748E+00
S	1.6334E+00	1.7369E+00	1.9134E+00
Z	1.5152E+00	1.9620E+00	1.9432E+00
GAME	8.9424E-01	1.0656E+00	1.0573E+00
U	1.4153E+01	3.5382E+00	4.2018E+00

SPECIES	MOLE FRACTIONS		
E-	1.3437E-06	5.7971E-04	8.9592E-03
HE	3.2913E-02	2.6853E-02	2.5731E-02
HE+	7.1633E-17	5.3946E-13	4.7691E-07
HE++	8.6845E-63	6.2922E-34	3.3563E-23
H	6.8350E-01	9.2416E-01	9.4399E-01
H+	1.3437E-06	5.7971E-04	8.9577E-03
H2	2.8359E-01	4.7828E-02	1.2471E-02

P1 = 5.00E+03 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5058E+02	2.1689E+03	3.3529E+03
T	1.6546E+01	2.5899E+01	3.3362E+01
RHO	1.0916E+01	4.8565E+01	5.3922E+01
M	4.1524E+01	7.3538E+01	9.2346E+01
A	4.4593E+00	6.6092E+00	8.1617E+00
S	1.5517E+00	1.6529E+00	1.7263E+00
Z	1.3873E+00	1.7243E+00	1.9639E+00
GAME	8.6590E-01	9.7816E-01	1.0713E+00
U	1.2697E+01	2.8552E+00	3.2201E+00

SPECIES	MOLE FRACTIONS		
E-	3.0870E-07	6.7977E-05	7.5438E-04
HE	3.6043E-02	2.8999E-02	2.6927E-02
HE+	2.3767E-18	3.1520E-12	1.1855E-09
HE++	2.2047E-65	2.6562E-42	1.2622E-32
H	5.5839E-01	8.3993E-01	9.2464E-01
H+	3.0870E-07	6.7977E-05	7.5439E-04
H2	4.0557E-01	1.3097E-01	4.7022E-02

P1 = 5.00E+03 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4196E+02	2.9196E+03	4.9563E+03
T	1.8993E+01	3.6348E+01	5.2421E+01
RHO	1.1334E+01	4.2210E+01	4.7959E+01
M	5.6191E+01	9.9396E+01	1.3196E+02
A	5.2213E+00	8.6890E+00	1.0273E+01
S	1.6747E+00	1.7752E+00	1.8497E+00
Z	1.5899E+00	1.9029E+00	1.9713E+00
GAME	8.9665E-01	1.0915E+00	1.0213E+00
U	1.4969E+01	3.9939E+00	4.6329E+00

SPECIES	MOLE FRACTIONS		
E-	2.7677E-06	1.7312E-03	1.9930E-02
HE	3.1470E-02	2.6275E-02	2.5361E-02
HE+	3.9102E-16	7.4815E-09	2.9590E-06
HE++	6.0752E-57	9.7547E-30	2.3993E-20
H	7.4118E-01	9.4380E-01	9.2866E-01
H+	2.7677E-06	1.7312E-03	1.9927E-02
H2	2.2734E-01	2.6464E-02	8.1160E-03

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7513E+02	3.1279E+03	5.4452E+03
T	1.9985E+01	4.1070E+01	5.7646E+01
RHO	1.1309E-01	3.9484E-01	4.7199E-01
H	6.1571E+01	1.0814E+02	1.4422E+02
A	5.5024E+00	9.2553E+00	1.0724E+01
S	1.7160E+00	1.8099E+00	1.8821E+00
Z	1.6596E+00	1.9298E+00	2.0013E+00
GAME	9.1271E-01	1.0813E+00	9.9687E-01
U	1.5573E+01	4.4569E+00	4.9009E+00

SPECIES	MOLE FRACTIONS		
E-	5.8055E-06	4.4717E-03	3.1581E-02
HE	3.0129E-02	2.5922E-02	2.4973E-02
HE+	2.2509E-15	7.3299E-08	1.0438E-05
HE++	4.0483E-54	3.2755E-26	2.2213E-18
H	7.9484E-01	9.4969E-01	9.0593E-01
H+	5.8055E-06	4.4716E-03	3.1571E-02
H2	1.7502E-01	1.5441E-02	5.9362E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8077E+02	3.6222E+03	6.5974E+03
T	2.4577E+01	5.4183E+01	7.0092E+01
RHO	1.0555E-01	3.3532E-01	4.4019E-01
H	7.9125E+01	1.3734E+02	1.8446E+02
A	6.7916E+00	1.0383E+01	1.1943E+01
S	1.8352E+00	1.9033E+00	1.9747E+00
Z	1.8542E+00	1.9936E+00	2.1091E+00
GAME	1.0122E+00	9.9810E-01	9.6487E-01
U	1.7574E+01	5.5244E+00	5.5423E+00

SPECIES	MOLE FRACTIONS		
E-	8.2272E-05	2.6959E-02	7.8427E-02
HE	2.6966E-02	2.5075E-02	2.3606E-02
HE+	1.3339E-12	5.5080E-06	1.0132E-04
HE++	6.5673E-44	1.7124E-19	7.7358E-15
H	9.2110E-01	9.1593E-01	9.1655E-01
H+	8.2272E-05	2.6953E-02	7.8325E-02
H2	5.1767E-02	5.0794E-03	2.9934E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0947E+02	3.3204E+03	5.9878E+03
T	2.1169E+01	4.5742E+01	6.2303E+01
RHO	1.1183E+01	3.7241E+01	4.6443E+01
H	6.7191E+01	1.1753E+02	1.5759E+02
A	5.8499E+00	9.6845E+00	1.1153E+01
S	1.7568E+00	1.8419E+00	1.9135E+00
Z	1.7297E+00	1.9492E+00	2.0348E+00
GAME	9.3464E-01	1.0519E+00	1.0126E-01
U	1.6263E+01	4.8814E+00	5.1573E+00

SPECIES	MOLE FRACTIONS		
E-	1.2759E-05	9.4959E-03	4.6267E-02
HE	2.8907E-02	2.5651E-02	2.4546E-02
HE+	1.4745E-14	4.4911E-07	2.6979E-05
HE++	4.3842E-51	2.1795E-23	6.7291E-17
H	8.4367E-01	9.4545E-01	9.7933E-01
H+	1.2758E-05	9.4954E-03	4.6240E-02
H2	1.2740E-01	9.9071E-03	4.5947E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1704E+02	3.7007E+03	6.6251E+03
T	2.7197E+01	5.7794E+01	7.3303E+01
RHO	1.0018E+01	3.1696E+01	4.2065E+01
H	9.5417E+01	1.4761E+02	1.9769E+02
A	7.4238E+00	1.0702E+01	1.2300E+01
S	1.8714E+00	1.9339E+00	2.0055E+00
Z	1.8976E+00	2.0202E+00	2.1486E+00
GAME	1.0675E+00	9.8090E-01	9.6060E-01
U	1.8175E+01	5.7416E+00	5.6798E+00

SPECIES	MOLE FRACTIONS		
E-	2.5436E-04	3.8627E-02	9.4899E-02
HE	2.6349E-02	2.4737E-02	2.3108E-02
HE+	2.1034E-11	1.3059E-05	1.6297E-04
HE++	1.5799E-39	3.6922E-18	4.7049E-14
H	9.4528E-01	8.9412E-01	7.8464E-01
H+	2.5436E-04	3.8614E-02	9.4736E-02
H2	2.7861E-02	3.9936E-03	2.4549E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4479E+02	3.4485E+03	6.2529E+03
T	2.2639E+01	5.0158E+01	6.6429E+01
RHO	1.0938E+01	3.5302E+01	4.5454E+01
H	7.3045E+01	1.2726E+02	1.7103E+02
A	6.2684E+00	1.0048E+01	1.1559E+01
S	1.7968E+00	1.8729E+00	1.9441E+00
Z	1.7962E+00	1.9701E+00	2.0709E+00
GAME	9.6628E-01	1.0218E+00	9.7126E-01
U	1.6933E+01	5.2471E+00	5.3665E+00

SPECIES	MOLE FRACTIONS		
E-	3.3451E-05	1.7092E-02	6.2052E-02
HE	2.7837E-02	2.5377E-02	2.4088E-02
HE+	1.1975E-13	1.8437E-06	5.6296E-05
HE++	1.0380E-47	3.4270E-21	9.4455E-16
H	8.8642E-01	9.3356E-01	8.4813E-01
H+	3.0451E-05	1.7091E-02	6.1995E-02
H2	8.5681E-02	6.8916E-03	3.6783E-03

P1 = 5.00E+03 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5355E+02	3.7402E+03	6.6368E+03
T	3.0576E+01	6.1031E+01	7.6152E+01
RHO	9.4374E+00	2.9922E+01	3.9837E+01
H	9.1914E+01	1.5812E+02	2.1092E+02
A	9.6614E+00	1.1035E+01	1.2636E+01
S	1.9051E+00	1.9643E+00	2.0366E+00
Z	1.9245E+00	2.0491E+00	2.1594E+00
GAME	1.1044E+00	9.6888E-01	9.5768E-01
U	1.9746E+01	5.9964E+00	5.7977E+00

SPECIES	MOLE FRACTIONS		
E-	8.2947E-04	5.1436E-02	1.1135E-01
HE	2.5981E-02	2.4375E-02	2.2595E-02
HE+	3.7872E-10	2.5987E-05	2.4223E-04
HE++	5.6720E-35	4.2373E-17	1.7136E-13
H	9.5926E-01	8.6969E-01	7.5260E-01
H+	8.2947E-04	5.1410E-02	1.1114E-01
H2	1.4105E-02	3.3763E-03	2.0210E-03

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, USI= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9106E+02	3.7920E+03	6.6662E+03
T	3.4369E+01	6.3995E+01	7.8862E+01
RHO	8.2817E+00	2.6480E+01	3.7890E+01
H	9.8637E+01	1.6895E+02	2.2422E+02
A	8.5488E+00	1.1309E+01	1.2970E+01
S	1.5349E+00	1.9934E+00	2.0665E+00
Z	1.5397E+00	2.0806E+00	2.2315E+00
GAPE	1.0992E+00	9.6349E-01	9.5592E-01
U	1.9298E+01	6.0164E+00	5.9085E+00

SPECIES	MOLE FRACTIONS		
E-	2.3553E-03	6.5266E-02	1.2784E-01
HE	2.5777E-02	2.3985E-02	2.2063E-02
HE+	4.8655E-09	4.6452E-05	3.4350E-04
HE++	5.6353E-31	3.3354E-16	5.9659E-13
H	9.6187E-01	8.4299E-01	7.2058E-01
H+	2.3553E-03	6.5220E-02	1.2749E-01
H2	7.6460E-03	2.4909E-03	1.6830E-03

P1 = 5.00E+03 N/SQ-M, USI= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6026E+02	4.4591E+03	7.8069E+03
T	4.7792E+01	7.5377E+01	9.2272E+01
RHO	7.5569E+00	2.6529E+01	3.6818E+01
H	1.2812E+02	2.1799E+02	2.8535E+02
A	9.6499E+00	1.2626E+01	1.4464E+01
S	2.0360E+00	2.0999E+00	2.1791E+00
Z	1.9993E+00	2.2300E+00	2.4202E+00
GAME	9.7457E-01	9.4842E-01	9.5762E-01
U	2.1729E+01	6.5134E+00	6.4343E+00

SPECIES	MOLE FRACTIONS		
E-	2.6443E-02	1.2687E-01	1.9516E-01
HE	2.5007E-02	2.2155E-02	1.9546E-02
HE+	1.8655E-06	2.6637E-04	1.1135E-03
HE++	1.1411E-21	1.8040E-13	4.5236E-11
H	9.2035E-01	7.2282E-01	5.8924E-01
H+	2.6431E-02	1.2660E-01	1.9405E-01
H2	1.7802E-03	1.2907E-03	8.9131E-04

P1 = 5.00E+03 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3C07E+02	3.9829E+03	6.7598E+03
T	3.8082E+01	6.6872E+01	8.1558E+01
RHO	8.4770E+00	2.7460F+01	3.6426E+01
M	1.0562E+02	1.8028F+02	2.3818E+02
A	9.8966E+03	1.1620E+01	1.3314E+01
S	1.9626E+00	2.0215F+0C	2.0961E+00
Z	1.5519E+00	2.1145E+00	2.2754E+00
GAME	1.0649E+00	9.5485E-01	9.5516E-01
U	1.9864E+01	6.1271E+00	6.022CE+00

SPECIES	MOLE FRACTIONS		
E-	9.5250E-03	7.9875E-C2	1.4442E-01
HE	2.5618F-02	2.3569E-02	2.1531E-02
HE+	3.9156E-05	7.7031E-C5	4.7279E-04
HE++	1.0423E-27	2.0263E-15	1.P771E-12
H	9.5872E-01	8.1462E-01	6.8824E-01
H+	5.525CE-03	7.9799E-02	1.4395E-01
H2	4.6148E-03	2.0625E-C3	1.4169E-03

P1 = 5.00E+03 N/SQ-M, US1= 3.40F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5754E+02	5.0339E+03	8.5189E+03
T	5.2984E+01	8.1041F+01	9.655/F+01
RHC	7.9172E+00	2.6813F+01	3.4928E+01
M	1.4449E+02	2.4611E+02	3.2104E+02
A	1.0C13CE+01	1.3349F+01	1.5317E+01
S	2.0809E+00	2.1499E+00	2.2323F+00
Z	2.0443E+00	2.3166E+00	2.5260E+00
GAME	9.4736F-01	9.4916E-01	9.6192E-01
U	2.3C69F+01	6.9092F+00	6.7637E+00

SPECIES	MOLE FRACTIONS		
E-	4.7331F-02	1.3324E-01	2.287CE-01
HE	2.4450E-C2	2.1C69F-02	1.7991E-02
HE+	8.2116E-06	5.1569E-C4	1.A127E-03
HE++	2.4094E-19	2.0819E-12	3.0284E-10
H	9.79C8E-01	6.5947F-01	5.2396E-01
H+	4.7323F-02	1.5872E-01	2.2688E-01
H2	1.2099F-03	9.8599E-04	6.6653E-04

P1 = 5.00E+03 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.712CE+02	4.0272F+03	6.9547E+03
T	4.1621E+01	6.9714F+01	8.4355E+01
RHC	8.208JF+00	2.6859E+01	3.5513F+01
M	1.1294E+02	1.9227E+02	2.5331E+02
A	9.1674E+03	1.1943E+01	1.3479E+01
S	1.9994E+00	2.0495E+0C	2.1245F+00
Z	1.9649E+00	2.1509E+0C	2.3216E+00
GAME	1.C27EE+00	9.5127E-01	9.5529E-01
U	2.045CE+01	6.2479E+00	6.1492E+00

SPECIES	MOLE FRACTIONS		
E-	1.C691E-02	9.5125E-02	1.6125E-01
HE	2.5447F-02	2.3125F-C2	2.0898E-02
HE+	1.9719E-07	1.2116E-C4	4.3942E-04
HE++	3.4907E-25	1.0323E-14	5.6576E-12
H	9.5009E-01	7.9499F-01	6.5540E-01
H+	1.0880E-02	9.5003E-02	1.6061E-01
H2	3.1117E-03	1.7439E-03	1.2954F-03

P1 = 5.00E+03 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6219E+C2	5.7084E+03	9.6109E+03
T	5.7554E+01	9.6706F+01	1.1314E+02
RHC	7.9684E+00	2.7330F+01	3.5334E+01
M	1.6193E+C2	2.7631F+02	3.5973E+02
A	1.0619E+01	1.4101E+01	1.6224E+01
S	2.1246F+00	2.1976F+00	2.2949E+00
Z	2.0579F+00	2.4089E+00	2.6372E+00
GAME	9.3394E-01	9.5199E-01	9.677JE-01
U	2.4456F+01	7.1255F+00	7.1187E+00

SPECIES	MOLE FRACTIONS		
E-	7.1394E-02	1.9129E-01	2.6139E-01
HE	2.3809E-02	1.9951E-02	1.6208E-02
HE+	2.4199E-05	9.0521F-04	2.7513E-03
HE++	1.2135E-17	1.7329E-11	1.6910E-09
H	9.3253E-01	5.9693E-01	4.6112E-01
H+	7.1359E-02	1.9037F-01	2.5833E-01
H2	9.9091E-04	7.6232E-04	4.9731E-04

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 3.83F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.C739E+C3	5.4692E+03	1.0862F+04
T	6.1672E+01	9.2406F+01	1.1005F+02
RHO	8.G71CF+00	2.7935E+01	3.5859E+01
H	1.9334E+02	3.C846F+02	4.0132F+02
A	1.110?F+01	1.4879F+01	1.7185F+01
S	2.167.F+00	2.2452E+00	2.3367F+00
Z	2.1572E+00	2.5057E+00	2.7524E+00
GAME	9.2761F-01	9.5611E-01	9.7509E-01
U	2.5852E+01	7.4661F+00	7.5095E+00

SPECIES	MOLE FRACTIONS		
E-	9.e7;9E-02	2.2237E-01	2.9190E-01
HE	2.3123E-02	1.8489E-02	1.4265F-02
HE+	5.5593E-05	1.4653E-03	3.9311E-03
HE++	2.5122E-16	1.1161E-10	8.0416F-09
H	7.8271E-01	5.3619E-01	4.C157F-01
H+	9.66M2E-02	2.2v90F-01	2.89C3E-01
H2	6.8895E-04	F.312EE-04	3.6743F-04

P1 = 5.00E+03 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4476E+03	9.0995E+03	1.5330E+04
T	7.2806E+01	1.1005E+02	1.3359E+02
RHO	8.4081E+00	2.9393E+01	3.6897E+01
H	2.4174E+02	4.1591E+02	5.4331E+02
A	1.2629E+01	1.7367E+01	2.0472E+01
S	2.2935E+00	2.3962E+00	2.4915E+00
Z	2.3647E+00	2.8130E+00	3.1102E+00
GAME	9.2632E-01	9.7429E-01	1.0097E+00
U	3.C106E+01	8.6092E+00	8.8930E+00

SPECIES	MOLE FRACTIONS		
E-	1.7572E-01	3.0706E-01	3.7316E-01
HE	2.0818E-02	1.3564E-02	8.3953E-03
HE+	3.2678E-04	4.2107E-03	7.6804E-03
HE++	1.6860E-13	9.8558E-09	4.1361E-07
H	6.2740E-01	3.7206E-01	2.4515E-01
H+	1.7539E-01	3.0285E-01	3.6548E-01
H2	3.5000E-04	2.6421E-04	1.2869E-04

P1 = 5.00E+03 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.[illegible]921E+03	7.2946E+03	1.2241E+04
T	6.5542E+01	9.9177E+01	1.1736E+02
RHO	8.1852E+00	2.8511E+01	3.6333E+01
H	1.9990E+02	3.4252E+02	4.4592E+02
A	1.1608E+01	1.5682E+01	1.8208E+01
S	2.2091E+00	2.2926E+00	2.3996E+00
Z	2.2221E+00	2.6060E+00	2.8707E+00
GAME	9.2515E-01	9.6122E-01	9.9409E-01
U	2.7269E+01	7.8257E+00	7.9336E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	1.2361E-01	2.5219E-01	3.2099E-01
HE	2.2391E-02	1.6973E-02	1.2233E-02
HE+	1.1032E-04	2.2136E-03	5.1944E-03
HE++	3.0828E-15	5.8501E-10	3.3330E-08
H	7.3104E-01	4.7918E-01	3.4554E-01
H+	1.7250E-01	2.4998E-01	3.1579E-01
H2	5.4428E-04	4.5647E-04	2.6671E-04

P1 = 5.00E+03 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5845E+03	1.0062E+04	1.7031E+04
T	7.6311E+01	1.1627E+02	1.4289E+02
RHO	8.5055E+00	2.9656E+01	3.6911E+01
H	2.6421E+02	4.5496E+02	5.9660E+02
A	1.3153E+01	1.9259E+01	2.1743E+01
S	2.3357E+00	2.4325E+00	2.5427E+00
Z	2.4412E+00	2.9180E+00	3.2291E+00
GAME	9.2865E-01	9.8262E-01	1.0246E+00
U	3.1523E+01	9.0380E+00	9.4451E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	2.0149E-01	3.3194E-01	3.9620E-01
HE	1.9970E-02	1.1776E-02	6.7614E-03
HE+	5.1134E-04	5.3593E-03	8.7015E-03
HE++	8.9179E-13	3.3485E-09	1.3118E-06
H	5.7676E-01	3.2416E-01	2.0073E-01
H+	2.0098E-01	3.2658E-01	3.8750E-01
H2	2.9169E-04	1.9654E-04	9.4203E-05

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

P1 = 5.00E+03 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3167E+03	8.1764E+03	1.3729E+04
T	6.9232E+01	1.0405E+02	1.2514E+02
RHO	8.2999E+00	2.9011E+01	3.6692E+01
H	2.2027E+02	3.7933E+02	4.9302E+02
A	1.2114E+01	1.6511E+01	1.9297E+01
S	2.2514E+00	2.3396E+00	2.4401E+00
Z	2.2915E+00	2.7089E+00	2.9901E+00
GAME	9.2500E-01	9.6723E-01	9.9523E-01
U	2.9697E+01	9.1993E+00	8.3854E+00

SPECIES	------------ MOLE FRACTIONS	------------	
E-	1.4946E-01	2.8047E-01	3.4834E-01
HE	2.1623E-02	1.5317E-02	1.0242E-02
HE+	1.9719E-04	3.1415E-03	6.4796E-03
HE++	2.6071E-14	2.5812E-09	1.2252E-07
H	6.7901E-01	4.2340E-01	2.9350E-01
H+	1.4927E-01	2.7733E-01	3.4156E-01
H2	4.3528E-04	3.4946E-04	1.8836E-04

P1 = 5.00E+03 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7274E+03	1.1054E+04	1.9822E+04
T	7.9784E+01	1.2279E+02	1.5319E+02
RHO	8.5898E+00	2.9774E+01	3.6756E+01
H	2.8767E+02	4.9571E+02	6.5280E+02
A	1.3688E+01	1.9195E+01	2.3106E+01
S	2.3779E+00	2.4787E+00	2.5926E+00
Z	2.5204E+00	3.0234E+00	3.3428E+00
GAME	9.3169E-01	9.9249E-01	1.0425E+00
U	3.2936E+01	9.4949E+00	1.0033E+01

SPECIES	------------ MOLE FRACTIONS	------------	
E-	2.2660E-01	3.5517E-01	4.1672E-01
HE	1.9072E-02	1.0325E-02	5.4545E-03
HE+	7.6467E-04	6.5129E-03	9.4990E-03
HE++	4.0386E-12	1.0372E-07	3.9470E-06
H	5.2750E-01	2.7950E-01	1.6107E-01
H+	2.2584E-01	3.4865E-01	4.0721E-01
H2	2.2615E-04	1.4300E-04	5.2706E-05

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 5.03E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8763E+03	1.2069E+04	2.0732E+04
T	8.3255E+01	1.2960E+02	1.6511E+02
RHO	8.6596E+00	2.9792E+01	3.6372E+01
H	3.1213E+02	5.3805E+02	7.1313E+02
A	1.4236E+01	2.0166E+01	2.4612E+01
S	2.4200E+00	2.5235E+00	2.6430E+00
Z	2.6025E+00	3.1260E+00	3.4521E+00
GAME	9.3531E-01	1.0039E+00	1.0628E+00
U	3.4345E+01	9.9731E+00	1.0739E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.5090E-01	3.7629E-01	4.3516E-01
HE	1.8111E-02	8.4176E-03	4.3654E-03
HE+	1.1017E-03	7.5772E-03	1.0107E-02
HE++	1.6164E-11	2.9361E-07	1.1967E-05
H	4.7991E-01	2.3889E-01	1.2530E-01
H+	2.4990E-01	3.6872E-01	4.2503E-01
H2	1.8069E-04	1.0217E-04	3.0791E-05

P1 = 5.00E+03 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3575E+03	1.5104E+04	2.6991E+04
T	9.3940E+01	1.5339E+02	2.1240E+02
RHO	8.7775E+00	2.8809E+01	3.4303E+01
H	3.9142E+02	6.7319E+02	9.1569E+02
A	1.5966E+01	2.3460E+01	2.9704E+01
S	2.5463E+00	2.6561E+00	2.7850E+00
Z	2.8591E+00	3.4183E+00	3.7045E+00
GAME	9.4909E-01	1.0488E+00	1.1213E+00
U	3.8534E+01	1.1735E+01	1.3757E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.1805E-01	4.2953E-01	4.7361E-01
HE	1.4734E-02	4.6841E-03	2.2777E-03
HE+	2.7537E-03	9.9391E-03	1.3931E-02
HE++	6.0911E-10	5.3971E-06	2.8811E-04
H	3.4907E-01	1.3624E-01	5.0793E-02
H+	3.1536E-01	4.1959E-01	4.6210E-01
H2	8.7630E-05	3.0191E-05	4.4085E-06

P1 = 5.00E+03 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0310E+03	1.3082E+04	2.2723E+04
T	8.6754E+01	1.3692E+02	1.7865E+02
RHO	8.7143E+00	2.9601E+01	3.5831E+01
H	3.3758E+02	5.9171E+02	7.7664E+02
A	1.4797E+01	2.1201E+01	2.6219E+01
S	2.4621E+00	2.5686E+00	2.6916E+00
Z	2.6865E+00	3.2278E+00	3.5498E+00
GAME	9.3941E-01	1.0170E+00	1.0940E+00
U	3.5748E+01	1.0521E+01	1.1487E+01

SPECIES	MOLE FRACTIONS		
E-	2.7429E-01	3.9594E-01	4.5069E-01
HE	1.7074E-02	6.9649E-03	3.5154E-03
HE+	1.5374E-03	8.5248E-03	1.0535E-02
HE++	5.9547E-11	7.9179E-07	3.4835E-05
H	4.3421E-01	2.0108E-01	9.5113E-02
H+	2.7275E-01	3.8742E-01	4.4009E-01
H2	1.4335E-04	7.0410E-05	1.7040E-05

P1 = 5.00E+03 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1914E+03	1.4104E+04	2.4824E+04
T	9.0306E+01	1.4481E+02	1.9458E+02
RHO	9.7537E+00	2.9289E+01	3.5088E+01
H	3.6401E+02	6.2686E+02	8.4456E+02
A	1.5373E+01	2.2290E+01	2.7959E+01
S	2.5043E+00	2.6127E+00	2.7399E+00
Z	2.7722E+00	3.3255E+00	3.6359E+00
GAME	9.4399E-01	1.0317E+00	1.1049E+00
U	3.7145E+01	1.1092E+01	1.2355E+01

SPECIES	MOLE FRACTIONS		
E-	2.9669E-01	4.1367E-01	4.6370E-01
HE	1.5951E-02	5.7218E-03	2.9255E-03
HE+	2.0850E-03	9.3114E-03	1.0823E-02
HE++	1.9530E-10	2.0399E-06	1.0319E-04
H	3.9056E-01	1.6689E-01	6.9879E-02
H+	2.9460E-01	4.0435E-01	4.5267E-01
H2	1.1270E-04	4.7013E-05	8.7676E-06

P1 = 5.00E+03 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2529E+03	1.4793E+04	2.6257E+04
T	9.4687E+01	1.5269E+02	2.0325E+02
RHO	9.7856E+00	2.9246E+01	3.5347E+01
H	4.1982E+02	7.2086E+02	9.9157E+02
A	1.6576E+01	2.4634E+01	3.1494E+01
S	2.5882E+00	2.6977E+00	2.8307E+00
Z	2.9469E+00	3.5021E+00	3.7607E+00
GAME	9.5480E-01	1.0651E+00	1.1306E+00
U	3.9915E+01	1.2409E+01	1.4785E+01

SPECIES	MOLE FRACTIONS		
E-	3.3835E-01	4.4321E-01	4.9148E-01
HE	1.3472E-02	3.8489E-03	1.7836E-03
HE+	3.5448E-03	1.0418E-02	1.0735E-02
HE++	1.7862E-09	1.2331E-05	7.7992E-04
H	3.5992E-01	1.6972E-01	8.6345E-02
H+	3.3480E-01	4.3277E-01	4.6918E-01
H2	6.7249E-05	1.9903E-05	2.1037E-06

P1 = 5.00E+03 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3062E+03	1.7039E+04	3.1527E+04
T	1.0159E+02	1.7331E+02	2.5519E+02
RHO	8.7778E+00	2.7522E+01	3.2493E+01
H	4.4917E+02	7.6949E+02	1.0F96E+03
A	1.7215E+01	2.5893E+01	3.3135E+01
S	2.6306E+00	2.7399E+00	2.9724E+00
Z	3.0353E+00	3.5785E+00	3.8022E+00
GAME	9.6131E-01	1.0825E+00	1.1316E+00
U	4.1287E+01	1.3162E+01	1.5267E+01

SPECIES	MOLE FRACTIONS		
E-	3.5754E-01	4.5539E-01	4.9714E-01
HE	1.2926E-02	3.1642E-03	1.3654E-03
HE+	4.4497E-03	1.0779E-02	1.0027E-02
HE++	4.9929E-09	2.9596E-05	1.7779E-03
H	2.7285E-01	1.6674E-02	2.6150E-02
H+	3.5306E-01	4.6425E-01	4.7356E-01
H2	5.0812E-05	1.1185E-05	1.0557E-06

Table III. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8985E+03	1.7946E+04	3.3811E+04
T	1.0567E+02	1.8430E+02	2.7788E+02
RHO	8.7535E+00	2.6719E+01	3.1730E+01
H	4.7953E+02	8.1916E+02	1.1500E+03
A	1.7880E+01	2.7193E+01	3.4715E+01
S	2.6715E+00	2.7783E+00	2.9111E+00
Z	3.1229E+00	3.6444E+00	3.9347E+00
GAME	9.6884E-01	1.1002E+00	1.1309E+00
U	4.2648E+01	1.3964E+01	1.6257E+01

SPECIES	MOLE FRACTIONS		
E-	3.7561E-01	4.6494E-01	4.9148E-01
HE	1.0569E-02	2.6145E-03	9.5374E-04
HE+	5.4424E-03	1.1036E-02	9.7241E-03
HE++	1.3393E-08	6.9404E-05	3.3611E-03
H	2.3817E-01	6.7578E-02	1.9440E-02
H+	3.7017E-01	4.5376E-01	4.7604E-01
H2	3.7694E-05	6.4591E-06	5.6007E-07

P1 = 5.00E+03 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4649E+03	2.0326E+04	4.0563E+04
T	1.1964E+02	2.2408E+02	3.5534E+02
RHO	8.5724E+00	2.3990E+01	2.9265E+01
H	5.7631E+02	9.7336E+02	1.4086E+03
A	2.0109E+01	3.0972E+01	4.0066E+01
S	2.7934E+00	2.8882E+00	3.0205E+00
Z	3.3786E+00	3.7810E+00	3.9308E+00
GAME	1.0004E+00	1.1322E+00	1.1582E+00
U	4.6647E+01	1.6662E+01	1.9327E+01

SPECIES	MOLE FRACTIONS		
E-	4.2285E-01	4.8427E-01	5.0010E-01
HE	6.2537E-03	1.4671E-03	1.0818E-04
HE+	8.5452E-03	1.1037E-02	3.6664E-03
HE++	2.1734E-07	7.2006E-04	8.9534E-03
H	1.4804E-01	3.0716E-02	8.5587E-03
H+	4.1430E-01	4.7179E-01	4.7852E-01
H2	1.3282E-05	1.1236E-06	9.7161E-08

P1 = 5.00E+03 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0763E+03	1.8808E+04	3.6137E+04
T	1.0996E+02	1.9667E+02	3.0262E+02
RHO	8.7171E+00	2.5848E+01	3.0918E+01
H	5.1385E+02	8.6978E+02	1.2341E+03
A	1.8574E+01	2.8488E+01	3.6432E+01
S	2.7122E+00	2.8164E+00	2.9498E+00
Z	3.2092E+00	3.6998E+00	3.8624E+00
GAME	9.7761E-01	1.1153E+00	1.1356E+00
U	4.4002E+01	1.4835E+01	1.7292E+01

SPECIES	MOLE FRACTIONS		
E-	3.9241E-01	4.7295E-01	4.9513E-01
HE	9.0996E-03	2.1645E-03	6.0763E-04
HE+	6.4814E-03	1.1191E-02	6.9258E-03
HE++	3.4499E-09	1.5901E-04	5.4119E-03
H	2.0606E-01	5.2088E-02	1.4542E-02
H+	3.8593E-01	4.6144E-01	4.7738E-01
H2	2.7448E-05	3.6303E-06	3.0130F-07

P1 = 5.00E+03 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2681E+03	1.9586E+04	3.8331E+04
T	1.1463E+02	2.1001E+02	3.2786E+02
RHO	9.6561E+00	2.6901E+01	3.0102E+01
H	5.4310E+02	9.2108E+02	1.3191E+03
A	1.9322E+01	2.9766E+01	3.9199E+01
S	2.7534E+00	2.8533F+00	2.9856E+00
Z	3.2958E+00	3.7451E+00	3.9839E+00
GAME	9.8813E-01	1.1265E+00	1.1459E+00
U	4.5330E+01	1.5736E+01	1.9260E+01

SPECIES	MOLE FRACTIONS		
E-	4.0835E-01	4.7933E-01	4.9793E-01
HE	7.6271E-03	1.7875E-03	3.6031E-04
HE+	7.5438E-03	1.1213E-02	5.1616E-03
HE++	8.7887E-08	3.4979E-04	7.3516E-03
H	1.7565E-01	3.9909E-02	1.1130E-02
H+	4.0081E-01	4.6741F-01	4.7807E-01
H2	1.9329E-05	2.0091E-06	1.7020E-07

P1 = 5.00E+03 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6660E+03	2.0977E+04	4.2682E+04
T	1.2513E+02	2.3913E+02	3.8410E+02
RHO	8.4721E+00	2.3019F+01	2.8399E+01
H	6.1045E+02	1.0262E+03	1.4996E+03
A	2.0956E+01	3.2128E+01	4.1930E+01
S	2.8328E+00	2.9230E+00	3.0537E+00
Z	3.4582E+00	3.8109F+00	3.9129E+00
GAME	1.0149E+00	1.1327E+00	1.1681E+00
U	4.7944E+01	1.7637E+01	2.0362E+01

SPECIES	MOLE FRACTIONS		
E-	4.3613F-01	4.8830E-01	5.0165E-01
HE	5.0036E-03	1.1719F-03	1.0649E-04
HE+	9.4544E-03	1.0556E-C2	2.5961E-03
HE++	5.3350E-07	1.3923E-03	1.0076F-02
H	1.2274E-01	.3615E-02	6.6651E-03
H+	4.2667E-01	4.7496F-01	4.7990E-01
H2	8.7971E-06	6.2559E-C7	5.6926E-08

Table III. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3097E+01	5.6542E+01
T	2.8248E+00	3.5080E+00	4.9522E+00
RHO	3.9379E+00	6.5823E+00	1.1417E+01
H	2.8881E+00	3.6101E+00	5.1957E+00
A	1.6757E+00	1.9601E+00	2.1883E+00
S	1.0659E+00	1.0690E+00	1.0897E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9407E-01	9.8638E-01	9.6693E-01
U	2.3176E+00	1.3854E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	6.1336E-67	2.5778E-49	3.0745E-32
HE	5.0000E-02	5.0002E-02	5.0000E-02
HE+	3.9514E-72	3.4991E-61	9.0350E-52
HE++	0.	0.	0.
H	9.7407E-12	1.2973E-09	3.0441E-06
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5002E-01	9.5000E-01

P1 = 1.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4832E+01	1.2451E+02	2.3524E+02
T	6.4738E+00	9.1022E+00	1.1157E+01
RHO	5.3796E+00	1.3620E+01	2.0657E+01
H	6.9671E+00	1.0425E+01	1.3952E+01
A	2.4769E+00	2.9740E+00	3.1519E+00
S	1.1729E+00	1.1853E+00	1.2144E+00
Z	1.0001E+00	1.0044E+00	1.0207E+00
GAME	9.4743E-01	9.0349E-01	8.7233E-01
U	4.4259E+00	1.7473E+00	1.5599E+00

SPECIES	MOLE FRACTIONS		
E-	6.7470E-20	4.1304E-14	1.7527E-11
HE	4.9993E-02	4.9791E-02	4.8986E-02
HE+	1.7903E-44	5.1779E-33	6.0191E-27
HE++	0.	0.	0.
H	2.8382E-04	8.7783E-03	4.0552E-02
H+	1.3092E-19	4.1304E-14	1.7527E-11
H2	9.4972E-01	9.4144E-01	9.1046E-01

P1 = 1.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6584E+01	1.0221E+02
T	3.87C3E+00	5.1619E+00	7.3393E+00
RHO	4.5267E+00	9.0230E+00	1.4517E+01
H	3.9996E+00	5.4333E+0C	7.6504E+00
A	1.9491E+00	2.2310E+00	2.5747E+00
S	1.1027E+00	1.1080E+0C	1.1325E+00
Z	1.0000E+00	1.0000E+00	1.0003E+00
GAME	9.8155E-01	9.6425E-01	9.4147E-01
U	3.0250E+00	1.5165E+00	1.3717E+00

SPECIES	MOLE FRACTIONS		
E-	8.2597E-45	2.3561E-29	1.0584E-18
HE	5.0000E-02	5.0000E-02	4.9987E-02
HE+	1.2200E-59	2.9504E-50	1.5339E-39
HE++	0.	0.	0.
H	3.5381E-08	7.4083E-C6	5.0759E-04
H+	6.3460E-20	6.3460E-20	9.9499E-19
H2	9.5000E-01	9.4999E-01	9.4951E-01

P1 = 1.00E+04 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5861E+01	1.8524E+02	3.2632E+02
T	7.9428E+00	1.0967E+01	1.2806E+01
RHO	5.7643E+00	1.6557E+01	2.4244E+01
H	9.8297E+00	1.3677E+01	1.7788E+01
A	2.7067E+00	3.1226E+00	3.4028E+00
S	1.2056E+00	1.2232E+00	1.2550E+00
Z	1.0017E+00	1.0202E+00	1.0511E+00
GAME	9.2381E-01	9.7151E-01	8.6027E-01
U	5.1350E+00	1.7866E+00	1.6029E+00

SPECIES	MOLE FRACTIONS		
E-	5.2761E-16	1.2608E-11	5.6666E-10
HE	4.9917E-02	4.9010E-02	4.7571E-02
HE+	2.4985E-37	8.2857E-28	1.4616E-23
HE++	0.	0.	1.4946E-82
H	3.3334E-03	3.9594E-02	9.7180E-02
H+	5.2767E-16	1.2608E-11	5.6666E-10
H2	9.4675E-01	9.1140E-01	8.5525E-01

P1 = 1.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5430E+01	7.9676E+01	1.6168E+02
T	5.0959E+00	7.0724E+00	9.2279E+00
RHO	4.9859E+00	1.1263E+01	1.7443E+01
H	5.3593E+00	7.6932E+00	1.0596E+01
A	2.2170E+00	2.5793E+00	2.8944E+00
S	1.1396E+00	1.1473E+00	1.1742E+00
Z	1.0006E+00	1.0003E+00	1.0044E+00
GAME	9.6564E-01	9.4339E-01	9.0393E-01
U	3.7253E+00	1.6 76E+00	1.4920E+00

SPECIES	MOLE FRACTIONS		
E-	1.9165E-30	1.7739E-19	5.9125E-14
HE	5.0000E-02	4.9985E-02	4.9779E-02
HE+	4.3239E-51	2.7600E-40	3.9270E-32
HE++	0.	0.	0.
H	7.6975E-06	6.1414E-04	8.8403E-03
H+	6.3460E-20	1.9373E-18	5.9122E-14
H2	9.4999E-01	9.4940E-01	9.4138E-01

P1 = 1.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8654E+01	2.6699E+02	4.4449E+02
T	9.3478E+00	1.2601E+01	1.4330E+01
RHO	6.2226E+00	2.0175E+01	2.9346E+01
H	1.0953E+01	1.7467E+01	2.2201E+01
A	2.8913E+00	3.3713E+00	3.6711E+00
S	1.2375E+00	1.2619E+00	1.2870E+00
Z	1.0046E+00	1.0502E+00	1.0942E+00
GAME	8.8685E-01	8.5891E-01	8.5045E-01
U	5.9661E+00	1.9377E+00	1.6537E+00

SPECIES	MOLE FRACTIONS		
E-	1.8920E-13	4.4005E-10	6.6308E-09
HE	4.9585E-02	4.7512E-02	4.5695E-02
HE+	1.8395E-32	7.8641E-24	4.0435E-21
HE++	0.	7.1225E-86	2.1976E-75
H	1.6614E-02	9.5534E-02	1.7219E-01
H+	1.8920E-13	4.4005E-10	6.6308E-09
H2	9.3380E-01	8.5695E-01	7.8212E-01

Table III. - Continued

p_1 = 10 kN/m^2

P1 = 1.00E+04 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3299E+01	3.7465E+02	5.9919E+02
T	1.0569E+01	1.4102E+01	1.5830E+01
RHO	6.7766E+00	2.4321E+01	3.2942E+01
H	1.3339E+01	2.1796E+01	2.7257E+01
A	3.0557E+00	3.6352E+00	3.9661E+00
S	1.2654E+00	1.3022E+00	1.3437E+00
Z	1.0234E+00	1.0924E+00	1.1490E+00
GAME	8.6322E-01	9.5786E-01	9.6490E-01
U	6.6202E+00	1.8441E+00	1.7150E+00

SPECIES	MOLE FRACTIONS		
E-	9.5953E-12	5.1935E-09	4.4503E-08
HE	4.8857E-02	4.5771E-02	4.3515E-02
HE+	4.6266E-29	1.9317E-21	2.7305E-19
HE++	0.	6.7415E-76	8.9013E-69
H	4.5706E-02	1.6317E-01	2.5939E-01
H+	9.5950E-1	5.1805E-09	4.4503E-08
H2	9.0544E-01	7.9536E-01	6.9710E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2754E+02	8.5911E+02	1.2996E+03
T	1.3419E+01	1.8400E+01	2.0630E+01
RHO	8.5406E+00	3.6633E+01	4.5917E+01
H	2.2024E+01	3.7734E+01	4.6233E+01
A	3.5585E+00	4.5479E+00	5.0531E+00
S	1.3702E+00	1.4302E+00	1.4809E+00
Z	1.1129E+00	1.2746E+00	1.3720E+00
GAME	9.4792E-01	8.8195E-01	9.0216E-01
U	8.9135E+00	2.0791E+00	2.0360E+00

SPECIES	MOLE FRACTIONS		
E-	3.5672E-09	5.8160E-07	2.8442E-06
HE	4.4927E-02	3.9229E-02	3.6444E-02
HE+	2.3012E-22	8.5537E-17	3.7698E-15
HE++	1.7110E-90	3.1445E-59	9.7037E-54
H	2.0252E-01	4.3086E-01	5.4223E-01
H+	3.5672E-09	5.8160E-07	2.8442E-06
H2	7.5216E-01	5.2991E-01	4.2132E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.97C9E+01	5.0990E+02	7.9321E+02
T	1.1621E+01	1.5540E+01	1.7354E+01
RHO	7.376JE+00	2.9656E+01	3.7642E+01
H	1.5982E+01	2.6633E+01	3.2948E+01
A	3.21P9E+00	3.9176E+00	4.2917E+00
S	1.3019E+00	1.3435E+00	1.3861E+00
Z	1.C40cE+00	1.1443E+00	1.2143E+00
GAME	8.5191E-01	9.6269E-01	8.7408E-01
U	7.3947E+00	1.9033E+00	1.799BE+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.1409E-10	3.4160E-09	2.1603E-07
HE	4.7775E-02	4.3675E-02	4.1477E-02
HE+	1.2637E-25	1.2856E-19	9.9253E-18
HE++	0.	3.2462E-69	4.9001E-63
H	8.899CE-02	2.5300E-01	3.5290E-01
H+	1.1499E-10	3.4160E-08	2.1603E-07
H2	8.6323E-01	7.0333E-01	6.0592E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0781E+02	6.7183E+02	1.0268E+03
T	1.2557E+01	1.6961E+01	1.993BE+01
RHO	7.5746E+00	3.2946E+01	4.2367E+01
H	1.8873E+01	3.1953E+01	3.9267E+01
A	3.385PE+00	4.22u9E+00	4.6518E+00
S	1.3355E+00	1.3863E+00	1.432CE+00
Z	1.C767E+00	1.2059E+00	1.2889E+00
GAME	8.47C2E-01	8.7102E-01	9.9654E-01
U	8.1565E+00	1.9792E+00	1.9348E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.9046E-10	1.5929E-07	9.4230E-07
HE	4.6437E-02	4.1462E-02	3.8794E-02
HE+	7.629CE-24	4.299UE-19	2.259BE-16
HE++	1.3837E-84	2.8429E-64	6.5117E-59
H	1.4254E-01	3.4153E-01	4.4924E-01
H+	7.8040E-10	1.5829E-07	9.4230E-07
H2	8.1103E-01	6.1701E-01	5.1296E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4088E+02	1.0696E+03	1.6112E+03
T	1.4236E+01	1.9889E+01	2.2492E+01
RHO	9.0587E+00	3.9843E 1	4.8988E+01
H	2.5422E+01	4.3978E+01	5.3871E+01
A	3.7384E+00	4.9025E+00	5.5053E+00
S	1.4060E+00	1.4748E+00	1.5299E+00
Z	1.1545E+00	1.3498E+00	1.4623E+00
GAME	8.5033E-01	8.9529E-01	9.2154E-01
U	9.6729E+00	2.2007E+00	2.1945E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.2489E-08	1.8266E-06	8.7827E-06
HE	4.3316E-02	3.7044E-02	3.4193E-02
HE+	3.6316E-21	1.1954E-15	5.2428E-14
HE++	5.5055E-76	5.5299E-55	1.0816E-48
H	2.6766E-01	5.1825E-01	6.3225E-01
H+	1.2489E-08	1.8266E-06	8.7827E-06
H2	6.99J9E-01	4.4471E-01	3.3354E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7177E+02	1.2990E+03	1.9593E+03
T	1.50c8E+01	2.1463E+01	2.4616E+01
RHO	9.5178E+00	4.2323E+01	5.1097E+01
H	2.9067E+01	5.0648E+01	6.2202E+01
A	3.9266E+00	5.2886E+00	6.0224E+00
S	1.4429E+00	1.5198E+00	1.5793E+00
Z	1.2C0CE+00	1.4301E+00	1.5577E+00
GAME	8.5433E-01	9.1122E-01	9.4591E-01
U	1.0425E+01	2.3462E+00	2.3855E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.6611E-08	5.1509E-C6	2.5885E-05
HE	4.1635E-02	3.4963E-02	3.2099E-02
HE+	3.9433E-20	1.3186F-14	6.6078F-13
HE++	1.6100E-71	1.5659E-51	1.5054E-44
H	3.3459E-01	6.0145E-01	7.1597E-01
H+	3.6611E-09	5.1509E-06	2.5985E-05
H2	6.2377E-01	3.635BE-01	2.5188E-01

Table III. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9621E+02	1.5442E+03	2.3448E+03
T	1.5810E+01	2.3174E+01	2.7176E+01
RHO	9.9136E+00	4.4008E+01	5.2127E+01
H	3.2962E+01	5.7744E+01	7.1326E+01
A	4.1247E+00	5.7135E+00	6.6311E+00
S	1.4807E+00	1.5649E+00	1.6289E+00
Z	1.2519E+00	1.5141E+00	1.6552E+00
GAME	8.5959E-01	9.3036E-01	9.7751E-01
U	1.1173E+01	2.5185E+00	2.6221E+00

SPECIES	MOLE FRACTIONS		
E-	9.4779E-09	1.3599E-05	7.6644E-05
HE	3.9940E-02	3.3024E-02	3.0207E-02
HE+	3.3707E-19	1.2809E-13	8.5788E-12
HE++	1.8124E-68	3.1723E-47	2.4225E-40
H	4.0238E-01	6.7902E-01	7.9149E-01
H+	9.4779E-08	1.3599E-05	7.6644E-05
H2	5.5768E-01	2.8793E-01	1.7815E-01

P1 = 1.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7850E+02	2.3114E+03	3.7290E+03
T	1.8233E+01	2.9976E+01	4.0772E+01
RHO	1.0694E+01	4.3815E+01	4.8496E+01
H	4.6130E+01	9.1317E+01	1.0471E+02
A	4.7934E+00	7.3274E+00	9.1384E+00
S	1.5983E+00	1.6952E+00	1.7715E+00
Z	1.4283E+00	1.7598E+00	1.8855E+00
GAPE	8.8225E-01	1.0179E+00	1.0961E+00
U	1.3374E+01	3.2668E+00	3.7819E+00

SPECIES	MOLE FRACTIONS		
E-	1.0456E-06	2.2397E-04	2.7123E-03
HE	3.5030E-02	2.8412E-02	2.6512E-02
HE+	7.8694E-17	9.3909E-11	4.2962E-09
HE++	3.7563E-60	1.4925E-36	8.9571E-27
H	5.9977E-01	9.6299E-01	9.9139E-01
H+	1.0456E-06	2.2387E-04	2.7123E-03
H2	3.6538E-01	1.0929E-01	3.6679E-02

P1 = 1.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2215E+02	1.7987E+03	2.7677E+03
T	1.6596E+01	2.5087E+01	3.0463E+01
RHO	1.0242E+01	4.4830E+01	5.1947E+01
H	3.7105E+01	6.5235E+01	8.1361E+01
A	4.3339E+00	6.1859E+00	7.3667E+00
S	1.5192E+00	1.6393E+00	1.6781E+00
Z	1.3070E+00	1.5994E+00	1.7490E+00
GAME	8.6595E-01	9.5367E-01	1.0185E+00
U	1.1912E+01	2.7230E+00	2.9249E+00

SPECIES	MOLE FRACTIONS		
E-	2.2364E-07	3.4562E-05	2.3859E-04
HE	3.8256E-02	3.1262E-02	2.8587E-02
HE+	2.3228E-18	1.1403E-12	1.2748E-10
HE++	3.0041E-65	1.1850E-43	4.5642E-36
H	4.6977E-01	7.4942E-01	8.5579E-01
H+	2.2364E-07	3.4562E-05	2.3898E-04
H2	4.9198E-01	2.1925E-01	1.1515E-01

P1 = 1.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0483E+02	2.5542E+03	4.2455E+03
T	1.9118E+01	3.3269E+01	4.7437E+01
RHO	1.0815E+01	4.2078E+01	4.6529E+01
H	5.1322E+01	8.9932E+01	1.1775E+02
A	5.0489E+00	8.0051E+00	9.8739E+00
S	1.6384E+00	1.7354E+00	1.8131E+00
Z	1.4936E+00	1.8246E+00	1.9236E+00
GAME	8.9269E-01	1.0557E+00	1.0685E+00
U	1.4395E+01	3.6122E+00	4.2711E+00

SPECIES	MOLE FRACTIONS		
E-	2.1517E-06	5.9835E-04	7.5979E-03
HE	3.3475E-02	2.7492E-02	2.5992E-02
HE+	4.2120E-16	9.3356E-10	5.1049E-07
HE++	6.9457E-57	6.9455E-33	6.8e55E-23
H	6.6058E-01	9.0213E-01	9.3753E-01
H+	2.1517E-06	5.8835E-04	7.5974E-03
H2	3.3554E-01	6.9318E-02	2.1303E-02

P1 = 1.00E+04 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4959E+02	2.0574E+03	3.2299E+03
T	1.7399E+01	2.7307E+01	3.4901E+01
RHO	1.0502E+01	4.4773E+01	5.0603E+01
H	4.1497E+01	7.3107E+01	9.2462E+01
A	4.5561E+00	6.7197E+00	8.2397E+00
S	1.5595E+00	1.6533E+00	1.7260E+00
Z	1.3659E+00	1.6829E+00	1.8288E+00
GAME	9.7345E-01	9.9259E-01	1.0637E+00
U	1.2647E+01	2.9678E+00	3.3103E+00

SPECIES	MOLE FRACTIONS		
E-	4.9514E-07	9.7222E-05	8.0340E-04
HE	3.6605E-02	2.9711E-02	2.7340E-02
HE+	1.4338E-17	1.0040E-11	2.3159E-09
HE++	2.8253E-62	2.4220E-40	2.1631E-31
H	5.3592E-01	8.1131E-01	9.0400E-01
H+	4.9514E-07	8.7222E-05	8.0343E-04
H2	4.2758E-01	1.5881E-01	6.7050E-02

P1 = 1.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6054E+02	2.7755E+03	4.7472E+03
T	2.0080E+01	3.7250E+01	5.3721E+01
RHO	1.0863E+01	3.9783E+01	4.5237E+01
H	5.6153E+01	9.8597E+01	1.3097E+02
A	5.3272E+00	8.6925E+00	1.0460E+01
S	1.6786E+00	1.7731E+00	1.8495E+00
Z	1.5612E+00	1.8725E+00	1.9535E+00
GAME	9.0529E-01	1.0629E+00	1.0796E+00
U	1.4806E+01	4.0432E+00	4.6776E+00

SPECIES	MOLE FRACTIONS		
E-	4.3744E-06	1.5276E-03	1.5911E-02
HE	3.2027E-02	2.6696E-02	2.5592E-02
HE+	2.2032E-15	9.0730E-09	3.0582E-06
HE++	4.9642E-54	2.7305E-29	4.3691E-20
H	7.1850E-01	9.2757E-01	9.2845E-01
H+	4.3744E-06	1.5276E-03	1.5909E-02
H2	2.4966E-01	4.2683E-02	1.4136E-02

Table III. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, USI= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7355E+02	2.9754E+03	5.2222E+03
T	2.1153E+01	4.1762E+01	5.9422E+01
RHO	1.0834E+01	3.7374E+01	4.4307E+01
H	6.1527E+01	1.0760E+02	1.4436E+02
A	5.6352E+00	9.2952E+00	1.0935E+01
S	1.7198E+00	1.8082E+00	1.8930E+00
Z	1.6299E+00	1.9063E+00	1.9835E+00
GAPE	9.2104E-01	1.0953E+00	1.0145E+00
U	1.5507E+01	4.4939E+00	5.0160E+00

SPECIES	MOLE FRACTIONS		
E-	8.9501E-06	3.6593E-03	2.7189E-02
HE	3.0676E-02	2.6228E-02	2.5197E-02
HE+	1.1803E-14	7.2962E-09	1.1264E-05
HE++	2.5699E-51	5.0972E-26	4.6631E-18
H	7.7293E-01	9.3989E-01	9.1312E-01
H+	8.9501E-06	3.6593E-03	2.7177E-02
H2	1.9639E-01	2.6569E-02	1.0311E-02

P1 = 1.00E+04 N/SQ-M, USI= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7902E+02	3.4567E+03	6.3138E+03
T	2.5769E+01	5.5363E+01	7.3275E+01
RHO	1.0194E+01	3.1595E+01	4.1301E+01
H	7.9075E+01	1.3653E+02	1.8522E+02
A	6.8771E+00	1.0553E+01	1.2241E+01
S	1.8351E+00	1.9029E+00	1.9755E+00
Z	1.8236E+00	1.9762E+00	2.0863E+00
GAPE	1.0064E+00	1.0179E+00	9.8014E-01
U	1.7510E+01	5.6455E+00	5.7378E+00

SPECIES	MOLE FRACTIONS		
E-	1.0019E-04	2.2281E-02	7.0568E-02
HE	2.7418E-02	2.5296E-02	2.3848E-02
HE+	3.7734E-12	5.4024E-06	1.1834E-04
HE++	4.9919E-42	2.5726E-19	2.1258E-14
H	9.0299E-01	9.2110E-01	8.2978E-01
H+	1.0018E-04	2.2276E-02	7.0450E-02
H2	6.9397E-02	9.0399E-03	5.2384E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0775E+02	3.1578E+03	5.6550E+03
T	2.2393E+01	4.6462E+01	6.4533E+01
RHO	1.0721E+01	3.5195E+01	4.3477E+01
H	6.7144E+01	1.1691E+02	1.5788E+02
A	5.9839E+00	9.7819E+00	1.1394E+01
S	1.7585E+00	1.8613E+00	1.9146E+00
Z	1.6984E+00	1.9311E+00	2.0156E+00
GAME	9.4148E-01	1.0664E+00	9.9832E-01
U	1.6194E+01	4.9308E+00	5.2976E+00

SPECIES	MOLE FRACTIONS		
E-	1.8811E-05	7.6554E-03	4.0513E-02
HE	2.9439E-02	2.5892E-02	2.4777E-02
HE+	6.8129E-14	4.2336E-07	2.9955E-05
HE++	1.2127E-48	2.9527E-23	1.5607E-16
H	8.2237E-01	9.4134E-01	8.8621E-01
H+	1.8811E-05	7.6549E-03	4.0493E-02
H2	1.4816E-01	1.7453E-02	7.9856E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1559E+02	3.5594E+03	6.4962E+03
T	2.8204E+01	5.9272E+01	7.6987E+01
RHO	9.7653E+00	3.0014E+01	3.9724E+01
H	8.5373E+01	1.4681E+02	1.9886E+02
A	7.4526E+00	1.0991E+01	1.2630E+01
S	1.8709E+00	1.9325E+00	2.0057E+00
Z	1.9720E+00	2.0037E+00	2.1242E+00
GAME	1.0520E+00	1.0002E+00	9.7537E-01
U	1.9124E+01	5.9933E+00	5.9073E+00

SPECIES	MOLE FRACTIONS		
E-	2.6364E-04	3.2344E-02	8.6322E-02
HE	2.6710E-02	2.4979E-02	2.3345E-02
HE+	3.9274E-11	1.3141E-05	1.9402E-04
HE++	2.4449E-39	6.0918E-18	1.2547E-13
H	9.3081E-01	9.0335E-01	7.9968E-01
H+	2.6364E-04	3.2331E-02	8.6128E-02
H2	4.1955E-02	6.9857E-03	4.3280E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4299E+02	3.3216E+03	6.0298E+03
T	2.3998E+01	5.1045E+01	6.9151E+01
RHO	1.0512E+01	3.3316E+01	4.2527E+01
H	7.2995E+01	1.2657E+02	1.7159E+02
A	6.3935E+00	1.0187E+01	1.1833E+01
S	1.7974E+00	1.8723E+00	1.9453E+00
Z	1.7642E+00	1.9532E+00	2.0501E+00
GAME	9.6905E-01	1.0409E+00	9.8721E-01
U	1.6864E+01	5.3163E+00	5.5437E+00

SPECIES	MOLE FRACTIONS		
E-	4.1708E-05	1.9867E-02	5.5219E-02
HE	2.8342E-02	2.5597E-02	2.4325E-02
HE+	4.5663E-13	1.7451E-06	6.4339E-05
HE++	1.6155E-45	4.5492E-21	2.4194E-15
H	8.6621E-01	9.3443E-01	8.5884E-01
H+	4.1708E-05	1.3966E-02	5.5154E-02
H2	1.0536E-01	1.2238E-02	6.4031E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5253E+02	3.6269E+03	6.5865E+03
T	3.1289E+01	6.2884E+01	8.0373E+01
RHO	9.2658E+00	2.8441E+01	3.7873E+01
H	9.1882E+01	1.5730E+02	2.1242E+02
A	8.0625E+00	1.1219E+01	1.3002E+01
S	1.9043E+00	1.9622E+00	2.0364E+00
Z	1.9359E+00	2.0279E+00	2.1639E+00
GAME	1.0561E+00	9.8697E-01	9.7207E-01
U	1.8705E+01	6.0923E+00	6.3516E+00

SPECIES	MOLE FRACTIONS		
E-	7.3637E-04	4.3929E-02	1.0239E-01
HE	2.8235E-02	2.4629E-02	2.2913E-02
HE+	4.0771E-10	2.7271E-05	2.5497E-04
HE++	1.3946E-34	8.1315E-17	5.5868E-13
H	9.4843E-01	9.8199E-01	7.6892E-01
H+	7.3037E-04	4.3902E-02	1.0209E-01
H2	2.3907E-02	5.5311E-03	3.5997E-03

Table III. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9019E+02	3.6879E+03	6.6445E+03
T	3.4882E+01	6.6229E+01	9.3439E+01
RHO	8.7793E+00	2.7368E+01	3.6140E+01
H	9.9609E+01	1.6910E+02	2.2609E+02
A	8.5954E+00	1.1540E+01	1.3354E+01
S	1.9350E+00	1.9913E+00	2.0657E+00
Z	1.9272E+00	2.0572E+00	2.2035E+00
GAME	1.0990E+00	9.7749E-01	9.6999E-01
U	1.9269E+01	6.2477E+00	6.1807E+00

SPECIES	MOLE FRACTIONS		
E-	1.9240E-03	5.6575E-02	1.1804E-01
HE	2.5944E-02	2.4255E-02	2.2273E-02
HE+	4.9403E-09	5.0101E-05	4.1912E-04
HE++	1.0082E-30	7.0407E-16	1.9611E-12
H	9.5645E-01	8.5811E-01	7.3863E-01
H+	1.9240E-03	5.6525E-02	1.1762E-01
H2	1.3756E-02	4.4952E-03	3.0135E-[illegible]

P1 = 1.00E+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5793E+02	4.2776E+03	7.4904E+03
T	4.8995E+01	7.8746E+01	9.6060E+01
RHO	7.7819E+00	2.4743E+01	3.2746E+01
H	1.2803E+02	2.1645E+02	2.8729E+02
A	9.9439E+00	1.2997E+01	1.4896E+01
S	2.0377E+00	2.0970E+00	2.1766E+00
Z	1.9976E+00	2.1954E+00	2.3813E+00
GAME	9.9504E-01	9.6212E-01	9.7007E-01
U	2.1659E+01	6.9062E+00	6.7497E+00

SPECIES	MOLE FRACTIONS		
E-	2.2173E-02	1.1412E-01	1.8273E-01
HE	2.5154E-02	2.2476E-02	1.9672E-02
HE+	1.9462E-06	2.9899E-04	1.3256E-03
HE++	2.2365E-21	4.3285E-13	1.3901E-10
H	9.2725E-01	7.4696E-01	6.1324E-01
H+	2.2171E-02	1.1382E-01	1.8141E-01
H2	3.2471E-03	2.3306E-03	1.6261E-03

P1 = 1.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2905E+02	3.7725E+03	6.7386E+03
T	3.8659E+01	6.9419E+01	8.6447E+01
RHO	8.3752E+00	2.6020E+01	3.4726E+01
M	1.0557E+02	1.7932E+02	2.4019E+02
A	9.0311E+00	1.1864F+01	1.3711E+01
S	1.9632E+00	2.0192E+00	2.0944F+00
Z	1.9421E+00	2.0986E+00	2.2447E+00
GAME	1.0791E+00	9.7384E-01	9.6885E-01
U	1.9833E+01	6.3822E+00	6.3103F+00

SPECIES	MOLE FRACTIONS		
E-	4.4103E-03	7.0064E-02	1.3384F-01
HE	2.5746E-02	2.3855E-02	2.1699E-02
HE+	3.7219E-08	8.4596E-05	5.7547E-04
HE++	1.4775E-27	4.5494E-15	6.1563E-12
H	9.5693E-01	8.3230E-01	7.0806E-01
H+	4.4103E-03	6.9979E-02	1.3327E-01
H2	8.5022E-03	3.7163E-03	2.5533E-03

P1 = 1.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5392E+02	4.7923E+03	9.3242E+03
T	5.4716E+01	8.4938E+01	1.0299E+02
RHO	7.6926E+00	2.4793F+01	3.2574F+01
M	1.4435E+02	2.4411F+02	3.2288E+02
A	1.0356E+01	1.3635F+01	1.5774E+01
S	2.0826E+00	2.1454F+00	2.2291E+00
Z	2.0288E+00	2.2757E+00	2.4913E+00
GAME	9.6498E-01	9.6180E-01	9.7370E-01
U	2.2972E+01	7.1217F+00	7.3929E+00

SPECIES	MOLE FRACTIONS		
E-	4.1095E-02	1.4490E-01	2.1537E-01
HE	2.4634E-02	2.1391E-02	1.8042E-02
HE+	9.1539E-06	5.8066E-04	2.1080E-03
HE++	5.9254E-19	5.0094F-12	8.7681F-10
H	8.9131E-01	6.8701E-01	5.5000F-01
H+	4.1076F-02	1.4432E-01	2.1326F-01
H2	2.1840E-03	1.7918E-03	1.2298F-03

P1 = 1.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6991E+02	3.9991F+03	6.9105E+03
T	4.2343E+01	7.2543E+01	8.9574E+01
RHO	9.0901E+00	2.5321E+01	3.3709E+01
M	1.1275E+02	1.5109E+02	2.5506F+02
A	9.3155E+00	1.2197F+01	1.4091E+01
S	1.9894E+00	2.0461E+00	2.1228E+00
Z	1.9556F+00	2.1221E+00	2.2987E+00
GAME	1.0486E+00	9.6639F-01	9.6855E-01
U	2.0418E+01	6.5201F+00	6.4495F+00

SPECIES	MOLE FRACTIONS		
E-	9.6039E-03	9.4256E-02	1.5016F-01
HE	2.5568F-02	2.3426F-02	2.1070E-02
HE+	1.8997F-07	1.3453E-04	7.7646E-04
HE++	5.1949E-25	2.3993E-14	1.8455F-11
H	9.5148E-01	8.0492F-01	6.7643E-01
H+	8.6037E-03	8.4122E-02	1.4938E-01
H2	5.7440F-03	3.1368E-03	2.1773F-03

P1 = 1.00E+04 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5751E+02	5.4069F+03	9.3441F+03
T	5.9770E+01	9.1135E+01	1.1016E+02
RHO	7.7092E+00	2.5123E+01	3.2817E+01
M	1.6172E+02	2.7393F+02	3.6155E+02
A	1.0866E+01	1.4402E+01	1.6696E+01
S	2.1257E+00	2.1926E+00	2.2795E+00
Z	2.0783E+00	2.3615E+00	2.5848E+00
GAME	9.4945E-01	9.6376E-01	9.7900E-01
U	2.4331E+01	7.4602E+00	7.4690E+00

SPECIES	MOLE FRACTIONS		
E-	6.3333E-02	1.7565E-01	2.4652E-01
HE	2.4030E-02	2.0159E-02	1.6253E-02
HE+	2.8014F-05	1.0144E-03	3.0906E-03
HE++	3.3831E-17	4.1143E-11	4.4778E-09
H	8.4770E-01	6.2713E-01	4.9976E-01
H+	6.3305E-02	1.7664E-01	2.4343F-01
H2	1.6667E-03	1.4007E-03	9.3826E-04

Table III. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3691E+03	6.3989E+03	1.0511E+04
T	6.4391E+01	9.7353E+01	1.1772E+02
RHO	7.7739E+00	2.5551E+01	3.3156E+01
H	1.8013E+02	3.0564E+02	4.0315E+02
A	1.1375E+01	1.5194E+01	1.7683E+01
S	2.1678E+00	2.2389E+00	2.3299E+00
Z	2.1341E+00	2.4516E+00	2.6929E+00
GAME	9.4176E-01	9.6717E-01	9.8606E-01
U	2.5715E+01	7.8198E+00	7.9759E+00

SPECIES	MOLE FRACTIONS		
E-	8.7454E-02	2.0572E-01	2.7659E-01
NE	2.3383E-02	1.9771E-02	1.4339E-02
NE+	6.6493E-05	1.6235E-03	4.2294E-03
NE++	7.9125E-16	2.5724E-10	1.9552E-09
H	6.0341E-01	5.6869E-01	4.3177E-01
H+	8.7429E-02	2.0469E-01	2.7236E-01
H2	1.2400E-03	1.1018E-03	7.0942E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4387E+03	8.5131E+03	1.4709E+04
T	7.6795E+01	1.1651E+02	1.4318E+02
RHO	8.0414E+00	2.6683E+01	3.3913E+01
H	2.4142E+02	4.1169E+02	5.4509E+02
A	1.2959E+01	1.7717E+01	2.1019E+01
S	2.2915E+00	2.3749E+00	2.4796E+00
Z	2.3297E+00	2.7384E+00	3.0293E+00
GAME	9.3966E-01	9.9387E-01	1.0186E+00
U	2.9921E+01	9.0122E+00	9.3012E+00

SPECIES	MOLE FRACTIONS		
E-	1.6361E-01	2.9843E-01	3.5656E-01
NE	2.1060E-02	1.3877E-02	8.9838E-03
NE+	4.0180E-04	4.3817E-03	7.5209E-03
NE++	5.7442E-13	1.9410E-08	7.5518E-07
H	6.5107E-01	4.0873E-01	2.7761E-01
H+	1.6321E-01	2.8405E-01	3.4904E-01
H2	6.3996E-04	5.2645E-04	2.7714E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1459E+03	6.4539E+03	1.1802E+04
T	6.8699E+01	1.0364E+02	1.2566E+02
RHO	7.9603E+00	2.5985E+01	3.3501E+01
M	1.5995E+02	3.3924E+02	4.4758E+02
A	1.1496E+01	1.6009E+01	1.8722E+01
S	2.2998E+00	2.2846E+00	2.3797E+00
Z	2.1951E+00	2.5451E+00	2.8034E+00
GAME	9.3849E-01	9.7165E-01	9.9499E-01
U	4.7112E+01	9.1964E+00	8.3141E+00

SPECIES	MOLE FRACTIONS		
E-	1.1264E-01	2.3468E-01	3.0496E-01
HE	2.2044E-02	1.7236E-02	1.2423E-02
HE+	1.3409E-04	2.4099E-03	5.4124E-03
HE++	1.0105E-14	1.2895E-09	7.3610E-08
H	7.5139E-01	5.1254E-01	3.7713E-01
H+	1.1271E-01	2.3227E-01	2.9955E-01
H2	9.8258E-04	9.6651E-04	5.3014E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3088E+03	7.6615E+03	1.3204E+04
T	7.2811E+01	1.1000E+02	1.3413E+02
RHO	7.9523E+00	2.6373E+01	3.3755E+01
M	2.1398E+02	3.7461E+02	4.9498E+02
A	1.2423E+01	1.6849E+01	1.9837E+01
S	2.2565E+00	2.3299E+00	2.4295E+00
Z	2.2605E+00	2.6439E+00	2.9164E+00
GAME	9.3774E-01	9.7719E-01	1.0059E+00
U	2.8512E+01	8.5937E+00	8.7880E+00

SPECIES	MOLE FRACTIONS		
E-	1.3916E-01	2.6236E-01	3.3177E-01
HE	2.1877E-02	1.5596E-02	1.0603E-02
HE+	2.4176E-04	3.3472E-03	6.5414E-03
HE++	8.7898E-14	5.3926E-09	2.4779E-07
H	7.0132E-01	4.5914E-01	3.254 -01
H+	1.3791E-01	2.5895E-01	3.2522E-01
H2	7.9004E-04	6.7926E-04	3.8764E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5746E+03	9.3953E+03	1.6311E+04
T	8.0699E+01	1.2319E+02	1.5305E+02
RHO	8.1230E+00	2.6886E+01	3.3919E+01
M	2.6396E+02	4.5034E+02	5.9829E+02
A	1.3503E+01	1.8617E+01	2.2288E+01
S	2.3324E+00	2.4193E+00	2.5276E+00
Z	2.4021E+00	2.8367E+00	3.1420E+00
GAME	9.4067E-01	9.9183E-01	1.0330E+00
U	3.1325E+01	9.4690E+00	9.8591E+00

SPECIES	MOLE FRACTIONS		
E-	1.8872E-01	3.1299E-01	3.7958E-01
HE	2.0188E-02	1.2185E-02	7.5975E-03
HE+	6.2754E-04	5.4409E-03	8.3235E-03
HE++	3.0282E-12	6.1598E-08	2.1596E-06
H	6.0186E-01	3.6143E-01	2.3307E-01
H+	1.8809E-01	3.0755E-01	3.7125E-01
H2	5.1985E-04	4.0381E-04	1.9160E-04

P1 = 1.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7166E+03	1.0324E+04	1.8017E+04
T	8.4546E+01	1.3011E+02	1.6399E+02
RHO	8.1984E+00	2.7038E+01	3.3805E+01
M	2.8729E+02	4.9077E+02	6.5467E+02
A	1.4055E+01	1.9551E+01	2.3642E+01
S	2.3729E+00	2.4628E+00	2.5759E+00
Z	2.4767E+00	2.9346E+00	3.2518E+00
GAME	9.4344E-01	1.0011E+00	1.0488E+00
U	3.2730E+01	9.9190E+00	1.0468E+01

SPECIES	MOLE FRACTIONS		
E-	2.1309E-01	3.3581E-01	4.0046E-01
HE	1.9257E-02	1.0587E-02	6.4262E-03
HE+	9.3670E-04	6.4514E-03	8.9440E-03
HE++	1.3404E-11	1.7631E-07	5.8631E-06
H	5.5413E-01	3.1749E-01	1.9253E-01
H+	2.1216E-01	3.2936E-01	3.9153E-01
H2	4.2288E-04	3.0629E-04	1.2799E-04

Table III. - Continued

p_1 = 10 kN/ m^2

P1 = 1.00E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8643E+03	1.1250E+04	1.9757E+04
T	9.8409E+01	1.3740E+02	1.7594E+02
RHO	8.2539E+00	2.6992E+01	3.3516E+01
H	3.1171E+02	5.3253E+02	7.1442E+02
A	1.4624E+01	2.0535E+01	2.5088E+01
S	2.4139E+00	2.5069E+00	2.6239E+00
Z	2.5548E+00	3.0334E+00	3.3571E+00
GAME	9.4680E-01	1.0117E+00	1.0656E+00
U	3.4125E+01	1.0429E+01	1.1149E+01

SPECIES	MOLE FRACTIONS		
E-	2.3706E-01	3.5739E-01	4.1923E-01
HE	1.8241E-02	9.1091E-03	5.4631E-03
HE+	1.3302E-03	7.3735E-03	9.4151E-03
HE++	5.2722E-11	4.6938E-07	1.5426E-05
H	5.0729E-01	2.7589E-01	1.5601E-01
H+	2.3573E-01	3.5001E-01	4.0979E-01
H2	3.4179E-04	2.2645E-04	9.1913E-05

P1 = 1.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3422E+03	1.4097E+04	2.5677E+04
T	1.0019E+02	1.6192E+02	2.2209E+02
RHO	8.3565E+00	2.6294E+01	3.1927E+01
H	3.9395E+02	6.6655E+02	9.1499E+02
A	1.6402E+01	2.3725E+01	2.9942E+01
S	2.5356E+00	2.6335E+00	2.7619E+00
Z	2.7979E+00	3.3133E+00	3.6213E+00
GAME	9.5984E-01	1.0499E+00	1.1148E+00
U	3.8285E+01	1.2155E+01	1.3583E+01

SPECIES	MOLE FRACTIONS		
E-	3.0321E-01	4.1154E-01	4.6153E-01
HE	1.4715E-02	5.7671E-03	3.3652E-03
HE+	3.1560E-03	9.3174E-03	1.0194E-02
HE++	1.7448E-09	6.2396E-06	2.4947E-04
H	3.7870E-01	1.7108E-01	7.3807E-02
H+	3.0065E-01	4.0221E-01	4.5084E-01
H2	1.7513E-04	8.0838E-05	1.6632E-05

P1 = 1.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0177E+03	1.2193E+04	2.1664E+04
T	9.2276E+01	1.4502E+02	1.8952E+02
RHO	8.3003E+00	2.6864E+01	3.3078E+01
H	3.3711E+02	5.7575E+02	7.7743E+02
A	1.5201E+01	2.1553E+01	2.6633E+01
S	2.4546E+03	2.5498E+00	2.6711E+00
Z	2.6343E+00	3.1297E+00	3.4558E+00
GAME	9.5065E-01	1.0235E+00	1.0830E+00
U	3.5514E+01	1.0966E+01	1.1883E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.6003E-01	3.7710E-01	4.3578E-01
HE	1.7150E-02	7.9190E-03	4.6564E-03
HE+	1.8302E-03	8.1559E-03	9.7723E-03
HE++	1.8443E-10	1.1629E-06	3.9874E-05
H	4.6251E-01	2.3782E-01	1.2378E-01
H+	2.5920E-01	3.6994E-01	4.2593E-01
H2	2.7543E-04	1.6460E-04	5.0038E-05

P1 = 1.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1772E+03	1.3152E+04	2.3617E+04
T	9.6193E+01	1.5312E+02	2.0450E+02
RHO	8.3353E+00	2.6650E+01	3.2602E+01
H	3.6351E+02	6.2055E+02	9.4391E+02
A	1.5794E+01	2.2614E+01	2.8224E+01
S	2.4951E+00	2.5919E+00	2.7159E+00
Z	2.7154E+00	3.2230E+00	3.5424E+00
GAME	9.5498E-01	1.0362E+00	1.0996E+00
U	3.6960E+01	1.1534E+01	1.2660E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	2.9211E-01	3.9509E-01	4.4955E-01
HE	1.5974E-02	6.7128E-03	3.9881E-03
HE+	2.4395E-03	9.7991E-03	1.0029E-02
HE++	5.8967E-10	2.7383E-06	9.8917E-05
H	4.1960E-01	2.0300E-01	9.6984E-02
H+	2.7967E-01	3.8628E-01	4.3932E-01
H2	2.2053E-04	1.1710E-04	2.9779E-05

P1 = 1.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5129E+03	1.5033E+04	2.7777E+04
T	1.0426E+02	1.7114E+02	2.4120E+02
RHO	8.3671E+00	2.5849E+01	3.1250E+01
H	4.1926E+02	7.1381E+02	9.8950E+02
A	1.7027E+01	2.4877E+01	3.1625E+01
S	2.5756E+03	2.6742E+00	2.8049E+00
Z	2.8807E+00	3.3941E+00	3.6852E+00
GAME	9.6536E-01	1.0641E+00	1.1251E+00
U	3.9659E+01	1.2828E+01	1.4484E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.2321E-01	4.2621E-01	4.7086E-01
HE	1.3391E-02	4.9736E-03	2.8051E-03
HE+	3.9661E-03	9.7267E-03	1.0184E-02
HE++	4.8158E-09	1.3779E-05	5.7977E-04
H	3.4005E-01	1.4257E-01	5.6036E-02
H+	3.1925E-01	4.1645E-01	4.5952E-01
H2	1.3791E-04	5.4403E-05	9.2180E-06

P1 = 1.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6887E+03	1.5939E+04	2.9924E+04
T	1.0959E+02	1.8118E+02	2.6204E+02
RHO	8.3587E+00	2.5335E+01	3.0556E+01
H	4.4859E+02	7.6219E+02	1.0659E+03
A	1.7678E+01	2.6066E+01	3.3267E+01
S	2.6159E+00	2.7139E+00	2.9462E+00
Z	2.9648E+00	3.4765E+00	3.7377E+00
GAME	9.7156E-01	1.0797E+00	1.1301E+00
U	4.1021E+01	1.3540E+01	1.5465E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.4238E-01	4.3912E-01	4.7822E-01
HE	1.2005E-02	4.3033E-03	2.2629E-03
HE+	4.8598E-03	1.0049E-02	9.8799E-03
HE++	1.2662E-09	2.9679E-05	1.2363E-03
H	3.0313E-01	1.1745E-01	4.2521E-02
H+	3.3752E-01	4.2901E-01	4.6597E-01
H2	1.0702E-04	3.5624E-05	5.1161E-06

Table III. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, USI= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.870GE+03	1.6815E+04	3.2081E+04
T	1.1290E+02	1.9204E+02	2.8404E+02
RHO	8.3390E+00	2.4684E+01	2.9987E+01
H	4.7889E+02	8.1162E+02	1.1453E+03
A	1.8353E+01	2.7297E+01	3.4953E+01
S	2.6557E+00	2.7525E+00	2.8852E+00
Z	3.0495E+00	3.5473E+00	3.7790E+00
GAME	9.7873E-01	1.0930E+00	1.1317E+00
U	4.2374E+01	1.4313E+01	1.6411E+01

SPECIES	MOLE FRACTIONS		
E-	3.6041E-01	4.5031E-01	4.8399E-01
HE	1.0605E-02	3.7305E-03	1.7396E-03
HE+	5.7966E-03	1.0302E-02	9.1660E-03
HE++	3.1617E-08	6.2618E-05	2.3266E-03
H	2.6848E-01	9.5683E-02	3.2608E-02
H+	3.5462E-01	4.3989E-01	4.7017E-01
H2	8.2010E-05	2.2733E-05	2.9085E-06

P1 = 1.00E+C4 N/SQ-M, USI= 6.80E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4438E+03	1.9189E+04	3.8545E+04
T	1.2761E+02	2.3004E+02	3.5818E+02
RHO	8.1937E+00	2.2480E+01	2.7838E+01
H	5.7556E+02	9.6549E+02	1.4003E+03
A	2.0577E+01	3.0999E+01	3.9914E+01
S	2.7724E+00	2.8622E+00	2.9940E+00
Z	3.2937E+00	3.7106E+00	3.8657E+00
GAME	1.0374E+00	1.1259E+00	1.1506E+00
U	4.6363E+01	1.6889E+01	1.9344E+01

SPECIES	MOLE FRACTIONS		
E-	4.0900E-01	4.7449E-01	4.9557E-01
HE	6.6703E-03	2.3803E-03	5.1598E-04
HE+	8.5097E-03	1.0589E-02	5.2373E-03
HE++	3.9788E-07	5.0679E-04	7.1809E-03
H	1.7730E-01	4.9146E-02	1.5533E-02
H+	3.9949E-01	4.6289E-01	4.7597E-01
H2	3.3137E-05	5.2323E-06	6.0282E-07

P1 = 1.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0564E+03	1.7656E+04	3.4248E+04
T	1.1752E+02	2.0359E+02	3.0781E+02
RHO	3.3048E+00	2.4030E+01	2.9173E+01
H	2.1016E+02	8.6206E+02	1.2277E+03
A	1.9059E+01	2.8508E+01	3.6496E+01
S	2.6951E+00	2.7893E+00	2.9238E+00
Z	3.1317E+00	3.6089E+00	3.8143E+00
GAME	9.8700E-01	1.1061E+00	1.1345E+00
U	4.3717E+01	1.5121E+01	1.7379E+01

SPECIES	MOLE FRACTIONS		
E-	3.7739E-01	4.5969E-01	4.8877E-01
HE	9.2226E-03	3.2414E-03	1.2363E-03
HE+	6.7433E-03	1.0485E-02	8.0021E-03
HE++	7.5862E-09	1.2792E-04	3.8701E-03
H	2.3594E-01	7.7492E-02	2.5096E-02
H+	3.7065E-01	4.4895E-01	4.7303E-01
H2	6.1823E-05	1.4309E-05	1.6663E-06

P1 = 1.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6438E+03	1.9861E+04	4.0579E+04
T	1.3331E+02	2.4424E+02	3.8629E+02
RHO	8.1036E+00	2.1691E+01	2.7343E+01
H	6.0965E+02	1.0184E+03	1.4905E+03
A	2.1415E+01	3.2168E+01	4.1732E+01
S	2.8112E+00	2.8965E+00	3.0285E+00
Z	3.3729E+00	3.7490E+00	3.8844E+00
GAME	1.0199E+00	1.1301E+00	1.1607E+00
U	4.7654E+01	1.7790E+01	2.0362E+01

SPECIES	MOLE FRACTIONS		
E-	4.2188E-01	4.7986E-01	4.9800E-01
HE	5.5409E-03	2.0031E-03	3.0320E-04
HE+	9.2823E-03	1.0403E-02	4.0152E-03
HE++	8.9662E-07	9.3045E-04	9.5534E-03
H	1.5067E-01	3.9203E-02	1.2256E-02
H+	4.1260E-01	4.6760E-01	4.7687E-01
H2	2.3201E-05	3.1713E-06	3.6376E-07

P1 = 1.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2477E+03	1.8456E+04	3.6411E+04
T	1.2242E+02	2.1639E+02	3.3249E+02
RHO	8.2543E+00	2.3278E+01	2.8498E+01
H	5.4239E+02	9.1352E+02	1.3131E+03
A	1.9801E+01	2.9766E+01	3.8183E+01
S	2.7343E+00	2.9263E+00	2.9599E+00
Z	3.2140E+00	3.6640E+00	3.8429E+00
GAME	9.9655E-01	1.1175E+00	1.1411E+00
U	4.5046E+01	1.5960E+01	1.8379E+01

SPECIES	MOLE FRACTIONS		
E-	3.9333E-01	4.6780E-01	4.9257E-01
HE	7.8935E-03	2.7912E-03	8.2160E-04
HE+	7.6632E-03	1.0596E-02	6.6058E-03
HE++	1.7659E-07	2.5944E-04	5.5836E-03
H	2.0540E-01	6.1853E-02	1.9621E-02
H+	3.8567E-01	4.6669E-01	4.7488E-01
H2	4.5674E-05	8.7032E-06	9.8870E-07

Table III. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, USI= 4.00F+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3097E+01	5.6542E+01
T	2.8249E+00	3.5080E+00	4.9522E+00
RHO	3.9378E+00	6.5823E+00	1.1417E+01
H	2.9991E+00	3.6101E+00	5.1957E+00
A	1.6757E+00	1.8601E+00	2.1883E+00
S	1.0685E+00	1.0717E+00	1.0942E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9467E-01	9.8639E-01	9.6695E-01
U	2.3176E+00	1.3854E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	2.1686E-67	9.0945E-49	1.0901E-32
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	5.5892E-72	4.9484E-61	1.1331E-51
HE++	0.	0.	0.
H	6.9886E-12	9.1976E-10	2.1527E-06
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01

P1 = 2.00E+04 N/SQ-M, USI= 7.00F+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4823E+01	1.2405E+02	2.3599E+02
T	6.4756E+00	9.1443E+00	1.1351E+01
RHO	5.3790E+00	1.0525E+01	2.3436E+01
H	6.9870E+00	1.0416E+01	1.3391E+01
A	2.6782E+00	2.9997E+00	3.1972E+00
S	1.1797E+00	1.1925E+00	1.2227E+00
Z	1.0001E+00	1.0033E+00	1.0169E+00
GAME	9.4834E-01	9.1023E-01	8.8006E-01
U	4.4255E+00	1.7588E+00	1.5817E+00

SPECIES	MOLE FRACTIONS		
E-	3.4342E-20	2.7820E-14	1.7329E-11
HE	4.9995E-02	4.9837E-02	4.9172E-02
HE+	1.7857E-44	7.6895E-33	2.0999E-26
HE++	0.	0.	0.
H	2.3150E-04	6.5209E-03	3.3117E-02
H+	9.7796E-20	2.9820E-14	1.7329E-11
H2	9.4996E-01	9.4364E-01	9.1771E-01

P1 = 2.00E+04 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6583E+01	1.0222E+02
T	3.97C3E+00	5.1619E+00	7.0433E+00
RHO	4.5267E+0-	9.0228E+00	1.4512E+01
H	3.9935E+00	5.4333E+00	7.6513E+00
A	1.9491E+00	2.2311E+00	2.5772E+00
S	1.1366E+00	1.1123E+00	1.1377E+00
Z	1.0C0LE+00	1.0000E+00	1.0002E+00
GAME	9.8155E-01	9.6429E-01	9.4273E-01
U	3.025EE+00	1.5165E+00	1.3724E+00

SPECIES	MOLE FRACTIONS		
E-	2.9203E-45	8.3327E-20	6.6272E-19
HE	5.0000E-02	5.0000E-02	4.9991E-02
HE+	1.7322E-5C	4.1737E-50	1.3269E-39
HE++	0.	0.	0.
H	2.5019E-09	5.2392E-06	3.6145E-04
H+	6.3460E-20	6.3460E-20	5.9927E-19
H2	9.5000E-01	9.4999E-01	9.4965E-01

P1 = 2.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.540CE+01	7.5C40E+01	1.6188E+02
T	5.0502E+00	7.0756E+00	9.2854E+00
RHO	4.9859E+00	1.1253E+01	1.7376E+01
H	5.3563E+00	7.6922E+00	1.0599E+01
A	2.2177E+00	2.5818E+00	2.9120E+00
S	1.1441E+00	1.1531E+00	1.1811E+00
Z	1.0000E+00	1.0002E+00	1.0032E+00
GAME	9.6509E-01	9.3185E-01	9.1019E-01
U	3.725EE+00	1.6449E+00	1.4902E+00

SPECIES	MOLE FRACTIONS		
E-	6.7745E-31	1.0557E-19	4.3615E-14
HE	5.0000E-02	4.9994E-02	4.9934E-02
HE+	6.1165E-51	2.3775E-40	5.6899E-32
HE++	0.	0.	0.
H	5.4459E-06	4.3699E-04	8.6521E-03
H+	6.3460E-20	1.1192E-18	4.3615E-14
H2	9.4999E-01	9.4997E-01	9.4951E-01

P1 = 2.00E+04 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5833E+01	1.8349E+02	3.2677E+02
T	7.9627E+00	1.1119E+01	1.3157E+01
RHO	5.7502E+00	1.6442E+01	2.3790E+01
H	8.8285E+00	1.3648E+01	1.7852E+01
A	2.7163E+00	3.1524E+00	3.4514E+00
S	1.2137E+00	1.2313E+00	1.2441E+00
Z	1.0012E+00	1.0016E+00	1.0038E+00
GAME	9.2556E-01	8.7968E-01	8.6726E-01
U	5.1329E+00	1.8158E+00	1.6772E+00

SPECIES	MOLE FRACTIONS		
E-	3.5548E-14	1.1353E-11	6.7390E-10
HE	4.9959E-02	4.9208E-02	4.7901E-02
HE+	1.2215E-37	7.4559E-28	6.0886E-23
HE++	0.	0.	9.0937E-82
H	2.4252E-03	9.1693E-02	8.3979E-02
H+	3.5954E-16	1.1090E-11	6.7390E-10
H2	9.4704E-01	9.1910E-01	8.6812E-01

P1 = 2.00E+04 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9564E+01	2.3217E+02	4.4239E+02
T	9.4279E+00	1.2889E+01	1.4835E+01
RHO	6.1721E+00	1.9517E+01	2.7525E+01
H	1.0394E+01	1.7407E+01	2.2273E+01
A	2.9144E+00	3.4107E+00	3.7311E+00
S	1.2460E+00	1.2736E+00	1.3086E+00
Z	1.0064E+00	1.0122E+00	1.0234E+00
GAME	8.9517E-01	8.7601E-01	8.6619E-01
U	5.9567E+00	1.9516E+00	1.6936E+00

SPECIES	MOLE FRACTIONS		
E-	1.4936E-13	4.7430E-10	8.5793E-09
HE	4.9682E-02	4.7975E-02	4.6150E-02
HE+	4.5520E-32	2.2224E-23	1.5312E-20
HE++	0.	5.6023E-94	4.9995E-73
H	1.2805E-02	8.1005E-02	1.5398E-01
H+	1.4936E-13	4.7430E-10	8.5793E-09
H2	9.3751E-01	8.7102E-01	7.9987E-01

Table III. - Conitnued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 1.33E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2767E+02	8.2485E+02	1.2677E+03
T	1.3893E+01	1.9254E+01	2.1820E+01
RHO	8.3088E+00	3.4261E+01	4.3167E+01
H	2.2036E+01	3.7532E+01	4.6361E+01
A	3.6147E+00	4.6274E+00	5.1742E+00
S	1.3867E+00	1.4378E+00	1.4890E+00
Z	1.1013E+00	1.2504E+00	1.3459E+00
GAME	8.541FE-01	8.8939E-01	9.1163E-01
U	9.8904E+00	2.1537E+00	2.1156E+00

SPECIES	MOLE FRACTIONS		
E-	4.8657E-09	8.0404E-07	4.2502E-06
HE	4.5430E-02	3.9986E-02	3.7151E-02
HE+	1.0370E-21	3.5927E-16	1.8920E-14
HE++	8.0242E-78	5.7545E-57	2.9125E-50
H	1.8358E-01	4.0056E-01	5.1396E-01
H+	4.8655E-09	8.0404E-07	4.2502E-06
H2	7.7062E-01	5.5945E-01	4.4888E-01

P1 = 2.66E+04 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3112E+01	3.6501E+02	5.9199E+02
T	1.0765E+01	1.4523E+01	1.6489E+01
RHO	6.6[illegible]E+00	2.3254E+01	3.1645E+01
H	1.3331E+01	2.1700E+01	2.7330E+01
A	3.0[illegible]E+00	3.6834E+00	4.0392E+00
S	1.2795E+00	1.3133E+00	1.3503E+00
Z	1.0191E+00	1.0635E+00	1.1365E+00
GAME	9.713[illegible]E-01	9.[illegible]E-01	9.7173E-01
U	[illegible]	1.4950E+00	1.7663E+00

SPECIES	MOLE FRACTIONS		
E-	5.5[illegible]E-12	6.2619E-08	6.1650E-09
HE	4.9[illegible]E-02	4.6277E-02	4.4372E-02
HE+	1.26[illegible]E-27	4.3734E-21	1.2529E-18
HE++	0.	7.9566E-75	4.7995E-66
H	3.74[illegible]E-02	1.6873E-01	2.3713E-01
H+	5.[illegible]E-12	6.2619E-08	6.1650E-09
H2	7.13[illegible]E-01	8.0479E-01	7.1879E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.483CE+02	1.0233E+03	1.5675E+03
T	1.4797E+01	2.0893E+01	2.3989E+01
RHO	8.7864E+00	3.7069E+01	4.5823E+01
H	2.5432E+01	4.3726E+01	5.4C31E+01
A	3.8024E+03	4.9939E+03	5.6460E+00
S	1.4162E+03	1.4915E+00	1.5370E+00
Z	1.1406E+00	1.3213E+00	1.4320E+00
GAME	8.5665E-01	9.0339E-01	9.3190E-01
U	5.6349E+00	2.2848E+00	2.2859E+00

SPECIES	MOLE FRACTIONS		
E-	1.7895E-08	2.5609E-06	1.3099E-05
HE	4.3837E-02	3.7842E-02	3.4916E-02
HE+	1.7960E-20	5.1616E-15	2.5449E-13
HE++	4.1712E-73	2.2714E-59	5.2879E-46
H	2.4652E-01	4.8633E-01	6.0331E-01
H+	1.7895E-08	2.5609E-06	1.3089E-05
H2	7.0964E-01	4.7593E-01	3.6174E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7111E+02	1.2399E+03	1.9031E+03
T	1.5678E+01	2.2623E+01	2.6233E+01
RHO	9.2119E+00	3.9222E+01	4.7624E+01
H	2.9004E+01	5.0353E+01	6.2420E+01
A	3.999.E+03	5.3925E+00	6.1828E+00
S	1.4525E+03	1.5254E+00	1.5952F+00
Z	1.184PE+00	1.3973E+00	1.5233F+00
GAME	9.505CE-01	9.199CE-01	9.5661E-01
U	1.0383E+01	2.4401E+00	2.4901E+00

SPECIES	MOLE FRACTIONS		
E-	5.4313E-05	7.2346E-06	3.7920E-05
HE	4.2201E-02	3.5783F-02	3.2823E-02
HE+	2.3565E-19	5.6024E-14	3.0063E-12
HE++	5.5554E-69	1.3814E-48	4.9343E-42
H	3.1496E-01	5.6967E-01	6.9696E-01
H+	5.4313E-05	7.2346E-06	3.7920E-05
H2	6.4594E-01	3.9554E-01	2.8014E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.22E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3745E+02	8.4744E+02	1.3045E+03
T	1.2[illegible]E+01	1.7[illegible]E+01	1.9936E+01
RHO	7.7[illegible]E+00	3.0457E+01	3.9776E+01
H	1.9[illegible]E+01	3.1795E+01	3.9365E+01
A	3.43[illegible]E+03	4.[illegible]E+00	4.7542E+00
S	1.34[illegible]E+00	1.3[illegible]E+00	1.4417E+00
Z	1.[illegible]E+00	1.14[illegible]E+00	1.2667E+00
GAME	8.[illegible]E-01	8.7785E-01	8.9498E-01
U	9.1217E+00	2.0446E+00	1.9736E+00

SPECIES	MOLE FRACTIONS		
E-	9.56[illegible]E-10	2.1351E-07	1.2431E-06
HE	4.69[illegible]E-02	4.2161E-02	3.9471E-02
HE+	3.2234E-23	1.7810E-17	1.1215E-15
HE++	1.01[illegible]E-93	1.1147E-61	4.9396E-55
H	1.2[illegible]E-01	3.1351E-01	4.2114E-01
H+	9.9[illegible]E-10	2.1351E-07	1.2431E-06
H2	8.[illegible]E-01	6.4429E-01	5.3979E-01

Table III. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9543E+02	1.4696E+03	2.2725E+03
T	1.6549E+01	2.4494E+01	2.8997E+01
RHO	9.5738E+00	4.0642E+01	4.8474E+01
M	3.2938E+01	5.7399E+01	7.1576E+01
A	4.2058E+00	5.8277E+00	6.8016E+00
S	1.4902E+00	1.5691E+00	1.6334E+00
Z	1.2335E+00	1.4769E+00	1.6167E+00
GAME	8.6655E-01	9.3922E-01	9.8608E-01
U	1.1128E+01	2.6224E+00	2.7366E+00

SPECIES	MOLE FRACTIONS		
E-	1.4426E-07	1.8822E-05	1.0724E-04
HE	4.0534E-02	3.3955E-02	3.0927E-02
HE+	1.8478E-18	5.0918E-13	3.4123E-11
HE++	1.1859E-65	2.9614E-45	3.9391E-38
H	3.7864E-01	6.4575E-01	7.6259E-01
H+	1.4426E-07	1.8822E-05	1.0724E-04
H2	5.8083E-01	3.2035E-01	2.0627E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7733E+02	2.1995E+03	3.5961E+03
T	1.9241E+01	3.1570E+01	4.2422E+01
RHO	1.0272E+01	4.0469E+01	4.5637E+01
M	4.6103E+01	8.0816E+01	1.0476E+02
A	4.9034E+00	7.4239E+00	9.2175E+00
S	1.6056E+00	1.6959E+00	1.7724E+00
Z	1.4032E+00	1.7139E+00	1.8512E+00
GAME	8.9073E-01	1.0187E+00	1.0491E+00
U	1.3319E+01	3.3789E+00	3.8700E+00

SPECIES	MOLE FRACTIONS		
E-	1.6446E-06	2.6477E-04	2.6107E-03
HE	3.5634E-02	2.9175E-02	2.7009E-02
HE+	4.5037E-16	2.4275E-12	6.4712E-08
HE++	1.7492E-57	6.7343E-35	5.9967E-25
H	5.7465E-01	8.3219E-01	9.1192E-01
H+	1.6446E-06	2.6477E-04	2.6107E-03
H2	3.8972E-01	1.3811E-01	5.5954E-02

P1 = 2.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2126E+02	1.7083E+03	2.6767E+03
T	1.7423E+01	2.6537E+01	3.2426E+01
RHO	9.8719E+00	4.1315E+01	4.8362E+01
H	3.7079E+01	6.4839E+01	8.1029E+01
A	4.4244E+00	6.3065E+0C	7.5260E+00
S	1.5281E+00	1.6124E+00	1.6812E+00
Z	1.2864E+00	1.5581E+00	1.7076E+00
GAME	8.7339E-01	9.6186E-01	1.0229E+00
U	1.1965E+01	2.8358E+00	3.0441E+00

SPECIES	MOLE FRACTIONS		
E-	3.4675E-07	4.6483E-05	3.0736E-04
HE	3.8868E-02	3.2090E-02	2.9281E-02
HE+	1.3286E-17	4.1567E-12	4.0660E-10
HE++	2.5844E-62	1.0119E-41	5.3083E-34
H	4.4533E-01	7.1626E-01	8.2786E-01
H+	3.4675E-07	4.6483E-C5	3.0736E-04
H2	5.1584E-01	2.5156E-01	1.4225E-01

P1 = 2.00E+04 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4855E+02	1.9495E+03	3.1141E+03
T	1.8315E+01	2.9860E+01	3.6924E+01
RHO	1.0104E+01	4.1224E+01	4.7290E+01
H	4.1466E+01	7.2644E+01	9.2657E+01
A	4.6563E+00	6.8358E+0C	8.3553E+00
S	1.5667E+00	1.6548E+0C	1.7278E+00
Z	1.3431E+00	1.6382E+0C	1.7992E+00
GAME	8.8141E-01	9.8836E-01	1.0601E+00
U	1.2594E+01	3.0991E+00	3.4202E+00

SPECIES	MOLE FRACTIONS		
E-	7.7456E-07	1.1144E-04	9.0218E-04
HE	3.7227E-02	3.0521E-02	2.7960E-02
HE+	8.1141E-17	3.2014E-11	5.1872E-09
HE++	1.0517E-59	3.6796E-39	5.5825E-30
H	5.1090E-01	7.7891E-01	8.7888E-01
H+	7.7456E-07	1.1144E-04	9.0217E-04
H2	4.5187E-01	1.9344E-01	9.1357E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0751E+02	2.4179E+03	4.0674E+03
T	2.0221E+01	3.4772E+01	4.9031E+01
RHO	1.0374E+01	4.9650E+01	6.3966E+01
H	5.0985E+01	8.9275E+01	1.1760E+02
A	5.1657E+00	8.0624E+0C	9.9721E+00
S	1.6447E+00	1.7353E+0C	1.8133E+00
Z	1.4661E+00	1.7803E+0C	1.8956E+00
GAME	9.0151E-01	1.0501E+00	1.0744E+00
U	1.4334E+01	3.7257E+00	4.3310E+00

SPECIES	MOLE FRACTIONS		
E-	3.3755E-06	6.2514E-04	6.5975E-03
HE	3.4164E-02	2.8045E-02	2.6378E-02
HE+	2.3495E-15	1.9292E-09	5.9723E-07
HE++	4.7468E-54	1.1775E-31	1.7723E-22
H	6.3594E-01	9.7471E-01	9.2819E-01
H+	3.3755E-06	6.2514E-04	6.5969E-03
H2	3.3065E-01	9.5955E-02	3.5247E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3560E+02	2.6337E+03	4.5469E+03
T	2.1271E+01	3.8543E+01	5.5252E+01
RHO	1.0340E+01	5.2205E+01	6.2434E+01
H	5.6111E+01	9.9509E+01	1.3597E+02
A	5.4577E+00	8.7193E+0C	1.0594E+01
S	1.6341E+00	1.7727E+0C	1.9504E+00
Z	1.5331E+00	1.8364E+0C	1.9529E+00
GAME	9.1447E-01	1.0736E+00	1.0524E+00
U	1.4741E+01	4.1245E+00	4.7705E+00

SPECIES	MOLE FRACTIONS		
E-	6.7341E-06	1.4495E-03	1.3601E-02
HE	3.2653E-02	2.7720E-02	2.5935E-02
HE+	1.1914E-14	1.3201E-08	3.3239E-06
HE++	2.3944E-52	1.6278E-28	9.1454E-20
H	6.9599E-01	9.9527E-01	9.2296E-01
H+	6.7941E-06	1.4495E-03	1.3558E-02
H2	2.7346E-01	6.4573E-02	2.6725E-02

Table III. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7188E+02	2.8233E+03	5.0042E+03
T	2.2432E+01	4.2833E+01	6.1319E+01
RHO	1.0376E+01	3.5158E+01	4.1612E+01
H	6.1482E+01	1.0699E+02	1.4444E+02
A	5.7734E+00	9.3298E+00	1.1132E+01
S	1.7230E+00	1.8079E+00	1.8945E+00
Z	1.5977E+00	1.8749E+00	1.9612E+00
GAME	9.3001E-01	1.0939E+00	1.0305E+00
U	1.5438E+01	4.5545E+00	5.1274E+00

SPECIES	MOLE FRACTIONS		
E-	1.3595E-05	3.1799E-03	2.3406E-02
HE	3.1294E-02	2.6668E-02	2.5483E-02
HE+	5.9462E-14	8.4592E-09	1.2251E-05
HE++	1.0570E-48	1.3502E-25	9.9321E-18
H	7.4919E-01	9.2372E-01	9.1000E-01
H+	1.3585E-05	3.1788E-03	2.3394E-02
H2	2.2048E-01	4.3254E-02	1.7706E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7707E+02	3.2939E+03	6.1066E+03
T	2.7154E+01	5.6533E+01	7.6575E+01
RHO	9.8236E+00	2.9809E+01	3.8695E+01
H	7.9017E+01	1.3572E+02	1.8590E+02
A	6.9857E+00	1.0700E+01	1.2532E+01
S	1.8363E+00	1.9027E+00	1.9773E+00
Z	1.7885E+00	1.9545E+00	2.0609E+00
GAME	1.0044E+00	1.0362E+00	9.9520E-01
U	1.7438E+01	5.7445E+00	5.9330E+00

SPECIES	MOLE FRACTIONS		
E-	1.2566E-04	1.9279E-02	6.2957E-02
HE	2.7956E-02	2.5577E-02	2.4126E-02
HE+	1.1512E-11	5.2539E-06	1.3502E-04
HE++	4.0844E-40	3.6993E-19	5.4226E-14
H	8.8140E-01	9.2190E-01	9.4092E-01
H+	1.2566E-04	1.8274E-02	6.2822E-02
H2	9.0395E-02	1.5970E-02	9.1365E-03

P1 = 2.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0593E+02	2.9999E+03	5.4248E+03
T	2.3748E+01	4.7422E+01	6.6835E+01
RHO	1.0271E+01	3.3197E+01	4.0733E+01
H	6.7092E+01	1.1625E+02	1.5809E+02
A	6.1252E+00	9.8561E+00	1.1623E+01
S	1.7616E+00	1.8409E+00	1.9163E+00
Z	1.6642E+00	1.9055E+00	1.9527E+00
GAME	9.4928E-01	1.0751E+00	1.0143E+00
U	1.6122E+01	4.9865E+00	5.4324E+00

SPECIES	MOLE FRACTIONS		
E-	2.7538E-05	6.3523E-03	3.5230E-02
HE	3.0644E-02	2.6240E-02	2.5059E-02
HE+	3.1336E-13	4.3351E-07	3.2924E-05
HE++	6.8906E-46	4.9729E-23	3.4491E-16
H	7.9815E-01	9.3133E-01	8.9068E-01
H+	2.7538E-05	6.3519E-03	3.5197E-02
H2	1.7175E-01	2.9724E-02	1.3804E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1375E+02	3.4073E+03	6.3354E+03
T	2.9469E+01	6.0769E+01	9.0903E+01
RHO	9.4753E+00	2.8333E+01	3.7387E+01
H	9.5317E+01	1.4592E+02	1.9996E+02
A	7.5152E+00	1.1069E+01	1.2952E+01
S	1.8715E+00	1.9324E+00	2.0071E+00
Z	1.8400E+00	1.9788E+00	2.0971E+00
GAME	1.0411E+00	1.0189E+00	9.9991E-01
U	1.8066E+01	6.0376E+00	6.1312E+00

SPECIES	MOLE FRACTIONS		
E-	2.9081E-04	2.6961E-02	7.7769E-02
HE	2.7173E-02	2.5254E-02	2.3617E-02
HE+	8.6294E-11	1.3153E-05	2.2552E-04
HE++	6.9359E-37	9.7390E-18	3.4058E-13
H	9.1220E-01	9.0943E-01	8.1374E-01
H+	2.9081E-04	2.6948E-02	7.7542E-02
H2	8.0349E-02	1.2394E-02	7.6100F-03

P1 = 2.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4102E+02	3.1564E+03	5.7997E+03
T	2.5285E+01	5.2053E+01	7.1943E+01
RHO	1.0388E+01	3.1409E+01	3.9791E+01
H	7.2938E+01	1.2582E+02	1.7197E+02
A	6.5245E+00	1.0333E+01	1.2091E+01
S	1.7995E+00	1.8724E+00	1.9473E+00
Z	1.7287E+00	1.9398E+00	2.0261E+00
GAME	9.7374E-01	1.0564E+00	1.0029F+00
U	1.6785E+01	5.3979E+00	5.7068E+00

SPECIES	MOLE FRACTIONS		
E-	5.7456E-05	1.1354E-02	4.8682E-02
HE	2.8923E-02	2.5895E-02	2.4605E-02
HE+	1.7847E-12	1.7072E-06	7.2206E-05
HE++	4.4341E-43	6.6501E-21	5.7581E-15
H	9.4291E-01	9.3007E-01	9.6693E-01
H+	5.7456E-05	1.1352E-02	4.8609E-02
H2	1.2905E-01	2.1323E-02	1.1102E-02

P1 = 2.00E+04 N/SQ-M, US1= 2.70F+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5107E+02	3.4959E+03	6.4978E+03
T	3.2331E+01	6.4725E+01	8.4669F+01
RHO	9.0665E+00	2.6944E+01	3.5899E+01
H	9.1934F+01	1.5639F+02	2.1383F+02
A	9.0874E+00	1.1420F+01	1.3351F+01
S	1.9047E+00	1.9616E+00	2.0366E+00
Z	1.8870E+00	2.0046E+00	2.1345E+00
GAME	1.0761E+00	1.0352E+00	9.8624E-01
U	1.8056E+01	6.2753E+00	6.3037E+00

SPECIES	MOLE FRACTIONS		
E-	7.0011E-04	3.7113E-02	9.2829E-02
HE	2.6550E-02	2.4915E-02	2.3079E-02
HE+	7.1707E-10	2.7991E-05	3.4559E-04
HE++	1.5230E-33	1.4289E-16	1.5777E-12
H	9.3407E-01	9.2099E-01	7.9499E-01
H+	7.0010E-04	3.7085E-02	9.2493E-02
H2	3.7958E-02	9.9922E-03	6.3963E-03

Table III. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.CJE+C4 N/SQ-M, US1= 2.80E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8893E+02	3.5714E+03	6.5924E+03
T	3.5705E+01	6.8423E+01	8.8252E+01
RHO	8.6447E+00	2.5686E+01	3.4381E+01
H	9.8565E+01	1.6714E+02	2.2784E+02
A	8.6306E+00	1.1762E+01	1.3735E+01
S	1.9357E+00	1.9932E+00	2.0658E+00
Z	1.9C9JE+00	2.0320E+00	2.1729E+00
GAME	1.0934E+00	9.9498E-01	9.8373E-01
U	1.9229E+01	6.4684E+00	6.4581E+00

SPECIES	MOLE FRACTIONS		
E-	1.0584E-03	4.8414F-02	1.0796E-01
HE	2.62J5E-J2	2.4554F-J2	2.2513E-02
HE+	5.7655F-09	5.2604E-05	4.9783E-04
HE++	2.9599E-3J	1.3415E-15	5.9445E-12
H	9.4081E-01	8.7056F-01	7.5617E-01
H+	1.6594E-03	4.8361E-02	1.0746F-01
H2	2.36C4E-J2	8.0550F-03	5.3964E-03

P1 = 2.CCE+C4 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.555cE+02	4.1071E+03	7.3923E+03
T	5.0185E+01	8.2190E+01	1.0235E+02
RHO	7.624JE+CJ	2.3135E+01	3.0857E+01
H	1.2794E+02	2.1487E+02	2.8939E+02
A	1.CC33E+J1	1.3165E+01	1.5339E+01
S	2.0399E+00	2.0951E+00	2.1755E+C0
Z	1.974cE+00	2.1599E+00	2.3406F+00
GAME	1.0157E+00	9.7636C-01	9.8202E-01
U	2.1592E+01	7.1129E+0J	7.0790F+00

SPECIES	MOLE FRACTIONS		
E-	1.8411E-02	1.0142E-C1	1.6987F-01
HE	2.5319E-02	2.2821E-02	1.9821E-02
HE+	1.9905E-J6	3.2776E-C4	1.5405E-03
HE++	4.0658E-21	5.4794E-13	3.9672E-10
H	5.3193E-01	7.7312F-01	6.3746E-01
H+	1.8405F-J2	1.0139E-J1	1.6833E-01
H2	5.9291E-03	4.2205F-03	2.9770F-03

P1 = 2.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2798E+02	3.6592E+03	6.7066E+03
T	3.9397E+01	7.1961E+01	9.1714E+01
RHO	9.2694E+00	2.4662E+01	3.3051E+01
H	1.0553E+02	1.7833E+02	2.4221E+02
A	9.0834E+00	1.2103E+01	1.4117E+01
S	1.9644E+00	2.0179E+00	2.0944E+00
Z	1.9276E+00	2.0613E+00	2.2125E+00
GAME	1.0866E+00	9.8747E-01	9.8217E-01
U	1.9795E+01	6.6357E+00	6.6055E+00

SPECIES	MOLE FRACTIONS		
E-	3.6178E-03	6.0685E-02	1.2323E-01
HE	2.5946E-02	2.4166E-02	2.1912E-02
HE+	3.8055E-08	9.0536E-05	6.8683E-04
HE++	2.6759E-27	9.2541E-15	1.8910E-11
H	9.5156E-01	8.4777E-01	7.2703E-01
H+	3.6177E-03	6.0595E-02	1.2254E-01
H2	1.5202E-02	6.6923E-03	4.5953E-03

P1 = 2.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5041E+02	4.5645E+03	8.1535E+03
T	5.6435E+01	8.8951E+01	1.0987E+02
RHO	7.4883E+00	2.2975E+01	3.3506E+01
H	1.4421E+02	2.4206E+02	3.2496E+02
A	1.0572E+01	1.3917E+01	1.6225E+01
S	2.0955E+00	2.1429E+00	2.2262E+00
Z	2.0129E+00	2.2339E+00	2.4327E+00
GAME	9.9391E-01	9.7474E-01	9.9489E-01
U	2.2877E+01	7.4523E+00	7.4461E+00

SPECIES	MOLE FRACTIONS		
E-	3.5196E-02	1.3036E-01	2.0072E-01
HE	2.4836E-02	2.1744E-02	1.8187E-02
HE+	9.9194E-06	6.3785E-04	2.3665E-03
HE++	1.3126E-16	1.1018E-11	2.2784E-09
H	9.0081E-01	7.1426E-01	5.7807E-01
H+	3.5197E-02	1.2973E-01	1.9836E-01
H2	3.9622E-03	3.2662E-03	2.2948E-03

P1 = 2.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6852E+02	3.77+0E	6.8700E+03
T	4.3134E+01	7.540?	9.5142E+01
RHO	7.5763E+00	2.39.5E+	3.2048E+01
H	1.1274E+02	1.9994E+02	2.5717E+02
A	9.4454E+00	1.2449E+01	1.4305E+01
S	1.9911E+00	2.0446E+00	2.1218E+00
Z	1.9434E+00	2.0924E+00	2.2531E+00
GAME	1.0264 E+00	9.8216E-01	9.8144E-01
U	2.0377E+01	6.7903E+00	6.7555E+00

SPECIES	MOLE FRACTIONS		
E-	6.97?5E-03	7.3716E-02	1.3848E-01
HE	2.5771E-02	2.3753E-02	2.1275E-02
HE+	1.4669E-07	1.4583E-04	9.1694E-04
HE++	9.1773E-25	5.0895E-14	5.4467E-11
H	9.4954E-01	8.2316E-01	6.9742E-01
H+	6.9?.6E-03	7.3572E-02	1.3756E-01
H2	1.0475E-02	5.6602E-03	3.9549E-03

P1 = 2.00E+04 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5283E+02	5.1215E+03	9.0946E+03
T	6.2027E+01	9.5727E+01	1.1776E+02
RHO	7.4626E+00	2.3128E+01	3.0529E+01
H	1.3154E+02	2.7140E+02	3.6347E+02
A	1.1107E+01	1.4698E+01	1.7171E+01
S	2.1280E+00	2.1890E+00	2.2757E+00
Z	2.0595E+00	2.3132E+00	2.5297E+00
GAME	9.8623E-01	9.7562E-01	9.8977E-01
U	2.4212E+01	7.9046E+00	7.8328E+00

SPECIES	MOLE FRACTIONS		
E-	5.5595E-02	1.5959E-01	2.3094E-01
HE	2.4238E-02	2.0530E-02	1.6404E-02
HE+	3.1690E-05	1.1090E-03	3.3610E-03
HE++	8.6551E-17	8.9462E-11	1.0835E-09
H	8.6165E-01	6.5773E-01	5.1995E-01
H+	5.5503E-02	1.5949E-01	2.2757E-01
H2	2.9059E-03	2.5799E-03	1.7789E-03

Table III. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1= 3.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0622E+03	5.7492E+03	1.0182E+04
T	6.715EE+01	1.0252E+02	1.2599E+02
RHO	7.4955E+00	2.3402E+01	3.0737E+01
H	1.795.E+02	3.0269E+02	4.0503E+02
A	1.1646E+01	1.550.E+01	1.8170E+01
S	2.1696E+00	2.2346E+00	2.3240E+00
Z	2.11C3E+00	2.3965E+00	2.6294E+00
GAPL	9.573HE-01	9.7811E-01	9.9664E-01
U	2.5574E+01	9.1863E+0C	9.2579E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	7.9245E-02	1.9837E-01	2.5977E-01
HE	2.3616E-02	1.9110E-02	1.4591E-02
HE+	7.7335E-05	1.7538E-03	4.4241E-03
HE++	2.1529E-15	5.4335E-13	4.3015E-08
H	8.1775E-01	6.0210E-01	4.6449E-01
H+	7.8119E-02	1.9661E-01	2.5535E-01
H2	2.2436E-03	2.0578E-03	1.3803E-03

P1 = 2.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4295E+03	7.9597E+03	1.4127E+04
T	8.1005E+01	1.2334E+02	1.5381E+02
RHO	7.6946E+00	2.4240E+01	3.1179E+01
H	2.4107E+02	4.0734E+02	5.4710E+02
A	1.3297E+01	1.8060E+01	2.1586E+01
S	2.2907E+00	2.3654E+00	2.4681E+00
Z	2.2934E+00	2.6622E+00	2.9459E+00
GAME	9.5175E-01	9.9328E-01	1.0283E+00
U	2.973CE+01	9.4296E+00	9.7429E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5092E-01	2.6858E-01	3.3863E-01
HE	2.1320E-02	1.4330E-02	9.8018E-03
HE+	4.8165E-04	4.4516E-03	7.1761E-03
HE++	1.7831E-12	3.5533E-08	1.3035E-06
H	6.7566E-01	4.4747E-01	3.1234E-01
H+	1.5044E-01	2.6413E-01	3.3146E-01
H2	1.1771E-03	1.0460E-03	5.9075E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.178[illegible]E+03	6.4392E+03	1.1391E+04
T	7.1965E+01	1.0936E+02	1.3476E+02
RHO	7.554[illegible]E+00	2.3714E+01	3.0918E+01
H	1.9929E+02	3.3592E+02	4.4947E+02
A	1.2150E+01	1.6328E+01	1.9249E+01
S	2.2104E+00	2.2794E+00	2.3729E+00
Z	2.1072E+00	2.4830E+00	2.7340E+00
GAME	9.5277E-01	9.9199E-01	1.0056E+00
U	2.6953E+01	3.5794E+00	8.7148E+00

SPECIES	MOLE FRACTIONS		
E-	1.0253E-01	2.1629E-01	2.9782E-01
HE	2.2912E-02	1.7578E-02	1.2810E-02
HE+	1.5859E-04	2.5595E-03	5.4775E-03
HE++	3.0063E-14	2.6192E-09	1.5089E-07
H	7.7125E-01	5.4819E-01	4.1050E-01
H+	1.0197E-01	2.1373E-01	2.8234E-01
H2	1.7837E-03	1.6468E-03	1.0542E-03

P1 = 2.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5643E+03	8.7750E+03	1.5635E+04
T	9.5357E+01	1.3059E+02	1.6435E+02
RHO	7.7606E+00	2.4404E+01	3.1175E+01
H	2.6347E+02	4.4559E+02	6.0025E+02
A	1.3962E+01	1.8972E+01	2.2854E+01
S	2.3304E+00	2.4091E+00	2.5150E+00
Z	2.3615E+00	2.7538E+00	3.0516E+00
GAME	9.5332E-01	1.0013E+00	1.0414E+00
U	3.1123E+01	9.8888E+00	1.0310E+01

SPECIES	MOLE FRACTIONS		
E-	1.7520E-01	2.9272E-01	3.6142E-01
HE	2.0422E-02	1.2754E-02	8.6137E-03
HE+	7.5390E-04	5.4021E-03	7.7678E-03
HE++	9.3818E-12	1.0646E-07	3.3927E-06
H	6.2821E-01	4.0099E-01	2.6813E-01
H+	1.7445E-01	2.8731E-01	3.5364E-01
H2	9.6525E-04	8.2471E-04	4.2876E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.330[illegible]E+03	7.1785E+03	1.2738E+04
T	7.6559E+01	1.1629E+02	1.4397E+02
RHO	7.6243E+00	2.4033E+01	3.1088E+01
H	2.1967E+02	3.7373E+02	4.9679E+02
A	1.2743E+01	1.7180E+01	2.0382E+01
S	2.2537E+00	2.3221E+00	2.4207E+00
Z	2.2283E+00	2.6718E+00	2.8394E+00
GAME	9.513[illegible]E-01	9.8693E-01	1.0163E+00
U	2.9335E+01	3.9942E+00	9.2062E+00

SPECIES	MOLE FRACTIONS		
E-	1.2642E-01	2.4338E-01	3.1403E-01
HE	2.2149E-02	1.5963E-02	1.1205E-02
HE+	2.8884E-04	3.4804E-03	6.4043E-03
HE++	2.6946E-13	1.0432E-08	4.6450E-07
H	7.2357E-01	4.9657E-01	3.5994E-01
H+	1.2613E-01	2.3960E-01	3.0762E-01
H2	1.44[illegible]E-03	1.3158E-03	7.9674E-04

P1 = 2.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7051E+03	9.6175E+03	1.7231E+04
T	9.9656E+01	1.3799E+02	1.7590E+02
RHO	7.8154E+00	2.4498E+01	3.1058E+01
H	2.9686E+02	4.9540E+02	6.5649E+02
A	1.4436E+01	1.9910E+01	2.4196E+01
S	2.3730E+00	2.4500E+00	2.5614E+00
Z	2.4321E+00	2.8451E+00	3.1560E+00
GAME	9.557[illegible]E-01	1.0099E+00	1.0552E+00
U	3.2506E+01	1.0375E+01	1.0925E+01

SPECIES	MOLE FRACTIONS		
E-	1.9963E-01	3.1525E-01	3.8242E-01
HE	1.9459E-02	1.1307E-02	7.6089E-03
HE+	1.1090E-03	6.2670E-03	8.2257E-03
HE++	4.1270E-11	2.9543E-07	8.3855E-06
H	5.8170E-01	3.5755E-01	2.2725E-01
H+	1.9792E-01	3.0999E-01	3.7419E-01
H2	7.9270E-04	6.4496E-04	3.0297E-04

Table III. - Continued

p_1 = 20 kN/ m^2

P1 = 2.COE+04 N/SQ-M, US1= 5.COE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9517E+03	1.0481E+04	1.8911E+04
T	9.3936E+01	1.4578E+02	1.8811E+02
RHO	7.9652E+00	2.4474E+01	3.0884E+01
H	3.1125E+02	5.2674E+02	7.1584E+02
A	1.5020E+01	2.0997E+01	2.5587E+01
S	2.4053E+00	2.4922E+00	2.6063E+00
Z	2.5C51E+00	2.9377E+00	3.2552E+00
GAME	9.5871E-01	1.0197E+00	1.0692E+00
U	3.3895E+01	1.0999E+01	1.1597E+01

SPECIES	MOLF FRACTIONS		
E-	2.2223E-01	3.3671E-01	4.0117E-01
HE	1.8394E-02	9.9896E-03	6.7700E-03
HE+	1.5651E-03	7.0299E-03	8.5705E-03
HE++	1.5726E-10	7.1280E-07	1.9654E-05
H	5.3650E-01	3.1610E-01	1.9071E-01
H+	2.2066E-01	3.2968E-01	3.9256E-01
H2	6.5044E-04	4.9512E-04	2.0985E-04

P1 = 2.CCE+04 N/SQ-M, US1= 5.63E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3263E+03	1.3124E+04	2.4421E+04
T	1.0695E+02	1.7124E+02	2.3362E+02
RHO	7.956EE+00	2.392JE+01	2.9691E+01
H	3.5C31E+02	6.[illegible]27E+02	9.1356E+02
A	1.6848E+01	2.4060E+01	3.0214E+01
S	2.52[illegible]+00	2.6138E+00	2.7388E+00
Z	2.7339E+00	3.2339E+00	3.5237E+00
GAME	9.7093E-01	1.0534E+00	1.1099E+00
U	3.8324E+01	1.2644E+01	1.3913E+01

SPECIES	MOLE FRACTIONS		
E-	2.87C6E-01	3.9157E-01	4.4619E-01
HE	1.4765E-02	7.0179E-03	4.7266E-03
HE+	3.524BE-03	9.5135E-03	9.2545E-03
HE++	4.6076E-09	7.6425E-06	2.2078E-04
H	4.1076E-01	2.6964E-01	1.[illegible]37E-01
H+	2.8354E-01	3.9298E-01	4.3649E-01
H2	3.5135E-04	2.0515E-04	5.7317E-05

P1 = 2.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0042E+03	1.1359E+04	2.3680E+04
T	9.8225E+01	1.5385E+02	2.0195E+02
RHO	7.9090E+00	2.4377E+01	3.0547E+01
H	3.3662E+02	5.6956E+02	7.7975E+02
A	1.5615E+01	2.1912E+01	2.7085E+01
S	2.4495E+00	2.5334E+00	2.6520E+00
Z	2.5799E+00	3.0286E+00	3.3522E+00
GAME	9.6224E-01	1.0304E+00	1.0937E+00
U	3.5277E+01	1.1435E+01	1.2323E+01

SPECIES	MOLE FRACTIONS		
E-	2.4469E-01	3.5651E-01	4.1843E-01
HE	1.7257E-02	9.9479E-03	6.0167E-03
HE+	2.1233E-03	7.6599E-03	8.8533E-03
HE++	5.3251E-10	1.6529E-06	4.5627E-05
H	4.9284E-01	2.7777E-01	1.5703E-01
H+	2.4256E-01	3.4884E-01	4.0948E-01
H2	5.3226E-04	3.7544E-04	1.3934E-04

P1 = 2.00E+04 N/SQ-M, US1= 5.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4956E+03	1.4038E+04	2.8399E+04
T	1.1143E+02	1.9364E+02	2.5192E+02
RHO	7.9637E+00	2.8599E+01	3.9169E+01
H	4.1869E+02	7.0617E+02	9.8069E+02
A	1.7491E+01	2.5146E+01	3.1529E+01
S	2.5651E+00	2.6525E+00	2.7407E+00
Z	2.8123E+00	3.2959E+00	3.5513E+00
GAME	9.7623E-01	1.0653E+00	1.1198E+00
U	3.9388E+01	1.3295E+01	1.4784E+01

SPECIES	MOLE FRACTIONS		
E-	3.0699E-01	4.0671E-01	4.5706E-01
HE	1.3443E-02	5.2920E-03	4.1122E-03
HE+	4.3302E-03	8.9290E-03	9.3469E-03
HE++	1.2394E-07	1.5493E-05	4.6081E-04
H	3.7250E-01	1.9016E-01	9.2119E-02
H+	3.0255E-01	4.1777E-01	4.6075E-01
H2	2.9259E-04	1.4935E-04	3.5529E-05

P1 = 2.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1624E+03	1.2243E+04	2.2512E+04
T	1.0255E+02	1.6233E+02	2.1699E+02
RHO	7.9383E+00	2.4192E+01	3.0155E+01
H	3.6297E+02	6.1377E+02	8.4456E+02
A	1.6224E+01	2.2961E+01	2.8624E+01
S	2.4876E+00	2.5739E+00	2.6959E+00
Z	2.6562E+00	3.1176E+00	3.4466E+00
GAME	9.6630E-01	1.0417E+00	1.0975E+00
U	3.6653E+01	1.2017E+01	1.3083E+01

SPECIES	MOLE FRACTIONS		
E-	2.6631E-01	3.7480E-01	4.3332E-01
HE	1.6043E-02	7.8636E-03	5.3518E-03
HE+	2.7804E-03	8.1707E-03	9.0790E-03
HE++	1.6335E-07	3.6322E-06	1.0176E-04
H	4.5089E-01	2.4225E-01	1.2802E-01
H+	2.6353E-01	3.6663E-01	4.2404E-01
H2	4.3369E-04	2.8001E-04	6.0580E-05

P1 = 2.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6704E+03	1.4966E+04	2.8396E+04
T	1.1663E+02	1.9094E+02	2.7172E+02
RHO	7.9592E+00	2.8160E+01	3.9620E+01
H	4.4792E+02	7.5439E+02	1.0622E+03
A	1.8154E+01	2.6309E+01	3.3431E+01
S	2.6035E+00	2.6918E+00	2.8210E+00
Z	2.8911E+00	3.3659E+00	3.6517E+00
GAME	9.8227E-01	1.0775E+00	1.1264E+00
U	4.0741E+01	1.4301E+01	1.5676E+01

SPECIES	MOLE FRACTIONS		
E-	3.2377E-01	4.2479E-01	4.6602E-01
HE	1.8236E-02	5.6838E-03	3.4915E-03
HE+	5.1871E-03	9.1470E-03	9.2971E-03
HE++	2.9873E-08	3.1377E-05	9.0371E-04
H	3.3612E-01	1.5277E-01	6.5343E-02
H+	3.2059E-01	4.1151E-01	4.5492E-01
H2	2.2529E-04	1.0347E-04	2.1877E-05

Table III. - Continued

p_1 = 20 kN/ m^2

P1 = 2.00E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8503E+03	1.5703E+04	3.0419E+04
T	1.2086E+02	2.3139E+02	2.9293E+02
RHO	7.9372E+00	2.2692E+01	2.8044E+01
H	4.7817E+02	8.0327E+02	1.1410E+03
A	1.8949E+01	2.7460E+01	3.5015E+01
S	2.6422E+00	2.7287F+00	2.8600E+00
Z	2.9713E+00	3.4376E+00	3.703uE+00
GAME	9.8924E-01	1.0892E+00	1.1303E+00
U	4.2094E+01	1.4722E+01	1.5609F+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.4390E-01	4.3281E-01	4.7341E-01
HE	1.0773E-02	5.0756E-03	2.8529E-03
HE+	6.0543E-03	9.4100E-03	9.0119E-03
HE++	7.0556E-09	5.9596E-05	1.6378E-03
H	3.0126E-01	1.2929E-01	5.1944E-02
H+	3.3784E-01	4.2329E-01	4.6113F-01
H2	1.7714E-04	7.2027E-05	1.3471E-05

P1 = 2.00E+04 N/SQ-M, US1= 6.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.421CE+03	1.9065E+04	3.6600E+04
T	1.3652E+02	2.3775E+02	3.6433E+02
RHO	7.8196E+00	2.1035E+01	2.6342E+01
H	5.7471E+02	9.5690L+02	1.3933E+03
A	2.1079E+01	3.1020E+01	3.9891E+01
S	2.7538E+00	2.8353E+00	2.9683E+00
Z	3.2045E+00	3.6174E+00	3.8136E+00
GAME	1.015CE+00	1.1198E+00	1.1453E+00
U	4.6C55F+01	1.7139E+01	1.9462E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.9156E-01	4.6096E-01	4.8867E-01
HE	7.2324E-03	3.6179E-03	1.1298E-03
HE+	8.3699E-03	9.8305E-03	6.5722E-03
HE++	7.1337E-07	3.7383E-04	5.4091E-03
H	2.0956E-01	7.4822E-02	2.6929E-02
H+	3.8319E-01	4.5038E-01	4.7128E-01
H2	8.0444E-05	2.1806E-05	3.3765E-06

P1 = 2.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0357E+03	1.6542E+04	3.2592E+04
T	1.2579E+02	2.1277E+02	3.1558E+02
RHO	7.9162E+00	2.2189E+01	2.7491E+01
H	5.3940E+02	9.5368E+02	1.2226E+03
A	1.9556E+01	2.8641E+01	3.6608E+01
S	2.6795E+00	2.7648E+00	2.9975E+00
Z	3.0493E+00	3.5038E+00	3.7464E+00
GAME	9.970LE-01	1.1034E+00	1.1336E+00
U	4.3422E+01	1.5473E+01	1.7554E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.6065E-01	4.4351E-01	4.7951E-01
HE	9.5169E-03	4.5619E-03	2.2158E-03
HE+	6.8901E-03	9.5959E-03	8.4301E-03
HE++	1.5702E-07	1.1252E-04	2.7303E-03
H	2.6904E-01	1.0849E-01	4.1455E-02
H+	3.5377E-01	4.3369E-01	4.6568E-01
H2	1.3856E-04	4.9199E-05	8.3762E-06

P1 = 2.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2259E+03	1.7318E+04	3.4549E+04
T	1.3101E+02	2.2491E+02	3.3912E+02
RHO	7.8731E+00	2.1604E+01	2.6933E+01
H	5.4159E+02	9.0477E+02	1.3063E+03
A	2.0301E+01	2.9936E+01	3.8211E+01
S	2.7169E+00	2.8007E+00	2.9332E+00
Z	3.1275E+00	3.5642E+00	3.7826E+00
GAME	1.0058E+00	1.1105E+00	1.1382E+00
U	4.4745E+01	1.6299E+01	1.8483E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	3.7661E-01	4.5252E-01	4.8449E-01
HE	8.3248E-03	4.0764E-03	1.6320E-03
HE+	7.6619E-03	9.7439E-03	7.5895E-03
HE++	3.3962E-07	2.3428E-04	3.9968E-03
H	2.3834E-01	9.0257E-02	3.3378E-02
H+	3.6895E-01	4.6276E-01	4.6891E-01
H2	1.9441E-04	3.2889E-05	5.3076E-06

P1 = 2.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6200E+03	1.8785E+04	3.8626E+04
T	1.4238E+02	2.5125E+02	3.9121E+02
RHO	7.7535E+00	2.0407E+01	2.5716E+01
H	6.0979E+02	1.0101E+03	1.4829E+03
A	2.1891E+01	3.2179E+01	4.1630E+01
S	2.7902E+00	2.8687E+00	3.0025E+00
Z	3.2796E+00	3.6636E+00	3.8394E+00
GAME	1.0263E+00	1.1249E+00	1.1538E+00
U	4.7350E+01	1.7977E+01	2.0454E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	4.0548E-01	4.6775E-01	4.9211E-01
HE	8.2500E-03	3.1759E-03	7.4171E-04
HE+	9.9911E-03	9.8254E-03	5.5224E-03
HE++	1.4646E-06	6.4637E-04	6.7597E-03
H	1.8272E-01	6.1946E-02	2.1797E-02
H+	3.9649E-01	4.5664E-01	4.7307E-01
H2	5.9729E-05	1.4415E-05	2.1589E-06

Table III. - Continued

p_1 = 50 kN/ m^2

P1 = 5.00E+04 N/SQ-M, US1= 4.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6542E+01
T	2.9249E+00	3.5090E+00	4.9523E+00
RHO	3.9378E+00	6.5823E+00	1.1417E+01
H	2.8981E+00	3.6101E+00	5.1957E+00
A	1.6757E+00	1.8631E+00	2.1883E+00
S	1.0723E+00	1.0746E+00	1.0973E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9467E-01	9.8638E-01	9.6697E-01
U	2.3176E+00	1.3854E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	5.4860E-68	2.2996E-49	2.7646E-33
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	8.8356E-72	7.8242E-61	1.7931E-51
HE++	0.	0.	0.
H	4.3572E-12	5.8202E-10	1.3616E-06
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01

P1 = 5.00E+04 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4827E+01	1.4366E+02	2.3663E+02
T	6.4771E+00	9.1950E+00	1.1573E+01
RHO	5.3766E+00	1.3434E+01	2.0196E+01
H	6.9665E+00	1.0437E+01	1.4036E+01
A	2.4796E+00	2.9059E+00	3.2290E+00
S	1.1996E+00	1.2030E+00	1.2349E+00
Z	1.0001E+00	1.0022E+00	1.0124E+00
GAME	9.4917E-01	9.1736E-01	8.9989E-01
U	4.4252E+00	1.7701E+00	1.6064E+00

SPECIES	MOLE FRACTIONS		
E-	1.2910E-20	1.8092E-14	1.5260E-11
HE	4.9957E-02	4.9892E-02	4.9386E-02
HE+	1.9442E-44	1.9989E-32	6.0030E-26
HE++	0.	0.	0.
H	1.2790E-04	4.3248E-03	2.4547E-02
H+	7.6367E-20	1.8092E-14	1.5260E-11
H2	9.4998E-01	9.4578E-01	9.2607E-01

P1 = 5.00E+04 N/SQ-M, US1= 5.00F+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.752[illegible]E+01	4.6583E+01	1.0224F+02
T	3.87[illegible]E+00	5.1619F+00	7.0469E+00
RHO	4.5267E+00	9.0227E+00	1.4537E+01
H	3.9996E+00	5.4332E+00	7.6521E+00
A	1.[illegible]51E+00	2.2[illegible]11F+00	2.5792E+00
S	1.1127E+00	1.1185E+00	1.1453E+00
Z	1.0006E+00	1.0030E+00	1.0001E+00
GAME	9.8155E-01	9.6433F-01	9.4388E-01
U	3.0256E+00	1.5166E+00	1.3730E+00

SPECIES	MOLE FRACTIONS		
E-	7.3979E-46	2.1[illegible]96E-30	3.5664E-19
HE	5.0000E-02	5.0003E-02	4.9954E-02
HE+	2.7476E-59	6.6009E-50	1.[illegible]309E-39
HE++	0.	0.	0.
H	1.5[illegible]24F-09	3.3140E-06	2.3005E-04
H+	6.346[illegible]-20	6.34[illegible]0E-20	2.9319E-19
H2	9.5[illegible]3E-01	9.5000E-01	9.4978E-01

P1 = 5.00E+04 N/SQ-M, US1= 3.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5816E+01	1.8162E+02	3.2758E+02
T	7.9799E+00	1.1296E+01	1.3599E+01
RHO	5.737[illegible]E+00	1.5508F+01	2.3279E+01
H	9.9274E+00	1.3617F+01	1.7934E+01
A	2.725[illegible]E+00	3.1876F+00	3.5124E+00
S	1.2255E+00	1.2434F+00	1.2777F+00
Z	1.0036E+00	1.011[illegible]F+00	1.0348E+00
GAME	9.3023E-01	8.90[illegible]F-01	8.7671E-01
U	5.1259E+00	1.8485F+00	1.6786E+00

SPECIES	MOLE FRACTIONS		
E-	2.0063E-16	8.9290F-12	7.5746E-10
HE	4.998[illegible]E-02	4.9428F-02	4.8318E-02
HE+	3.5491F-37	1.0743E-26	2.4937E-22
HE++	0.	0.	8.7547F-80
H	1.5752F-03	2.2893F-02	6.7272F-02
H+	2.[illegible]369E-16	8.925[illegible]F-12	7.5746E-10
H2	9.4846E-01	9.276[illegible]F-01	8.8441E-01

P1 = 5.00E+04 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5408E+01	7.5608E+01	1.6209E+02
T	5.0559E+00	7.[illegible]785E+00	9.3424E+00
RHO	4.9857E+00	1.1245F+01	1.7310E+01
H	5.3583E+00	7.6914F+00	1.[illegible]610E+01
A	2.2177E+00	2.5841F+00	2.9302F+00
S	1.1520E+00	1.1615E+00	1.1911E+00
Z	1.[illegible]00E+00	1.0011F+00	1.0022E+00
GAME	9.6513E-01	9.4326F-01	9.1609E-01
U	3.7253E+00	1.[illegible]501E+00	1.5077E+00

SPECIES	MOLE FRACTIONS		
E-	1.7154E-31	5.2251E-19	2.7432F-14
HE	5.0006E-02	4.9993E-02	4.9988E-02
HE+	9.6747E-51	1.9635E-43	9.1666F-32
HE++	0.	0.	0.
H	3.44[illegible]5E-06	2.771[illegible]E-04	4.4721E-03
H+	6.34[illegible]E-20	5.[illegible]59[illegible]E-19	2.7432E-14
H2	9.50[illegible]E-01	9.4973[illegible]-01	9.4564F-01

P1 = 5.00E+04 N/SQ-M, US1= 9.00F+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8470F+01	2.5698E+02	4.4077E+02
T	9.510[illegible]E+00	1.3239F+01	1.5506E+01
RHO	6.120[illegible]F+00	1.8759E+01	2.6594E+01
H	1.[illegible]944E+01	1.7339E+01	2.2373E+01
A	2.[illegible]40[illegible]E+00	3.4599F+00	3.8085F+00
S	1.2599E+00	1.2937E+00	1.3209E+00
Z	1.[illegible]44E+00	1.0326E+00	1.0693E+00
GAME	9.0268[illegible]-01	8.7566[illegible]-01	8.7533E-01
U	5.[illegible]47[illegible]E+00	1.[illegible]032E+00	1.7487E+00

SPECIES	MOLE FRACTIONS		
E-	1.0394E-13	4.7148E-10	1.1243E-08
HE	4.9779E-02	4.8419E-02	4.6759E-02
HE+	2.6115E-31	6.5932E-23	8.4847E-20
HE++	0.	9.0002E-82	2.4675E-70
H	8.8421E-03	6.3224E-02	1.2963E-01
H+	1.0394E-13	4.7149E-10	1.1243E-08
H2	9.4138E-01	9.8836F-01	8.2361E-01

Table III. - Continued

$P_1 = 50\ kN/m^2$

P1 = 5.CCE+C4 N/SQ-M, US1= 1.03F+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.285?E+01	3.5432E+02	5.845?E+02
T	1.C947E+C1	1.5375E+01	1.7385E+01
RHO	6.5661E+00	2.2045E+01	3.015?E+01
M	1.3321E+01	2.1585E+01	2.7436E+01
A	3.1296E+00	3.7448E+00	4.1336E+00
S	1.2937E+00	1.3245E+00	1.3659E+00
Z	1.G142E+01	1.0653E+00	1.115?E+00
GAME	9.921?E-01	9.7324E-01	P.?123E-01
U	6.5946E+00	1.9598E+00	1.?32?E+00

SPECIES	MOLE FRACTIONS		
E-	7.31CCE-12	7.3123E-09	9.?527E-09
HE	4.9391E-02	4.6535E-02	4.4842E-02
HE+	2.C3?6E-27	2.0422E-20	7.9972E-19
HE++	0.	9.6291E-72	2.4625E-63
H	2.7?74E-02	1.2257E-01	2.J632E-01
H+	7.31?5E-12	7.?123E-09	9.?527E-09
H2	9.2273E-01	9.?547E-01	7.4994E-01

PI = 5.GOE+04 N/SQ-M, US1= 1.30E+C4 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2646E+02	7.?318E+02	1.2293E+03
T	1.4515E+01	2.0436F+01	2.3530E+01
RHO	8.C231E+00	3.1474E+01	3.9911E+01
M	2.1986E+01	3.7261E+01	4.5540E+01
A	3.6873E+00	4.7310E+00	5.3368E+00
S	1.3964E+00	1.4503E+00	1.5023E+00
Z	1.0859E+00	1.2176E+00	1.3090E+00
GAME	8.6299E-01	8.9949E-01	9.2469E-01
U	8.837?E+00	2.2519E+00	2.2233E+00

SPECIES	MOLE FRACTIONS		
E-	6.7888E-09	1.1666E-06	6.8687E-06
HE	4.6045E-02	4.1064E-02	3.8197E-02
HE+	6.2183E-21	2.1953E-15	1.4154E-13
HE++	4.9204E-74	1.1394E-53	3.6631E-47
H	1.5822E-01	3.5743E-01	4.7209E-01
H+	6.7888E-09	1.1666E-06	6.8697E-06
H2	7.9574E-01	6.015?E-01	4.8970E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4756E+02	9.6688E+02	1.5150E+03
T	1.556CE+01	2.2303E+01	2.5924E+01
RHO	8.4537E+00	3.3810E+01	4.2074E+01
H	2.5376E+01	4.3395E+01	5.4273E+01
A	3.8866E+00	5.1139E+00	5.8371E+00
S	1.4322E+00	1.4933E+00	1.5491E+00
Z	1.1218E+00	1.2822E+00	1.3890E+00
GAPE	9.6543E-01	9.1442E-01	9.4626E-01
U	9.5862E+00	2.3965E+00	2.4130E+00

SPECIES	MOLE FRACTIONS		
E-	2.6541E-08	3.7929E-06	2.1234E-05
HE	4.4572E-02	3.9994E-02	3.5998E-02
HE+	1.2636E-19	3.1388E-14	1.8667E-12
HE++	1.9917E-69	4.0.22E-50	1.1103E-42
H	2.1713E-01	4.4021E-01	5.6003E-01
H+	2.6541E-09	3.7929E-06	2.1234E-05
H2	7.3853E-01	5.2078E-01	4.0393E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.45E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6025E+02	1.0191E+03	9.7839E+02
T	1.3414E+01	1.9630E+01	2.1330E+01
RHO	7.5503E+00	3.0819E+01	3.7081E+01
H	1.9949E+01	3.1587E+01	3.9305E+01
A	3.4571E+00	4.3764E+00	4.8503E+00
S	1.3619E+00	1.4079E+00	1.4559E+00
Z	1.0559E+00	1.1591E+00	1.2359E+00
GAPE	9.6346E-01	9.4716E-01	9.3061E-01
U	8.0852E+00	2.1329E+00	2.0663E+00

SPECIES	MOLE FRACTIONS		
E-	1.2955E-08	2.9611E-07	1.9847E-06
HE	4.7370E-02	4.3136E-02	4.0457E-02
HE+	1.6442E-22	5.3712E-17	8.3379E-15
HE++	8.3355E-91	4.1679E-59	1.5305E-51
H	1.0526E-01	2.7456E-01	3.4176E-01
H+	1.2555E-09	2.9613E-07	1.9847E-06
H2	9.4742E-01	5.9633E-01	5.7784E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7021E+02	1.1661E+03	1.0331E+03
T	1.6576E+01	2.4266E+01	2.8606E+01
RHO	8.8317E+00	3.5547E+01	4.3483E+01
H	2.9016E+01	4.3956E+01	6.2708E+01
A	4.0349E+00	5.0285E+00	6.3992E+00
S	1.4694E+00	1.5356E+00	1.5959E+00
Z	1.1626E+00	1.3518E+00	1.4737E+00
GAPE	9.7035E-01	9.3175E-01	9.7136E-01
U	1.0336E+01	2.5673E+00	2.6323E+00

SPECIES	MOLE FRACTIONS		
E-	8.6468E-08	1.0786E-05	6.0260E-05
HE	4.3006E-02	3.6987E-02	3.3929E-02
HE+	1.6533E-18	1.4062E-13	2.0455E-11
HE++	2.1999E-67	1.9239E-45	9.5451E-39
H	2.7975E-01	5.2048E-01	6.4268E-01
H+	8.6468E-09	1.0796E-05	6.0263E-05
H2	6.7724E-01	4.4251E-01	3.2328E-01

Table III. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9440E+02	1.3774E+03	2.1835E+03
T	1.7583E+01	2.6366E+01	3.1713E+01
RHO	9.1521E+00	3.6661E+01	4.4112E+01
H	3.2905E+01	5.6932E+01	7.1934E+01
A	4.3141E+00	5.9789E+00	7.0357E+00
S	1.5052E+00	1.5779E+00	1.6425E+00
Z	1.2083E+00	1.4250E+00	1.5609E+00
GAME	8.7624E-01	9.5145E-01	1.0000E+00
U	1.1069E+01	2.7639E+00	2.8951E+00

SPECIES	MOLE FRACTIONS		
E-	2.3865E-07	2.7804E-05	1.6263E-04
HE	4.1391E-02	3.5087E-02	3.2034E-02
HE+	1.5706E-17	2.9566E-12	2.0168E-10
HE++	5.0532E-62	6.9795E-42	5.0210E-35
H	3.4435E-01	5.9643E-01	7.1816E-01
H+	2.3965E-07	2.7904E-05	1.6263E-04
H2	6.1425E-01	3.6842E-01	2.4948E-01

P1 = 5.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7573E+02	2.0347E+03	3.4051E+03
T	2.0655E+01	3.3986E+01	4.5312E+01
RHO	9.7447E+00	3.6360E+01	4.1937E+01
H	4.6055E+01	8.0394E+01	1.0491E+02
A	5.0537E+00	7.5871E+00	9.3525E+00
S	1.6179E+00	1.7030E+00	1.7761E+00
Z	1.3672E+00	1.6466E+00	1.7919E+00
GAME	9.0261E-01	1.0233E+00	1.0773E+00
U	1.3241E+01	3.5467E+00	4.3659E+00

SPECIES	MOLE FRACTIONS		
E-	2.9739E-06	3.3331E-04	2.6715E-03
HE	3.8570E-02	3.0366E-02	2.7903E-02
HE+	4.1479E-15	4.3412E-13	1.3545E-07
HE++	7.4901E-53	1.1503E-32	1.4377E-24
H	5.3719E-01	7.8435E-01	9.7586E-01
H+	2.8738E-06	3.3331E-04	2.6713E-03
H2	4.2263E-01	1.9462E-01	9.0854E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2005E+02	1.5959E+03	2.5642E+03
T	1.8595E+01	2.8644E+01	3.5415E+01
RHO	9.4107E+00	3.7143E+01	4.3972E+01
H	3.7042E+01	6.4295E+01	8.2018E+01
A	4.5459E+00	6.4675E+00	7.7538E+00
S	1.5424E+03	1.61 5E+0C	1.6884E+03
Z	1.2575E+00	1.5003E+00	1.6466E+00
GAME	9.9376E-01	9.7349E-01	1.0310E+00
U	1.1800E+01	2.9881E+00	3.2124E+00

SPECIES	MOLE FRACTIONS		
E-	5.8953E-07	6.6690E-05	4.2642E-04
HE	3.9762E-02	3.3333E-02	3.0366E-02
HE+	1.1796E-16	2.1960E-11	1.9832E-09
HE++	1.0948E-58	1.1399E-38	2.0705E-31
H	4.0951E-01	6.665CE-01	7.8409E-01
H+	5.8953E-07	6.6680E-C5	4.2641E-04
H2	5.5073E-01	3.0003E-01	1.9470E-01

P1 = 5.00E+04 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0569E+02	2.2452E+03	3.9513E+03
T	2.1817E+01	3.7193E+01	5.1467E+01
RHO	9.82[illegible]E+00	4.5243E+01	6.0577E+01
H	5.0591E+01	8.9489E+01	1.1762E+02
A	5.3343E+00	8.1707E+00	1.0112E+01
S	1.6555E+03	1.7332E+03	1.8146E+03
Z	1.4266E+00	1.7126E+00	1.8442E+00
GAME	9.1415E-01	1.0491E+00	1.0769E+00
U	1.3951E+01	3.4[illegible]E+00	4.4522E+00

SPECIES	MOLE FRACTIONS		
E-	5.3[illegible]E-05	7.[illegible]E-04	5.[illegible]E-03
HE	3.50[illegible]E-02	2.91[illegible]E-02	2.7112E-02
HE+	2.11[illegible]E-14	5.[illegible]E-09	9.[illegible]E-07
HE++	2.40[illegible]E-50	7.[illegible]E-36	1.3262E-21
H	5.99[illegible]E-01	9.[illegible]E-01	8.[illegible]E-01
H+	5.89[illegible]E-06	7.[illegible]E-04	5.[illegible]E-03
H2	3.66[illegible]E-01	[illegible]	6.3345E-02

P1 = 5.00E+04 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4719E+02	1.9165E+03	2.9729E+03
T	1.9627E+01	3.1160E+01	3.9507E+01
RHO	9.6[illegible]E+00	3.7019E+01	4.3174E+01
H	4.1425E+01	7.2022E+01	9.3005E+01
A	4.7919E+00	6.9969E+00	8.5421E+00
S	1.5801E+00	1.6603E+00	1.7332E+00
Z	1.3107E+00	1.5747E+00	1.7254E+00
GAME	8.9253E-01	9.9767E-01	1.0597E+00
U	1.2524E+01	3.2496E+00	3.5937E+00

SPECIES	MOLE FRACTIONS		
E-	1.3417E-06	1.5187E-04	1.0915E-03
HE	3.8147E-02	3.1751E-02	2.9979E-02
HE+	7.4468E-16	1.4466E-10	1.6741E-08
HE++	1.1762E-55	1.3579E-35	6.7069E-29
H	4.7410E-01	7.2949E-01	8.3756E-01
H+	1.3417E-06	1.5187E-04	1.0915E-03
H2	4.8775E-01	2.3845E-01	1.3128E-01

P1 = 5.00E+04 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3695E+02	2.6437E+03	4.2969E+03
T	2.3314E+01	4.0942E+01	5.7932E+01
RHO	9.9395E+00	3.8331E+01	3.9362E+01
H	5.6051E+01	9.7152E+01	1.3088E+02
A	5.6354E+00	8.7344E+00	1.0776E+01
S	1.6594E+00	1.7745E+00	1.9537E+00
Z	1.4831E+00	1.7694E+00	1.9953E+00
GAME	9.2741E-01	1.0042E+00	1.0632E+00
U	1.4654E+01	4.2531E+00	4.9846E+00

SPECIES	MOLE FRACTIONS		
E-	1.1723E-05	1.4559E-03	1.1559E-02
HE	3.3529E-02	2.9252E-02	2.6517E-02
HE+	1.0[illegible]E-13	2.6731E-08	4.2136E-06
HE++	1.2478E-47	3.3511E-27	3.7617E-19
H	6.56[illegible]E-01	9.6556E-01	9.0450E-01
H+	1.1723E-05	1.4559E-03	1.1554E-02
H2	3.1[illegible]E-01	1.0329E-01	4.5871E-02

Table III. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6957E+02	2.6254E+03	4.7277E+03
T	2.4316E+01	4.4990E+01	6.4298E+01
RHO	9.7988E+00	3.2174E+01	3.8285E+01
H	6.1413E+01	1.0609E+02	1.4449E+02
A	5.9632E+00	9.3844E+00	1.1366E+01
S	1.7314E+00	1.8096E+00	1.8883E+00
Z	1.5511E+00	1.8178E+00	1.9206E+00
GAME	9.4282E-01	1.0793E+00	1.0462E+00
U	1.5341E+01	4.4700E+00	5.2753E+00

SPECIES	MOLE FRACTIONS		
E-	2.2938E-05	2.8729E-03	1.9570E-02
HE	3.2236E-02	2.7506E-02	2.6019E-02
HE+	4.7859E-13	1.2915E-07	1.4590E-05
HE++	4.5160E-45	1.0428E-24	3.2907E-17
H	7.1050E-01	8.9113E-01	8.9998E-01
H+	2.2938E-05	2.9728E-03	1.9556E-02
H2	2.5721E-01	7.5618E-02	3.4862E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7422E+02	3.0794E+03	5.9219E+03
T	2.9304E+01	5.8435E+01	8.1266E+01
RHO	9.3269E+00	2.7512E+01	3.5451E+01
H	7.8929E+01	1.3455E+02	1.8664E+02
A	7.1570E+00	1.0964E+01	1.2992E+01
S	1.8405E+00	1.9047E+00	1.9817E+00
Z	1.7352E+00	1.9155E+00	2.0209E+00
GAME	1.0074E+00	1.0544E+00	1.0121E+00
U	1.7334E+01	5.9741E+00	6.1989E+00

SPECIES	MOLE FRACTIONS		
E-	1.7410E-04	1.4414E-02	5.3787E-02
HE	2.8815E-02	2.6098E-02	2.4583E-02
HE+	5.4288E-11	5.4618E-06	1.6021E-04
HE++	2.0495E-37	7.6166E-19	1.7916E-13
H	8.4089E-01	9.1263E-01	8.4909E-01
H+	1.7410E-04	1.4439E-02	5.3626E-02
H2	1.2394E-01	3.2445E-02	1.8758E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0337E+02	2.7909E+03	5.1323E+03
T	2.5760E+01	4.9307E+01	7.0301E+01
RHO	9.7000E+00	3.0489E+01	3.7367E+01
H	6.7016E+01	1.1527E+02	1.5836E+02
A	6.3213E+00	9.9361E+00	1.1903E+01
S	1.7686E+00	1.6430E+00	1.9205E+00
Z	1.6143E+00	1.8565E+00	1.9537E+00
GAME	9.6091E-01	1.0785E+00	1.0316E+00
U	1.6020E+01	5.0942E+00	5.6205E+00

SPECIES	MOLE FRACTIONS		
E-	4.4646E-05	5.3274E-03	2.9552E-02
HE	3.0973E-04	2.6932E-02	2.5553E-02
HE+	2.2414E-12	5.4109E-07	3.9710E-05
HE++	1.5006E-42	1.8741E-22	1.0954E-15
H	7.6094E-01	9.0672E-01	9.9770E-01
H+	4.4646E-05	5.3269E-03	2.9513E-02
H2	2.0906E-01	5.5694E-02	2.7646E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1102E+02	3.2002E+03	6.0898E+03
T	3.1549E+01	6.2927E+01	9.6191E+01
RHO	9.0564E+00	2.6195E+01	3.4379E+01
H	8.5228E+01	1.4466E+02	2.0099E+02
A	7.6437E+00	1.1271E+01	1.3350E+01
S	1.8747E+00	1.9341E+00	2.0110E+00
Z	1.7985E+00	1.9414E+00	2.0554E+00
GAME	1.0354E+00	1.0399E+00	1.0061E+00
U	1.7963E+01	6.2075E+00	6.4236E+00

SPECIES	MOLE FRACTIONS		
E-	3.5433E-04	2.1277E-02	6.7101E-02
HE	2.7956E-02	2.5741E-02	2.4056E-02
HE+	2.9160E-10	1.3502E-05	2.7017E-04
HE++	1.0115E-34	1.9321E-17	1.1741E-12
H	8.8071E-01	9.0601E-01	8.2592E-01
H+	3.5433E-04	2.1263E-02	6.6830E-02
H2	9.0625E-02	2.5091E-02	1.5827E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3835E+02	2.9443E+03	5.4991E+03
T	2.7399E+01	5.3853E+01	7.5974E+01
RHO	9.5426E+00	2.8965E+01	3.6429E+01
H	7.2856E+01	1.2477E+02	1.7239E+02
A	6.7170E+00	1.0423E+01	1.2411E+01
S	1.8053E+00	1.8743E+00	1.9516E+00
Z	1.6763E+00	1.8878E+00	1.9870E+00
GAME	9.8232E-01	1.0096E+00	1.0233E+00
U	1.6685E+01	5.4926E+00	5.9180E+00

SPECIES	MOLE FRACTIONS		
E-	9.7446E-05	9.0973E-03	4.1138E-02
HE	2.9827E-02	2.6483E-02	2.5079E-02
HE+	1.0763E-11	1.9759E-06	9.4817E-05
HE++	5.1390E-40	1.6486E-20	1.9269E-14
H	9.0666E-01	9.1330E-01	8.7011E-01
H+	8.7446E-05	9.0954E-03	4.1053E-02
H2	1.6334E-01	4.2319E-02	2.2539E-02

P1 = 5.00E+04 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4853E+02	3.3063E+03	6.3041E+03
T	3.4209E+01	6.7250E+01	9.0761E+01
RHO	8.7447E+00	2.4993E+01	3.3221E+01
H	9.1752E+01	1.5505E+02	2.1541E+02
A	9.1645E+00	1.1057E+01	1.3788E+01
S	1.9373E+00	1.9628E+00	2.0399E+00
Z	1.8337E+00	1.9672E+00	2.0592E+00
GAME	1.0627E+00	1.0271E+00	1.0018E+00
U	1.8573E+01	6.4948E+00	6.6346E+00

SPECIES	MOLE FRACTIONS		
E-	7.3172E-04	2.9535E-02	9.0929E-02
HE	2.7267E-02	2.5386E-02	2.3496E-02
HE+	1.6355E-09	2.9957E-05	4.1909E-04
HE++	5.5372E-32	2.9273E-16	5.6978E-12
H	9.3712E-01	9.9474E-01	9.0137E-01
H+	7.3172E-04	2.9506E-02	8.0410E-02
H2	6.4153E-02	2.0935E-02	1.3475E-02

Table III. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8682E+02	3.3996E+03	6.4742E+03
T	3.7322E+01	7.1436E+01	9.5059E+01
RHO	8.4695E+00	2.3960E+01	3.2019E+01
H	9.8492E+01	1.6574E+02	2.2996E+02
A	8.6893E+00	1.2033E+01	1.4210E+01
S	1.9382E+00	1.9913E+00	2.0683E+00
Z	1.8696E+00	1.993?E+00	2.1271E+00
GAME	1.0821E+00	1.0166E+00	9.9967E-01
U	1.9159E+01	6.7493E+00	6.8248E+00

SPECIES	MOLE FRACTIONS		
E-	1.5092E-03	3.9130E-02	9.4793E-02
HE	2.6743E-02	2.5321E-02	2.2901E-02
HE+	9.1927E-09	5.5773E-05	6.0549E-04
HE++	2.5719E-29	3.0146E-15	2.1908E-11
H	9.2575E-01	9.7961E-01	7.7597E-01
H+	1.5082E-03	3.9074E-02	9.4187E-02
H2	4.4493E-02	1.7111E-02	1.1546E-02

P1 = 5.00E+04 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5261E+02	3.3993E+03	7.2817E+03
T	5.1856E+01	9.6896E+01	1.1138E+02
RHO	7.4332E+00	2.1255E+01	2.8657E+01
H	1.2793E+02	2.1276E+02	2.9236E+02
A	1.0265E+01	1.3505E+01	1.5897E+01
S	2.0441E+00	2.0946E+00	2.1755E+00
Z	1.9527E+00	2.1106E+00	2.2813E+00
GAME	1.0407E+00	9.9456E-01	9.9449E-01
U	2.1509E+01	7.5179E+00	7.5324E+00

SPECIES	MOLE FRACTIONS		
E-	1.4374E-02	9.5324E-02	1.5190E-01
HE	2.5603E-02	2.3333E-02	2.0127E-02
HE+	2.0647E-06	3.5933E-04	1.7898E-03
HE++	9.0448E-21	2.3906E-12	1.3697E-09
H	9.3207E-01	7.9680E-01	6.6941E-01
H+	1.4372E-02	8.4965E-02	1.5011E-01
H2	1.2977E-02	5.2261E-03	6.6637E-03

P1 = 5.00E+04 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2605E+02	3.4967E+03	6.6331E+03
T	4.3798E+01	7.5381E+01	9.9171E+01
RHO	8.0901E+00	2.2953E+01	3.0893E+01
H	1.0546E+02	1.7683E+02	2.4475E+02
A	9.1710E+00	1.2395E+01	1.4624E+01
S	1.9672E+00	2.0182E+00	2.0962E+00
Z	1.8966E+00	2.0209E+00	2.1641E+00
GAME	1.0869E+00	1.0386E+00	9.9651E-01
U	1.9737E+01	6.9527E+00	7.0024E+00

SPECIES	MOLE FRACTIONS		
E-	2.9834E-03	4.9494E-02	1.0890E-01
HE	2.6360E-02	2.4644E-02	2.2270E-02
HE+	4.7041E-09	9.5940E-05	8.3410E-04
HE++	1.1032E-26	2.1501E-14	7.1414E-11
H	5.3663E-01	9.6200E-01	7.4397E-01
H+	2.9834E-03	4.9387E-02	1.0807E-01
H2	3.1041E-02	1.4392E-02	9.9602E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4602E+02	4.2903E+03	7.9562E+03
T	5.9736E+01	9.4453E+01	1.1995E+02
RHO	7.2426E+00	2.0865E+01	2.8041E+01
H	1.4403E+02	2.3932E+02	3.2775E+02
A	1.0859E+01	1.4274E+01	1.6815E+01
S	2.0997E+00	2.1417E+00	2.2256E+00
Z	1.9889E+00	2.1768E+00	2.3656E+00
GAME	1.0095E+00	9.9092E-01	9.9645E-01
U	2.2759E+01	7.8958E+00	7.9190E+00

SPECIES	MOLE FRACTIONS		
E-	2.8201E-02	1.1142E-01	1.8050E-01
HE	2.5129E-02	2.2276E-02	1.8498E-02
HE+	1.0735E-05	6.9992E-04	2.6383E-03
HE++	3.3761E-19	2.7752E-11	7.2042E-09
H	9.0965E-01	7.4767E-01	6.1447E-01
H+	2.8250E-02	1.1072E-01	1.7927E-01
H2	8.6968E-03	7.2167E-03	5.7254E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6659E+02	3.6956E+03	6.9063E+03
T	4.4479E+01	7.9265E+01	1.0326E+02
RHO	7.9145E+00	2.2201E+01	2.9925E+01
H	1.1266E+02	1.8831E+02	2.6035E+02
A	9.5953E+00	1.2761E+01	1.5044E+01
S	1.9943E+00	2.0445E+00	2.1237E+00
Z	1.9179E+00	2.0495E+00	2.2026E+00
GAME	1.0773E+00	1.0024E+00	9.9512E-01
U	2.0316E+01	7.1472E+00	7.1949E+00

SPECIES	MOLE FRACTIONS		
E-	5.4876E-03	6.0799E-02	1.2332E-01
HE	2.6072E-02	2.4239E-02	2.1590E-02
HE+	2.0298E-07	1.5790E-04	1.1105E-03
HE++	2.1517E-24	1.2322E-13	2.0970E-10
H	9.4066E-01	8.4191E-01	7.2313E-01
H+	5.4874E-03	6.0641E-02	1.2221E-01
H2	2.2250E-02	1.2252E-02	9.0372E-03

P1 = 5.00E+04 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4698E+02	4.7725E+03	8.8031E+03
T	6.5051E+01	1.0205E+02	1.2884E+02
RHO	7.1686E+00	2.0806E+01	2.7857E+01
H	1.6125E+02	2.6799E+02	3.6624E+02
A	1.1434E+01	1.5068E+01	1.7785E+01
S	2.1326E+00	2.1867E+00	2.2734E+00
Z	2.0304E+00	2.2476E+00	2.4527E+00
GAME	9.8981E-01	9.8597E-01	1.0009E+00
U	2.4059E+01	8.2855E+00	9.3359E+00

SPECIES	MOLE FRACTIONS		
E-	4.5975E-02	1.3819E-01	2.0910E-01
HE	2.4559E-02	2.1042E-02	1.6828E-02
HE+	3.5916E-05	1.2035E-03	3.5590E-03
HE++	2.6047E-16	2.2028E-10	3.0476E-08
H	8.7712E-01	6.9698E-01	5.6082E-01
H+	4.5919E-02	1.3699E-01	2.0554E-01
H2	6.3783E-03	5.7812E-03	4.1556E-03

Table III. - Continued

p_1 = 50 kN/ m^2

P1 = 5.03E+04 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.054nE+03	5.3222E+03	9.7854E+03
T	7.091PE+01	1.0965E+02	1.3922E+02
RHO	7.15PHE+00	2.0903E+01	2.7844E+01
H	1.795PE+02	2.9961E+02	4.0773E+02
A	1.2GUPE+01	1.5894E+01	1.8823E+01
S	2.173PE+00	2.2304E+00	2.3204E+00
Z	2.0772E+00	2.3219E+00	2.5437E+00
GAME	9.7876E-01	9.0094E-01	1.0077E+00
U	2.538PE+01	P.b914E+00	8.786AE+00

SPECIES	MOLE FRACTIONS		
E-	6.6175E-02	1.64PHE-01	2.3670E-01
HE	2.399PE-02	1.9664E-02	1.5193E-02
HE+	9.0757E-05	1.8599E-03	4.4630E-03
HE++	7.402EE-15	1.2877E-09	1.0959E-07
H	8.3873E-01	6.4583E-01	5.0910E-01
H+	6.6395E-02	1.6301E-01	2.3224E-01
H2	4.9304E-03	4.6952E-03	3.3036E-03

P1 = 5.00E+04 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.417JE+03	7.278JE+03	1.3411E+04
T	8.6893E+01	1.3295E+02	1.6938E+02
RHO	7.2686E+00	2.1387E+01	2.798AE+01
H	2.4C58E+02	4.0126E+02	5.4979E+02
A	1.375CE+01	1.8483E+01	2.2293E+01
S	2.2919E+00	2.3563E+00	2.4569E+00
Z	2.2435E+00	2.5597E+00	2.8289E+00
GAME	9.6991E-01	1.0039E+00	1.0372E+00
U	2.5470E+01	1.0012E+01	1.034AE+01

SPECIES	MOLE FRACTIONS		
E-	1.3549E-01	2.4076E-01	3.1229E-01
HE	2.1698E-02	1.5171E-02	1.1267E-02
HE+	5.8797E-04	4.3628E-03	6.4050F-03
HE++	6.8834E-12	7.0326E-08	2.3806E-06
H	7.0866E-01	5.0074E-01	3.6256E-01
H+	1.3291E-01	2.3639E-01	3.0588E-01
H2	2.6527E-03	2.5730E-03	1.596%-03

P1 = 5.00E+04 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6[illegible]E+03	5.929[illegible]E+03	1.0892E+04
T	7.6[illegible]E+01	1.1732E+02	1.4932E+02
RHO	7.1827E+00	2.1358E+01	2.7936E+01
H	1.9891E+02	3.3109E+02	4.5204E+02
A	1.2584E+01	1.6723E+01	1.9918E+01
S	2.2[illegible]E+00	2.2731E+00	2.3664E+00
Z	2.1[illegible]E+00	2.3[illegible]1E+00	2.6369E+00
GAME	9.729[illegible]E-01	9.[illegible]61E-01	1.0164E+00
U	2.674[illegible]E+01	9.1130E+00	[illegible].2001E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	8.79[illegible]E-02	1.9105E-01	2.6311E-01
HE	2.32[illegible]E-02	1.9179E-02	1.3703E-02
HE+	1.9348E-04	2.6624E-03	5.2580E-03
HE++	1.[illegible]E-13	[illegible].8919E-09	3.3972E-07
H	7.9687E-01	5.9588E-01	4.5746E-01
H+	9.7753E-02	1.9939E-01	2.5785E-01
H2	3.9456E-03	3.8394E-03	2.6190E-03

P1 = 5.00E+04 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2899E+03	6.5842E+03	1.2104E+04
T	9.1755E+01	1.2507E+02	1.5946E+02
RHO	7.2226E+00	2.1240E+01	2.7950E+01
H	2.1524E+02	3.6533E+02	4.9947E+02
A	1.3166E+01	1.7598E+01	2.1084E+01
S	2.2532E+00	2.3150E+00	2.4124E+00
Z	2.1846E+00	2.4786E+00	2.7330E+00
GAME	9.7339E-01	9.5794E-01	1.0265E+00
U	2.8102E+01	9.5527E+00	9.7873E+00

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.1365E-01	2.1640E-01	2.8856E-01
HE	2.2538E-02	1.6656E-02	1.2383E-02
HE+	3.5107E-04	3.5172E-03	5.9111E-03
HE++	1.0219E-12	2.2075E-08	9.4726E-07
H	7.5315E-01	5.4743E-01	4.0844E-01
H+	1.1020E-01	2.1288E-01	2.8265E-01
H2	3.2160E-03	3.1457E-03	2.0522E-03

P1 = 5.00E+04 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5502E+03	9.0043E+03	1.4907E+04
T	9.1922E+01	1.4094E+02	1.8116E+02
RHO	7.3149E+00	2.1504E+01	2.7926E+01
H	2.6291E+02	4.3881E+02	6.0310E+02
A	1.4342E+01	1.9400E+01	2.3579E+01
S	2.3303E+00	2.3965E+00	2.5020E+00
Z	2.3055E+00	2.6411E+00	2.9269E+00
GAME	9.7055E-01	1.0111E+00	1.0485E+00
U	3.0940E+01	1.0495E+01	1.0949E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.5641E-01	2.6378E-01	3.3497E-01
HE	2.3773E-02	1.3900E-02	1.0296E-02
HE+	9.1372E-04	5.1315E-03	6.7820E-03
HE++	3.6143E-11	1.9475E-07	5.6431E-06
H	6.6420E-01	4.5654E-01	3.1855E-01
H+	1.5550E-01	2.5865E-01	3.2818E-01
H2	2.2036E-03	2.1011E-03	1.2174E-03

P1 = 5.00E+04 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6954E+03	9.7569E+03	1.6280E+04
T	9.6884E+01	1.4926E+02	1.9357E+02
RHO	7.3578E+00	2.1529E+01	2.7927E+01
H	2.8625E+02	4.7793E+02	6.5914E+02
A	1.4941E+01	2.0363E+01	2.4902E+01
S	2.3683E+00	2.4372E+00	2.5456E+00
Z	2.3706E+00	2.7251E+00	3.0223E+00
GAME	9.7226E-01	1.0195E+00	1.0599E+00
U	3.2211E+01	1.1004F+01	1.1569E+01

SPECIES	---------- MOLE FRACTIONS ----------		
E-	1.7904E-01	2.8612E-01	3.5572E-01
HE	1.9761E-02	1.2539E-02	9.4696E-03
HE+	1.3368E-03	5.8084E-03	7.0616E-03
HE++	1.5617E-10	4.9309E-07	1.2496E-05
H	6.2052E-01	4.1353E-01	2.7819E-01
H+	1.7771E-01	2.8031E-01	3.4963E-01
H2	1.8374E-03	1.6945E-03	9.1867E-04

Table III. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8345E+03	9.5302E+03	1.7833E+04
T	1.0182E+02	1.5777E+02	2.0693E+02
RHO	7.3951E+00	2.1509E+01	2.7677E+01
H	3.1057E+02	5.1856E+02	7.1829E+02
A	1.5549E+01	2.1347E+01	2.6272E+01
S	2.4059E+00	2.4767E+00	2.5885E+00
Z	2.4365E+00	2.8083E+00	3.1153E+00
GAME	9.7459E-01	1.0285E+00	1.0713E+00
U	3.3580E+01	1.1541E+01	1.2236E+01

SPECIES	MOLE FRACTIONS		
E-	2.0120E-01	3.0700E-01	3.7475E-01
HE	1.8663E-02	1.1442E-02	8.7404E-03
HE+	1.85?3E-03	6.3607E-03	7.2828E-03
HE++	5.7673E-10	1.1361E-06	2.6347E-05
H	5.7740E-01	3.7320E-01	2.4111E-01
H+	1.9934E-01	3.0064E-01	3.6741E-01
H2	1.5342E-03	1.3594E-03	6.8309E-04

P1 = 5.00E+04 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3043E+03	1.1935E+04	2.2934E+04
T	1.1671E+02	1.9510E+02	2.5329E+02
RHO	7.4647E+00	2.1127E+01	2.6848E+01
H	3.8946E+02	6.4915E+02	9.1484E+02
A	1.7443E+01	2.4439E+01	3.0699E+01
S	2.5173E+00	2.5910E+00	2.7138E+00
Z	2.6456E+00	3.0522E+00	3.3726E+00
GAME	9.856?E-01	1.0572E+00	1.1032E+00
U	3.7665E+01	1.3305E+01	1.4513E+01

SPECIES	MOLE FRACTIONS		
E-	2.6364E-01	3.6177E-01	4.2206E-01
HE	1.5008E-02	9.9421E-03	6.7595E-03
HE+	3.8960E-03	7.4302E-03	7.8322E-03
HE++	1.4454E-09	9.5977E-06	2.0366E-04
H	4.5683E-01	2.6696E-01	1.4903E-01
H+	2.5974E-01	3.5432E-01	4.1382E-01
H2	8.8674E-04	6.6524E-04	2.5194E-04

P1 = 5.00E+04 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9854E+03	1.0320E+04	1.9465E+04
T	1.0675E+02	1.6657E+02	2.2109E+02
RHO	7.4256E+00	2.1429E+01	2.7467E+01
H	3.3589E+02	5.6065E+02	7.9071E+02
A	1.6167E+01	2.2357E+01	2.7697E+01
S	2.4434E+00	2.5157E+00	2.6307E+00
Z	2.5047E+00	2.8912E+00	3.2053E+00
GAME	9.7762E-01	1.0379E+00	1.0924E+00
U	3.4945E+01	1.2105E+01	1.2957E+01

SPECIES	MOLE FRACTIONS		
E-	2.2275E-01	3.2663E-01	3.5[illegible]14E-01
HE	1.7491E-02	1.0488E-02	8.0710E-03
HE+	2.4711E-03	6.8032E-03	7.4744E-03
HE++	1.8717E-09	2.4430E-06	5.3638E-05
H	5.3572E-01	3.3518E-01	2.0721E-01
H+	2.2029E-01	3.1952E-01	3.8455E-01
H2	1.2806E-03	1.0805E-03	4.9921E-04

P1 = 5.00E+04 N/SQ-M, US1= 5.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4716E+03	1.2727E+04	2.4718E+04
T	1.2183E+02	1.9503E+02	2.7087E+02
RHO	7.4673E+00	2.0940E+01	2.6485E+01
H	4.1770E+02	6.9512E+02	9.8567E+02
A	1.8110E+01	2.5526E+01	3.2211E+01
S	2.5541E+00	2.6298E+00	2.7532E+00
Z	2.7169E+00	3.1312E+00	3.4455E+00
GAME	9.9082E-01	1.0670E+00	1.1117E+00
U	3.9007E+01	1.3970E+01	1.[illegible]205E+01

SPECIES	MOLE FRACTIONS		
E-	2.8302E-01	3.7774E-01	4.3422E-01
HE	1.3743E-02	9.2836E-03	6.1491E-03
HE+	4.6602E-03	7.6669E-03	7.9919E-03
HE++	3.5639E-09	1.9344E-05	3.7176E-04
H	4.1949E-01	2.3575E-01	1.2561E-01
H+	2.7836E-01	3.7004E-01	4.2549E-01
H2	7.3230E-04	5.0976E-04	1.7661E-04

P1 = 5.00E+04 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1423E+03	1.1120E+04	2.1161E+04
T	1.1171E+02	1.7569E+02	2.3656E+02
RHO	7.4494E+00	2.1288E+01	2.7175E+01
H	3.6218E+02	6.0416E+02	8.4605E+02
A	1.6759E+01	2.3392E+01	2.9177E+01
S	2.4805E+00	2.5540E+00	2.6727E+00
Z	2.5744E+00	2.9731E+00	3.2917E+00
GAME	9.8130E-01	1.0476E+00	1.0933E+00
U	3.6367E+01	1.2699E+01	1.3707E+01

SPECIES	MOLE FRACTIONS		
E-	2.4361E-01	3.4497E-01	4.0796E-01
HE	1.6263E-02	9.6593E-03	7.4269E-03
HE+	3.1591E-03	7.1542E-03	7.6565E-03
HE++	5.4521E-09	4.9670E-06	1.0620E-04
H	4.9545E-01	2.9956E-01	1.7639E-01
H+	2.4345E-01	3.3783E-01	4.0010E-01
H2	1.0669E-03	8.5021E-04	3.5738E-04

P1 = 5.00E+04 N/SQ-M, US1= 6.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6649E+03	1.3535E+04	2.6550E+04
T	1.2709E+02	2.[illegible]529E+02	2.8972E+02
RHO	7.4592E+00	2.0570E+01	2.6095E+01
H	4.4693E+02	7.4276E+02	1.0597E+03
A	1.8800E+01	2.6615E+01	3.3737E+01
S	2.5969E+00	2.6646E+00	2.7915E+00
Z	2.7900E+00	3.2054E+00	3.5116E+00
GAME	9.9677E-01	1.0765E+00	1.1187E+00
U	4.0351E+01	1.4622E+01	1.6129E+01

SPECIES	MOLE FRACTIONS		
E-	3.0168E-01	3.9204E-01	4.4482E-01
HE	1.2499E-02	7.7037E-03	5.4709E-03
HE+	5.4221E-03	7.9625E-03	8.1164E-03
HE++	8.2626E-09	3.2572E-05	6.5105E-04
H	3.8354E-01	2.3786E-01	1.0541E-01
H+	2.9626E-01	3.8611E-01	4.3541E-01
H2	6.0037E-04	3.8971E-04	1.2269E-04

Table III. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8234E+03	1.4322E+04	2.8452E+04
T	1.3242E+02	2.1622E+02	3.1005E+02
RHO	7.4499E+00	2.0205E+01	2.5695E+01
H	4.7713E+02	7.9127E+02	1.1370E+03
A	1.9501E+01	2.7745E+01	3.5291E+01
S	2.6265E+00	2.7011E+00	2.8291E+00
Z	2.9626E+00	3.2783E+00	3.5713E+00
GAME	1.0034E+00	1.0860E+00	1.1242E+00
U	4.1687E+01	1.5357E+01	1.6998E+01

SPECIES	MOLE FRACTIONS		
E-	3.1915E-01	4.0548E-01	4.5407E-01
ME	1.1333E-02	7.1478E-03	4.7440E-03
ME+	6.1370E-03	8.0458E-03	8.1676E-03
ME++	1.7876E-07	5.8031E-05	1.0888E-03
M	3.4987E-01	1.8167E-01	8.8122E-02
M+	3.1302E-01	1.9731E-01	4.4372E-01
M2	4.9115E-04	2.9163E-04	9.4599E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3890E+03	1.6589E+04	3.4178E+04
T	1.4975E+02	2.5175E+02	3.7753E+02
RHO	7.3506E+00	1.9004E+01	2.4397E+01
H	5.7346E+02	9.4379E+02	1.3941E+03
A	2.1764E+01	3.1137E+01	3.9944E+01
S	2.7324E+00	2.9035E+00	2.9346E+00
Z	3.0788E+00	3.4674E+00	3.7107E+00
GAME	1.0274E+00	1.1107E+00	1.1389E+00
U	4.5625E+01	1.7636E+01	1.9661E+01

SPECIES	MOLE FRACTIONS		
E-	3.6689E-01	4.3773E-01	4.7452E-01
ME	8.3135E-03	5.6411E-03	2.5156E-03
ME+	7.9253E-03	8.5027E-03	7.5101E-03
ME++	1.4316E-06	2.7648E-04	3.4489E-03
M	2.5766E-01	1.1906E-01	5.1860E-02
M+	3.5896E-01	4.2967E-01	4.6012E-01
M2	2.5307E-04	1.1725E-04	2.8117E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0070E+03	1.5095E+04	3.0362E+04
T	1.3798E+02	2.2748E+02	3.3179E+02
RHO	7.4249E+00	1.9835E+01	2.5244E+01
M	5.0828E+02	8.4103E+02	1.2173E+03
A	2.0232E+01	2.8867E+01	3.6847E+01
S	2.6623E+00	2.7359E+00	2.8663E+00
Z	2.9350E+00	3.3456E+00	3.6250E+00
GAME	1.0108E+00	1.0949E+00	1.1289E+00
U	4.3010E+01	1.6092E+01	1.7905E+01

SPECIES	MOLE FRACTIONS		
E-	3.3600E-01	4.1737E-01	4.6212E-01
NE	1.0230E-02	6.6347E-03	3.9716E-03
HE+	6.8056E-03	8.2104E-03	8.0992E-03
HE++	3.7199E-07	9.9772E-05	1.7224E-03
H	3.1738E-01	4.5951E-01	7.3449E-02
H+	3.2919E-01	4.0896E-01	4.5058E-01
H2	3.9721E-04	2.1752E-04	5.7905E-05

P1 = 5.00E+04 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1959E+03	1.5990E+04	3.2291E+04
T	1.4369E+02	2.3925E+02	3.5188E+02
RHO	7.3980E+00	1.9674E+01	2.4964E+01
M	5.4041E+02	8.9219E+02	1.2993E+03
A	2.0978E+01	2.9990E+01	3.8367E+01
S	2.6571E+00	2.7693E+00	2.9033E+00
Z	3.0064E+00	3.4078E+00	3.6700E+00
GAME	1.0187E+00	1.1031E+00	1.1334E+00
U	4.4328E+01	1.6824E+01	1.8764E+01

SPECIES	MOLE FRACTIONS		
E-	3.5170E-01	4.2795E-01	4.6870E-01
NE	9.2342E-03	6.1457E-03	3.2333E-03
HE+	7.3963E-03	8.3592E-03	7.8840E-03
HE++	7.3701E-07	1.6714E-04	2.5067E-03
H	2.8705E-01	1.3796E-01	6.1827E-02
H+	3.4430E-01	4.1926E-01	4.5581E-01
H2	3.1972E-04	1.6151E-04	4.0548E-05

P1 = 5.00E+04 N/SQ-M, US1= 7.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5869E+03	1.7290E+04	3.6056E+04
T	1.5615E+02	2.6456E+02	4.0271E+02
RHO	7.2914E+00	1.8553E+01	2.3997E+01
M	6.0745E+02	9.9658E+02	1.4718E+03
A	2.2582E+01	3.2253E+01	4.1572E+01
S	2.7675E+00	2.8359E+00	2.9685E+00
Z	3.1505E+00	3.5204E+00	3.7467E+00
GAME	1.0366E+00	1.1169E+00	1.1454E+00
U	4.6[illegible]E+01	1.8442E+01	2.0594E+01

SPECIES	MOLE FRACTIONS		
E-	3.8125E-01	4.4618E-01	4.7955E-01
NE	7.4852E-03	5.1483E-03	1.8752E-03
HE+	8.3824E-03	8.6136E-03	6.9963E-03
HE++	2.7170E-06	4.4090E-04	4.4738E-03
H	2.2981E-01	1.0285E-01	4.3469E-02
H+	3.7287E-01	4.3668E-01	4.6361E-01
H2	1.9760E-04	8.5354E-05	1.9451E-05

Table III. - Continued

p_1 = 100 kN/ m^2

P1 = 1.03E+05 N/SQ-M, US1= 4.30E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1124E+01	2.3087E+01	5.6542E+01
T	2.8248E+00	3.5080E+00	4.9523E+00
RHO	3.9378E+00	6.5823E+00	1.1417E+01
H	2.8881E+00	3.6101E+00	5.1957E+00
A	1.6757E+00	1.8601E+00	2.1883E+00
S	1.0754E+00	1.0779E+00	1.1015E+00
Z	1.0000E+00	1.0000E+00	1.0006E+00
GAME	9.9407E-01	9.8639E-01	9.6699E-01
U	2.3176E+00	1.3854E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	1.9396E-68	8.1518E-50	9.7868E-34
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	1.2496E-71	1.1048E-60	2.5369E-51
HE++	0.	0.	0.
H	3.0812E-12	4.1189E-10	9.6286E-07
H+	6.3460E-20	6.3460E-20	6.3460E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01

P1 = 1.00E+05 N/SQ-M, US1= 7.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4826E+01	1.2344E+02	2.3710E+02
T	6.4779E+00	9.2070E+00	1.1712E+01
RHO	5.3759E+00	1.3386E+01	2.0052E+01
H	6.5669E+00	1.0403E+01	1.4064E+01
A	2.4802E+00	2.9150E+00	3.2563E+00
S	1.1979E+00	1.2118E+00	1.2449E+00
Z	1.0000E+00	1.0016E+00	1.3097E+00
GAME	9.4959E-01	9.2148E-01	8.9671E-01
U	4.4251E+00	1.7762E+00	1.6217E+00

SPECIES	MOLE FRACTIONS		
E-	5.8699E-21	1.1874E-14	1.2573E-11
HE	4.9998E-02	4.9922E-02	4.9522E-02
HE+	2.2504E-44	2.4626E-32	9.4435E-26
HE++	0.	0.	0.
H	9.0606E-05	3.1371E-03	1.9121E-02
H+	6.9328E-20	1.1874E-14	1.2573E-11
H2	9.4991E-01	9.4694E-01	9.3136E-01

P1 = 1.00E+05 N/SQ-M, US1= 5.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
D	1.7520E+01	4.6583E+01	1.0224E+02
T	3.8703E+00	5.1619E+00	7.0489E+00
RHO	4.5267E+00	9.0226E+00	1.4504E+01
M	3.9996E+00	5.4332E+00	7.6525E+00
A	1.9491E+00	2.2312E+00	2.5803E+00
S	1.1176E+00	1.1237E+00	1.1517E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.8155E-01	9.6435E-01	9.4447E-01
U	3.0258E+00	1.5166E+00	1.3734E+00

SPECIES	MOLE FRACTIONS		
E-	2.6121E-46	7.4562E-31	2.2695E-19
HE	5.0000E-02	5.0003E-02	4.9996E-02
HE+	3.8855E-59	9.3363E-50	9.1985E-40
HE++	0.	0.	0.
H	1.1189E-09	2.3436E-06	1.6319E-04
H+	6.3460E-20	6.3460E-20	1.6260E-19
H2	9.5000E-01	9.5000E-01	9.4994E-01

P1 = 1.00E+05 N/SQ-M, US1= 8.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5805E+01	1.8052E+02	3.2827E+02
T	7.9892E+00	1.1388E+01	1.3903E+01
RHO	5.7301E+00	1.5714E+01	2.2957E+01
M	8.8268E+00	1.3598E+01	1.7989E+01
A	2.7306E+00	3.2104E+00	3.5550E+00
S	1.2353E+00	1.2536E+00	1.2892E+00
Z	1.0006E+00	1.0089E+00	1.0286E+00
GAME	9.3278E-01	8.9717E-01	8.8380E-01
U	5.1286E+00	1.9696E+00	1.7066E+00

SPECIES	MOLE FRACTIONS		
E-	1.2660E-16	7.0437E-12	7.4968E-10
HE	4.9972E-02	4.9962E-02	4.8611E-02
HE+	4.8077E-37	2.0764E-26	4.9142E-22
HE++	0.	0.	3.7745E-76
H	1.1294E-03	1.7519E-02	5.5554E-02
H+	1.2667E-16	7.0437E-12	7.4968E-10
H2	9.4990E-01	9.3292E-01	8.9584E-01

P1 = 1.00E+05 N/SQ-M, US1= 6.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5468E+01	7.9592E+01	1.6219E+02
T	5.0960E+00	7.0799E+00	9.3738E+00
RHO	4.9857E+00	1.1241E+01	1.7274E+01
M	5.3583E+00	7.6910E+00	1.0617E+01
A	2.2179E+00	2.5953E+00	2.9406E+00
S	1.1597E+00	1.1686E+00	1.1995E+00
Z	1.0000E+00	1.0001E+00	1.0016E+00
GAME	9.6515E-01	9.4396E-01	9.2095E-01
U	3.7252E+00	1.6507E+00	1.5120E+00

SPECIES	MOLE FRACTIONS		
E-	6.0659E-32	3.9071E-19	1.8364E-14
HE	5.0000E-02	4.9995E-02	4.9918E-02
HE+	1.3694E-50	1.6696E-40	9.9351E-32
HE++	0.	0.	0.
H	2.4351E-06	1.9699E-04	3.2695E-03
H+	6.3466E-20	3.6416E-19	1.8364E-14
H2	9.5000E-01	9.4981E-01	9.4581E-01

P1 = 1.00E+05 N/SQ-M, US1= 9.00E+03 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8417E+01	2.5378E+02	4.4024E+02
T	9.5592E+00	1.3473E+01	1.5989E+01
RHO	6.0916E+00	1.8354E+01	2.6001E+01
M	1.0942E+01	1.7294E+01	2.2449E+01
A	2.9558E+00	3.4941E+00	3.8652E+00
S	1.2711E+00	1.2950E+00	1.3333E+00
Z	1.0033E+00	1.0263E+00	1.0590E+00
GAME	9.1104E-01	8.8294E-01	8.8234E-01
U	5.8420E+00	1.9381E+00	1.7980E+00

SPECIES	MOLE FRACTIONS		
E-	7.4442E-14	4.3699E-10	1.2830E-08
HE	4.9836E-02	4.9721E-02	4.7214E-02
HE+	4.1171E-31	1.3874E-22	2.5992E-19
HE++	0.	1.1520E-90	1.2997E-63
H	6.5703E-03	5.1172E-02	1.1144E-01
H+	7.4442E-14	4.3699E-10	1.2830E-08
H2	9.4359E-01	9.0511E-01	8.4134E-01

Table III. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 1.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.2765E+01	3.4696E+02	5.8042E+02
T	1.1075E+01	1.5465E+01	1.8069E+01
RHO	6.4983E+00	2.1274E+01	2.9194E+01
H	1.3315E+01	2.1507E+01	2.7521E+01
A	3.1568E+00	3.7896E+00	4.2030E+00
S	1.3060E+00	1.3364E+00	1.3779E+00
Z	1.0111E+00	1.0546E+00	1.1003E+00
GAME	9.8997E-01	8.9009E-01	8.8854E-01
U	6.5717E+00	2.0058E+00	1.9819E+00

SPECIES	MOLE FRACTIONS		
E-	6.1877E-12	7.6815E-09	1.0970E-07
HE	4.9453E-02	4.7412E-02	4.5442E-02
HE+	4.4150E-27	6.8457E-20	2.8843E-17
HE++	0.	5.7326E-71	1.0507E-60
H	2.1892E-02	1.0350E-01	1.8232E-01
H+	6.1877E-12	7.6915E-09	1.0970E-07
H2	9.2866E-01	8.4909E-01	7.7224E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2602E+02	7.5419E+02	1.2032E+03
T	1.4982E+01	2.1356E+01	2.4923E+01
RHO	7.9285E+00	2.9615E+01	3.7730E+01
H	2.1969E+01	3.7057E+01	4.6682E+01
A	3.7417E+00	4.8067E+00	5.4602E+00
S	1.4105E+00	1.4620E+00	1.5146E+00
Z	1.0744E+00	1.1925E+00	1.2796E+00
GAME	8.6973E-01	9.0725E-01	9.3488E-01
U	9.8063E+00	2.3266E+00	2.3054E+00

SPECIES	MOLE FRACTIONS		
E-	8.2229E-09	1.4643E-06	9.4482E-06
HE	4.6537E-02	4.1930E-02	3.9076E-02
HE+	2.2248E-20	7.6035E-15	5.9674E-13
HE++	1.0989E-72	8.6711E-54	1.9388E-44
H	1.3853E-01	3.2278E-01	4.3694E-01
H+	8.2229E-09	1.4643E-06	9.4482E-06
H2	8.1493E-01	6.3529E-01	5.2397E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9843E+01	4.6162E+02	7.5350E+02
T	1.2477E+01,	1.7412E+01	2.0215E+01
RHO	6.942?E+00	2.4266E+01	3.2371E+01
H	1.5946E+01	2.6216E+01	3.3239E+01
A	3.3489E+00	4.1026E+00	4.5771E+00
S	1.3406E+00	1.3780E+00	1.4230E+00
Z	1.0256E+00	1.0926E+00	1.1515E+00
GAME	8.7647E-01	8.8478E-01	9.0003E-01
U	7.3127E+00	2.0914E+00	1.9968E+00

SPECIES	MOLE FRACTIONS		
E-	1.3949E-10	6.5497E-09	6.1856E-07
HE	4.8752E-02	4.5763E-02	4.3422E-02
HE+	3.2195E-24	7.5754E-19	1.3214E-15
HE++	3.7362E-85	3.1159E-63	1.4082E-54
H	4.9925E-02	1.6947E-01	2.6311E-01
H+	1.3949E-10	6.5497E-08	6.1856E-07
H2	9.0132E-01	7.9477E-01	6.9346E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4701E+02	9.2755E+02	1.4780E+03
T	1.6144E+01	2.3421E+01	2.7597E+01
RHO	8.2226F+00	3.1633E+01	3.9556E+01
H	2.5357E+01	4.3145E+01	5.4435E+01
A	3.9491E+00	5.2021E+00	5.9811E+00
S	1.4461E+00	1.5040E+00	1.5606E+00
Z	1.1074E+00	1.2519E+00	1.3540E+00
GAME	9.7233E-01	9.2292E-01	9.5738E-01
U	9.5501E+00	2.4815E+00	2.5037E+00

SPECIES	MOLE FRACTIONS		
E-	3.4706E-08	4.8752E-06	2.9288E-05
HE	4.5150E-02	3.9938E-02	3.6928E-02
HE+	4.9701E-19	1.1381E-13	7.7008E-12
HE++	3.3857E-67	3.7587E-47	2.8695E-40
H	1.9401E-01	4.0246E-01	5.2279E-01
H+	3.4706E-08	4.8752E-06	2.9288E-05
H2	7.6084E-01	5.5759E-01	4.4022E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0661E+02	5.9806E+02	9.6115E+02
T	1.3769E+01	1.9364E+01	2.2491E+01
RHO	7.3957E+00	2.7117E+01	3.5288E+01
H	1.9932E+01	3.1409E+01	3.9618E+01
A	3.5424E+00	4.4411E+00	4.9940E+00
S	1.3753E+00	1.4199E+00	1.4686E+00
Z	1.0469E+00	1.1390E+00	1.2116E+00
GAME	9.7050E-01	8.9430E-01	9.1565E-01
U	8.0594E+00	2.1960E+00	2.1359E+00

SPECIES	MOLE FRACTIONS		
E-	1.3913E-09	3.5898E-07	2.6561E-06
HE	4.7759E-02	4.3900E-02	4.1269E-02
HE+	4.8772E-22	3.3222E-16	3.4289E-14
HE++	1.0858E-79	1.1027E-56	3.2961E-49
H	8.9647E-02	2.4400E-01	3.4924E-01
H+	1.3913E-09	3.5898E-07	2.6561E-06
H2	8.6259E-01	7.1210E-01	6.0949E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6954E+02	1.1149E+03	1.7847E+03
T	1.7279E+01	2.5590E+01	3.0607E+01
RHO	9.5665E+00	3.3100E+01	4.0667E+01
H	2.8994E+01	4.9653E+01	6.2939E+01
A	4.1667E+00	5.6296E+00	6.5680E+00
S	1.4822E+00	1.5458E+00	1.6069E+00
Z	1.1454E+00	1.3162E+00	1.4338E+00
GAME	8.7723E-01	9.4092E-01	9.8298E-01
U	1.0289E+01	2.6621E+00	2.7424E+00

SPECIES	MOLE FRACTIONS		
E-	1.1671E-07	1.3979E-05	8.2896E-05
HE	4.3653E-02	3.7987E-02	3.4872E-02
HE+	7.1042E-18	1.2148E-12	8.1636E-11
HE++	9.7866E-64	1.5372E-43	2.0409E-36
H	2.5387E-01	4.8049E-01	6.0489E-01
H+	1.1671E-07	1.3979E-05	8.2895E-05
H2	7.0248E-01	4.9150E-01	3.6008E-01

Table III. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 1.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9358E+02	1.3126E+03	2.1206E+03
T	1.8405E+01	2.7895E+01	3.4011E+01
RHO	8.8547E+00	3.4000E+01	4.1154E+01
H	3.2879E+01	5.6567E+01	7.2206E+01
A	4.3958E+00	6.0908E+00	7.2155E+00
S	1.5187E+00	1.5871E+00	1.6520E+00
Z	1.1879E+00	1.3840E+00	1.5150E+00
GAME	8.8386E-01	9.6094E-01	1.0104E+00
U	1.1022E+01	2.8686E+00	3.0186E+00

SPECIES	MOLE FRACTIONS		
E-	3.3327E-07	3.5899E-05	2.1628E-04
HE	4.2093E-02	3.6127E-02	3.3003E-02
E+	7.1850E-17	1.0260E-11	7.2687E-10
HE++	2.0030E-59	7.9618E-40	7.4070E-33
H	3.1629E-01	5.5479E-01	6.7922E-01
H+	3.3327E-07	3.5899E-05	2.1628E-04
H2	6.4162E-01	4.0901E-01	2.8735E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7449E+02	1.9249E+03	3.2821E+03
T	2.1890E+01	3.6056E+01	4.8126E+01
RHO	9.3709E+00	3.3540E+01	3.9232E+01
H	4.6016E+01	7.9524E+01	1.0515E+02
A	5.1686E+00	7.6825E+00	9.4834E+00
S	1.6297E+00	1.7060E+00	1.7821E+00
Z	1.3382E+00	1.5917E+00	1.7383E+00
GAME	9.1202E-01	1.0284E+00	1.0750E+00
U	1.3181E+01	3.6792E+00	4.1345E+00

SPECIES	MOLE FRACTIONS		
E-	4.2223E-06	3.9485E-04	2.8493E-03
HE	3.7365E-02	3.1412E-02	2.8763E-02
E+	2.0372E-14	2.3578E-09	2.6936E-07
HE++	2.7032E-50	5.6453E-31	2.4481E-23
H	5.0539E-01	7.4233E-01	8.4093E-01
H+	4.2223E-06	3.9485E-04	2.8491E-03
H2	4.5723E-01	2.2546E-01	1.2461E-01

P1 = 1.00E+05 N/SQ-M, US1= 1.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1913E+02	1.5164E+03	2.4854E+03
T	1.9539E+01	3.0380E+01	3.8002E+01
RHO	9.0854E+00	3.4333E+01	4.0978E+01
H	3.7012E+01	6.3867E+01	8.2337E+01
A	4.6381E+00	6.5881E+00	7.9348E+00
S	1.5555E+00	1.6277E+00	1.6968E+00
Z	1.2344E+00	1.4539E+00	1.5960E+00
GAME	8.9193E-01	9.8269E-01	1.0391E+00
U	1.1750E+01	3.1078E+00	3.3467E+00

SPECIES	MOLE FRACTIONS		
E-	8.4407E-07	9.4887E-05	5.3919E-04
HE	4.0505E-02	3.4391E-02	3.1329E-02
HE+	5.6280E-16	7.1979E-11	5.8719E-09
HE++	5.2000E-56	1.2252E-36	1.7931E-29
H	3.7990E-01	6.2410E-01	7.4523E-01
H+	8.4407E-07	8.4887E-05	5.3919E-04
H2	5.7969E-01	3.4134E-01	2.2236E-01

P1 = 1.00E+05 N/SQ-M, US1= 2.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0426E+02	2.1204E+03	3.7022E+03
T	2.3141E+01	3.9343E+01	5.4228E+01
RHO	9.4292E+00	3.2554E+01	3.8059E+01
H	5.0887E+01	8.7829E+01	1.1776E+02
A	5.4606E+00	8.2679E+00	1.0227E+01
S	1.6668E+00	1.7433E+00	1.8216E+00
Z	1.3944E+00	1.6556E+00	1.7939E+00
GAME	9.2411E-01	1.0495E+00	1.0752E+00
U	1.3995E+01	4.0235E+00	4.5714E+00

SPECIES	MOLE FRACTIONS		
E-	8.6838E-06	7.9332E-04	5.8325E-03
HE	3.5859E-02	3.0201E-02	2.7871E-02
HE+	1.0363E-13	1.1535E-08	1.4074E-06
HE++	1.7793E-47	2.0351E-29	1.0229E-20
H	5.6567E-01	7.8958E-01	9.6759E-01
H+	9.6808E-06	7.9331E-04	5.8310E-03
H2	3.9845E-01	1.7963E-01	9.2871E-02

P1 = 1.00E+05 N/SQ-M, US1= 1.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4610E+02	1.7219E+03	2.8739E+03
T	2.0695E+01	3.3093E+01	4.2683E+01
RHO	9.2569E+00	3.4158E+01	4.0277E+01
H	4.1391E+01	7.1526E+01	9.3315E+01
A	4.8951E+00	7.1196E+00	8.7031E+00
S	1.5925E+00	1.6674E+00	1.7403E+00
Z	1.2847E+00	1.5238E+00	1.6717E+00
GAME	9.0132E-01	1.0055E+00	1.0615E+00
U	1.2469E+01	3.3769E+00	3.7201E+00

SPECIES	MOLE FRACTIONS		
E-	1.9530E-06	1.8799E-04	1.2777E-03
HE	3.8921E-02	3.2813E-02	2.9909E-02
HE+	3.6348E-15	4.3615E-10	4.2523E-08
HE++	5.3989E-53	1.0409E-33	2.7680E-26
H	4.4316E-01	6.9690E-01	7.9979E-01
H+	1.9530E-06	1.8788E-04	1.2777E-03
H2	5.1791E-01	2.7991E-01	1.6774E-01

P1 = 1.00E+05 N/SQ-M, US1= 2.10E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3536E+02	2.3063E+03	4.1233E+03
T	2.4468E+01	4.2983E+01	6.0696E+01
RHO	9.4339E+00	3.1317E+01	3.6927E+01
H	5.6001E+01	9.6431E+01	1.3097E+02
A	5.7737E+00	9.9614E+00	1.0935E+01
S	1.7037E+00	1.7791E+00	1.9587E+00
Z	1.4528E+00	1.7133E+00	1.8396E+00
GAME	9.3774E-01	1.0663E+00	1.0651E+00
U	1.4580E+01	4.3901E+00	5.0024E+00

SPECIES	MOLE FRACTIONS		
E-	1.7196E-05	1.5292E-03	1.0721E-02
HE	3.4416E-02	2.9183E-02	2.7175E-02
HE+	4.9600E-13	5.1402E-09	5.7568E-06
HE++	5.0074E-45	4.9734E-26	1.6948E-18
H	6.2331E-01	8.2939E-01	9.8062E-01
H+	1.7186E-05	1.5281E-03	1.0715E-02
H2	3.4224E-01	1.3969E-01	7.0761E-02

Table III. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 2.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6773E+02	2.4785E+03	4.5297E+03
T	2.59C6E+01	4.6970E+01	6.7192E+01
RHC	9.3818E+00	2.9920E+01	3.5885E+01
H	6.1356E+01	1.0531E+02	1.4459E+02
A	6.1125E+00	9.4415E+00	1.1520E+01
S	1.7405E+00	1.8135E+00	1.8934E+00
Z	1.5130E+00	1.7636E+00	1.8787E+00
GAME	9.5322E-01	1.0761E+00	1.0513E+00
U	1.5265E+01	4.7836E+00	5.4020E+00

SPECIES	MOLE FRACTIONS		
E-	3.3279E-05	2.9099E-03	1.7641E-02
HE	3.3047E-02	2.8350E-02	2.6597E-02
HE+	2.1946E-12	2.0632E-07	1.9269E-05
HE++	1.6655E-42	8.0989E-24	1.0958E-16
H	6.7803E-01	8.5755E-01	8.8250E-01
H+	3.3279E-05	2.8096E-03	1.7623E-02
H2	2.8896E-01	1.0949E-01	5.5619E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.50E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7189E+02	2.9173E+03	5.6052E+03
T	3.1181E+01	6.0335E+01	8.5307E+01
RHC	8.9563E+00	2.5799E+01	3.3143E+01
H	7.8852E+01	1.3357E+02	1.8713E+02
A	7.3024E+00	1.0957E+01	1.3125E+01
S	1.8463E+00	1.9081E+00	1.9870E+00
Z	1.6897E+00	1.9742E+00	1.9826E+00
GAME	1.0121E+00	1.0617E+00	1.0186E+00
U	1.7248E+01	5.9911E+00	6.3824E+00

SPECIES	MOLE FRACTIONS		
E-	2.2424E-04	1.2432E-02	4.7947E-02
HE	2.9591E-02	2.6672E-02	2.5034E-02
HE+	1.7964E-10	6.1768E-06	1.8624E-04
HE++	2.2670E-35	1.7769E-18	4.6707E-13
H	8.1570E-01	8.9559E-01	8.4754E-01
H+	2.2424E-04	1.2426E-02	4.7761E-02
H2	1.5426E-01	5.2872E-02	3.1528E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.30E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0137E+02	2.6393E+03	4.9239E+03
T	2.7463E+01	5.1278E+01	7.3532E+01
RHO	9.2923E+00	2.8491E+01	3.4980E+01
H	6.6953E+01	1.1445E+02	1.5859E+02
A	6.4746E+00	9.9911E+00	1.2098E+01
S	1.7763E+00	1.8465E+00	1.9259E+00
Z	1.5728E+00	1.8065E+00	1.9143E+00
GAME	9.7053E-01	1.0776E+00	1.0381E+00
U	1.5940E+01	5.1961E+00	5.7721E+00

SPECIES	MOLE FRACTIONS		
E-	6.2941E-05	4.9099E-03	2.6408E-02
HE	3.1790E+02	2.7676E-02	2.6073E-02
HE+	9.4772E-12	7.3850E-07	4.6677E-05
HE++	4.0293E-40	8.3525E-22	3.2125E-15
H	7.2819E-01	8.7819E-01	8.7605E-01
H+	6.2941E-05	4.9091E-03	2.6361E-02
H2	2.3999E-01	8.4320E-02	4.5060E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.0864E+02	3.0412E+03	5.8903E+03
T	3.3442E+01	6.4937E+01	9.0733E+01
RHO	8.7268E+00	2.4611E+01	3.2189E+01
H	8.5149E+01	1.4361E+02	2.0173E+02
A	7.7681E+00	1.1391E+01	1.3609E+01
S	1.8796E+00	1.9374E+00	2.0162E+00
Z	1.7429E+00	1.9029E+00	2.0168E+00
GAME	1.0353E+00	1.0501E+00	1.0121E+00
U	1.7879E+01	6.3367E+00	6.6481E+00

SPECIES	MOLE FRACTIONS		
E-	4.2458E-04	1.8143E-02	6.0045E-02
HE	2.8688E-02	2.6260E-02	2.4490E-02
HE+	7.9888E-10	1.4677E-05	3.1254E-04
HE++	5.8039E-33	3.9455E-17	3.0389E-12
H	8.5120E-01	8.9459E-01	8.2950E-01
H+	4.2458E-04	1.8129E-02	5.9732E-02
H2	1.1926E-01	4.2869E-02	2.6934E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.3609E+02	2.7951E+03	5.2799E+03
T	2.9209E+01	5.5753E+01	7.9492E+01
RHO	9.1457E+00	2.7110E+01	3.4095E+01
H	7.2786E+01	1.2387E+02	1.7269E+02
A	6.8715E+00	1.0494E+01	1.2613E+01
S	1.8118E+00	1.8779E+00	1.9565E+00
Z	1.6325E+00	1.8426E+00	1.9480E+00
GAME	9.9023E-01	1.0719E+00	1.0273E+00
U	1.6601E+01	5.5999E+00	6.0957E+00

SPECIES	MOLE FRACTIONS		
E-	1.1887E-04	8.0481E-03	3.6469E-02
HE	3.0629E-02	2.7133E-02	2.5568E-02
HE+	4.1118E-11	2.2855E-06	9.8838E-05
HE++	9.4830E-39	4.9711E-20	4.7713E-14
H	7.7451E-01	8.9046E-01	8.6402E-01
H+	1.1887E-04	8.0459E-03	3.6370E-02
H2	1.9463E-01	6.6311E-02	3.7475E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.70E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.4620E+02	3.1546E+03	6.1313E+03
T	3.6043E+01	6.9412E+01	9.5929E+01
RHO	8.4654E+00	2.3549E+01	3.1192E+01
H	9.1669E+01	1.5396E+02	2.1641E+02
A	8.2606E+00	1.1798E+01	1.4070E+01
S	1.9116E+00	1.9655E+00	2.0446E+00
Z	1.7901E+00	1.9299E+00	2.0512E+00
GAME	1.0576E+00	1.0390E+00	1.0071E+00
U	1.8491E+01	6.6437E+00	6.8821E+00

SPECIES	MOLE FRACTIONS		
E-	8.0486E-04	2.5024E-02	7.2577E-02
HE	2.7932E-02	2.5877E-02	2.3895E-02
HE+	3.5890E-09	3.0679E-05	4.8087E-04
HE++	1.4516E-30	5.5057E-16	1.4621E-11
H	8.8032E-01	8.8864E-01	8.0772E-01
H+	8.0486E-04	2.4993E-02	7.2096E-02
H2	9.0137E-02	3.5434E-02	2.3229E-02

Table III. - Continued

p_1 = 100 kN/ m^2

P1 = 1.00E+05 N/SQ-M, US1= 2.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8468E+02	3.2567E+03	6.3423E+03
T	3.9017E+01	7.3853E+01	1.0070E+02
RHO	8.1887E+00	2.2532E+01	3.0189E+01
H	9.8415E+01	1.6458E+02	2.3136E+02
A	8.7609E+00	1.2196E+01	1.4518E+01
S	1.9421E+00	1.9936E+00	2.0726E+00
Z	1.8300E+00	1.9571E+00	2.0863E+00
GAME	1.0750E+00	1.0292E+00	1.0033E+00
U	1.9089E+01	6.9330E+00	7.1048E+00

SPECIES	MOLE FRACTIONS		
E-	1.5123E-03	3.3203E-02	8.5499E-02
HE	2.7323E-02	2.5490E-02	2.3272E-02
HE+	1.5992E-08	5.8675E-05	6.9398E-04
HE++	3.3120E-28	5.5586E-15	5.6672E-13
H	9.0256E-01	9.7852E-01	7.7557E-01
H+	1.5123E-03	3.3145E-02	8.4805E-02
H2	6.7097E-02	2.9584E-02	1.0158E-02

P1 = 1.00E+05 N/SQ-M, US1= 3.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5035E+02	3.7445E+03	7.2009E+03
T	5.3335E+01	9.0633E+01	1.1999E+02
RHO	7.2925E+00	1.9964E+01	2.7111E+01
H	1.2773E+02	2.1139E+02	2.9469E+02
A	1.0420E+01	1.3732E+01	1.6274E+01
S	2.0496E+00	2.0962E+00	2.1780E+00
Z	1.9292E+00	2.0694E+00	2.2322E+00
GAME	1.0553E+00	1.0053E+00	9.9714E-01
U	2.1444E+01	7.8277E+00	7.8902E+00

SPECIES	MOLE FRACTIONS		
E-	1.2099E-02	7.4185E-02	1.3957E-01
HE	2.5916E-02	2.3780E-02	2.0451E-02
HE+	2.2268E-06	3.3112E-04	1.9493E-03
HE++	1.9326E-20	4.5963E-12	3.2610E-09
H	9.2699E-01	8.1138E-01	6.9027E-01
H+	1.2097E-02	7.3804E-02	1.3662E-01
H2	2.2897E-02	1.6469E-02	1.2141E-02

P1 = 1.00E+05 N/SQ-M, US1= 2.90E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2412E+02	3.3608E+03	6.5345E+03
T	4.2334E+01	7.8151E+01	1.0535E+02
RHO	7.9162E+00	2.1674E+01	2.9231E+01
H	1.0539E+02	1.7557E+02	2.4651E+02
A	9.2406E+00	1.2583E+01	1.4955E+01
S	1.9710E+00	2.0205E+00	2.0999E+00
Z	1.8623E+00	1.9941E+00	2.1218E+00
GAME	1.0831E+00	1.0210E+00	1.0005E+00
U	1.9676E+01	7.1819E+00	7.3076E+00

SPECIES	MOLE FRACTIONS		
E-	2.7642E-03	4.2313E-02	9.8585E-02
HE	2.6848E-02	2.5097E-02	2.2615E-02
HE+	6.6268E-08	1.0259E-04	9.4919E-04
HE++	5.9910E-26	4.0798E-14	1.8407E-10
H	9.1778E-01	8.6517E-01	7.6261E-01
H+	2.7641E-03	4.2210E-02	9.7636E-02
H2	4.9839E-02	2.5103E-02	1.7604E-02

P1 = 1.00E+05 N/SQ-M, US1= 3.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.4281E+02	4.0973E+03	7.8284E+03
T	6.3588E+01	9.8943E+01	1.2837E+02
RHO	7.0744E+00	1.9454E+01	2.6407E+01
H	1.4390E+02	2.3720E+02	3.3012E+02
A	1.1063E+01	1.4512E+01	1.7207E+01
S	2.0946E+00	2.1428E+00	2.2269E+00
Z	1.9663E+00	2.1309E+00	2.3099E+00
GAME	1.0274E+00	9.9995E-01	9.9853E-01
U	2.2673E+01	9.2437E+00	9.2987E+00

SPECIES	MOLE FRACTIONS		
E-	2.3882E-02	9.7879E-02	1.6550E-01
HE	2.5417E-02	2.2729E-02	1.9896E-02
HE+	1.1447E-05	7.3681E-04	2.7508E-03
HE++	6.9340E-19	5.2499E-11	1.5614E-08
H	9.1124E-01	7.6949E-01	6.4040E-01
H+	2.3970E-02	9.7142E-02	1.6274E-01
H2	1.5584E-02	1.3030E-02	9.7095E-03

P1 = 1.00E+05 N/SQ-M, US1= 3.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6472E+02	3.4721E+03	6.7294E+03
T	4.5906E+01	8.2358E+01	1.0990E+02
RHO	7.6684E+00	2.0956E+01	2.8377E+01
H	1.1259E+02	1.8696E+02	2.6200E+02
A	9.6778E+00	1.2965E+01	1.5399E+01
S	1.9983E+00	2.0465E+00	2.1266E+00
Z	1.8993E+00	2.0118E+00	2.1579E+00
GAME	1.0805E+00	1.0145E+00	9.9863E-01
U	2.0260E+01	7.4096E+00	7.5000E+00

SPECIES	MOLE FRACTIONS		
E-	4.8159E-03	5.2270E-02	1.1180E-01
HE	2.6479E-02	2.4686E-02	2.1926E-02
HE+	2.4753E-07	1.6747E-04	1.2450E-03
HE++	7.0497E-24	2.3549E-13	5.2468E-10
H	9.2640E-01	8.4929E-01	7.3901E-01
H+	4.8155E-03	5.2103E-02	1.1055E-01
H2	3.7494E-02	2.1570E-02	1.5467E-02

P1 = 1.00E+05 N/SQ-M, US1= 3.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.4244E+02	4.5312E+03	8.6132E+03
T	6.7417E+01	1.0709E+02	1.3819E+02
RHO	6.9690E+00	1.9270E+01	2.6372E+01
H	1.6111E+02	2.6538E+02	3.6859E+02
A	1.1673E+01	1.5314E+01	1.9200E+01
S	2.1375E+00	2.1872E+00	2.2743E+00
Z	2.0059E+00	2.1959E+00	2.3907E+00
GAME	1.0076E+00	9.9730E-01	1.0026E+00
U	2.3947E+01	9.6553E+00	9.7396E+00

SPECIES	MOLE FRACTIONS		
E-	3.9395E-02	1.2250E-01	1.9219E-01
HE	2.4987E-02	2.1517E-02	1.7352E-02
HE+	3.8892E-05	1.2539E-03	3.5620E-03
HE++	5.6245E-16	4.0611E-10	6.0993E-08
H	8.8481E-01	7.2292E-01	5.9042E-01
H+	3.9356E-02	1.2125E-01	1.8863E-01
H2	1.1508E-02	1.0567E-02	7.8526E-03

Table III. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 3.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0489E+03	5.0230E+03	9.5283E+03
T	7.3864E+01	1.1533E+02	1.4854E+02
RHO	6.9275E+00	1.9240E+01	2.5918E+01
H	1.7935E+02	2.9541E+02	4.1009E+02
A	1.2277E+01	1.6132E+01	1.9260E+01
S	2.1786E+00	2.2301E+00	2.3201E+00
Z	2.0498E+00	2.2637E+00	2.4751E+00
GAME	9.9544E-01	9.9684E-01	1.0090E+00
U	2.5252E+01	9.0967E+00	9.2183E+00

SPECIES	MOLE FRACTIONS		
E-	5.7640E-02	1.4727E-01	2.1850E-01
HE	2.4292E-02	2.0175E-02	1.5905E-02
HE+	1.0025E-04	1.9126E-03	4.2963E-03
HE++	1.7066E-14	2.2803E-09	2.0243E-07
H	8.5148E-01	6.7659E-01	5.4073E-01
H+	5.7540E-02	1.4535E-01	2.1420E-01
H2	8.9467E-03	8.7003E-03	6.3615E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4074E+03	6.8040E+03	1.2918E+04
T	9.1596E+01	1.4071E+02	1.9273E+02
RHO	6.9718E+00	1.9491E+01	2.5816E+01
H	2.4019E+02	3.9647E+02	5.5212E+02
A	1.4089E+01	1.8754E+01	2.2749E+01
S	2.2950E+00	2.3525E+00	2.4520E+00
Z	2.2039E+00	2.4810E+00	2.7385E+00
GAME	9.8329E-01	1.0075E+00	1.0342E+00
U	2.9270E+01	1.0465E+01	1.0841E+01

SPECIES	MOLE FRACTIONS		
E-	1.2014E-01	2.1904E-01	2.9126E-01
HE	2.2023E-02	1.5991E-02	1.2591E-02
HE+	6.6385E-04	4.1629E-03	5.6733E-03
HE++	1.7201E-11	1.0878E-07	3.5109E-06
H	7.3279E-01	5.4090E-01	4.0157E-01
H+	1.1947E-01	2.1488E-01	2.8558E-01
H2	4.9144E-03	5.0295E-03	3.3291E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1620E+03	5.5765E+03	1.0558E+04
T	7.9999E+01	1.2369E+02	1.5938E+02
RHO	6.9254E+00	1.9315E+01	2.5862E+01
H	1.9861E+02	3.2740E+02	4.5445E+02
A	1.2879E+01	1.6979E+01	2.0374E+01
S	2.2183E+00	2.2719E+00	2.3650E+00
Z	2.0977E+00	2.3342E+00	2.5616E+00
GAME	9.8848E-01	9.9848E-01	1.0167E+00
U	2.6596E+01	9.5251E+00	9.7204E+00

SPECIES	MOLE FRACTIONS		
E-	7.7610E-02	1.7183E-01	2.4390E-01
HE	2.3622E-02	1.8754E-02	1.4626E-02
HE+	2.1323E-04	2.6660E-03	4.9932E-03
HE++	2.6305E-13	1.0027E-08	5.8257E-07
H	6.1396E-01	6.3035E-01	4.9243E-01
H+	7.7397E-02	1.6917E-01	2.3900E-01
H2	7.1928E-03	7.2294E-03	5.1512E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5393E+03	7.4674E+03	1.4230E+04
T	9.7198E+01	1.4946E+02	1.9552E+02
RHO	7.0036E+00	1.9544E+01	2.5724E+01
H	2.6246E+02	4.3345E+02	6.0532E+02
A	1.4700E+01	1.9685E+01	2.4026E+01
S	2.3323E+00	2.3918E+00	2.4954E+00
Z	2.2613E+00	2.5564E+00	2.8293E+00
GAME	9.8317E-01	1.0142E+00	1.0435E+00
U	3.0624E+01	1.0969E+01	1.1452E+01

SPECIES	MOLE FRACTIONS		
E-	1.4179E-01	2.4140E-01	3.1341E-01
HE	2.1084E-02	1.4764E-02	1.1747E-02
HE+	1.0276E-03	4.7939E-03	5.9178E-03
HE++	8.9949E-11	2.8915E-07	7.7577E-06
H	6.9122E-01	4.9825E-01	3.5880E-01
H+	1.4076E-01	2.3660E-01	3.0748E-01
H2	4.1248E-03	4.1852E-03	2.6304E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2816E+03	6.1690E+03	1.1691E+04
T	9.5877E+01	1.3217E+02	1.7080E+02
RHO	6.9436E+00	1.9398E+01	2.5830E+01
H	2.1889E+02	3.6105E+02	5.0180E+02
A	1.3482E+01	1.7857E+01	2.1543E+01
S	2.2576E+00	2.3130E+00	2.4092E+00
Z	2.1493E+00	2.4074E+00	2.6500E+00
GAME	9.8483E-01	1.0021E+00	1.0254E+00
U	2.7921E+01	9.9939E+00	1.0262E+01

SPECIES	MOLE FRACTIONS		
E-	9.8618E-02	1.9600E-01	2.6831E-01
HE	2.2868E-02	1.7326E-02	1.3519E-02
HE+	3.9589E-04	3.4433E-03	5.3470E-03
HE++	2.5287E-12	3.6097E-08	1.5015E-06
H	7.7399E-01	5.9466E-01	4.4572E-01
H+	9.8222E-02	1.9255E-01	2.6296E-01
H2	5.9056E-03	6.0159E-03	4.1489E-03

P1 = 1.00E+05 N/SQ-M, US1= 4.80E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6774E+03	8.1615E+03	1.5636E+04
T	1.0270E+02	1.5844E+02	2.0900E+02
RHO	7.0386E+00	1.9566E+01	2.5632E+01
H	2.8575E+02	4.7204E+02	6.6176E+02
A	1.5314E+01	2.0644E+01	2.5341E+01
S	2.3690E+00	2.4305E+00	2.5376E+00
Z	2.3205E+00	2.6327E+00	2.9187E+00
GAME	9.8407E-01	1.0217E+00	1.0527E+00
U	3.1983E+01	1.1500E+01	1.2113E+01

SPECIES	MOLE FRACTIONS		
E-	1.6316E-01	2.6280E-01	3.3397E-01
HE	2.0060E-02	1.3678E-02	1.1013E-02
HE+	1.4872E-03	5.3131E-03	6.1018E-03
HE++	3.8009E-10	6.9201E-07	1.6109E-05
H	6.5014E-01	4.5726E-01	3.1901E-01
H+	1.6167E-01	2.5749E-01	3.2783E-01
H2	3.4654E-03	3.4692E-03	2.0644E-03

Table III. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1= 5.00E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.821CE+03	8.8663E+03	1.7094E+04
T	1.0821E+02	1.6761E+02	2.2316E+02
RHO	7.0635E+00	1.9524E+01	2.5483E+01
H	3.1002E+02	5.1202E+02	7.2083E+02
A	1.5942E+01	2.1624E+01	2.4691E+01
S	2.4058E+00	2.4685E+00	2.5790E+00
Z	2.3824E+00	2.7094E+00	3.0062E+00
GAME	9.8584E-01	1.0297E+00	1.0619E+00
U	3.3333E+01	1.2055E+01	1.2795E+01

SPECIES	MOLE FRACTIONS		
E-	1.8444E-01	2.8314E-01	3.5294E-01
HE	1.9944E-02	1.2729E-02	1.0343E-02
HE+	2.0436E-03	5.7236E-03	6.2578E-03
HE++	1.3780E-09	1.5159E-06	3.1728E-05
H	6.0923E-01	4.1814E-01	2.9220E-01
H+	1.8240E-01	2.7741E-01	3.4662E-01
H2	2.9452E-03	2.9589E-03	1.6046E-03

P1 = 1.00E+05 N/SQ-M, US1= 5.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2869E+03	1.1079E+04	2.1876E+04
T	1.2478E+02	1.9684E+02	2.7096E+02
RHO	7.1162E+00	1.9166E+01	2.4840E+01
H	3.8875E+02	6.4073E+02	9.1538E+02
A	1.7892E+01	2.4690E+01	3.0958E+01
S	2.5134E+00	2.5789E+00	2.6983E+00
Z	2.5755E+00	2.9368E+00	3.2501E+00
GAME	9.9612E-01	1.0546E+00	1.0883E+00
U	3.7379E+01	1.3973E+01	1.4991E+01

SPECIES	MOLE FRACTIONS		
E-	2.4465E-01	3.3755E-01	4.0074E-01
HE	1.5307E-02	1.0523E-02	8.4556E-03
HE+	4.0468E-03	6.4915E-03	6.7359E-03
HE++	3.0907E-08	1.1092E-05	1.9243E-04
H	4.9355E-01	3.1294E-01	1.8955E-01
H+	2.4060E-01	3.3104E-01	3.9362E-01
H2	1.7850E-03	1.5408E-03	7.1158E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9707E+03	9.5944E+03	1.8619E+04
T	1.1370E+02	1.7699E+02	2.3803E+02
RHO	7.0875E+00	1.9464E+01	2.5313E+01
H	3.3528E+02	5.5354E+02	7.8240E+02
A	1.6578E+01	2.2619E+01	2.8066E+01
S	2.4420E+00	2.5055E+00	2.6191E+00
Z	2.4455E+00	2.7851E+00	3.0902E+00
GAME	9.8843E-01	1.0379E+00	1.0709E+00
U	3.4686E+01	1.2634E+01	1.3472E+01

SPECIES	MOLE FRACTIONS		
E-	2.0511E-01	3.0220E-01	3.7021E-01
HE	1.7774E-02	1.1910E-02	9.7164E-03
HE+	2.6719E-03	6.0393E-03	6.4042E-03
HE++	4.3299E-09	3.0949E-06	5.9624E-05
H	5.6951E-01	3.8134E-01	2.4868E-01
H+	2.0244E-01	2.9616E-01	3.6369E-01
H2	2.4548E-03	2.3499E-03	1.2394E-03

P1 = 1.00E+05 N/SQ-M, US1= 5.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1260E+03	1.0330E+04	2.0230E+04
T	1.1921E+02	1.8679E+02	2.5406E+02
RHO	7.1054E+00	1.9324E+01	2.5131E+01
H	3.6153E+02	5.9641E+02	8.4787E+02
A	1.7227E+01	2.3649E+01	2.9509E+01
S	2.4779E+00	2.5427E+00	2.6591E+00
Z	2.5099E+00	2.8619E+00	3.1723E+00
GAME	9.9185E-01	1.0443E+00	1.0798E+00
U	3.6036E+01	1.3251E+01	1.4245E+01

SPECIES	MOLE FRACTIONS		
E-	2.2520E-01	3.2354E-01	3.8[illegible]
HE	1.6571E-02	1.1173E-02	9.0[illegible]
HE+	3.3496E-03	6.2919E-03	6.5616E-[illegible]
HE++	1.2135E-08	6.0012E-06	1.0916E-04
H	5.3092E-01	3.4585E-01	2.1757E-01
H+	2.2195E-01	3.1424E-01	3.7947E-01
H2	2.1122E-03	1.9062E-03	9.4338E-04

P1 = 1.00E+05 N/SQ-M, US1= 5.93E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4532E+03	1.1931E+04	2.3572E+04
T	1.3043E+02	2.0722E+02	2.8865E+02
RHO	7.1155E+00	1.8969E+01	2.4592E+01
H	4.1695E+02	6.8636E+02	9.8583E+02
A	1.8574E+01	2.5747E+01	3.2418E+01
S	2.5487E+00	2.6145E+00	2.7358E+00
Z	2.6419E+00	3.0101E+00	3.3220E+00
GAME	1.0012E+00	1.0678E+00	1.0940E+00
U	3.9717E+01	1.4523E+01	1.5766E+01

SPECIES	MOLE FRACTIONS		
E-	2.6341E-01	3.5342E-01	4.1355E-01
HE	1.4141E-02	9.9316E-03	7.8031E-03
HE+	4.7340E-03	6.4595E-03	6.9228E-03
HE++	7.2624E-08	1.5[illegible]17E-05	3.2499E-04
H	4.5748E-01	2.8202E-01	1.6489E-01
H+	2.5868E-01	3.4672E-01	4.0598E-01
H2	1.5039E-03	1.2366E-03	[illegible].3559E-04

P1 = 1.00E+05 N/SQ-M, US1= 6.[illegible]E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6250E+03	1.2590E+04	2.5226E+04
T	1.3619E+02	2.1794E+02	3.0761E+02
RHO	7.1145E+00	1.8733E+01	2.4287E+01
H	4.4612E+02	7.3324E+02	1.0598E+03
A	1.9276E+01	2.6918E+01	3.3915E+01
S	2.5836E+00	2.6496E+00	2.7731E+00
Z	2.7091E+00	3.0913E+00	3.3900E+00
GAME	1.0071E+00	1.0713E+00	1.1030E+00
U	4.0047E+01	1.5199E+01	1.6612E+01

SPECIES	MOLE FRACTIONS		
E-	2.8146E-01	3.6814E-01	4.2517E-01
HE	1.3071E-02	9.3829E-03	7.0947E-03
HE+	5.3851E-03	6.8100E-03	7.1222E-03
HE++	1.5939E-07	3.3907E-05	5.3256E-04
H	4.2276E-01	2.5339E-01	1.4269E-01
H+	2.7607E-01	3.6127E-01	4.1699E-01
H2	1.2619E-03	9.8515E-04	3.9866E-04

Table III. - Concluded

$p_1 = 100\ kN/m^2$

P1 = ..C3E+C5 N/SQ-M, US1= 6.20E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9019E+03	1.3321E+04	2.7086E+04
T	1.4214E+02	2.2905E+02	3.2751E+02
RHO	7.0993E+00	1.8462E+01	2.3955E+01
M	4.7625E+02	7.9136E+02	1.1360E+03
A	2.0003E+01	2.7902E+01	3.5416E+01
S	2.6184E+03	2.6838E+00	2.8094E+00
Z	2.7771E+03	3.1502E+00	3.4524E+00
GAMF	1.013CE+03	1.0789E+00	1.1093E+00
U	4.1369E+01	1.5894E+01	1.7441E+01

SPECIES	MOLE FRACTIONS		
E-	2.9999E-01	3.9177E-01	4.3547E-01
HE	1.2019E-02	9.9615E-03	6.3347E-03
HE+	5.9853E-03	6.9537E-03	7.3124E-03
HE++	3.3177E-07	5.6687E-05	9.3556E-04
H	3.8915E-01	2.2597E-01	1.2326E-01
H+	2.9290E-01	3.7471E-01	4.2649E-01
H2	1.0517E-03	7.7977E-04	2.9540E-04

P1 = 1.00E+05 N/SQ-M, US1= 6.8CE+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3635E+03	1.5500E+04	3.2514E+04
T	1.6096E+02	2.6493E+02	3.9349E+02
RHO	7.0146E+00	1.7525E+01	2.2903E+01
M	5.7240E+02	9.3265E+02	1.3797E+03
A	2.2289E+01	3.1202E+01	3.9996E+01
S	2.7195E+00	2.7828E+00	2.9128E+00
Z	2.9791E+00	3.3384E+00	3.6078E+00
GAME	1.0360E+00	1.1008E+00	1.1268E+00
U	4.5282E+01	1.8111E+01	1.9981E+01

SPECIES	MOLE FRACTIONS		
E-	3.4603E-01	4.1625E-01	4.5963E-01
HE	9.4167E-03	7.3583E-03	3.8912E-03
HE+	7.3648E-03	7.3899E-03	7.5445E-03
HE++	2.2632E-06	2.2920E-04	2.4331E-03
H	2.9794E-01	1.6000E-01	7.9178E-02
H+	3.3566E-01	4.0940E-01	4.4722E-01
H2	5.9046E-04	3.6986E-04	1.1927E-04

P1 = 1.00E+05 N/SQ-M, US1= 6.40E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9842E+03	1.4053E+04	2.8881E+04
T	1.4818E+02	2.4065E+02	3.4804E+02
RHO	7.0803E+00	1.8153E+01	2.3655E+01
H	5.0735E+02	8.3050E+02	1.2143E+03
A	2.0741E+01	2.9005E+01	3.6896E+01
S	2.6523E+00	2.7179E+00	2.8438E+00
Z	2.9443E+00	3.2169E+00	3.5090E+00
GAME	1.0207E+00	1.0867E+00	1.1150E+00
U	4.2694E+01	1.6039E+01	1.9252E+01

SPECIES	MOLE FRACTIONS		
E-	3.1530E-01	3.9444E-01	4.4435E-01
HE	1.1067E-02	8.3510E-03	5.5498E-03
HE+	6.5113E-03	7.0991E-03	7.4616E-03
HE++	6.5205E-07	9.2794E-05	1.2418E-03
H	3.5745E-01	2.0226E-01	1.0678E-01
H+	3.0879E-01	3.8715E-01	4.3440E-01
H2	8.7451E-04	6.0947E-04	2.2043E-04

P1 = 1.00E+05 N/SQ-M, US1= 7.00E+04 M/SEC

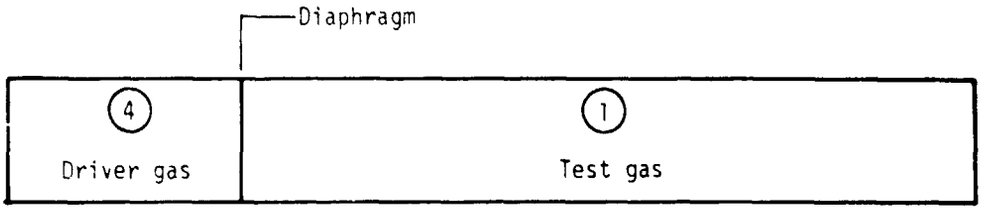
	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5605E+03	1.6198E+04	3.4316E+04
T	1.6771E+02	2.7778E+02	4.1712E+02
RHO	6.9711E+00	1.7182E+01	2.2547E+01
H	6.0635E+02	9.8531E+02	1.4652E+03
A	2.3094E+01	3.2304E+01	4.1526E+01
S	2.7524E+00	2.8144E+00	2.9446E+00
Z	3.0454E+00	3.3939E+00	3.6488E+00
GAME	1.0442E+00	1.1069E+00	1.1330E+00
U	4.6565E+01	1.8880E+01	2.0812E+01

SPECIES	MOLE FRACTIONS		
E-	3.6018E-01	4.2573E-01	4.6567E-01
HE	8.7170E-03	6.8473E-03	5.1304E-03
HE+	7.6970E-03	7.5364E-03	7.4341E-03
HE++	4.0278E-06	3.4851E-04	3.1387E-03
H	2.7045E-01	1.4175E-01	6.8585E-02
H+	3.5247E-01	4.1750E-01	4.5196E-01
H2	4.7978E-04	2.8547E-04	8.8847E-05

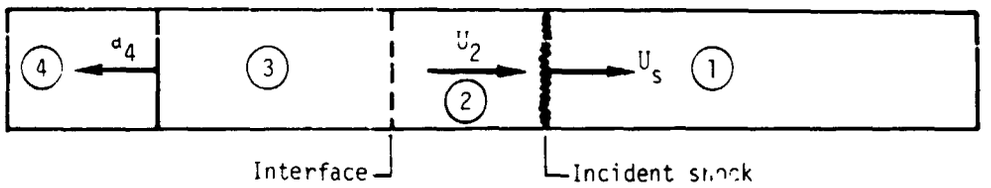
P1 = 1.00E+05 N/SQ-M, US1= 6.60E+04 M/SEC

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1714E+03	1.4775E+04	3.0688E+04
T	1.5446E+02	2.5246E+02	3.7031E+02
RHO	7.0513E+00	1.7849E+01	2.3274E+01
H	5.3946E+02	9.0090E+02	1.2955E+03
A	2.1504E+01	3.0092E+01	3.8443E+01
S	2.6961E+00	2.7504E+00	2.8790E+00
Z	2.9119E+00	3.2789E+00	3.5608E+00
GAME	1.0292E+00	1.0939E+00	1.1208E+00
U	4.3989E+01	1.7385E+01	1.9098E+01

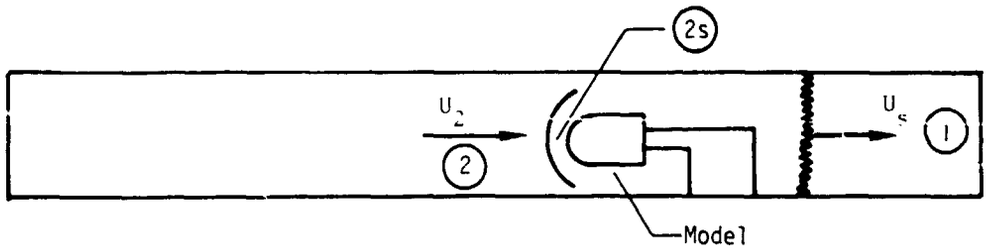
SPECIES	MOLE FRACTIONS		
E-	3.3106E-01	4.0576E-01	4.5253E-01
HE	1.0198E-02	7.8603E-03	4.7055E-03
HE+	6.9717E-03	7.2421E-03	7.5513E-03
HE++	1.2358E-06	1.4692E-04	1.7851E-03
H	3.2695E-01	1.8030E-01	9.1865E-02
H+	3.2409E-01	3.9922E-01	4.4141E-01
H2	7.2115E-04	4.7716E-04	1.6181E-04



(a) Prior to diaphragm rupture.



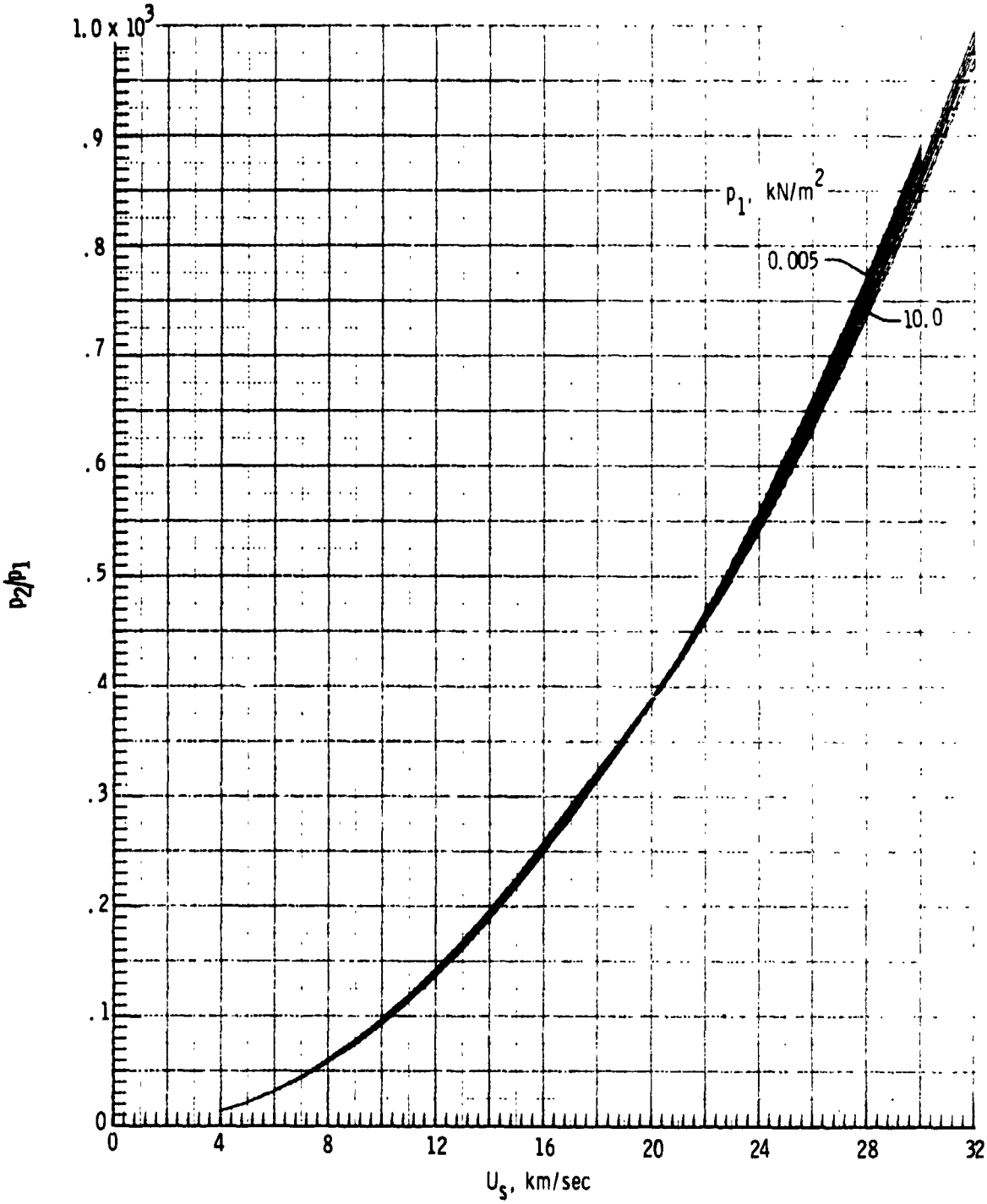
(b) Incident (moving) normal shock in test gas.



(c) Standing normal shock at test model.

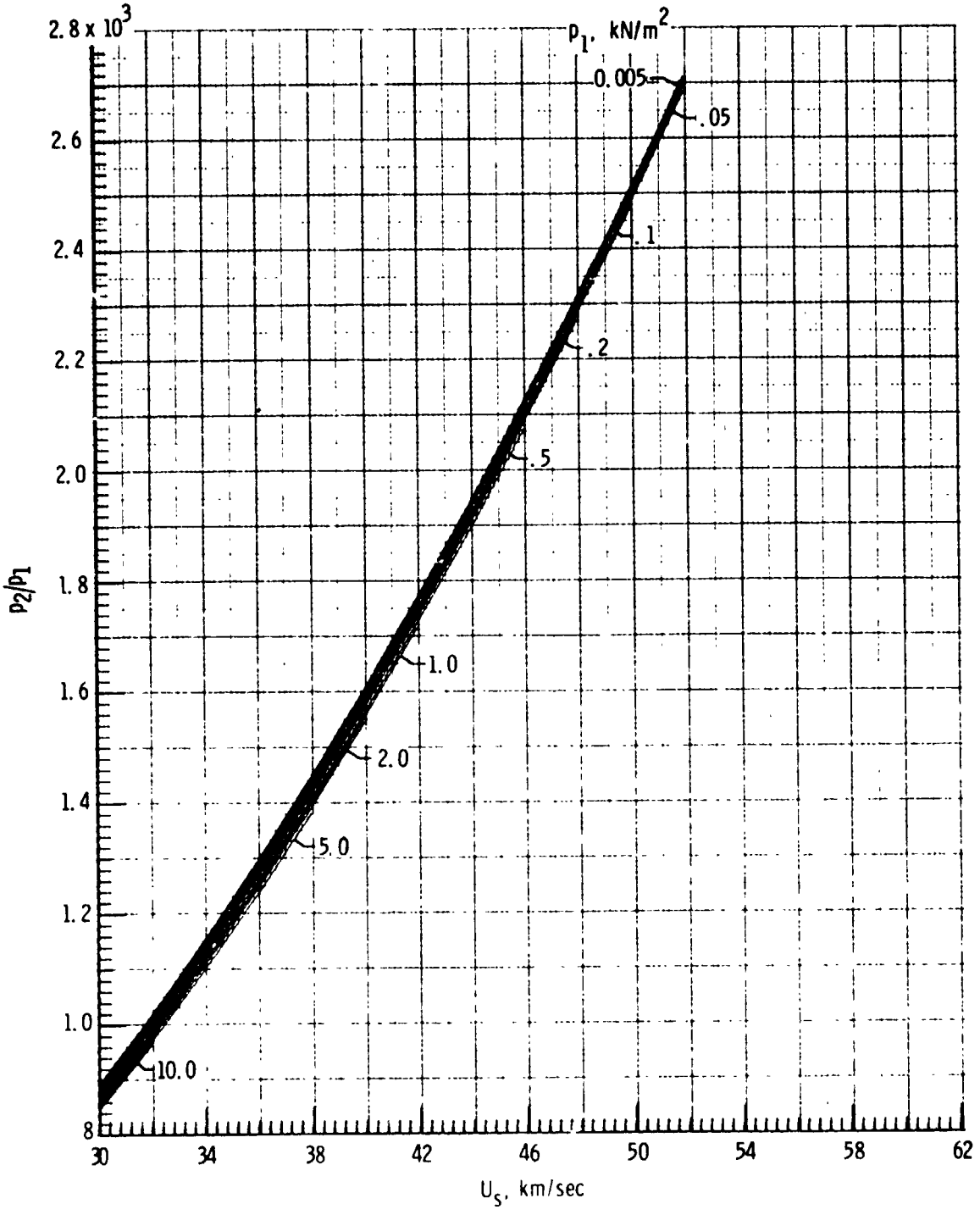
(d) Reflected normal shock from end wall.

Figure 1.- Sketches illustrating shock-tube regions of interest: Regions ②, ②s, and ②r.



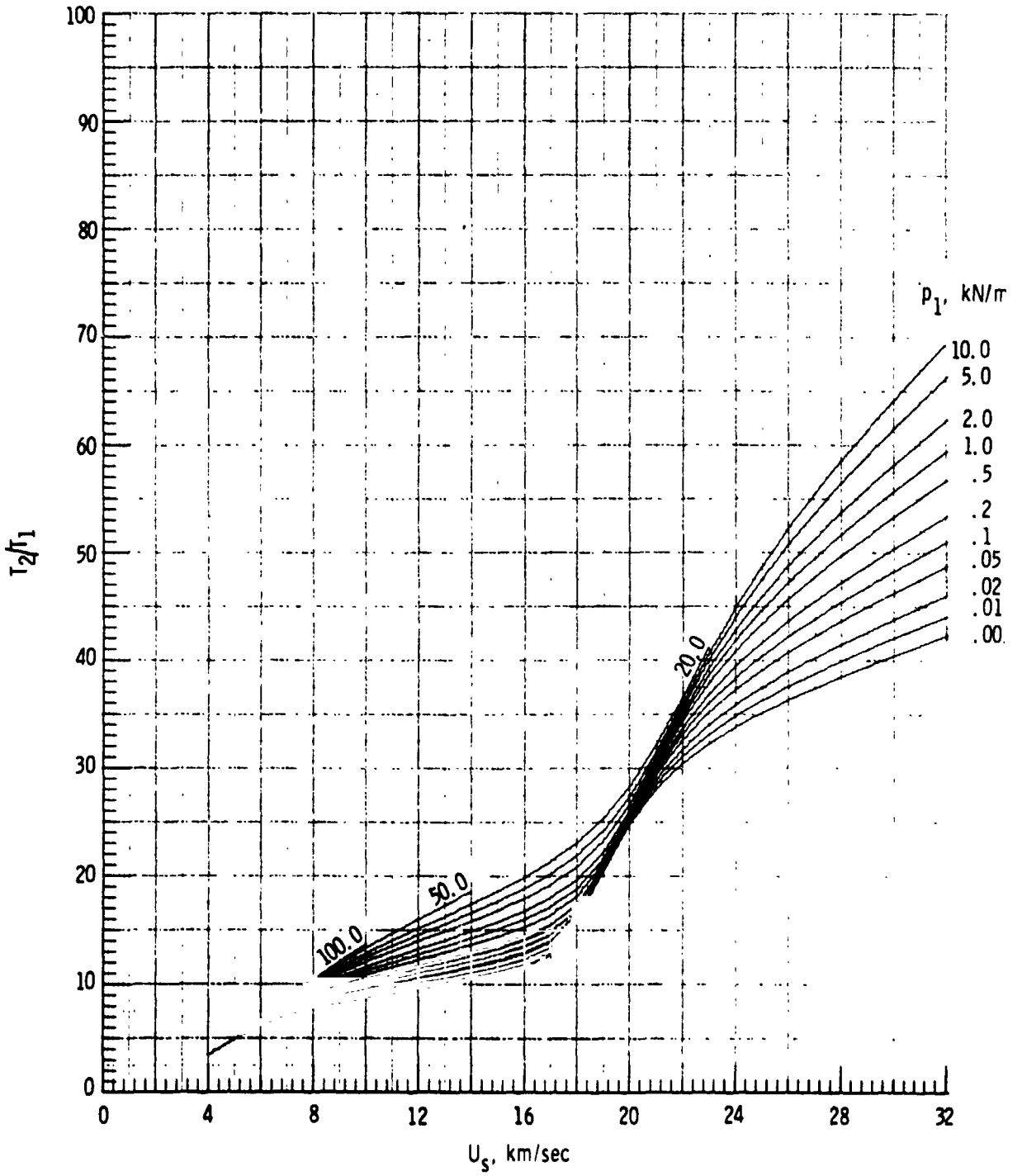
(a) Pressure p_2/p_1.

Figure 2.- Thermodynamic properties and flow velocity behind an incident normal shock into a 0.35He-0.65H_2 mixture.



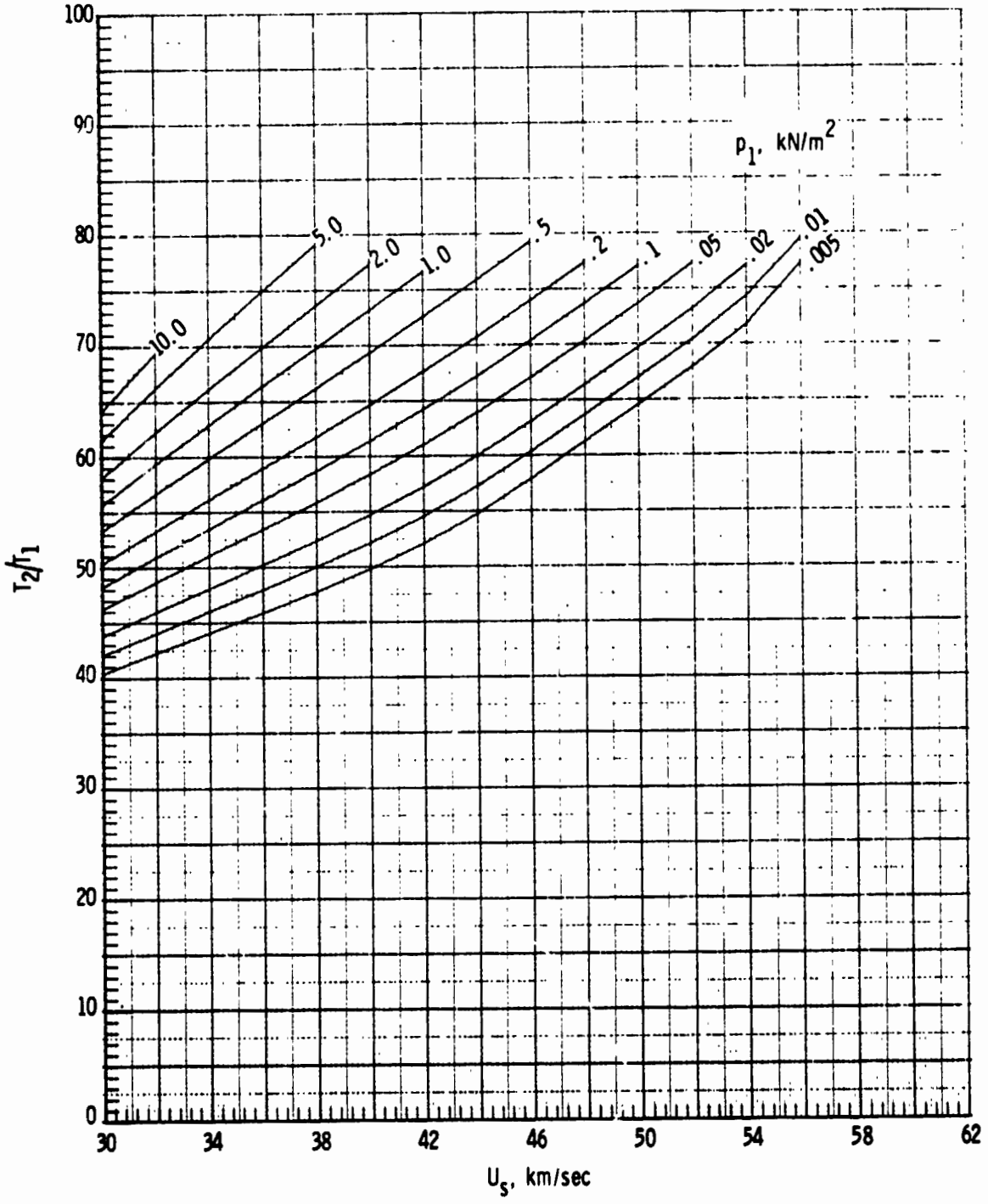
(a) Pressure p_2/p_1. Concluded.

Figure 2.- Continued.



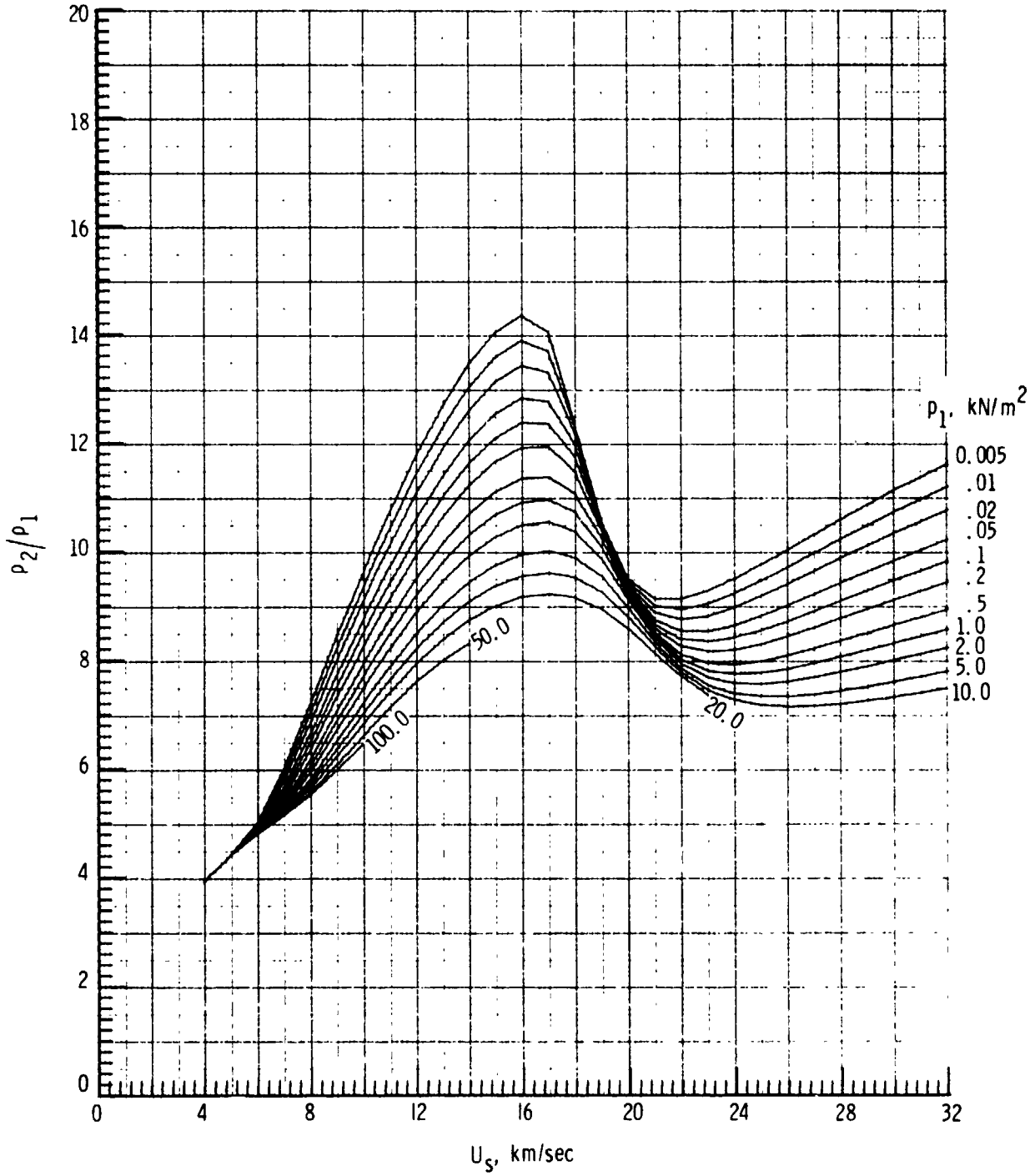
(b) Temperature T_2/T_1.

Figure 2.- Continued.



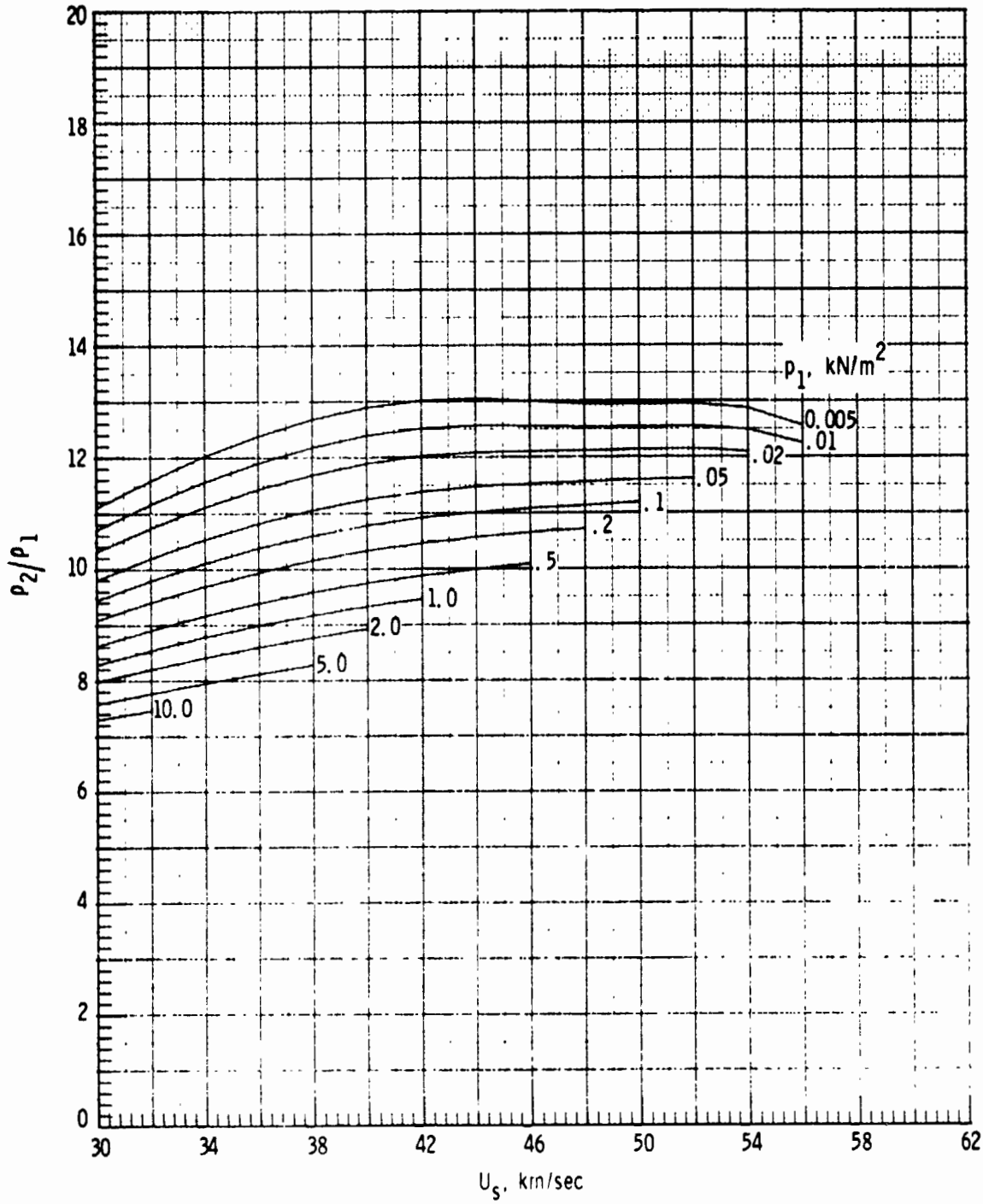
(b) Temperature T_2/T_1. Concluded.

Figure 2.- Continued.



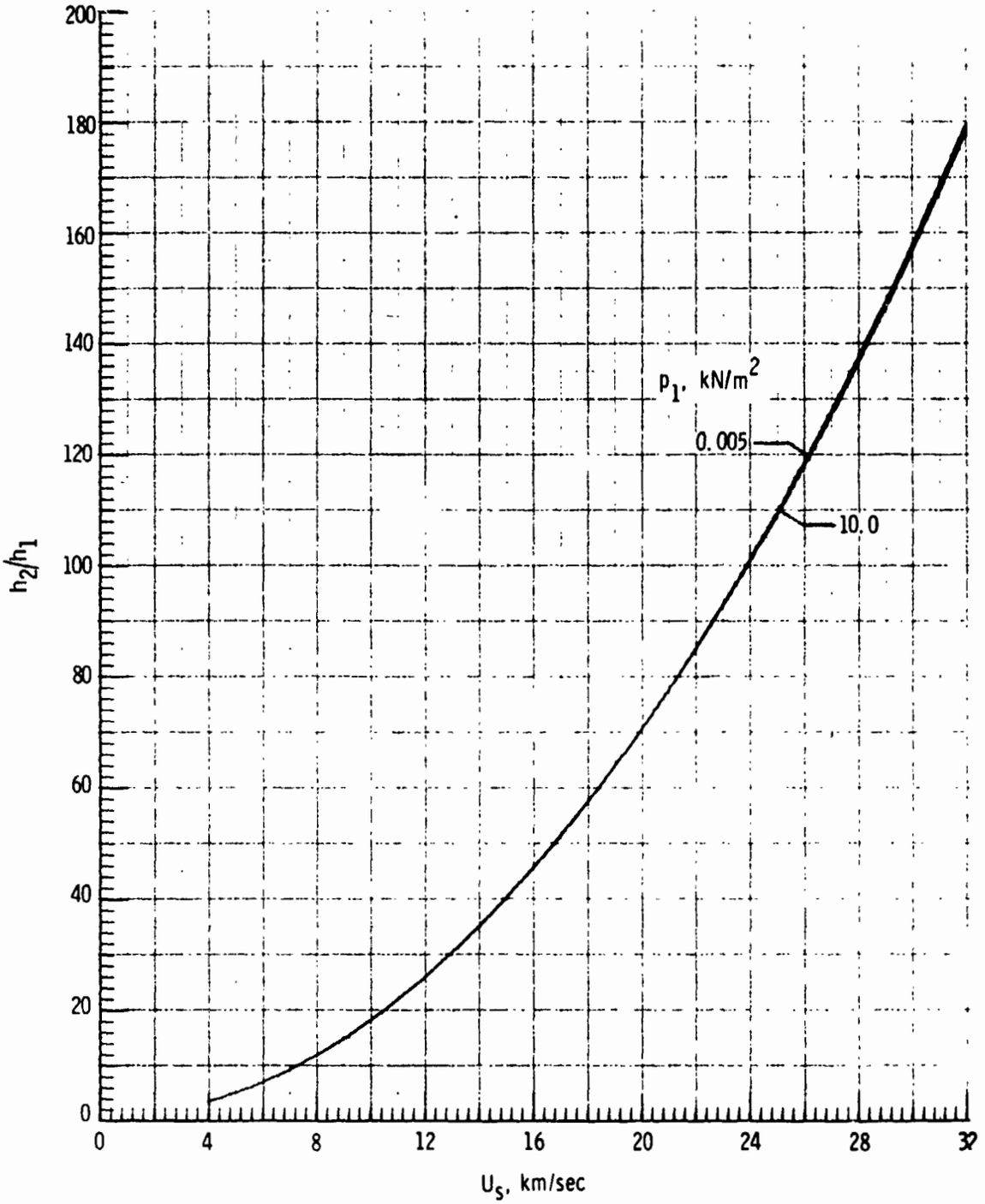
(c) Density ρ_2/ρ_1.

Figure 2.- Continued.



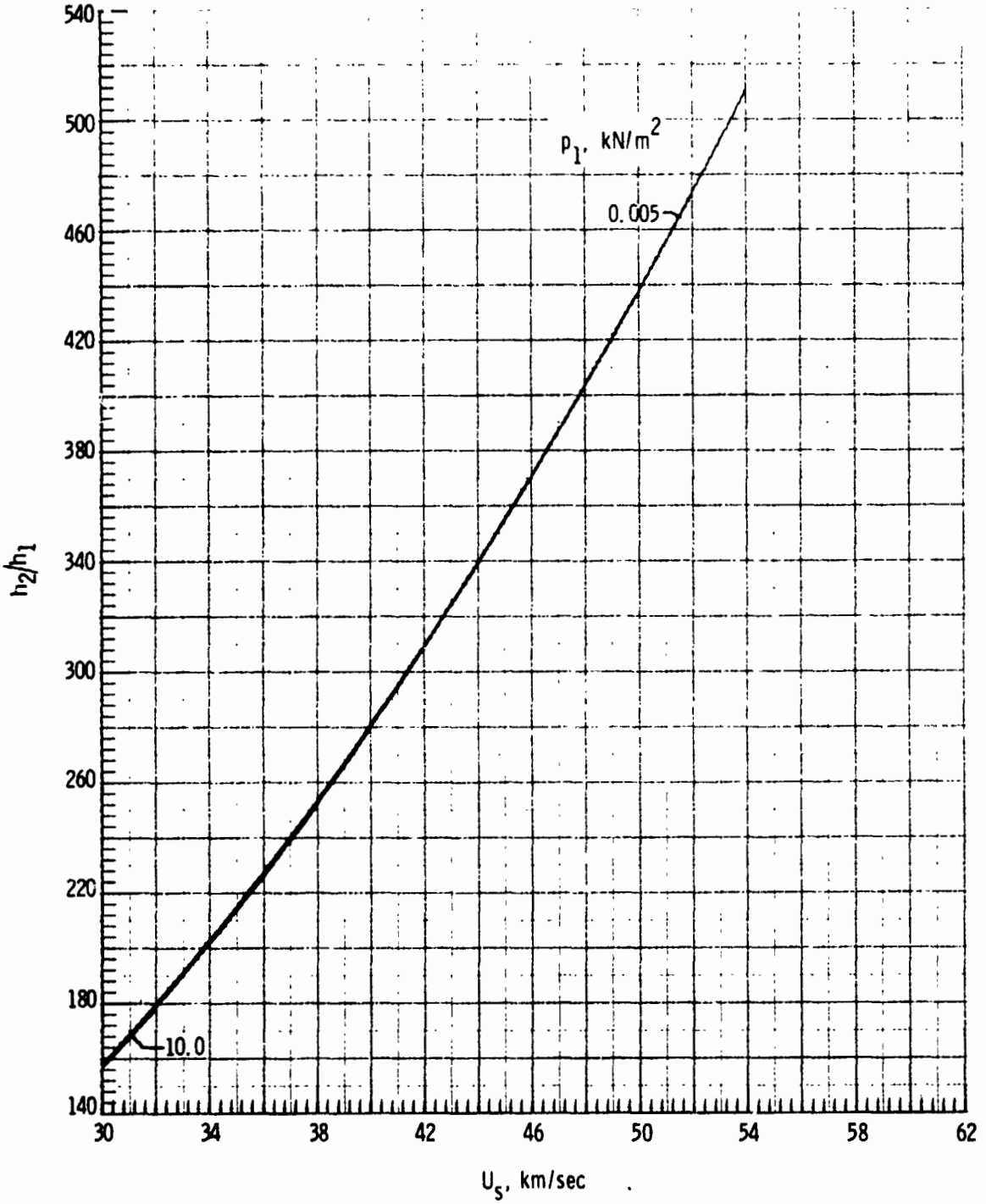
(c) Density ρ_2/ρ_1. Concluded.

Figure 2.- Continued.



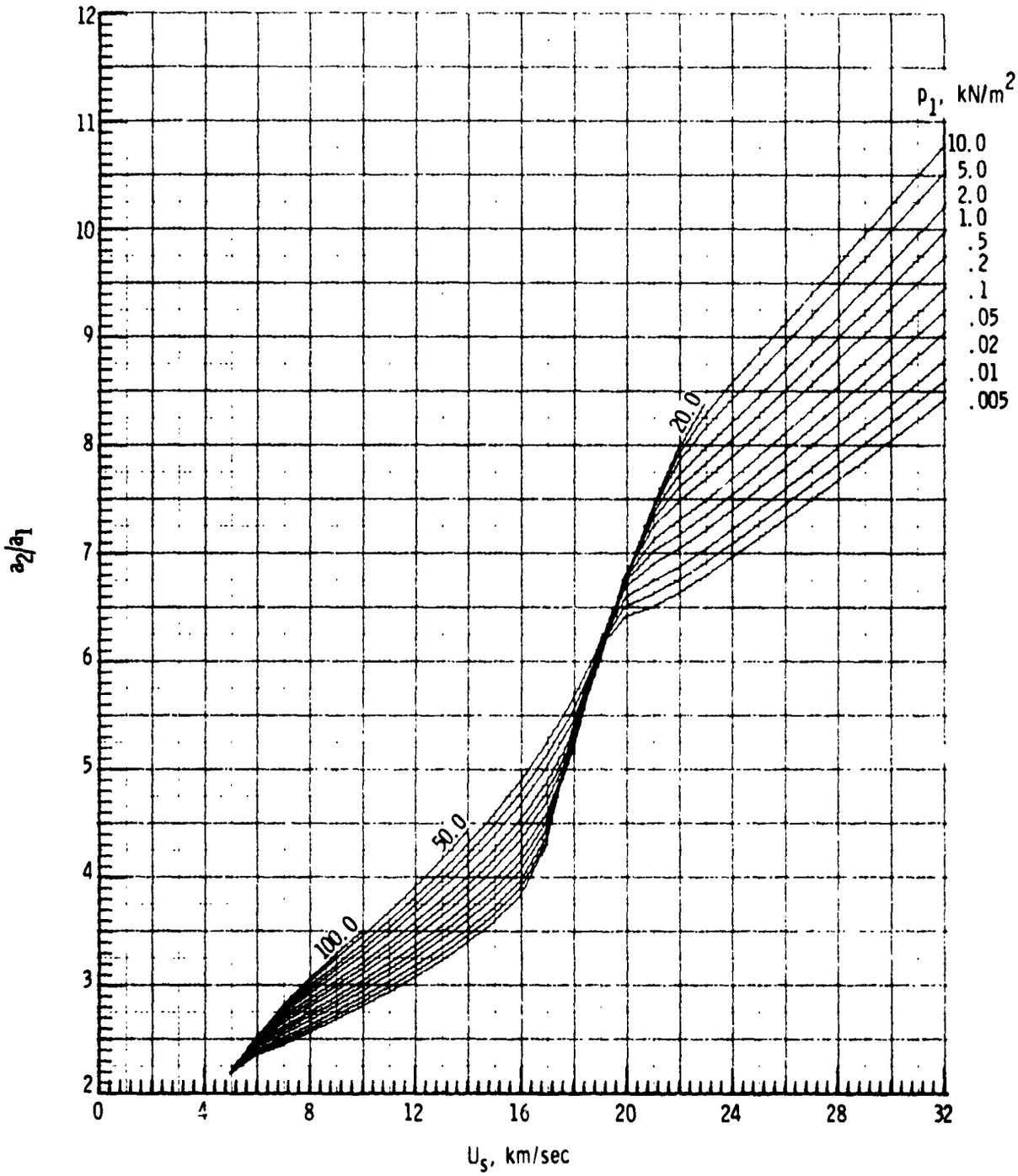
(d) Enthalpy h_2/h_1.

Figure 2.- Continued.



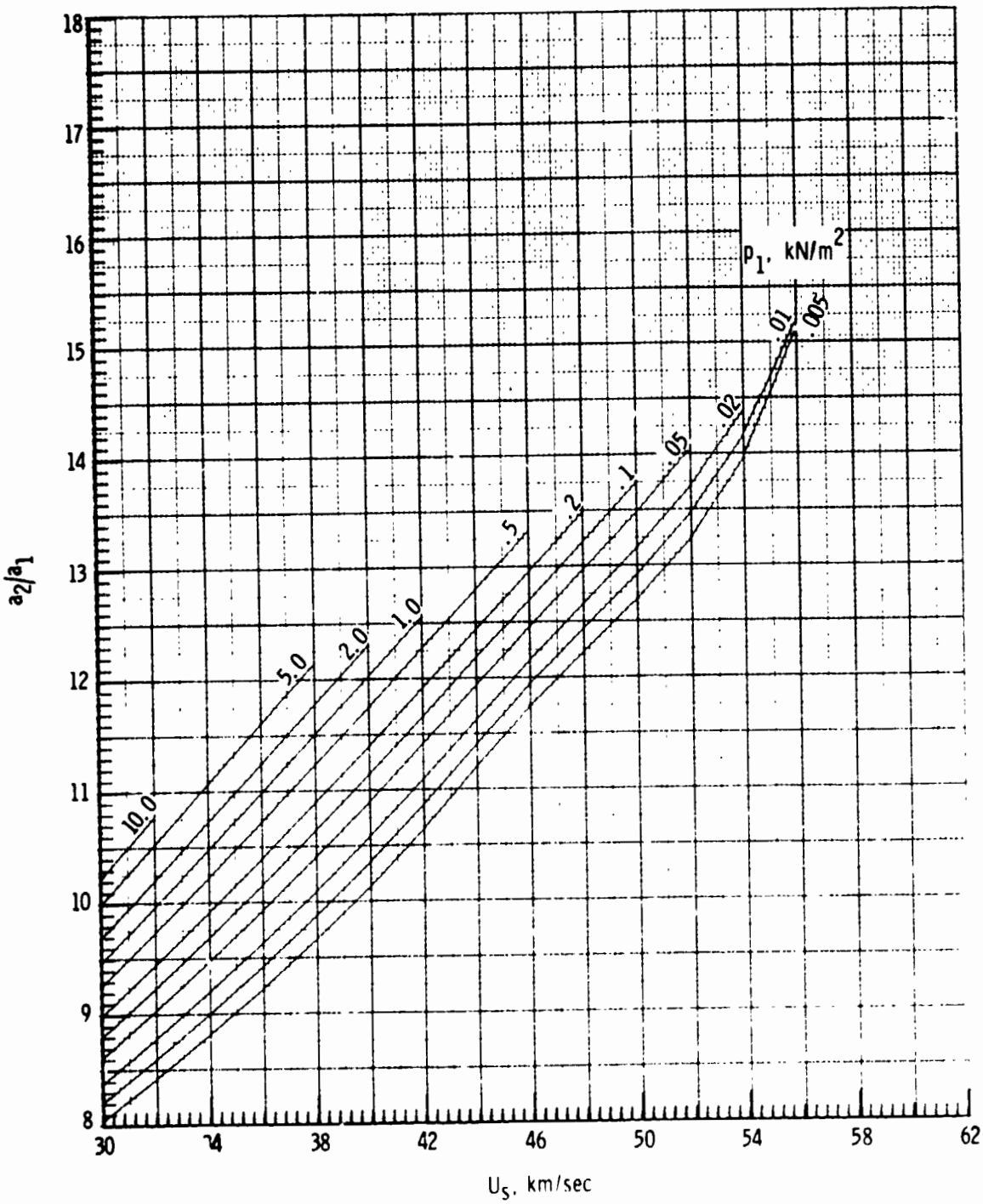
(d) Enthalpy h_2/h_1. Concluded.

Figure 2.- Continued.



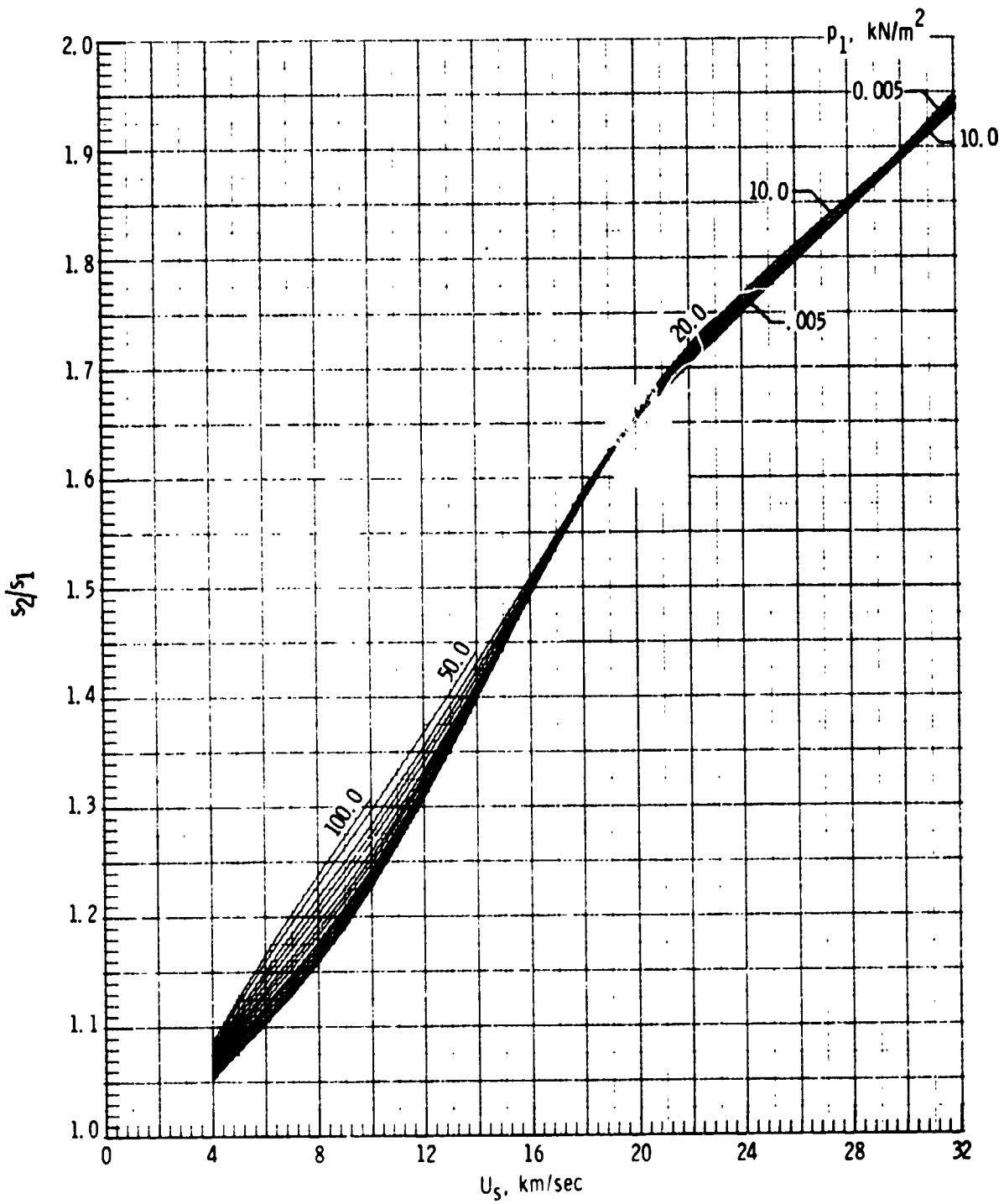
(e) Speed of sound a_2/a_1.

Figure 2.- Continued.



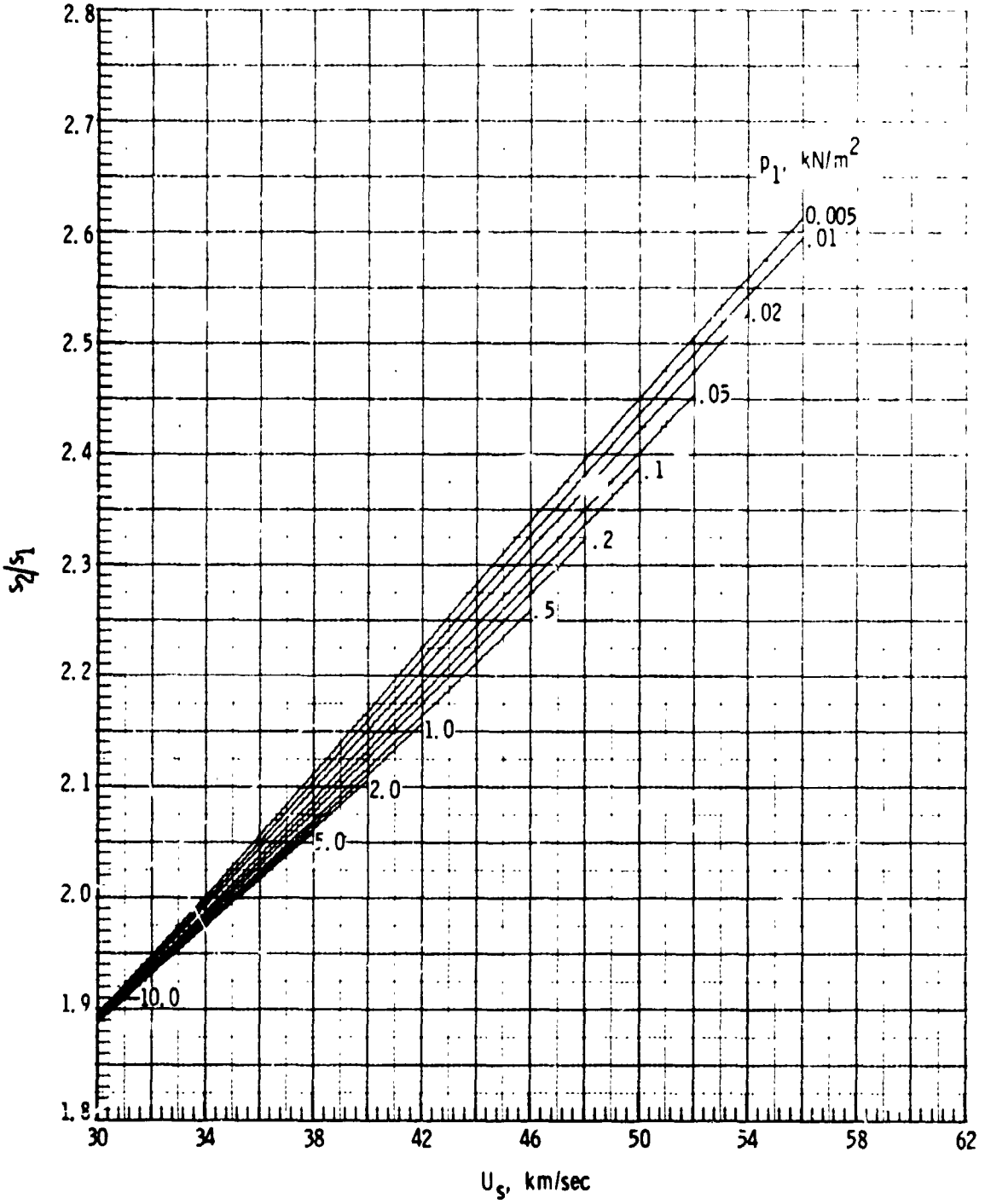
(e) Speed of sound a_2/a_1. Concluded.

Figure 2.- Continued.



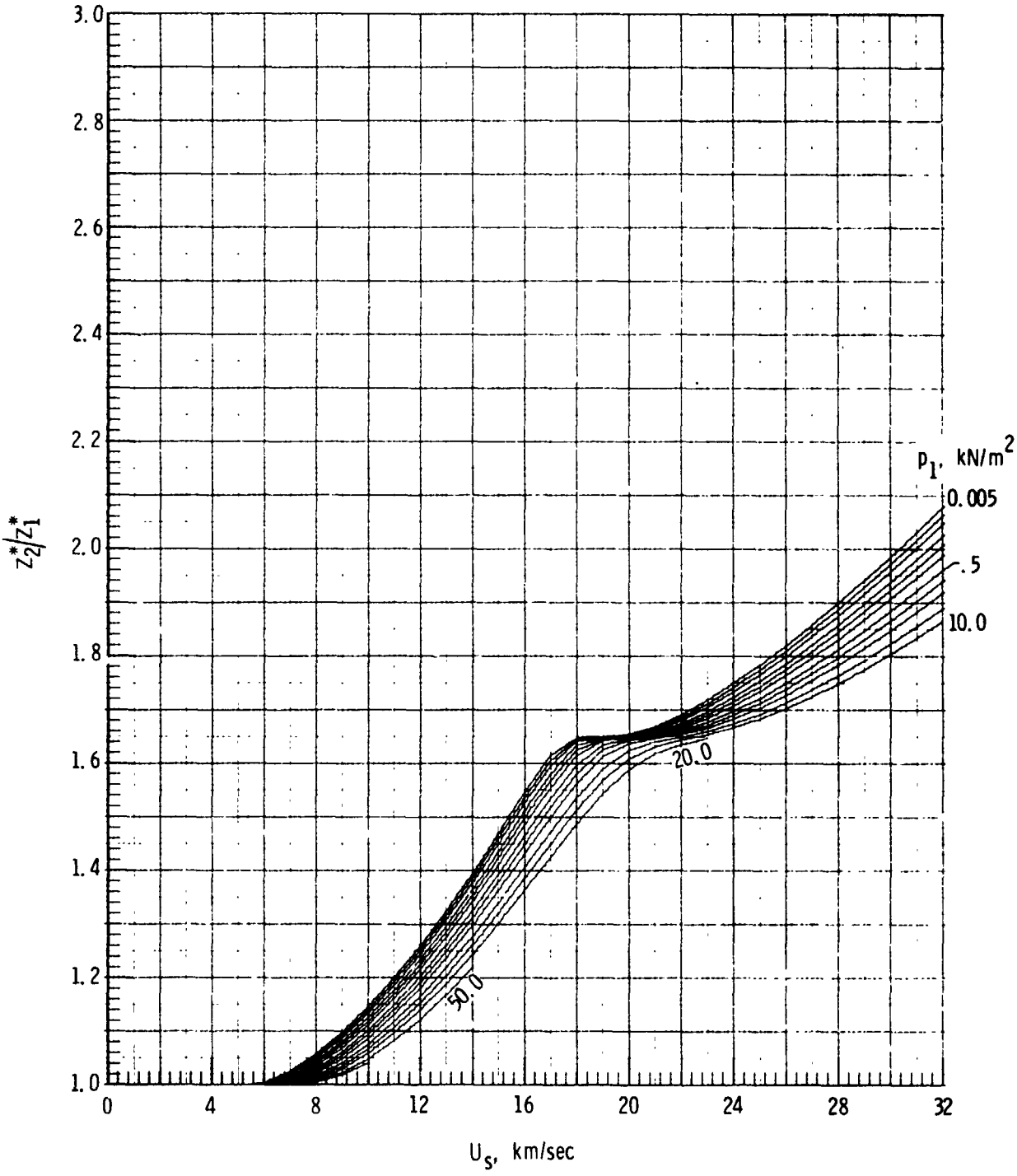
(f) Entropy s_2/s_1.

Figure 2.- Continued.



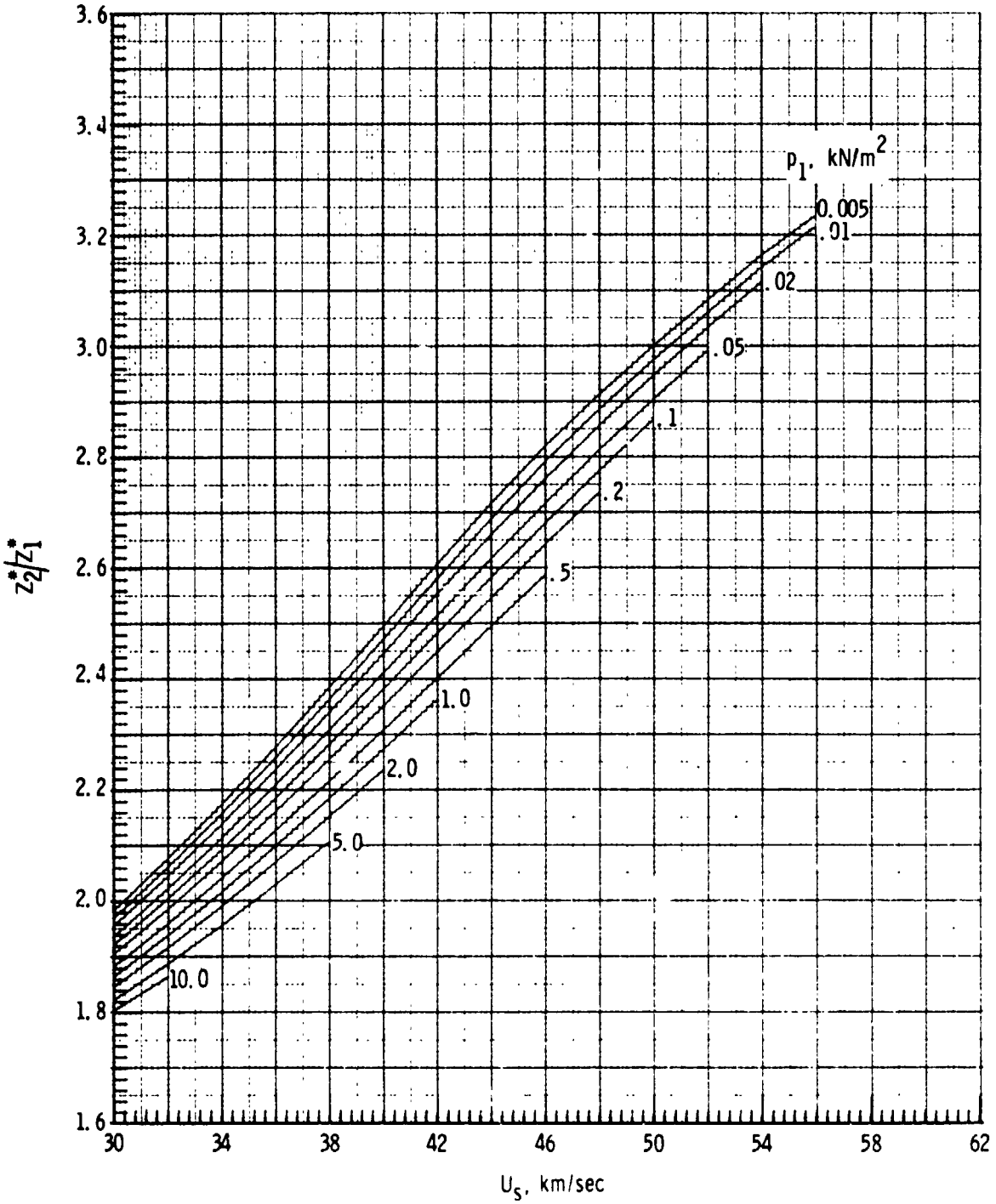
(f) Entropy s_2/s_1. Concluded.

Figure 2.- Continued.



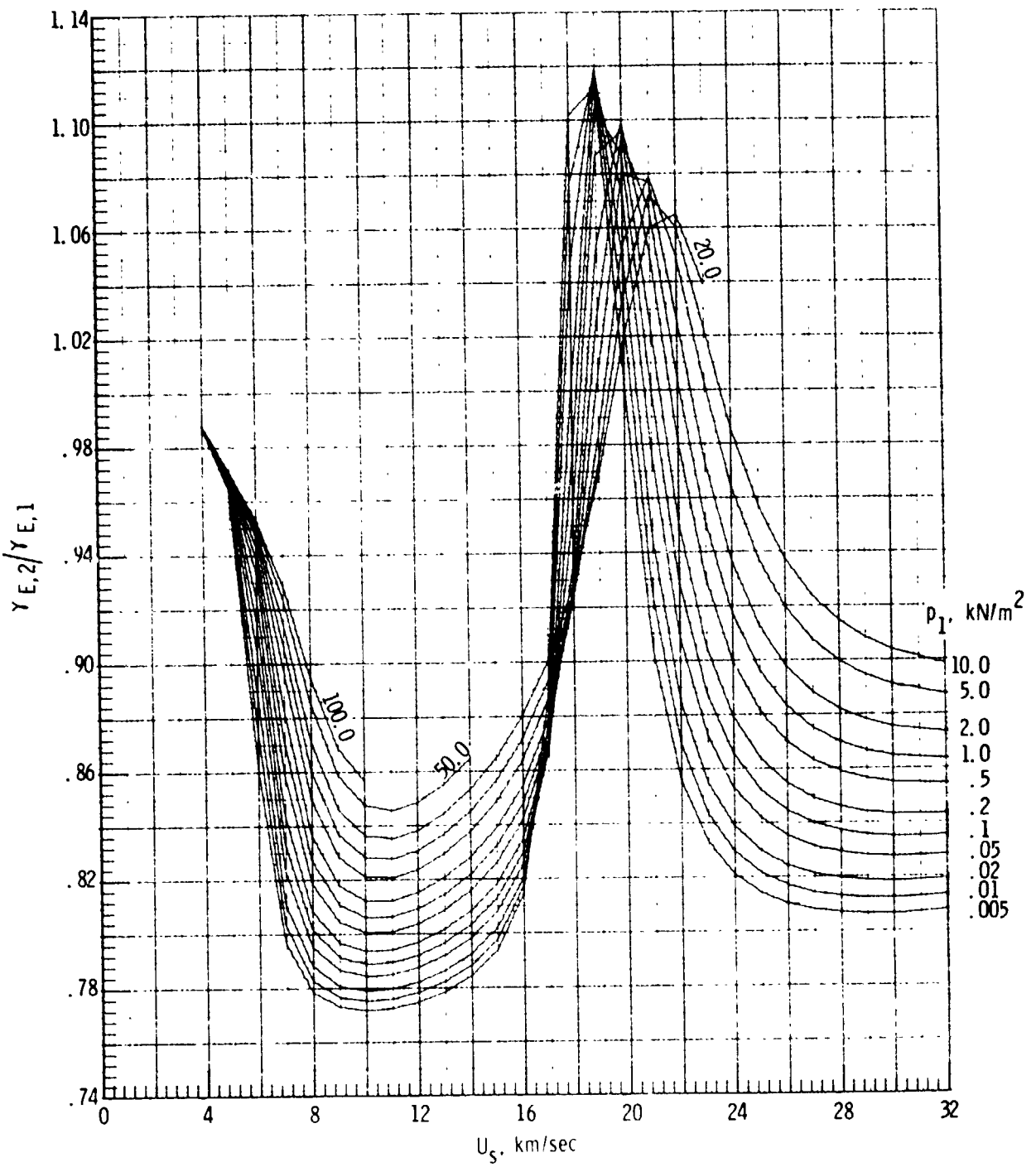
(g) Molecular-weight ratio Z_2^*/Z_1^*.

Figure 2.- Continued.



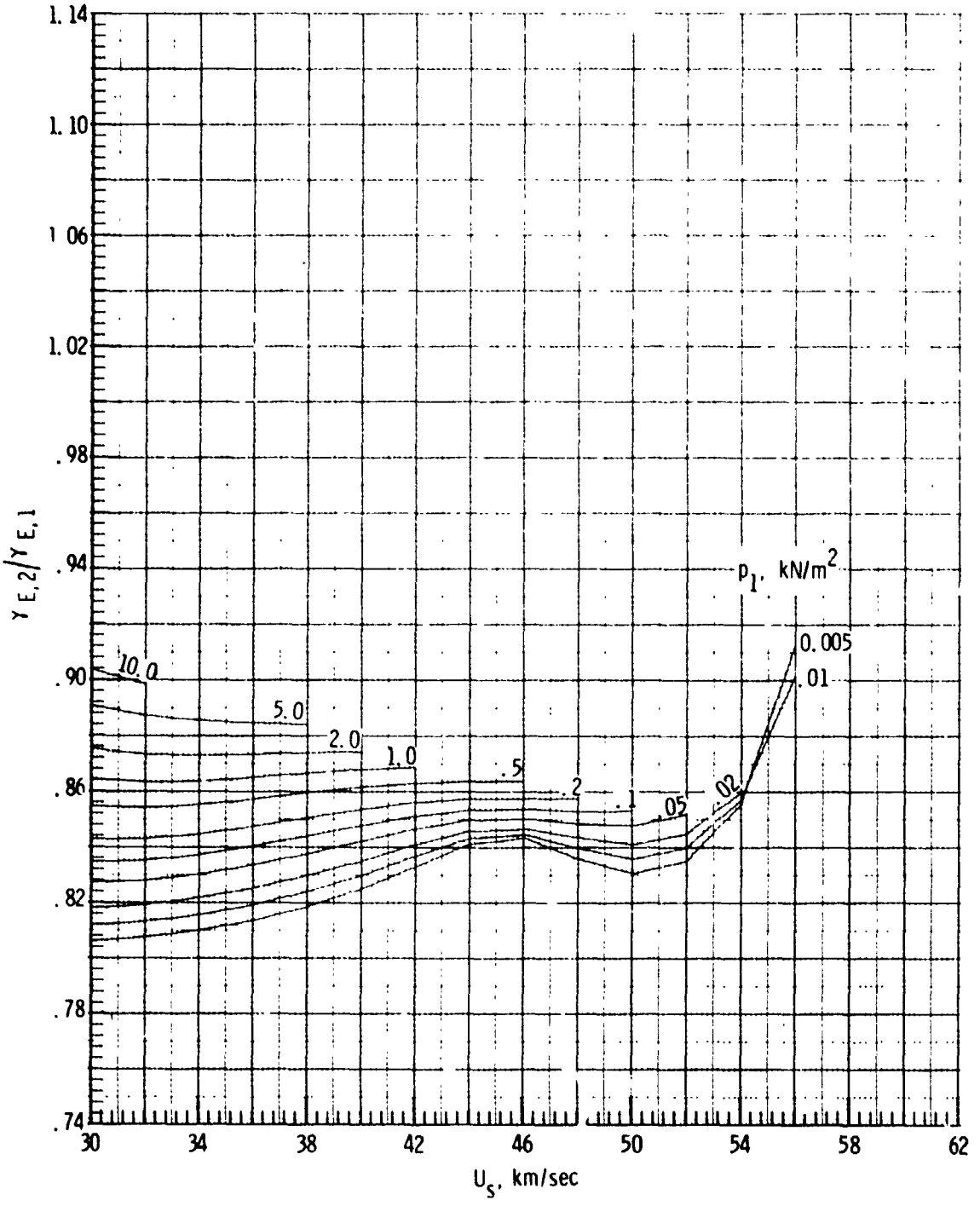
(g) Molecular-weight ratio Z_2^*/Z_1^*. Concluded.

Figure 2.- Continued.



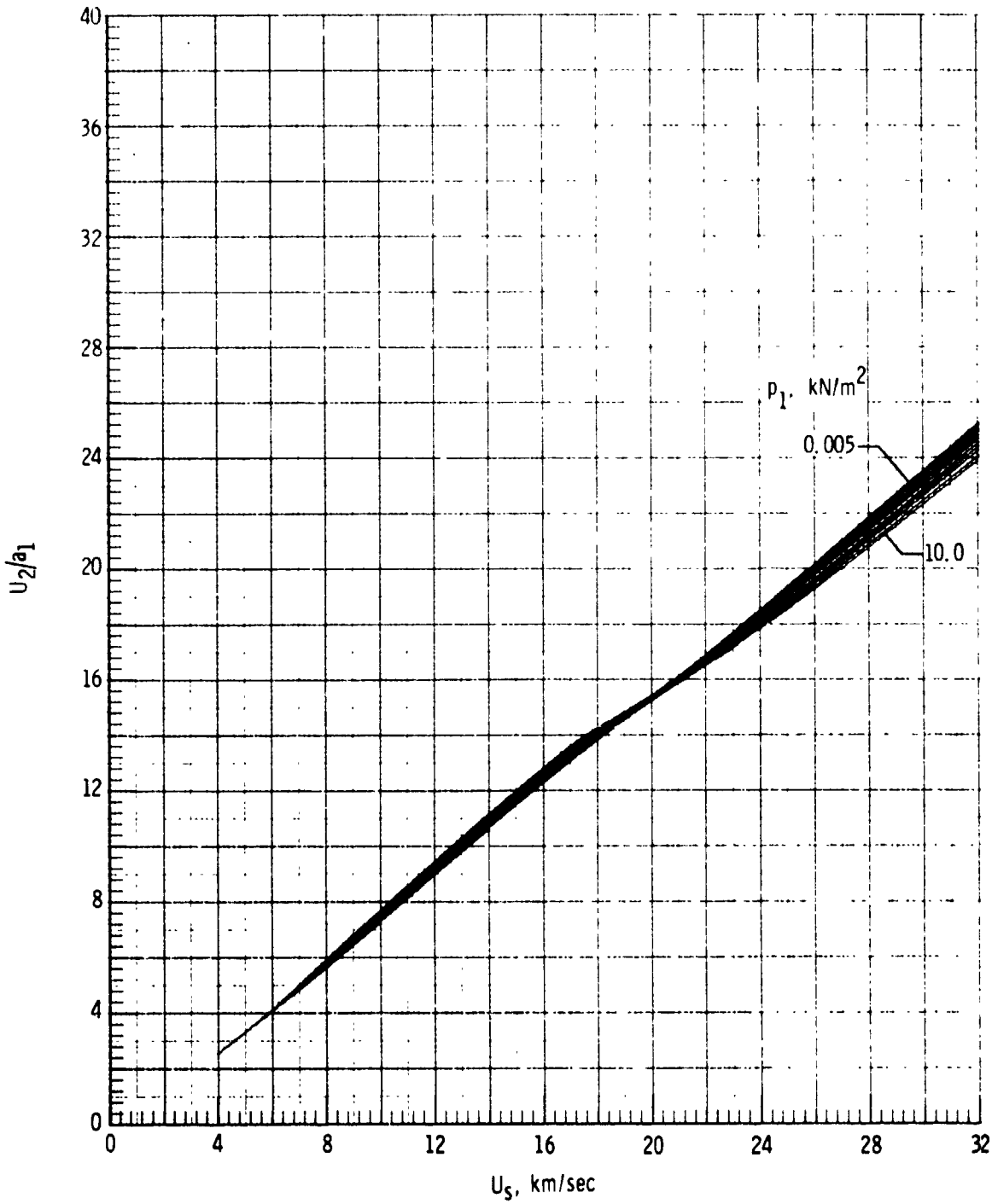
(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$.

Figure 2.- Continued.



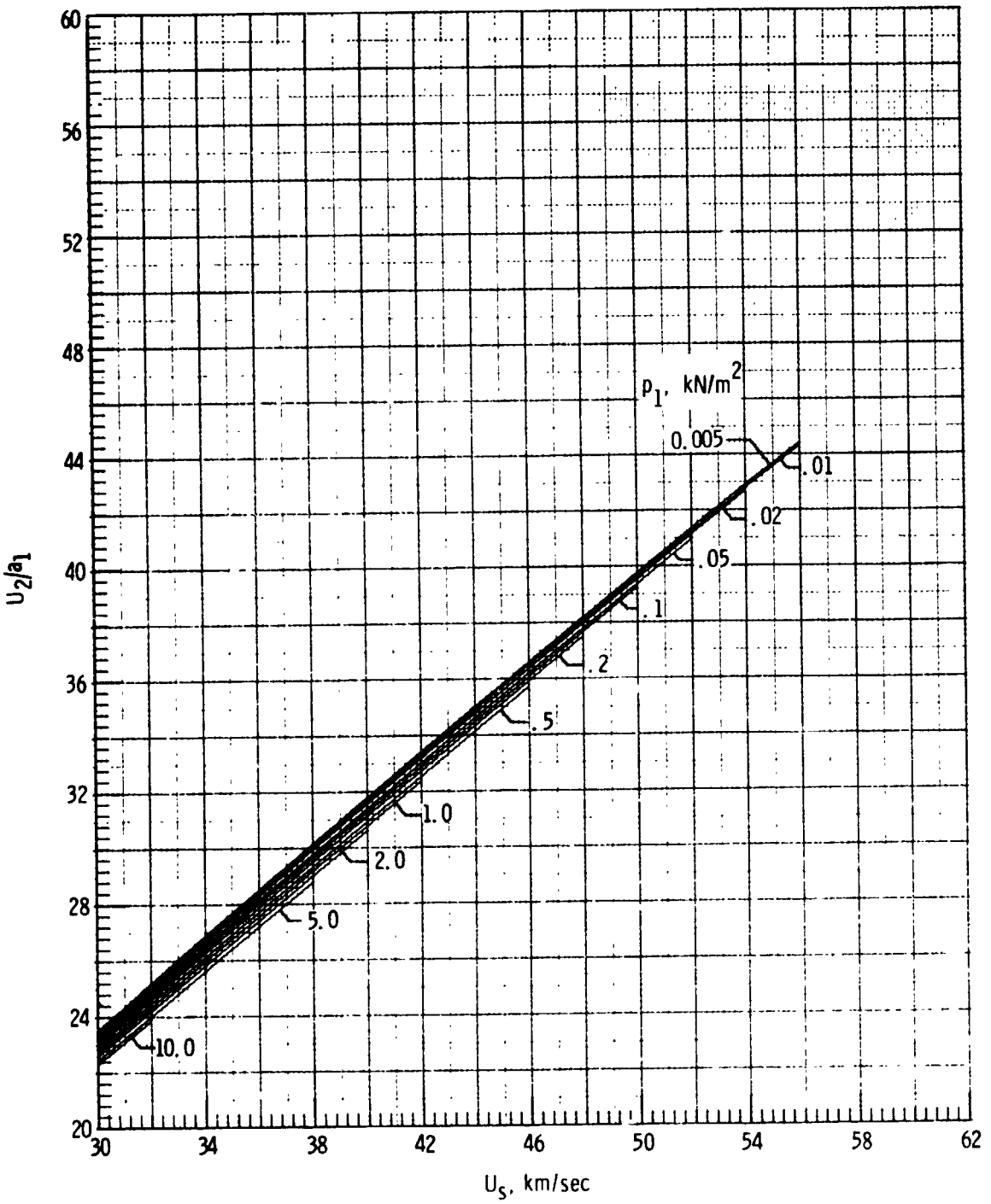
(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$. Concluded.

Figure 2.- Continued.



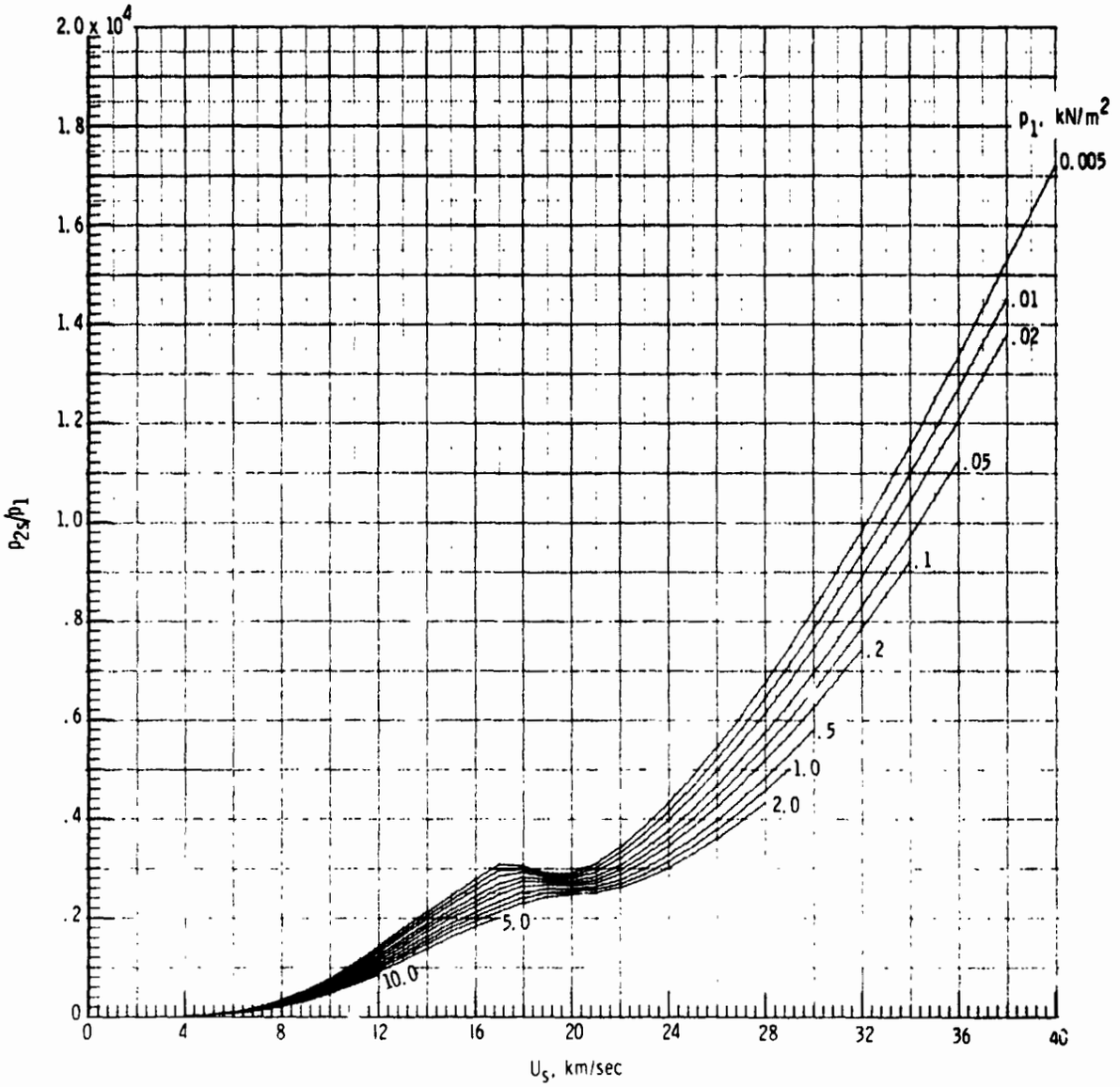
(i) Flow velocity U_2/a_1.

Figure 2.- Continued.



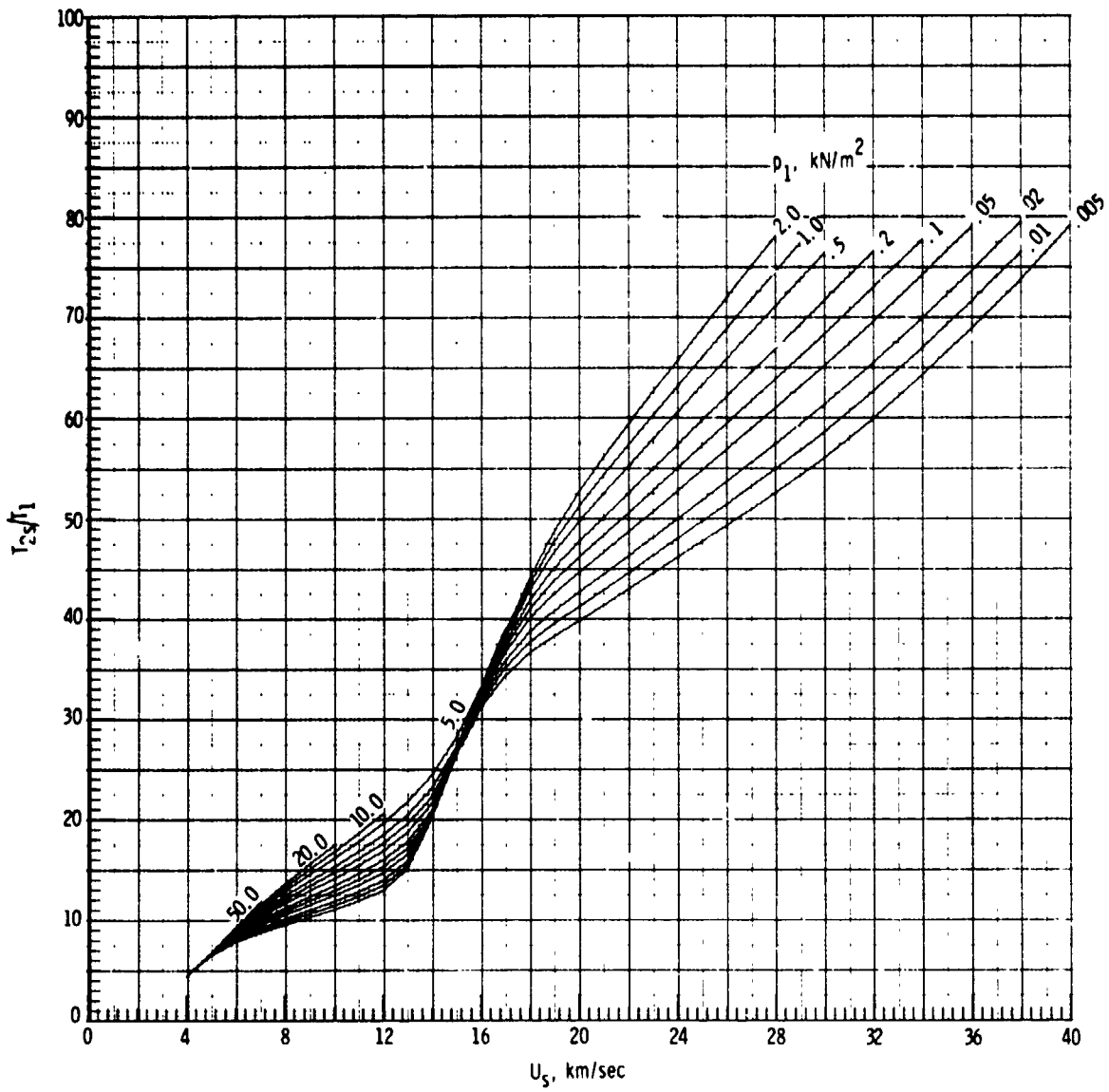
(i) Flow velocity U_2/a_1. Concluded.

Figure 2.- Concluded.



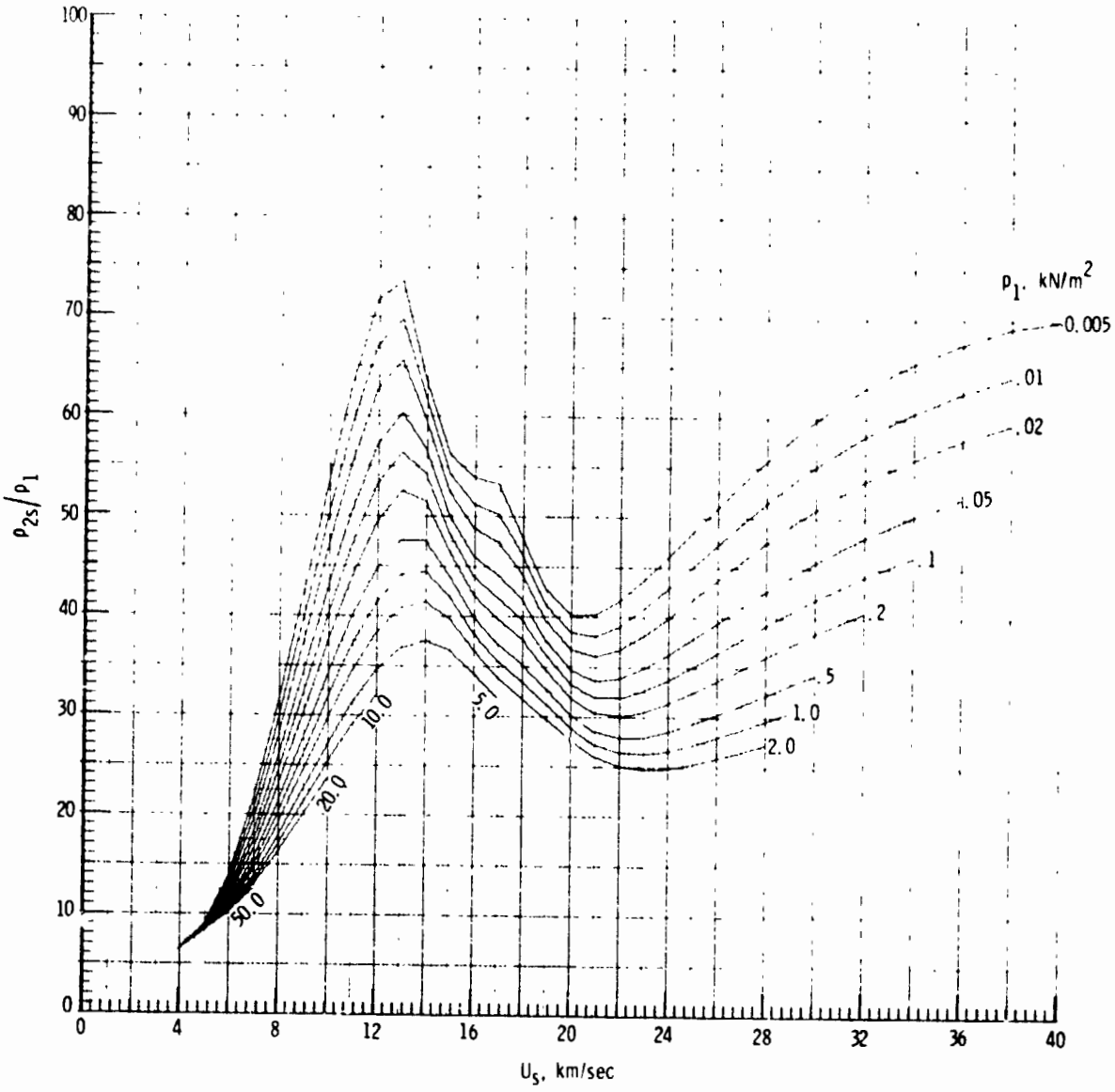
(a) Pressure p_{2s}/p_1.

Figure 3.- Thermodynamic properties and flow velocity behind a standing normal shock for a 0.35He-0.65H_2 mixture.



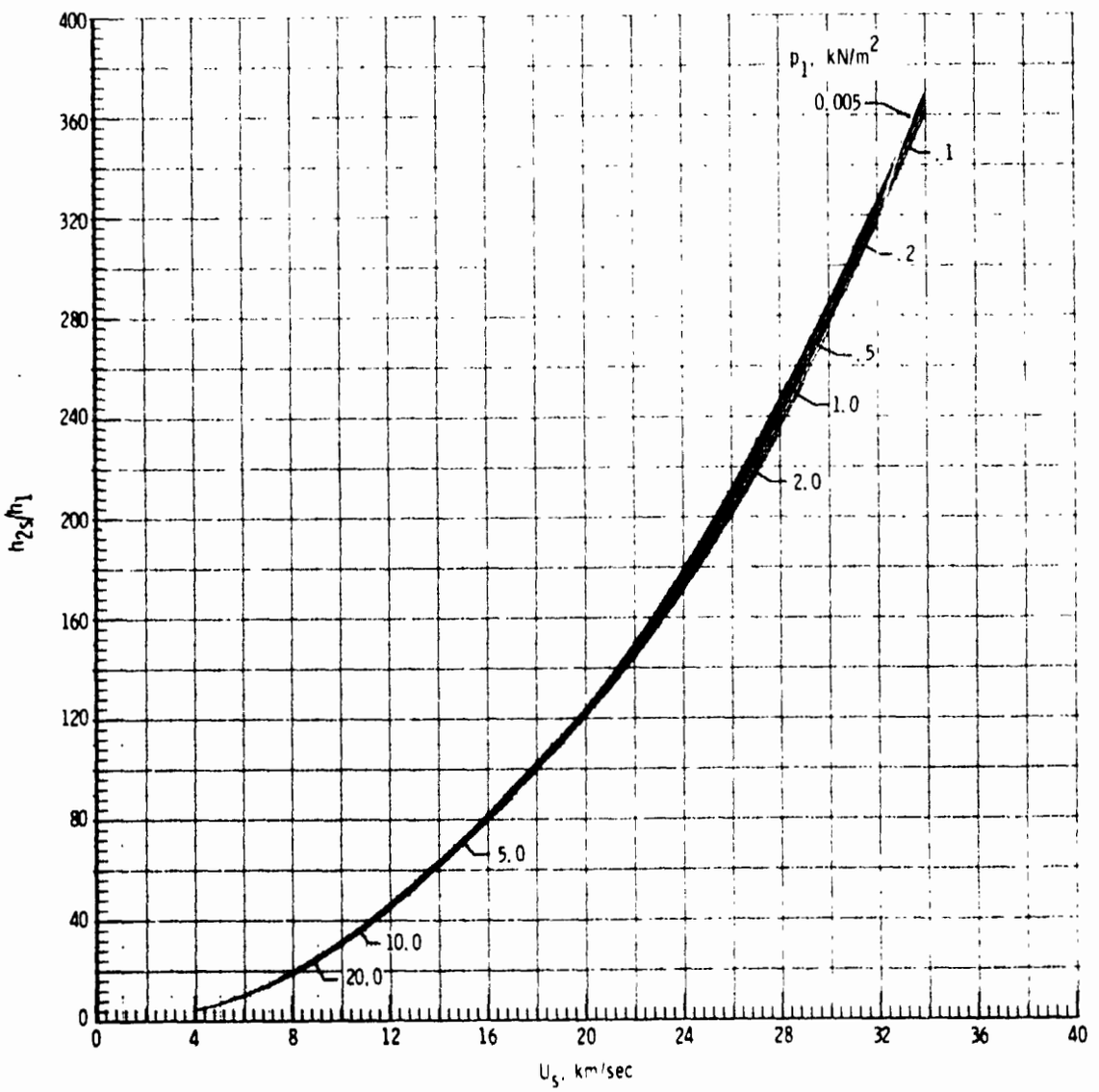
(b) Temperature T_{2s}/T_1.

Figure 3.- Continued.



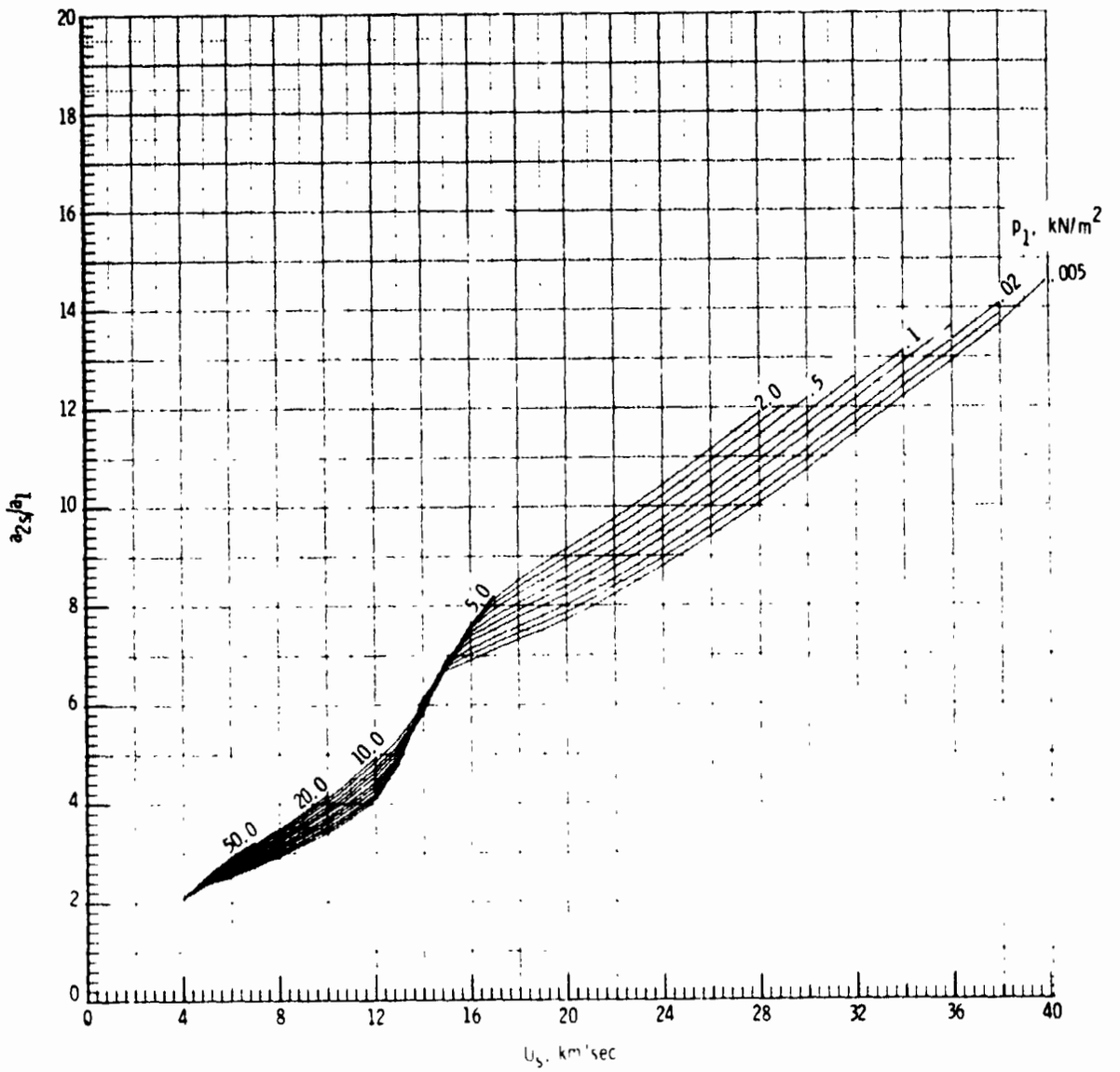
(c) Density ρ_{2s}/ρ_1.

Figure 3.- Continued.



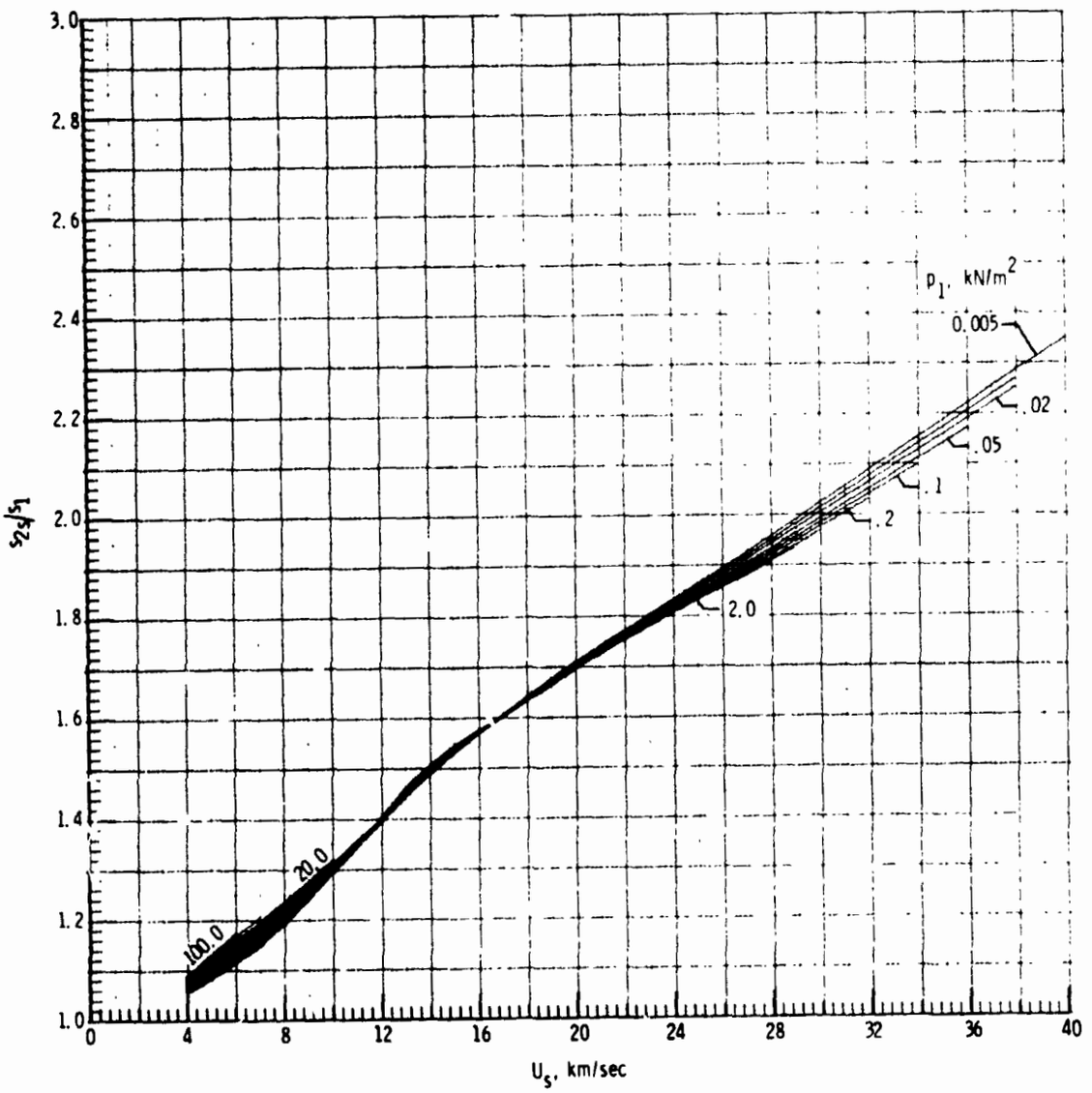
(d) Enthalpy h_{2s}/h_1.

Figure 3.- Continued.



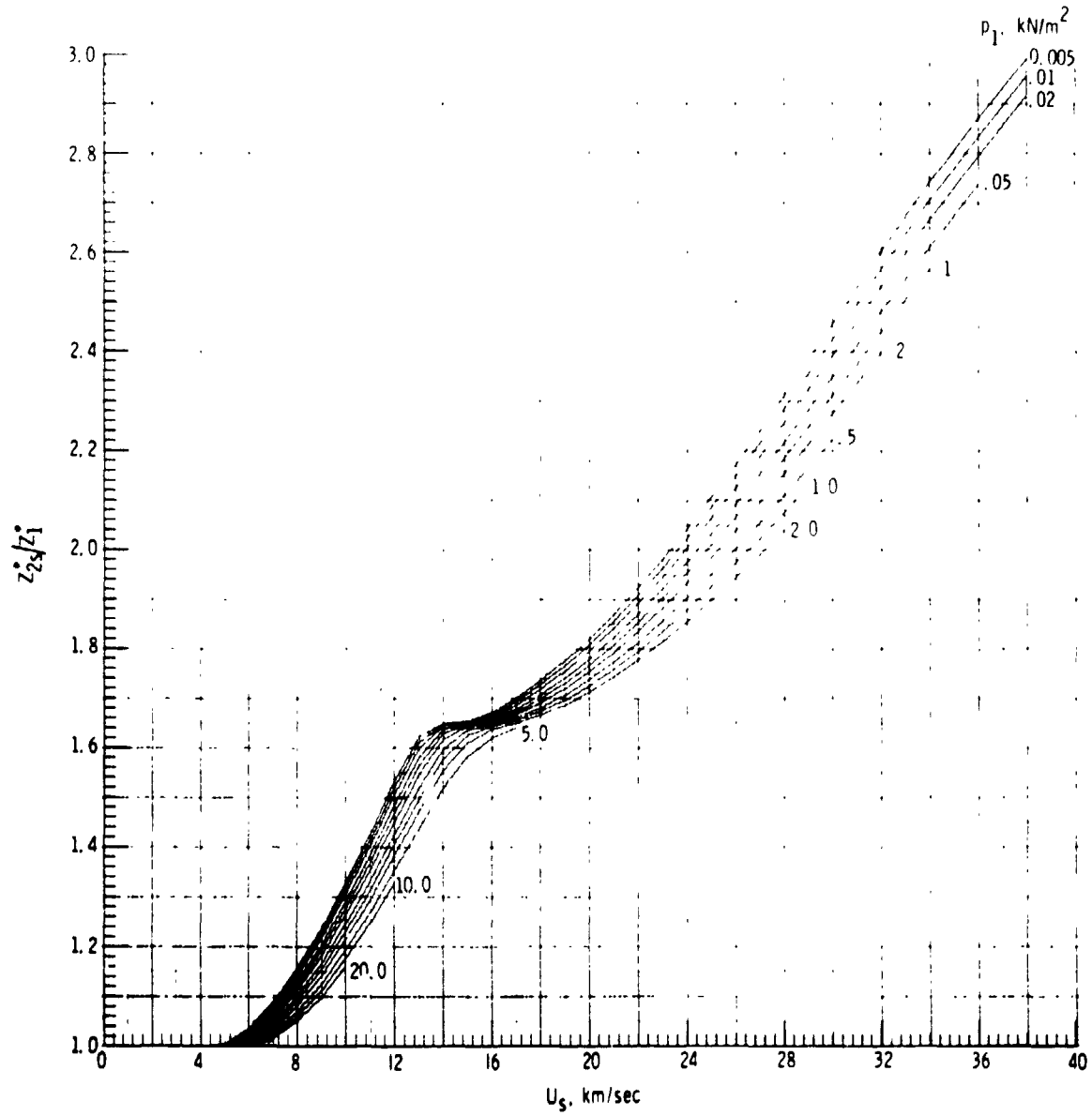
(e) Speed of sound a_{2s}/a_1.

Figure 3.- Continued.



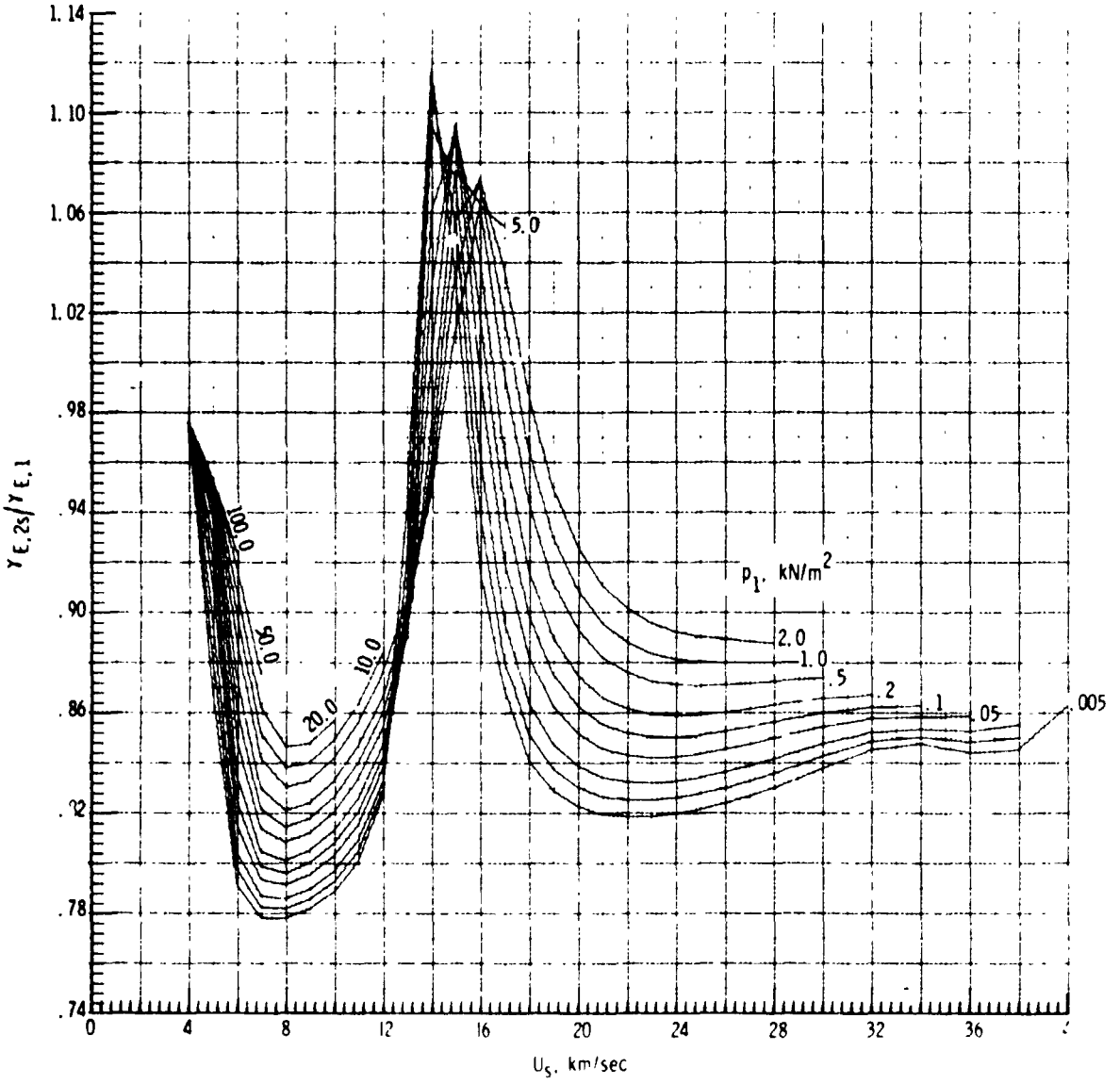
(f) Entropy s_{2s}/s_1.

Figure 3.- Continued.



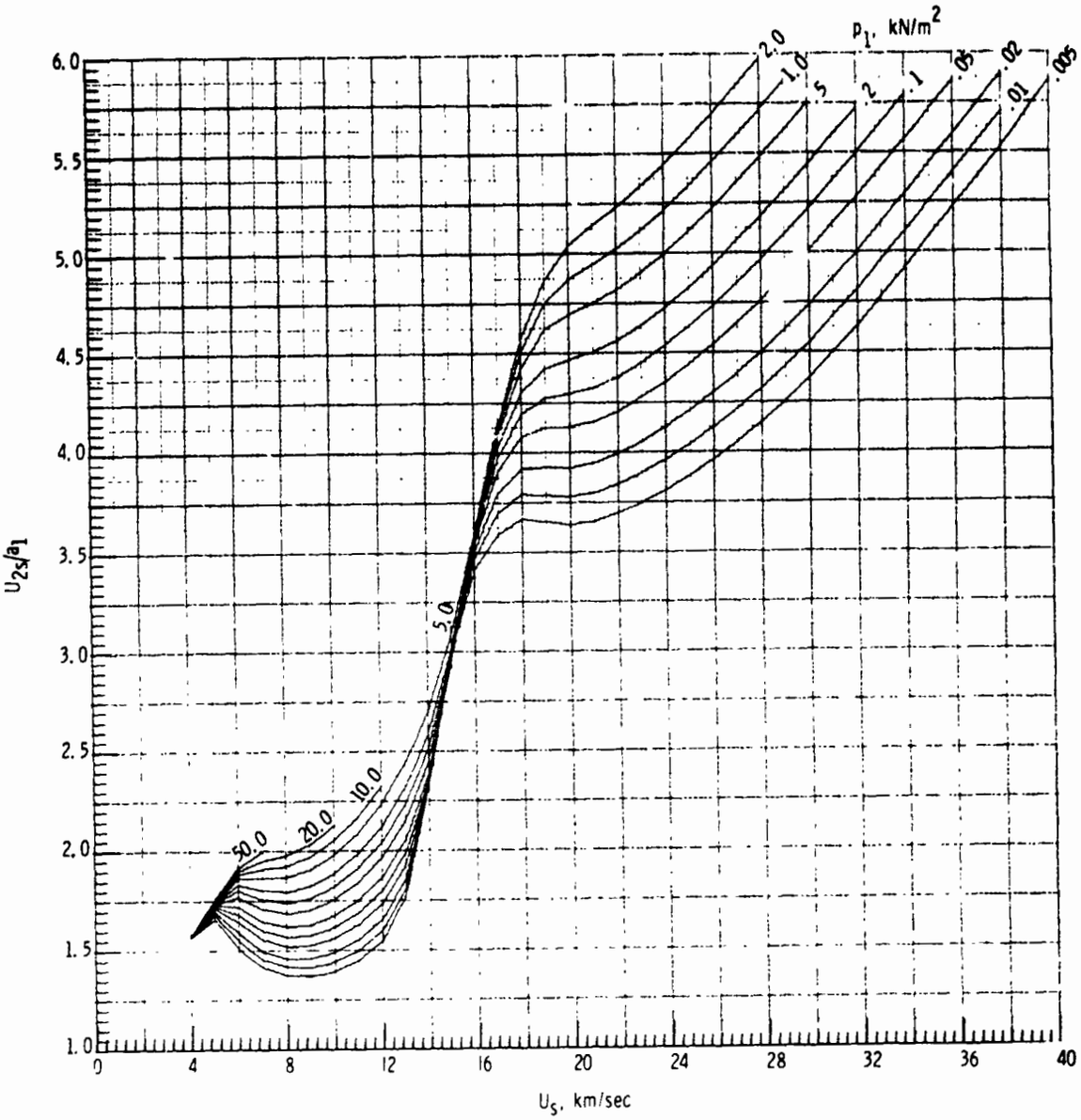
(g) Molecular-weight ratio Z_{2s}^*/Z_1^*.

Figure 3.- Continued.



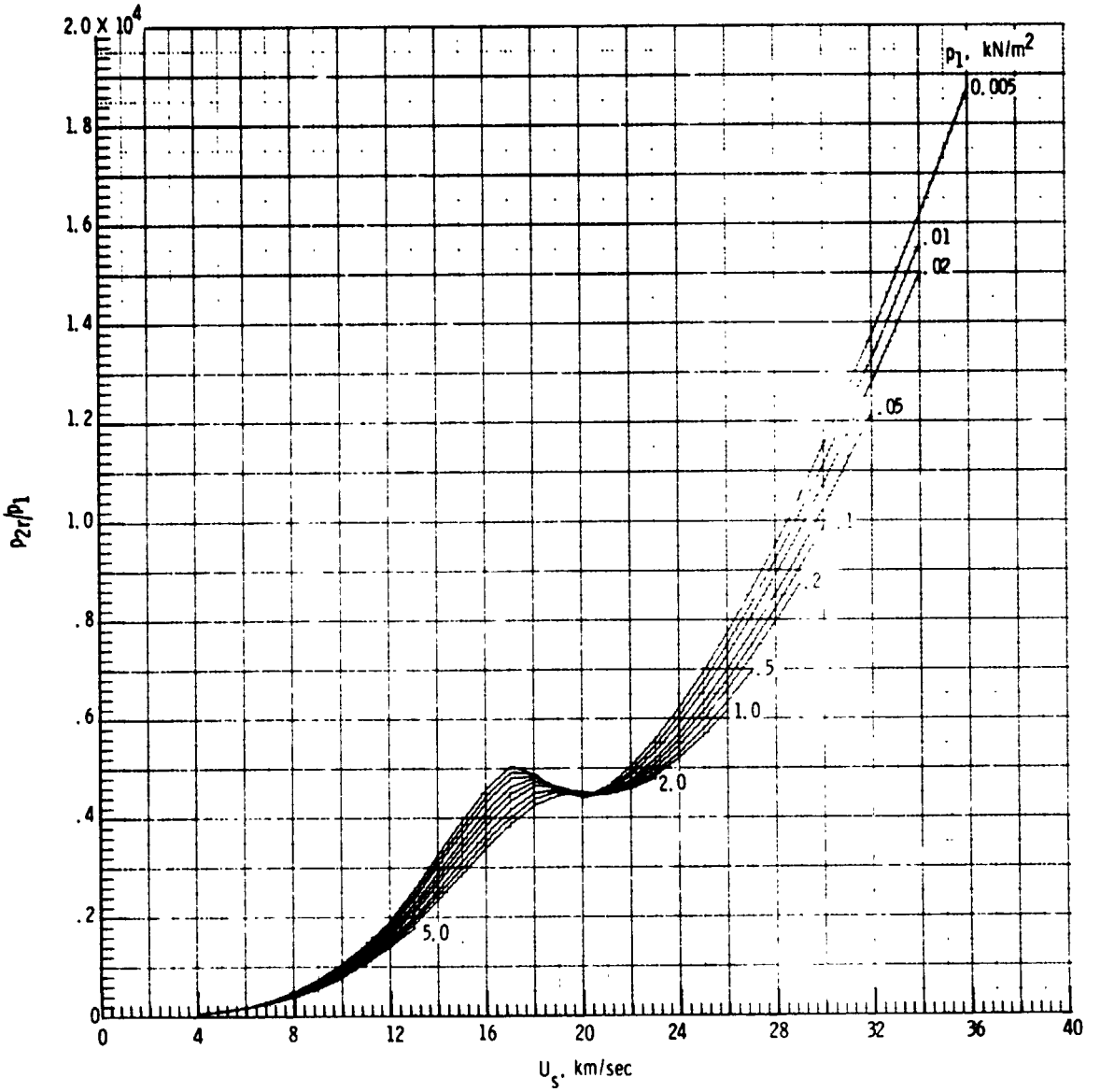
(h) Isentropic exponent $\gamma_{E,2s}/\gamma_{E,1}$

Figure 3.- Continued.



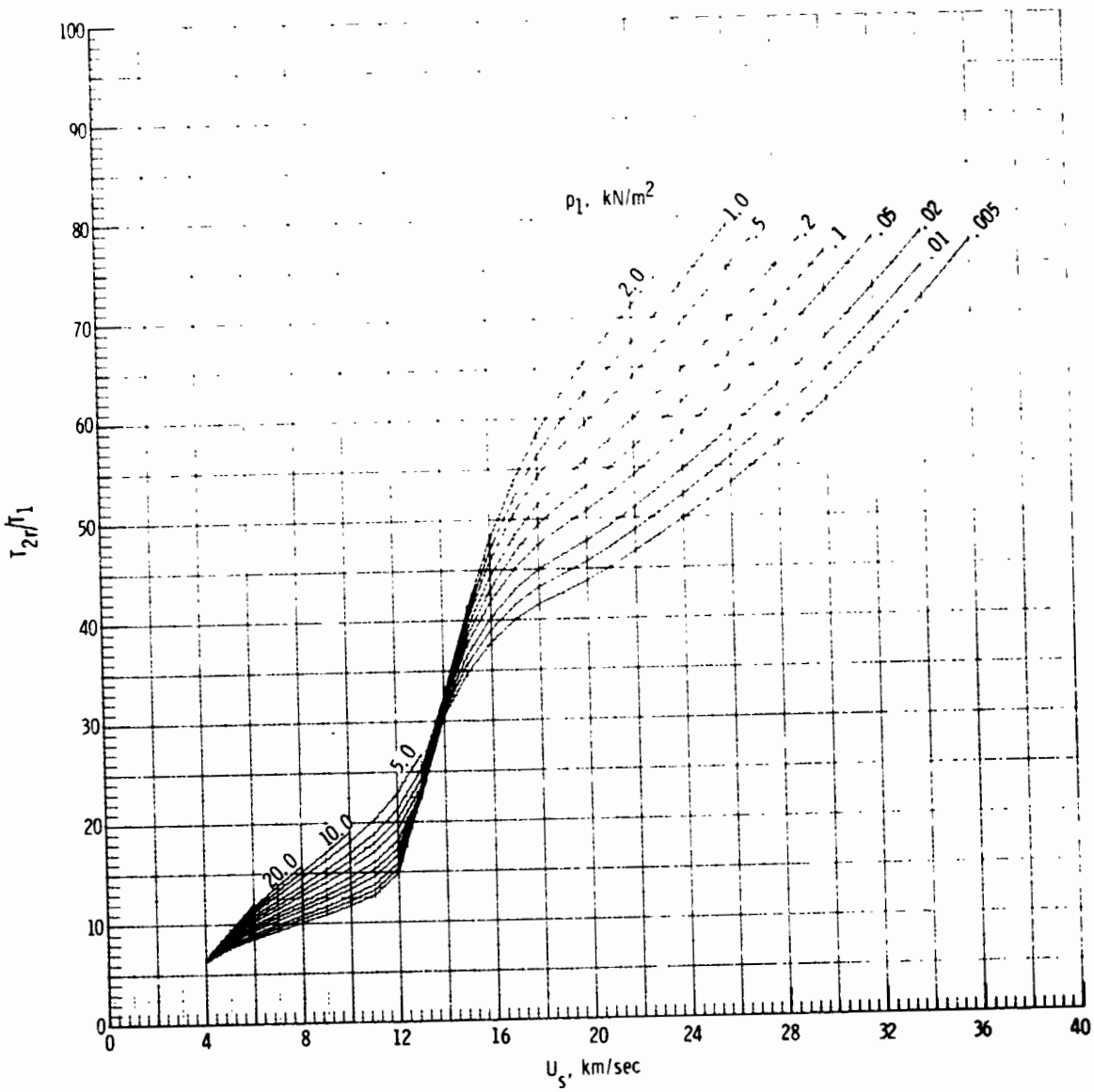
(i) Flow velocity U_{2s}/a_1.

Figure 3.- Concluded.



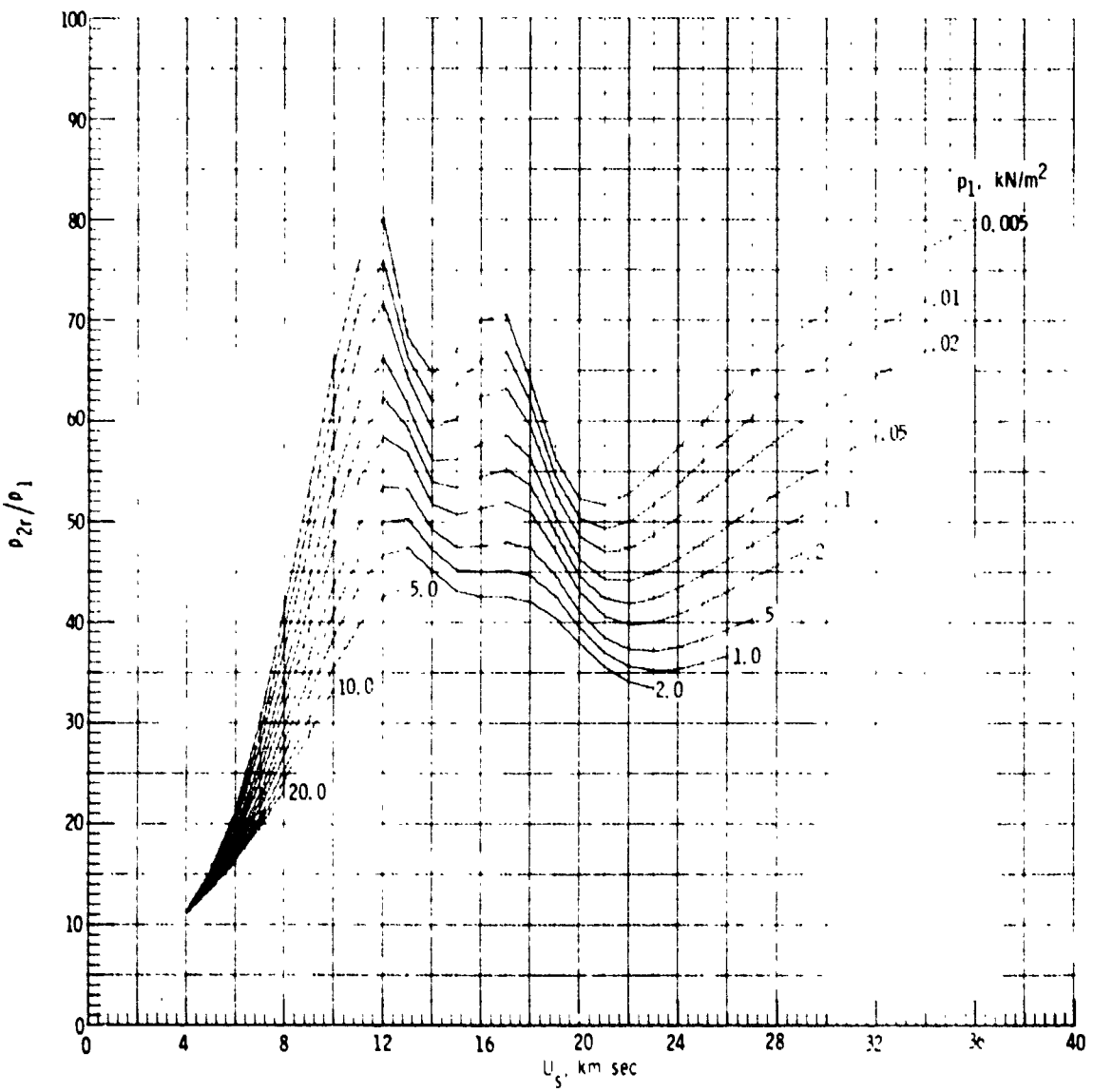
(a) Pressure p_{2r}/p_1.

Figure 4.- Thermodynamic properties behind a reflected normal shock and reflected shock velocity for a 0.35He-0.65H_2 mixture.



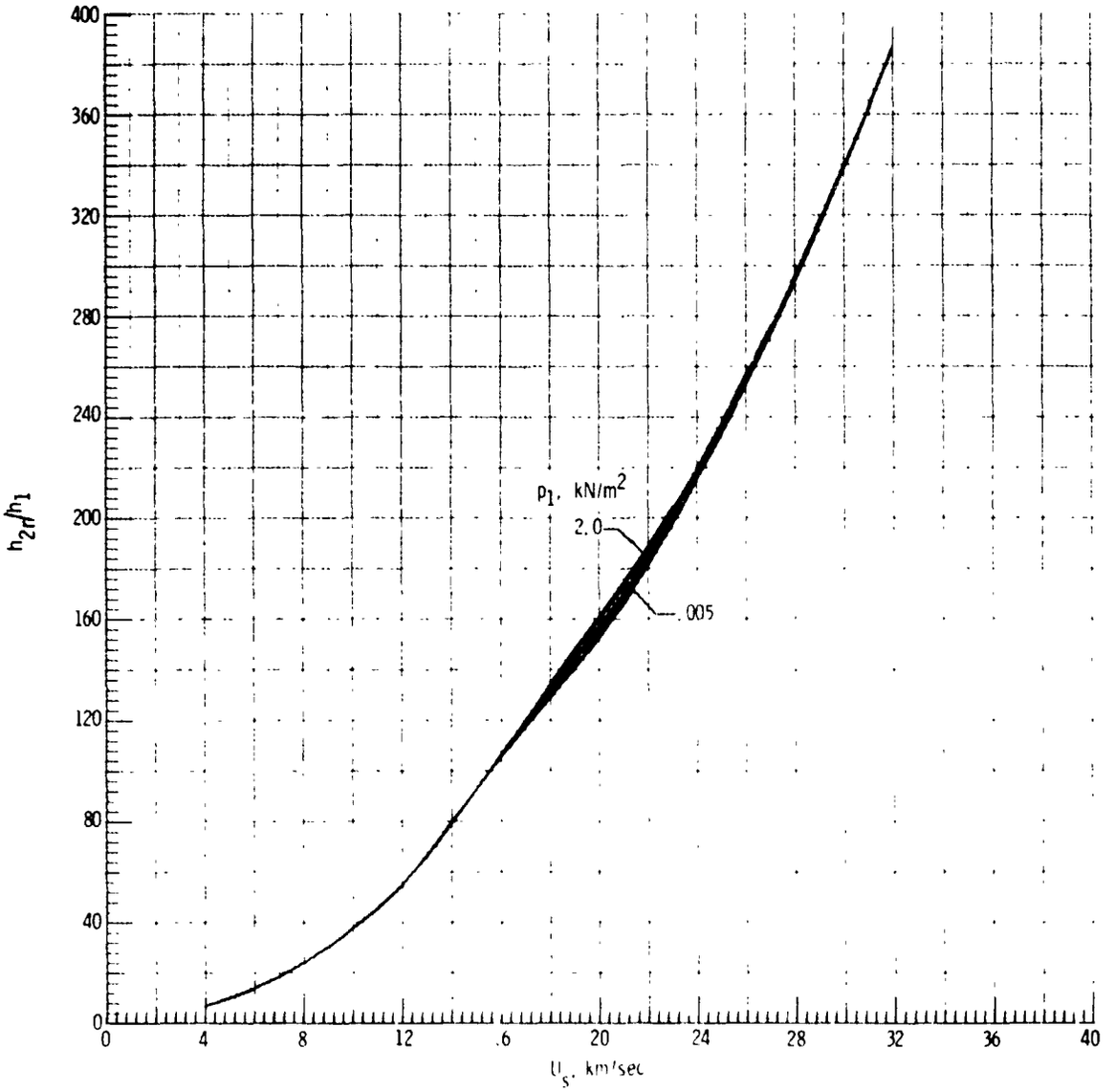
(b) Temperature T_{2r}/T_1.

Figure 4.- Continued.



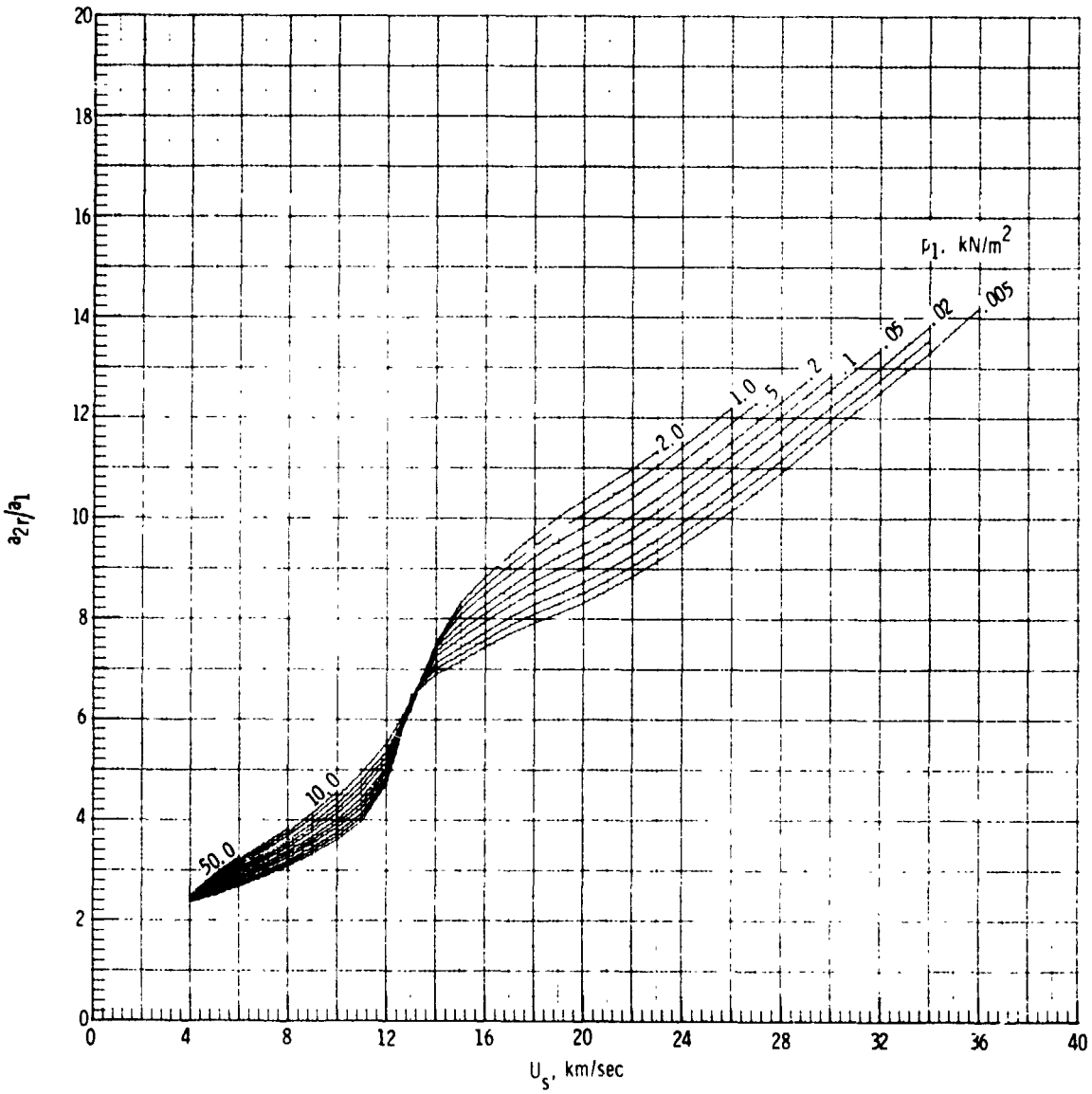
(c) Density ρ_{2r}/ρ_1.

Figure 4.- Continued.



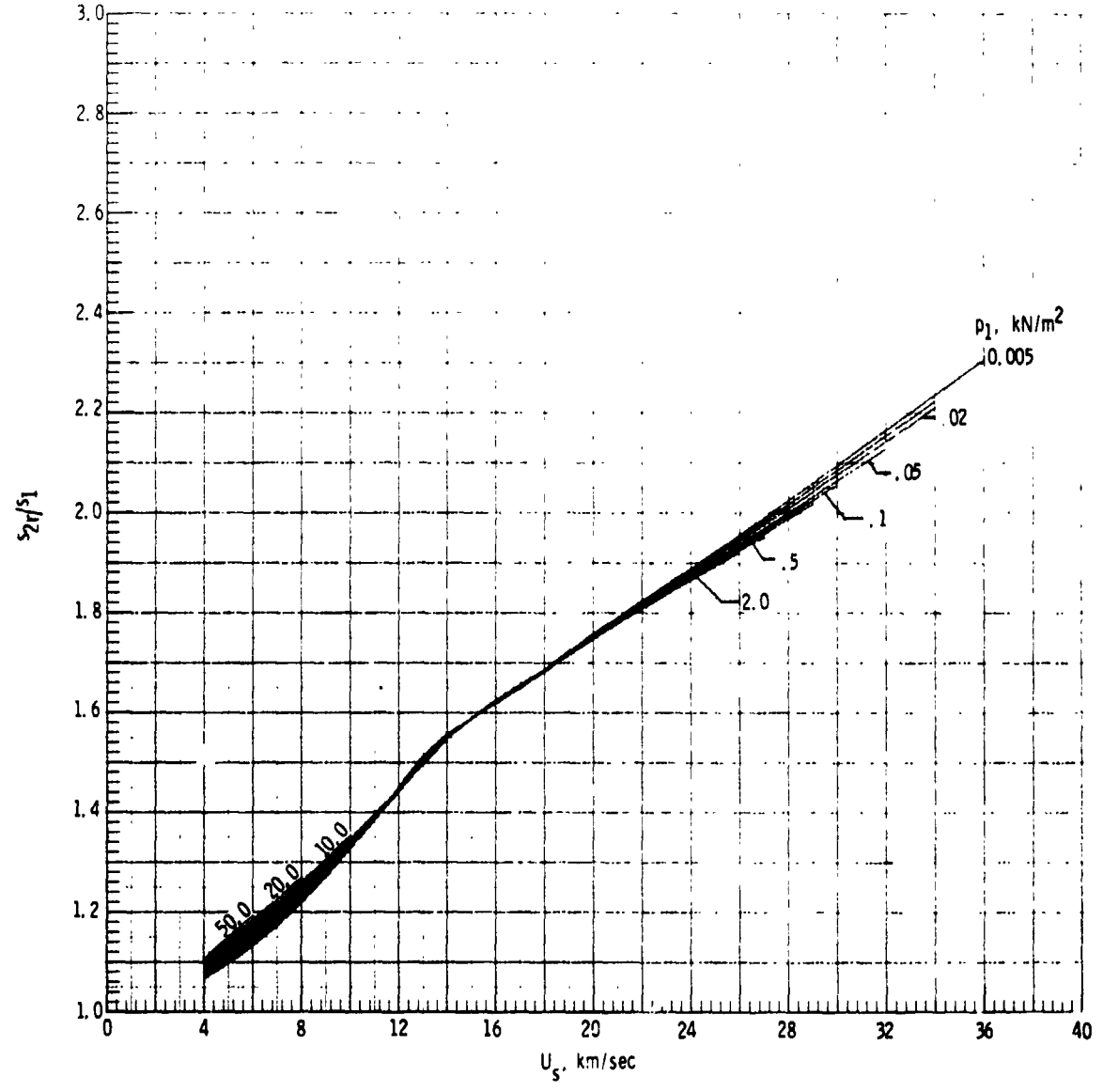
(d) Enthalpy h_{2r}/h_1.

Figure 4.- Continued.



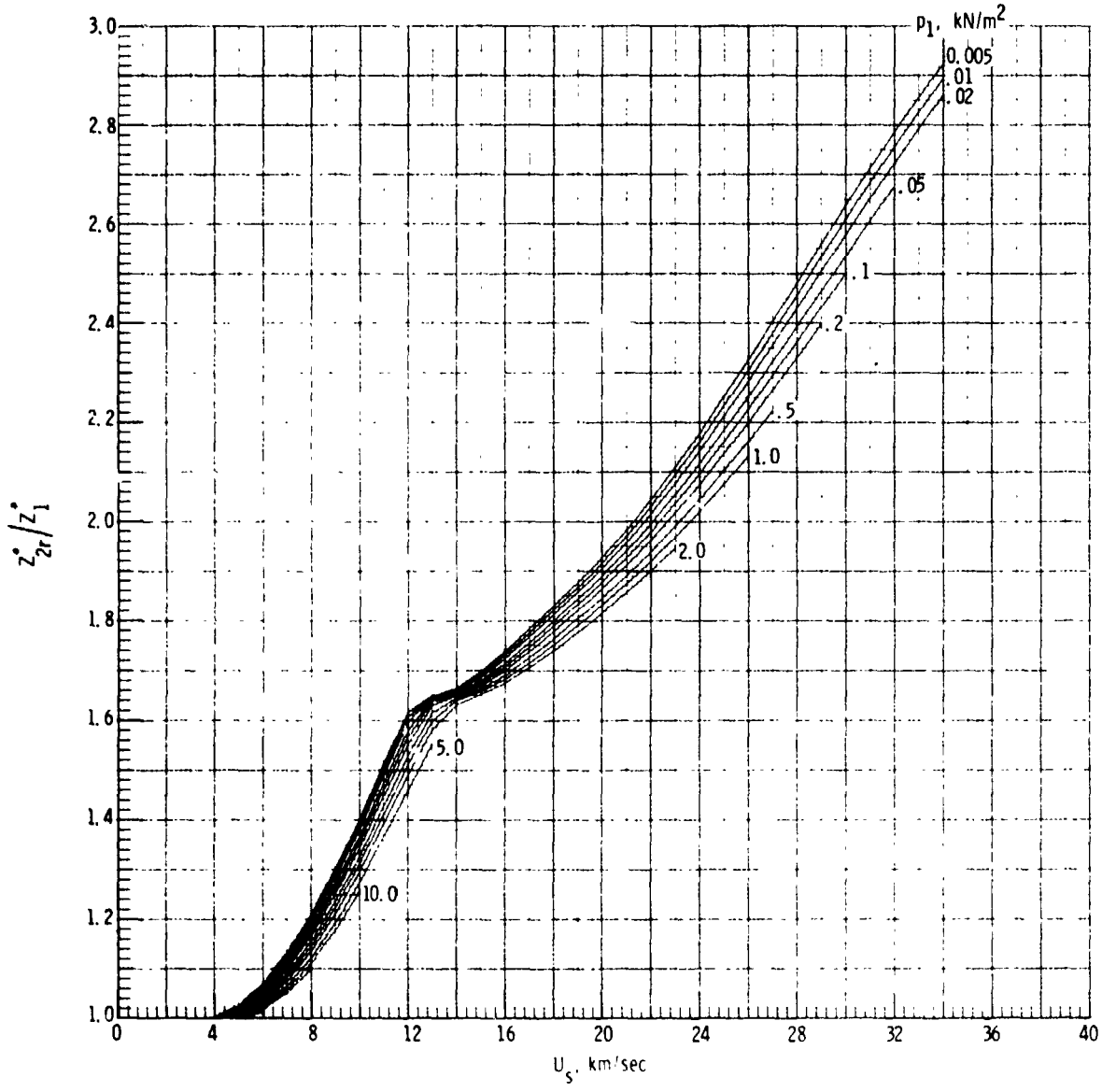
(e) Speed of sound a_{2r}/a_1.

Figure 4.- Continued.



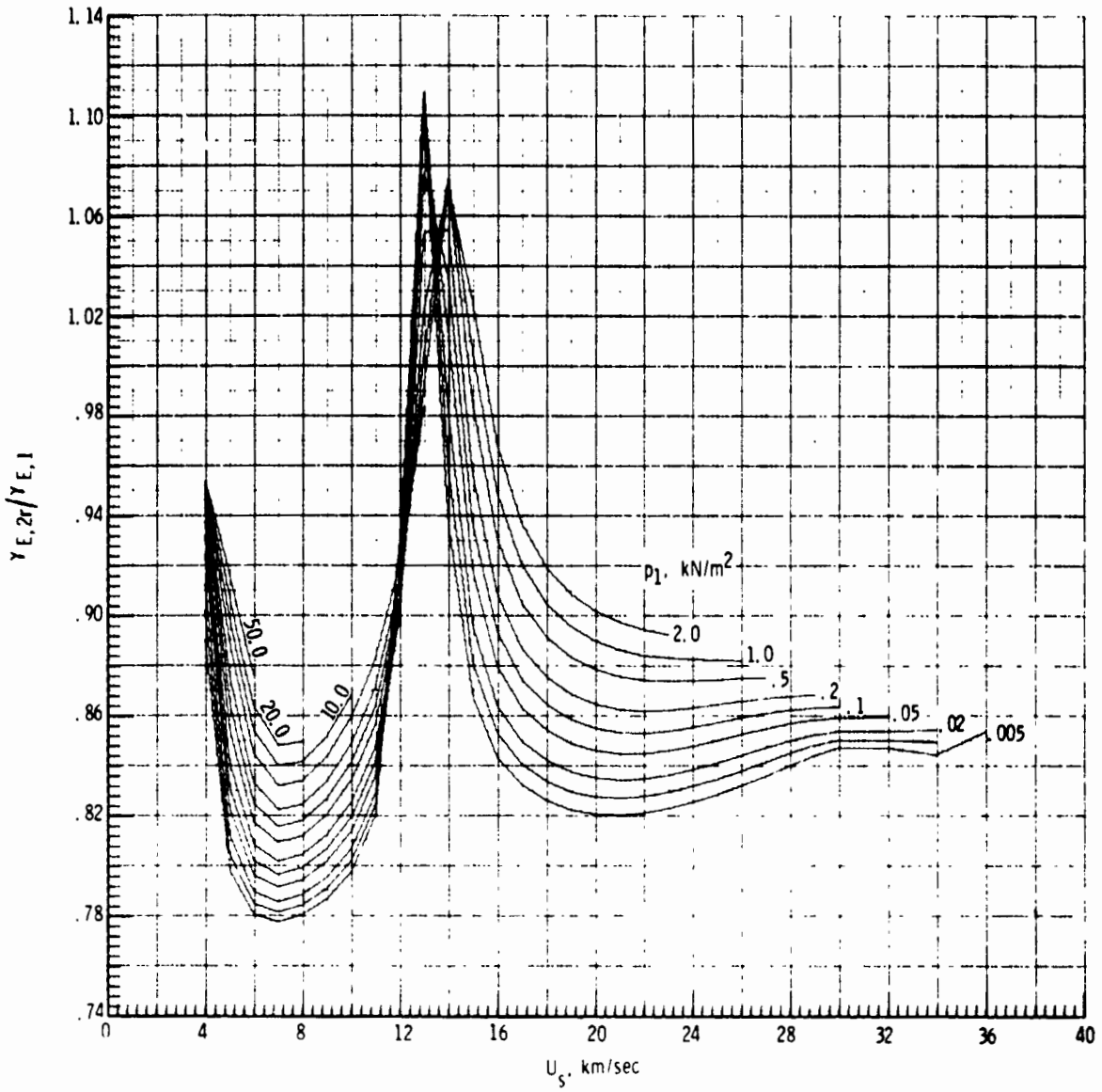
(f) Entropy s_{2r}/s_1.

Figure 4.- Continued.



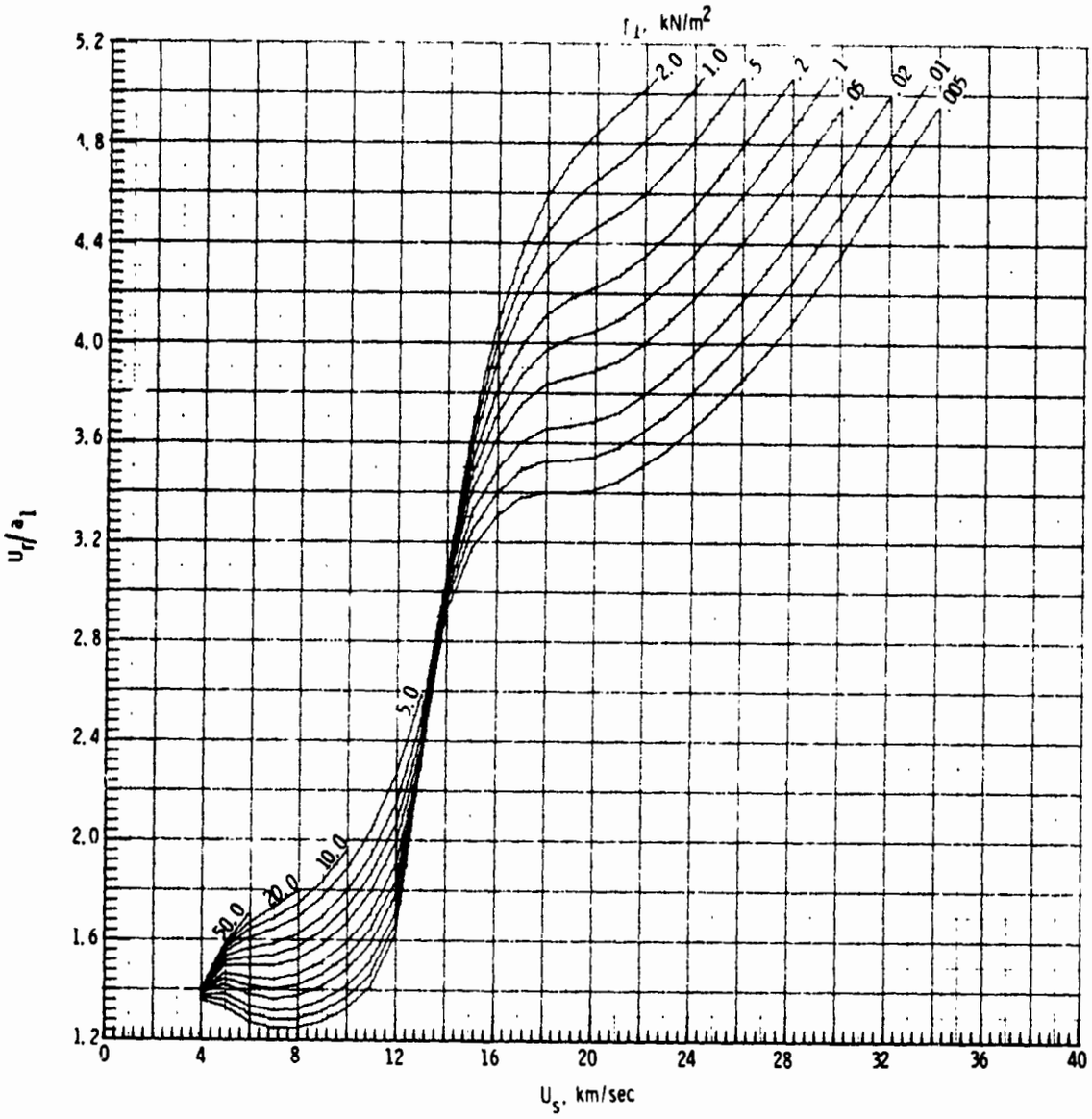
(g) Molecular-weight ratio Z^*_{2r}/Z^*_1.

Figure 4.- Continued.



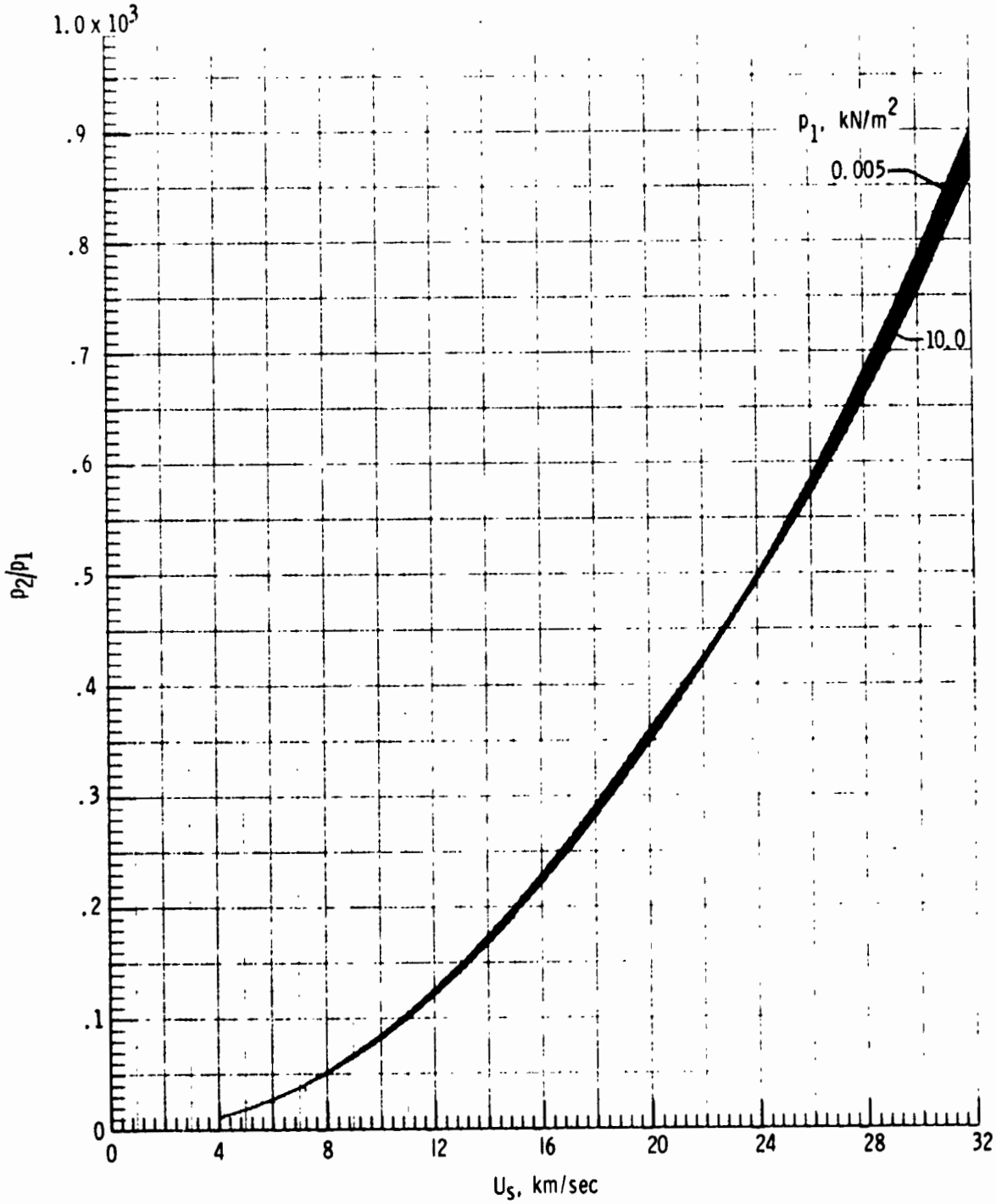
(h) Isentropic exponent $\gamma_{E,2r}/\gamma_{E,1}$.

Figure 4.- Continued.



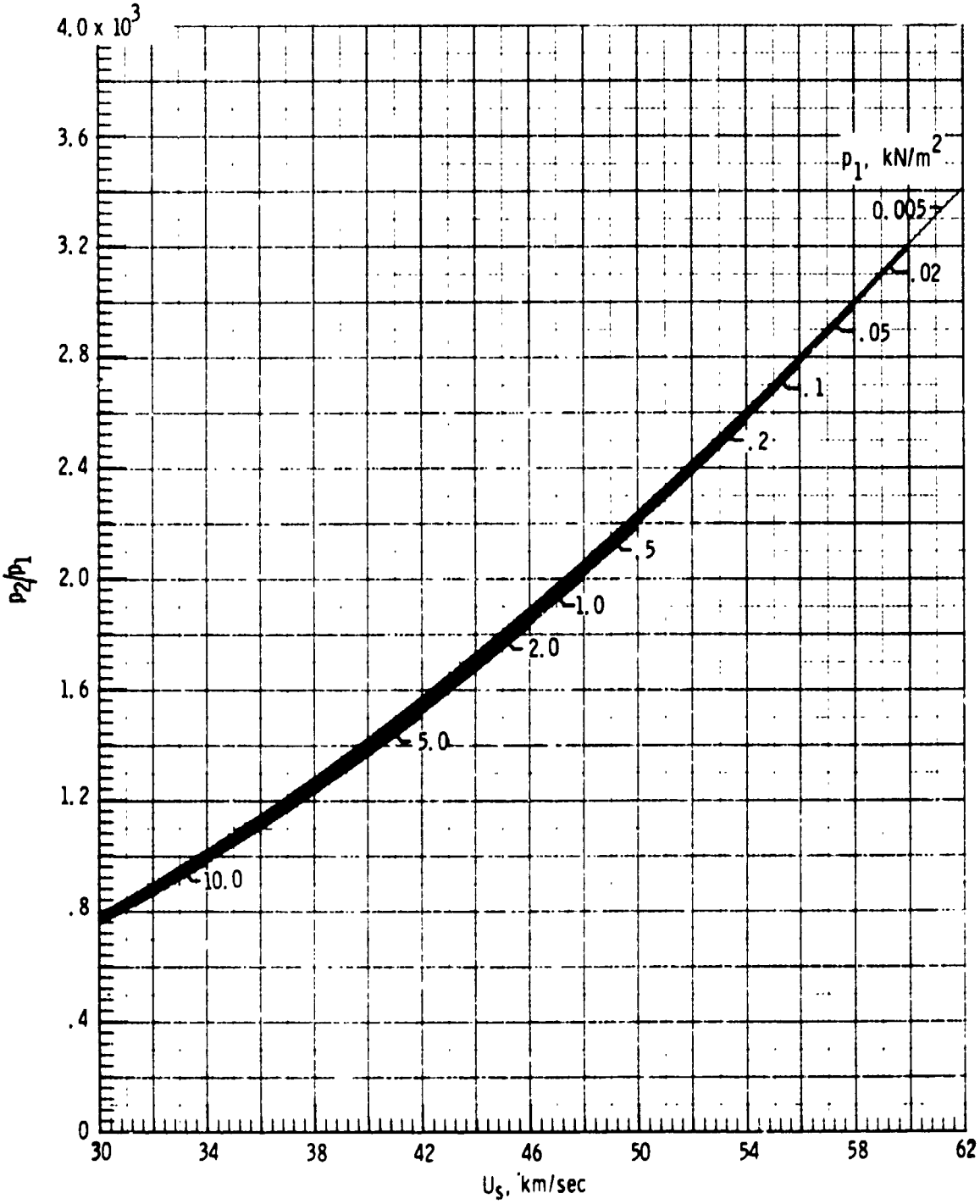
(i) Reflected shock velocity U_r/a_1.

Figure 4.- Concluded.



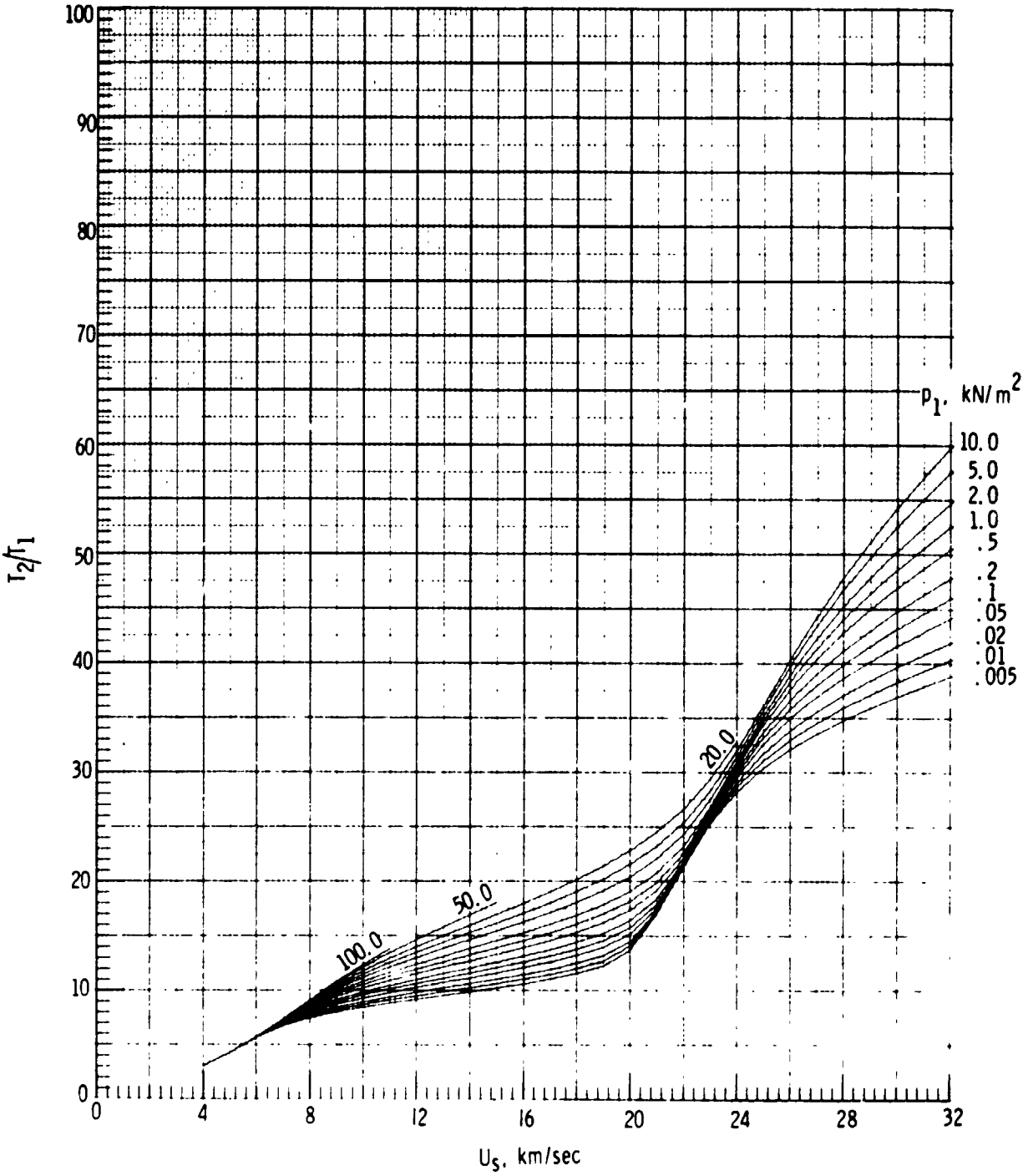
(a) Pressure p_2/p_1.

Figure 5.- Thermodynamic properties and flow velocity behind an incident normal shock into a 0.20He-0.80H_2 mixture.



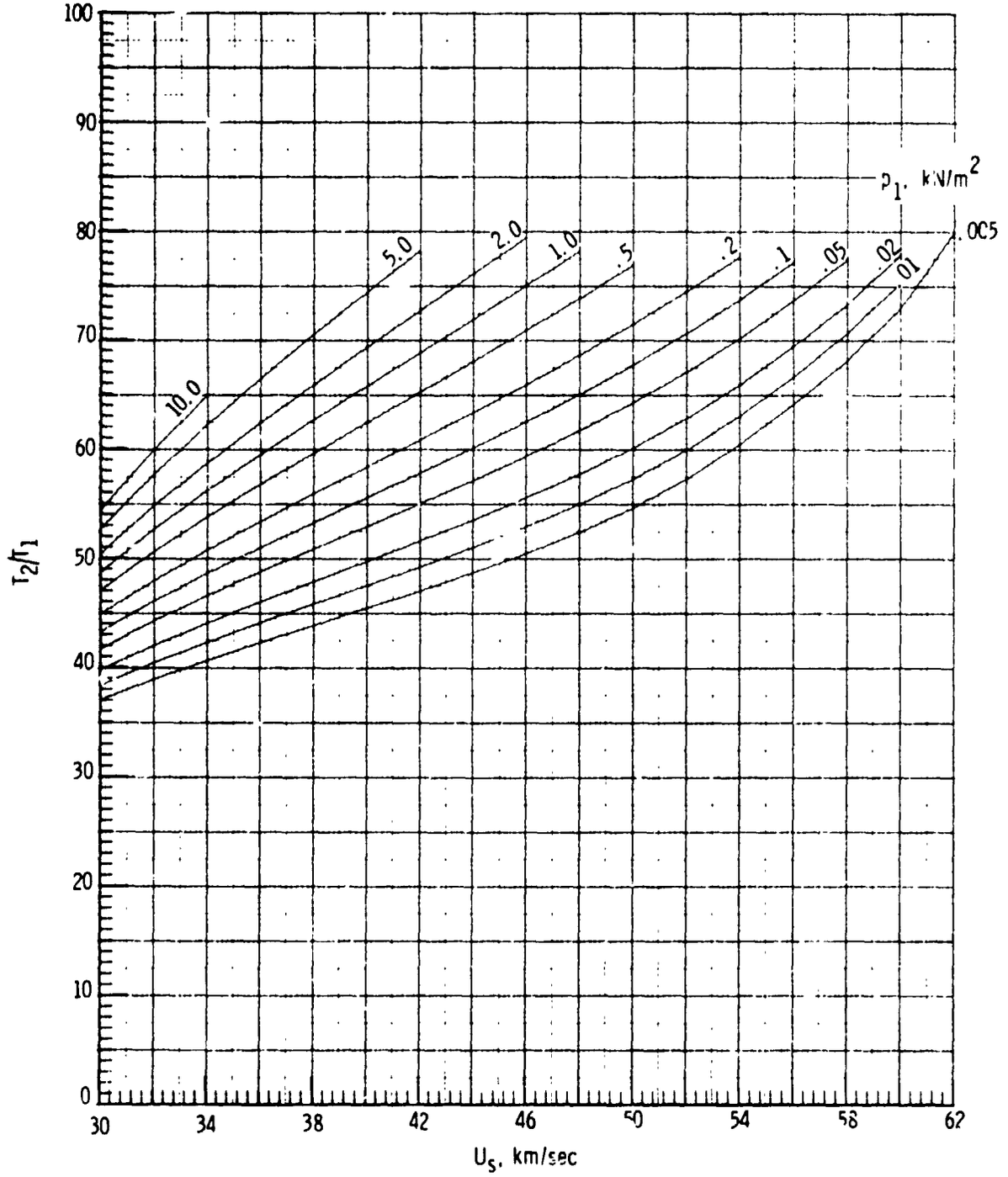
(a) Pressure p_2/p_1. Concluded.

Figure 5.- Continued.



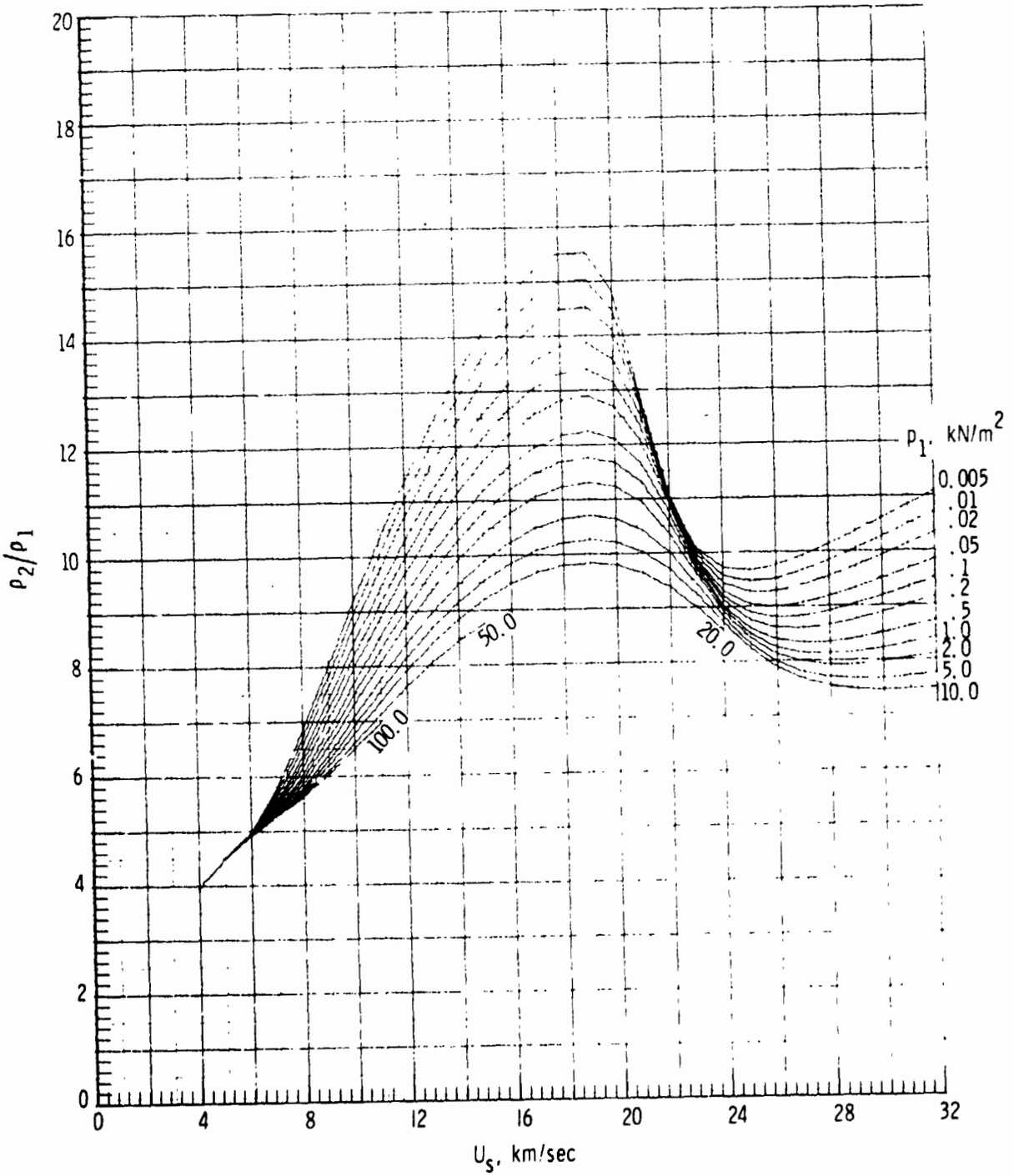
(b) Temperature T_2/T_1.

Figure 5.- Continued.



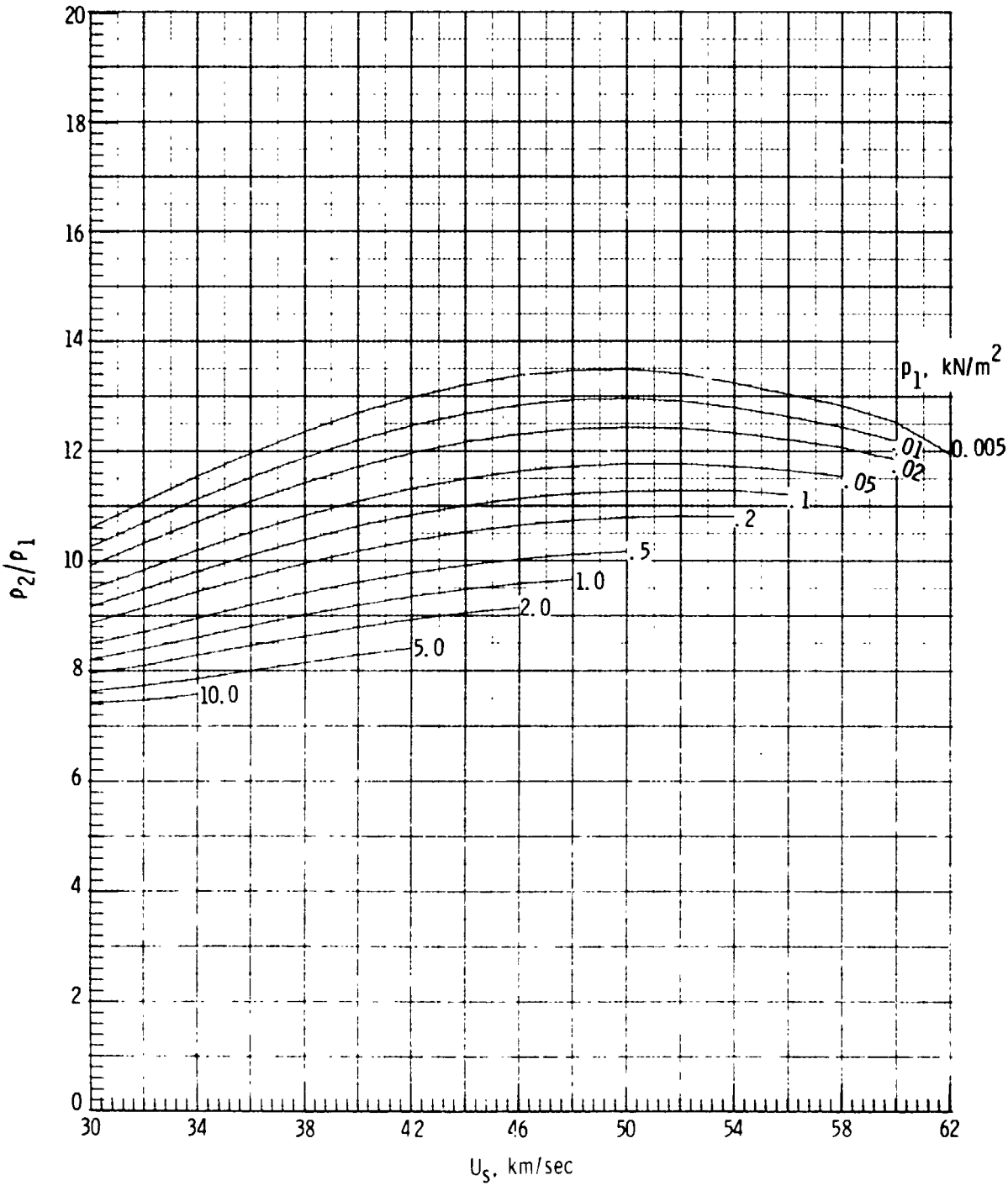
(b) Temperature T_2/T_1. Concluded.

Figure 5.- Continued.



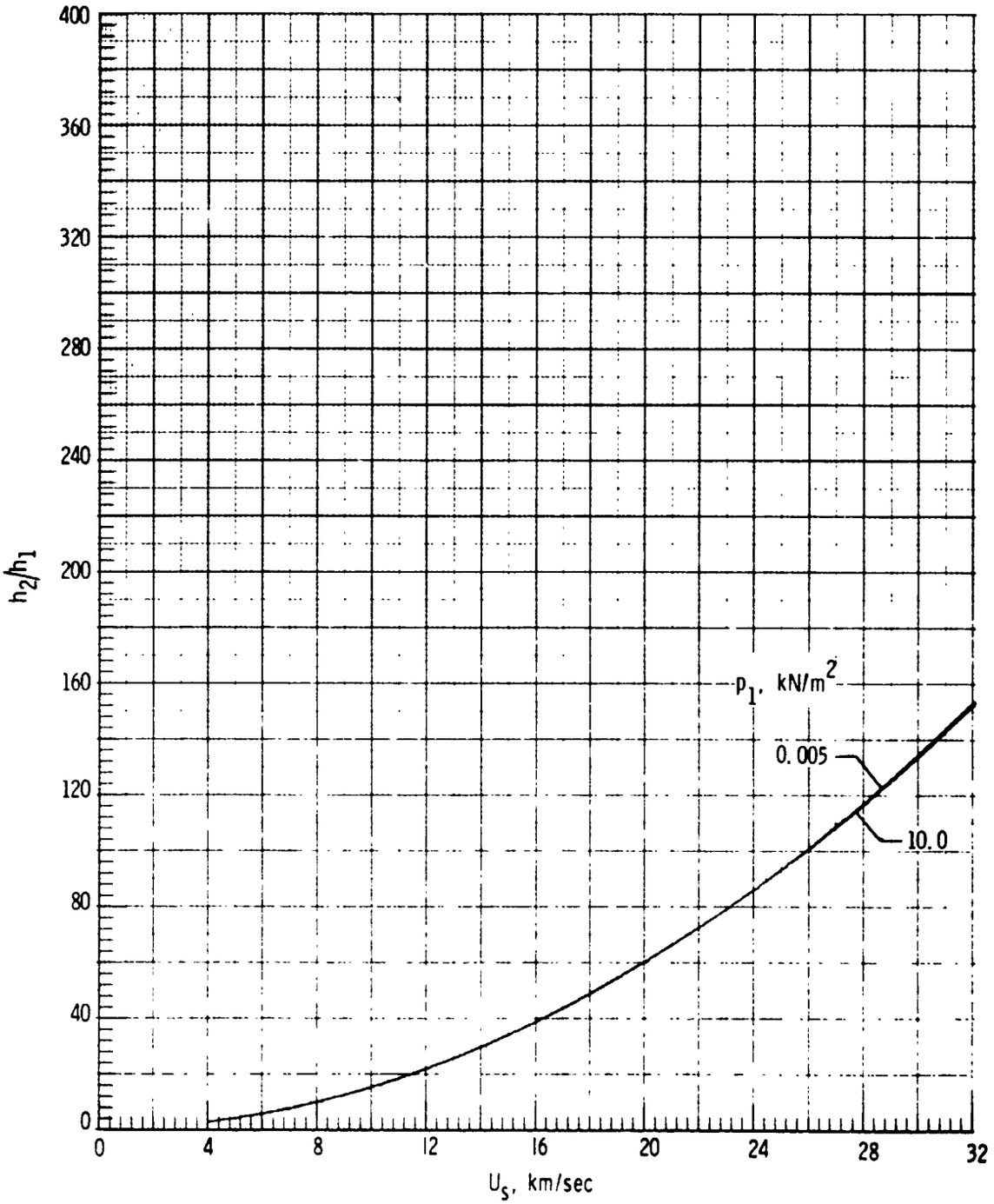
(c) Density ρ_2/ρ_1.

Figure 5.- Continued.



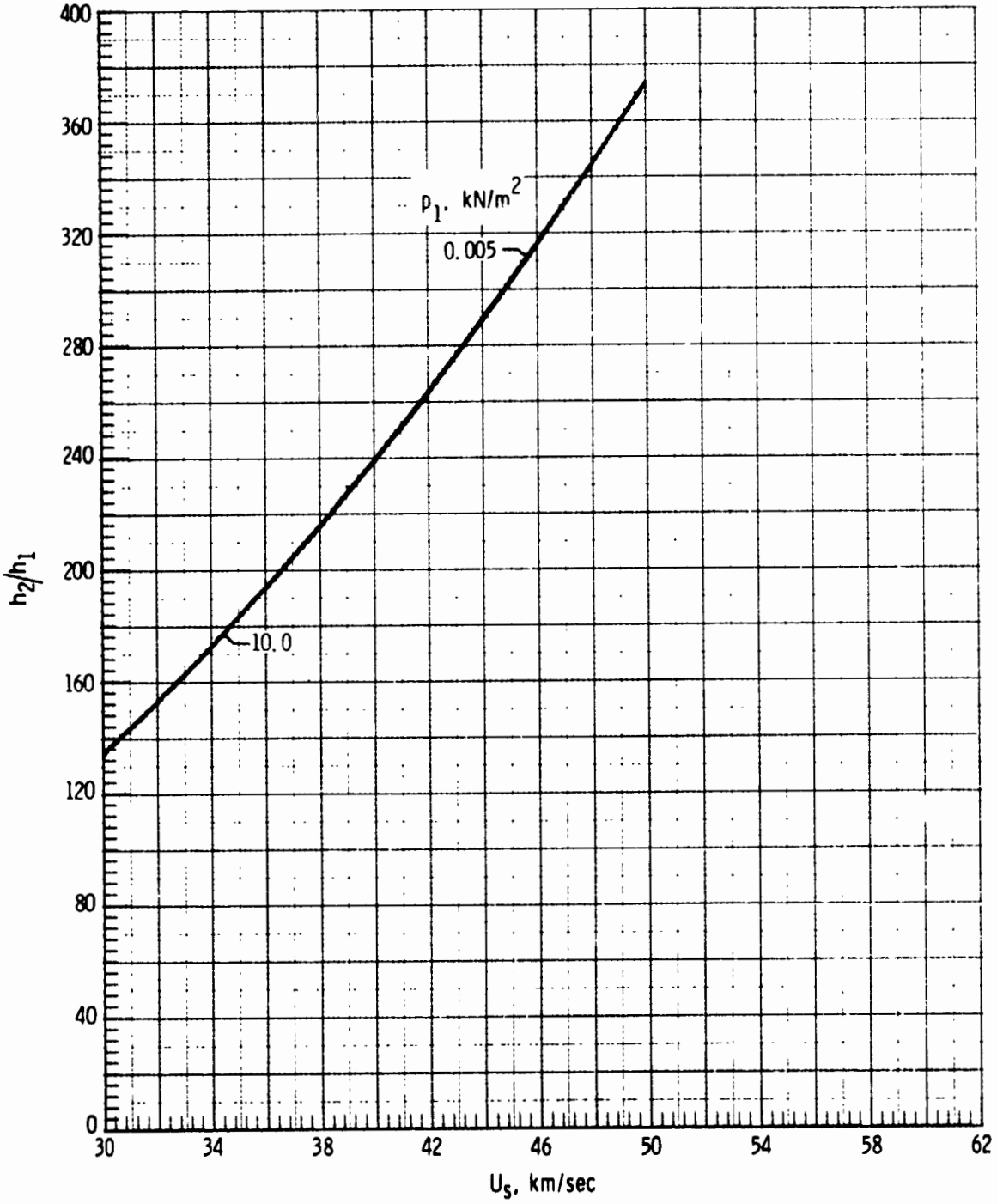
(c) Density ρ_2/ρ_1. Concluded.

Figure 5.- Continued.



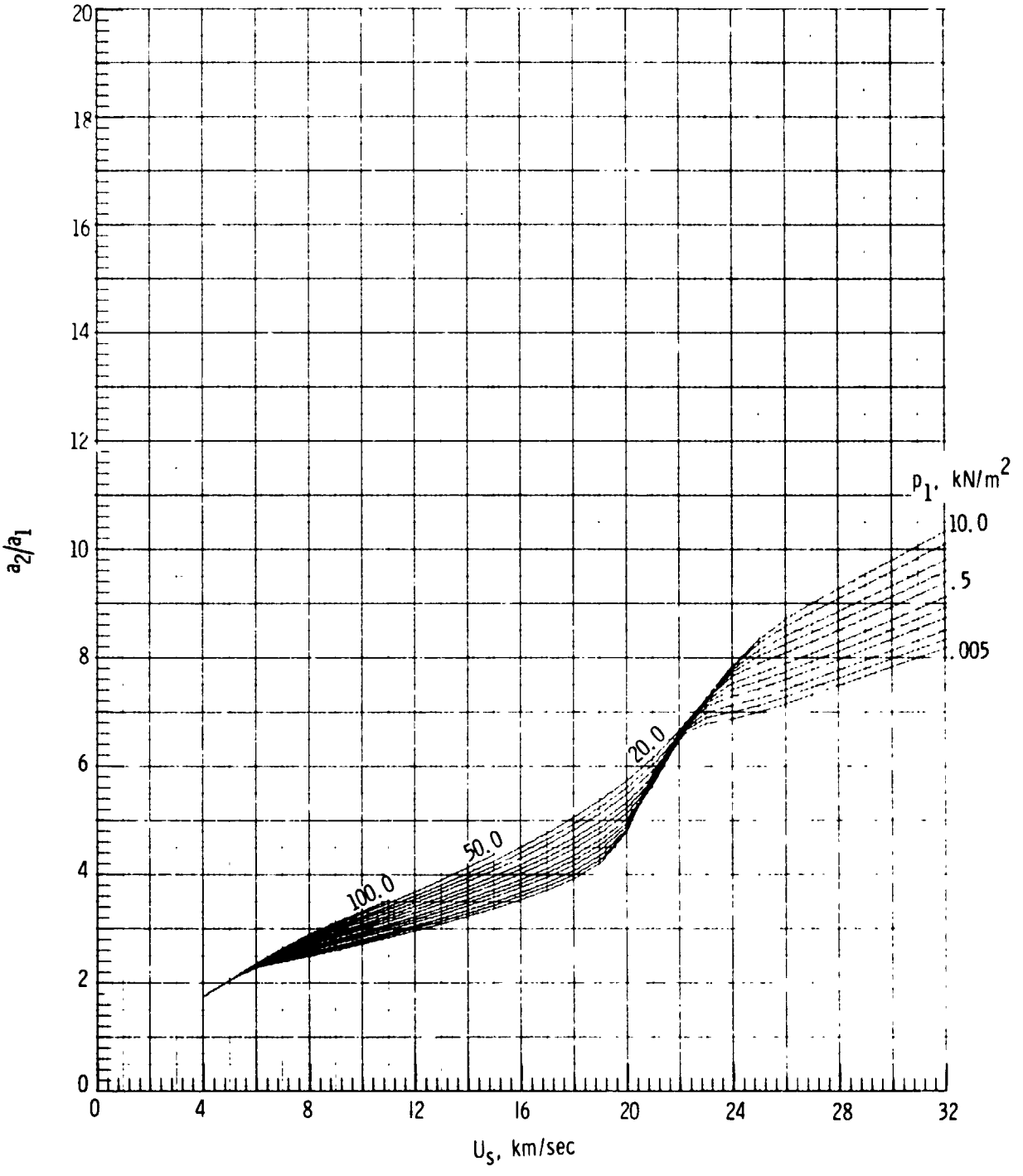
(d) Enthalpy h_2/h_1.

Figure 5.- Continued.



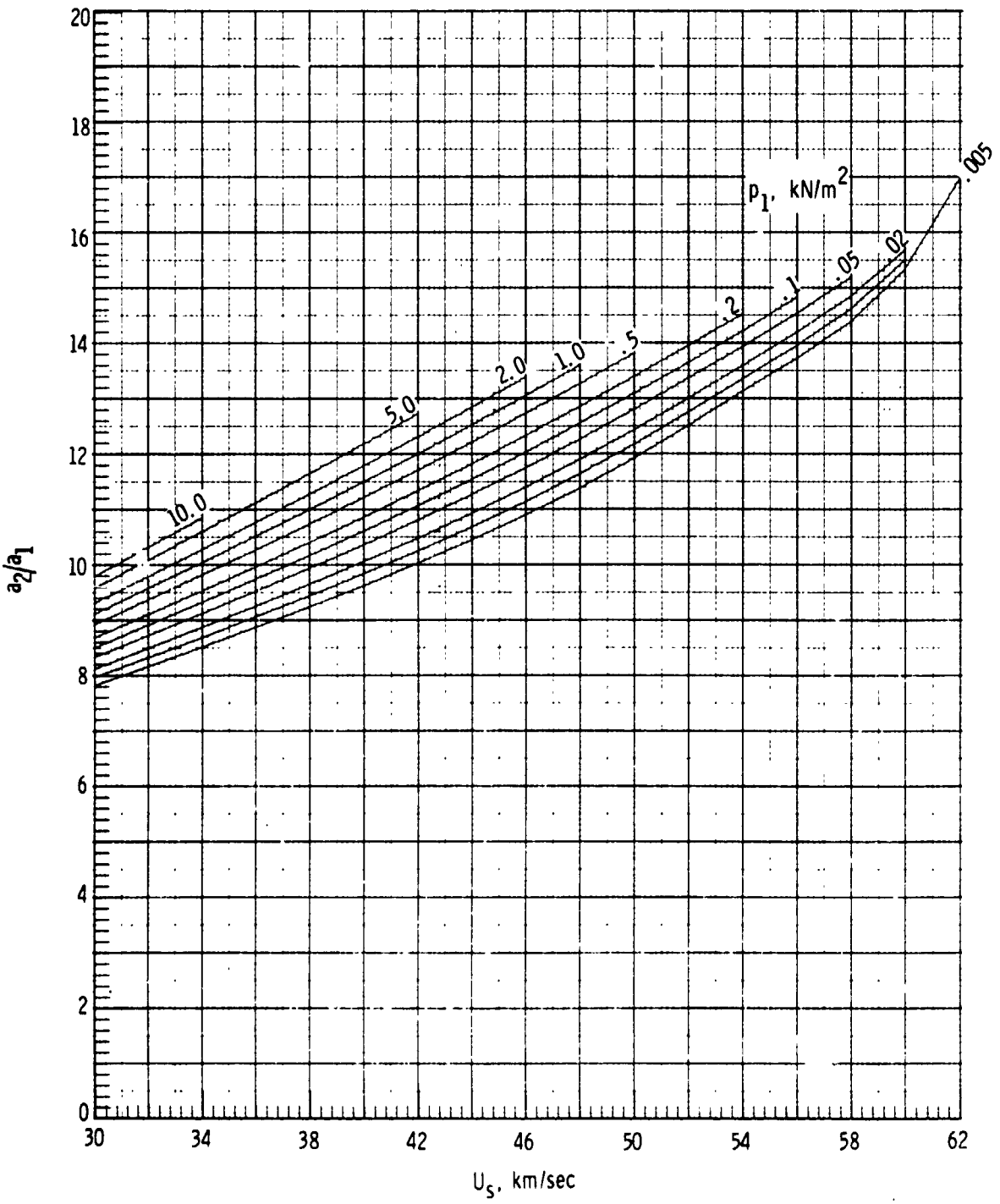
(d) Enthalpy h_2/h_1. Concluded.

Figure 5.- Continued.



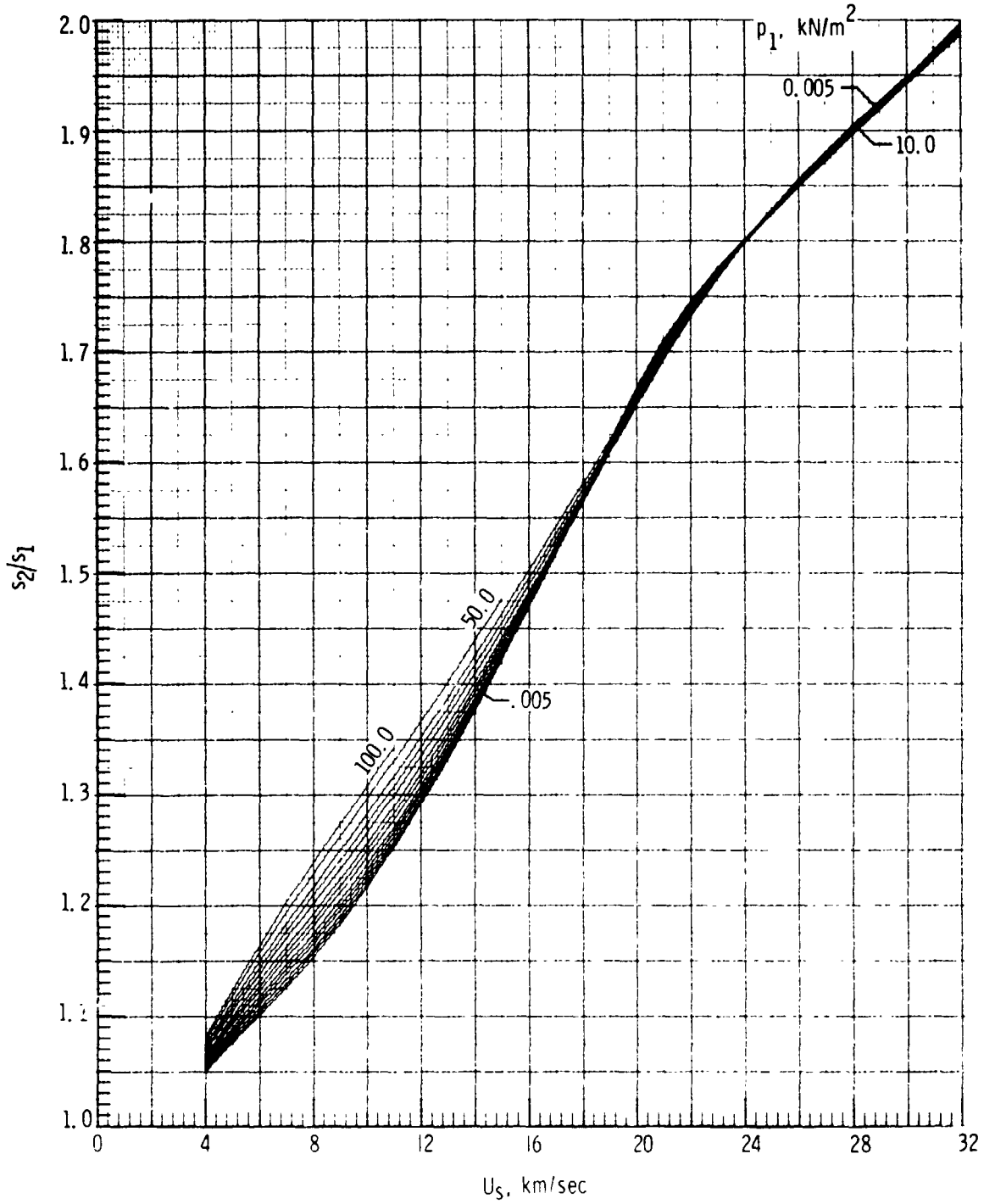
(e) Speed of sound a_2/a_1.

Figure 5.- Continued.



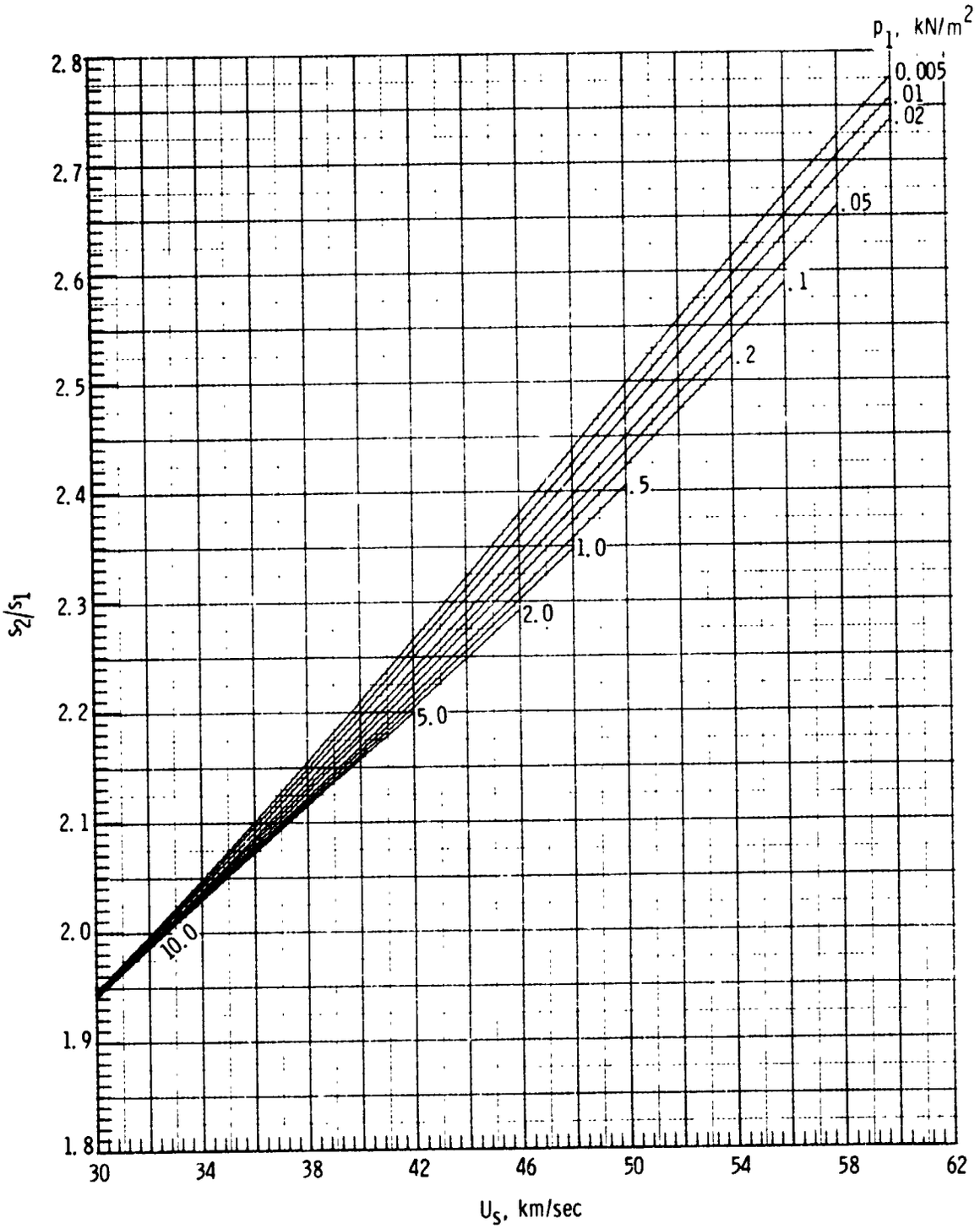
(e) Speed of sound a_2/a_1. Concluded.

Figure 5.- Continued.



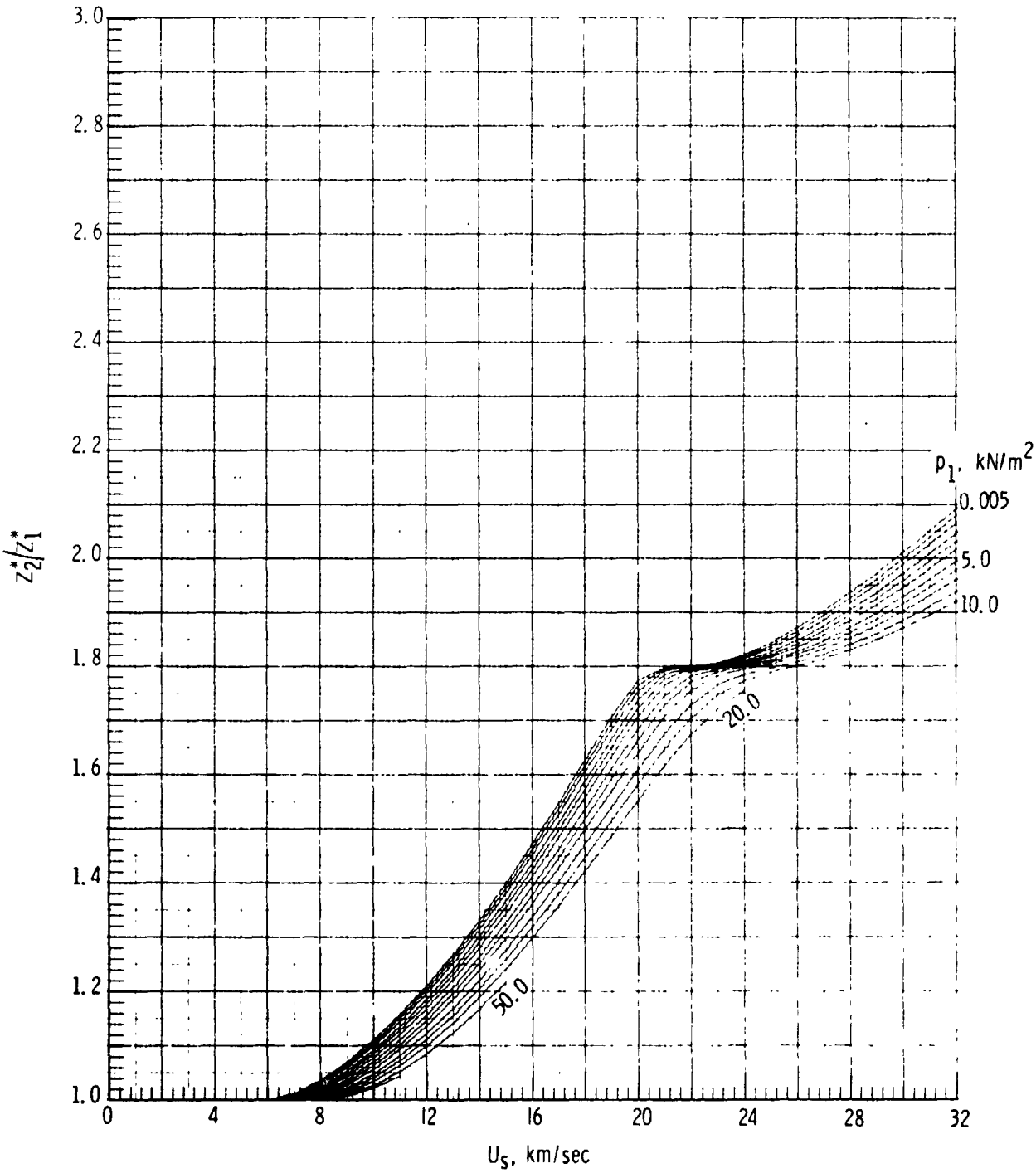
(f) Entropy s_2. s_1.

Figure 5.- Continued.



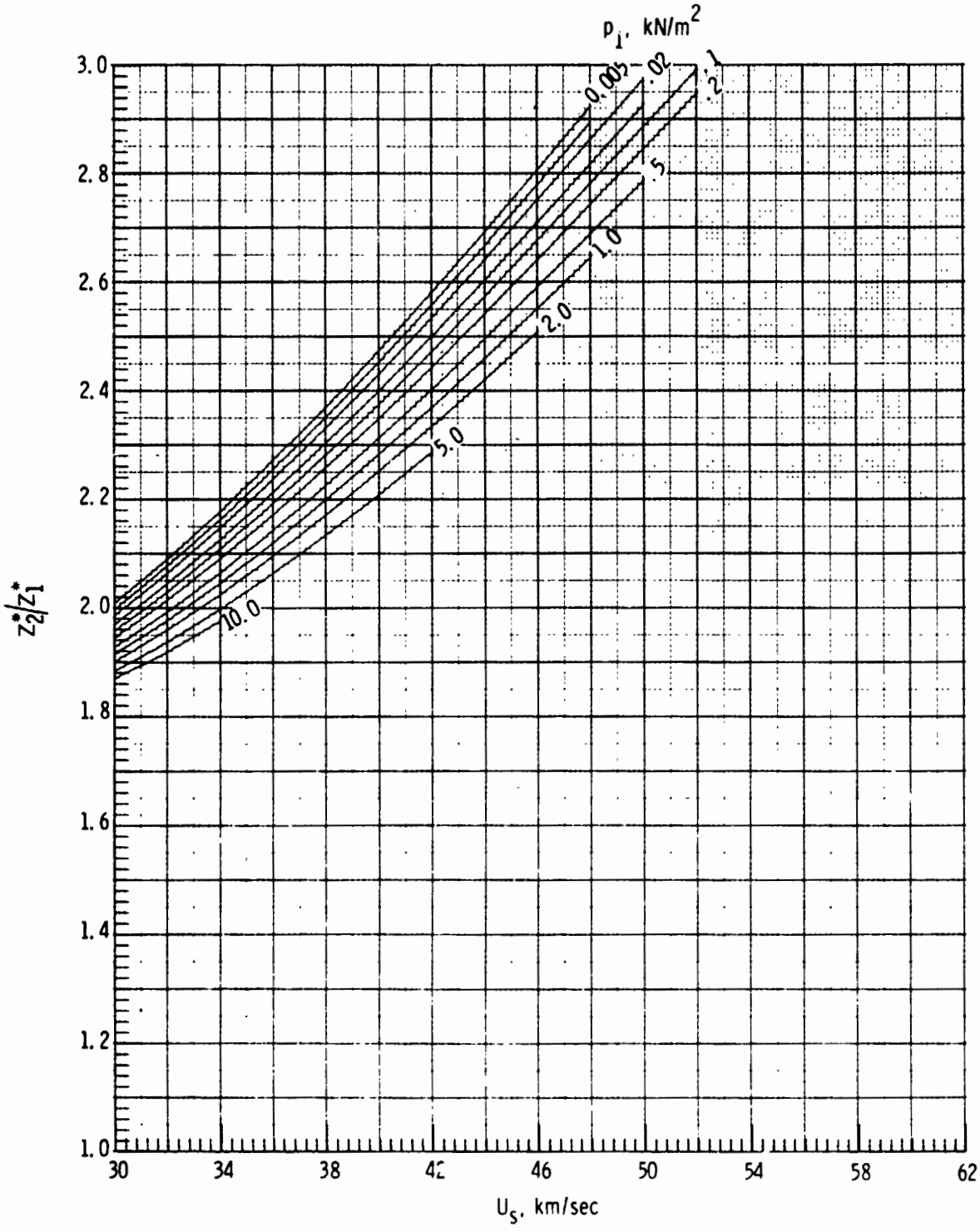
(f) Entropy s_2/s_1. Concluded.

Figure 5.- Continued.



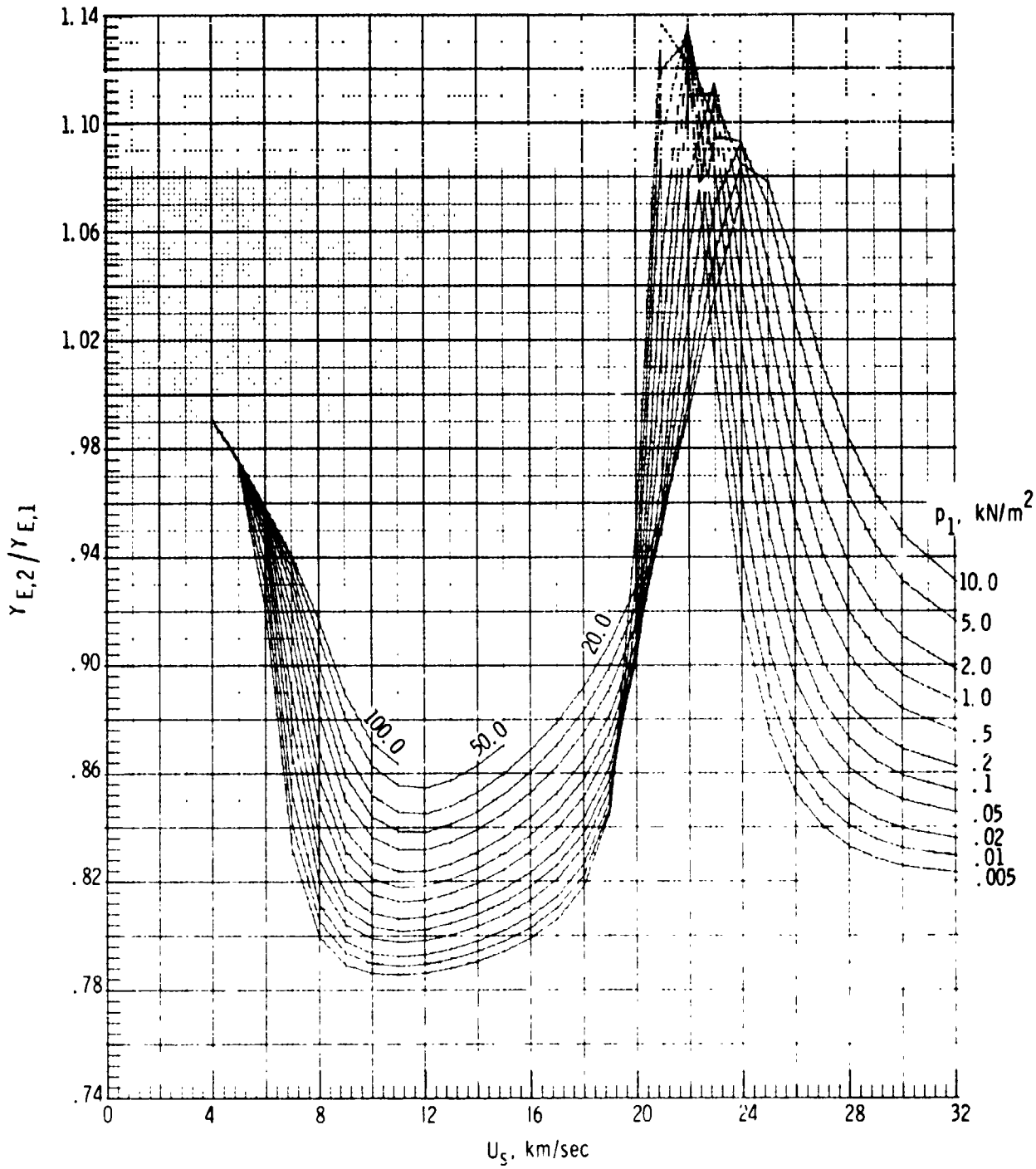
(g) Molecular-weight ratio z_2^*/z_1^*.

Figure 5.- Continued.



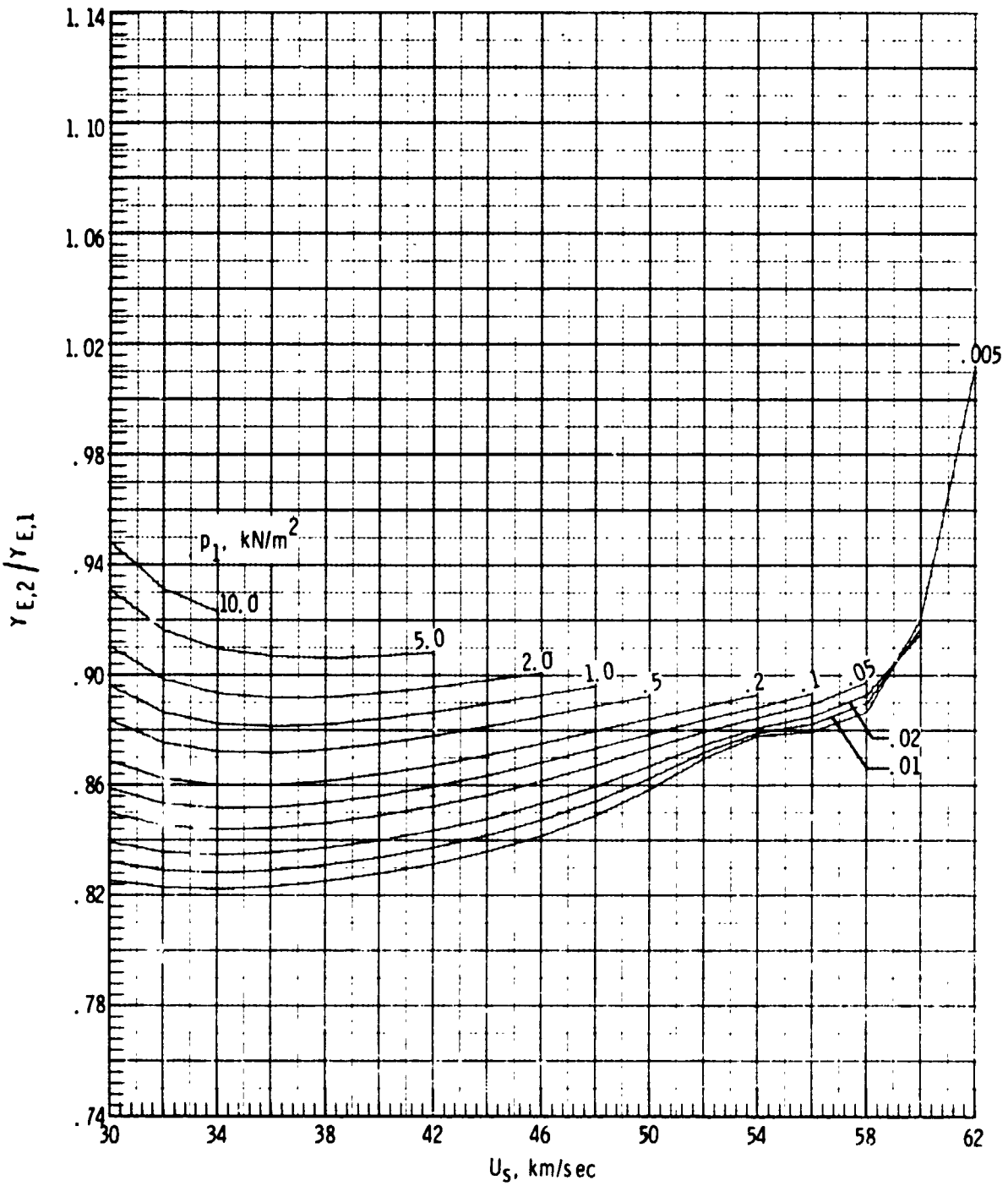
(g) Molecular-weight ratio Z_2^*/Z_1^*. Concluded.

Figure 5.- Continued.



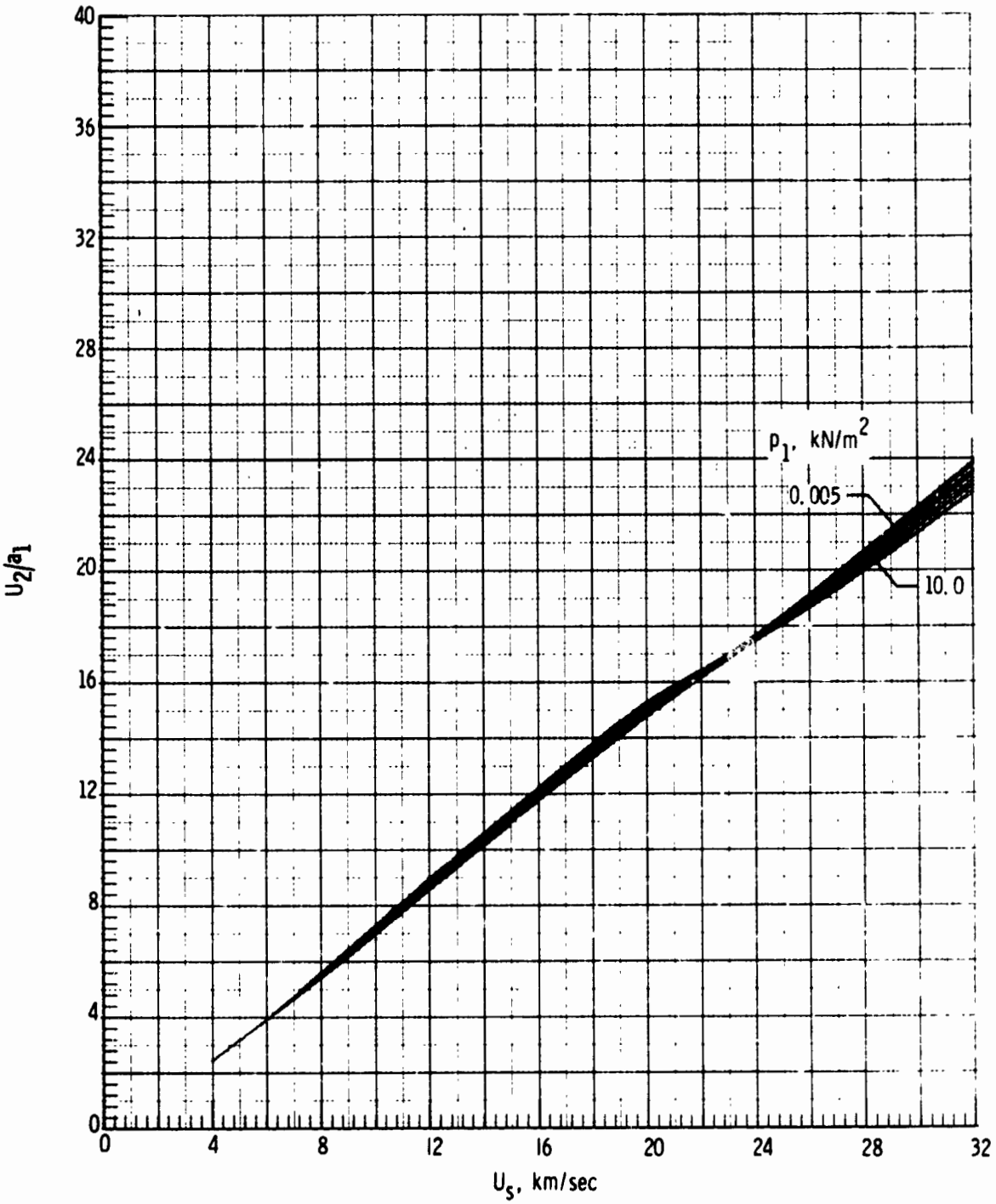
(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$.

Figure 5.- Continued.



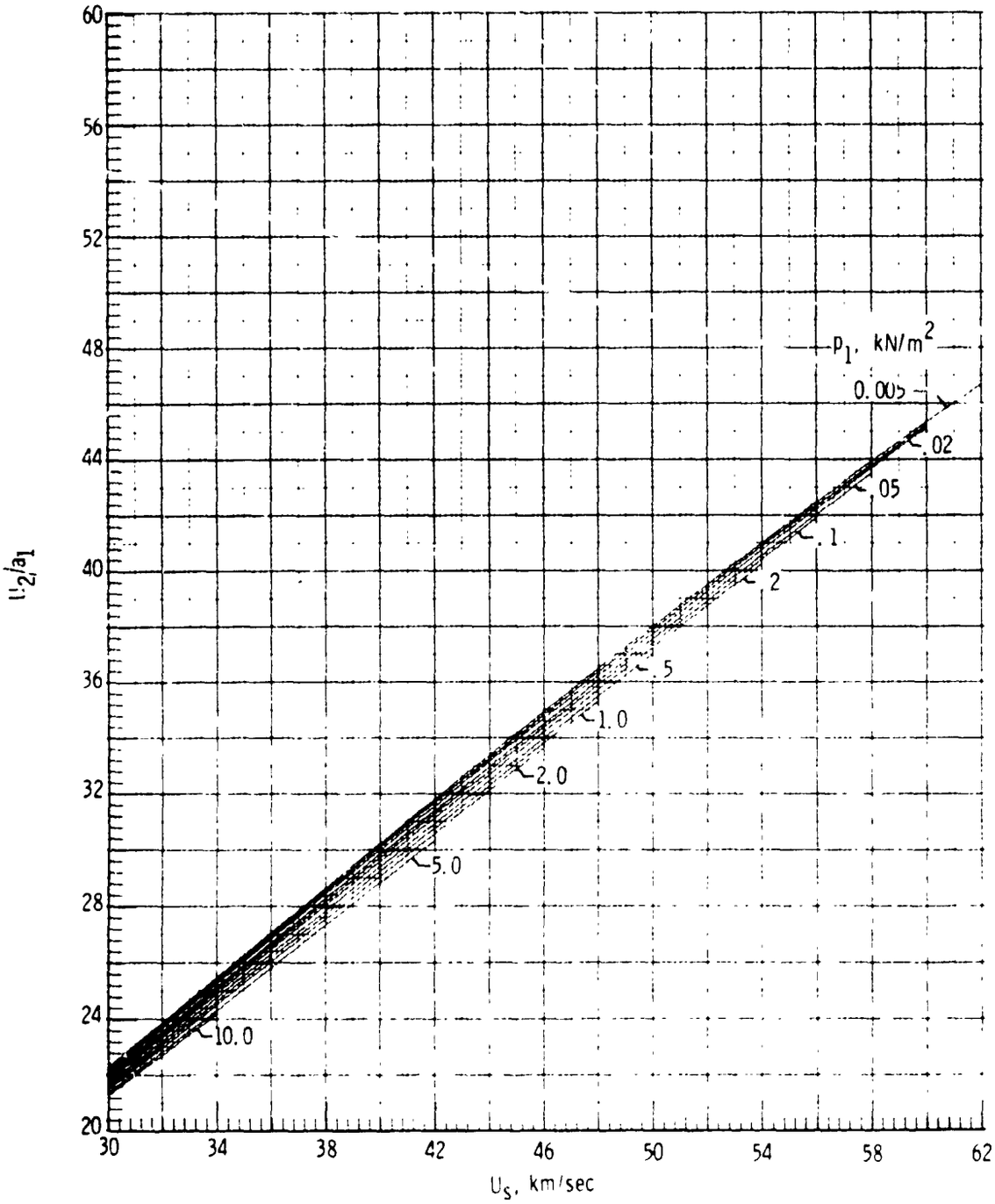
(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$. Concluded.

Figure 5.- Continued.



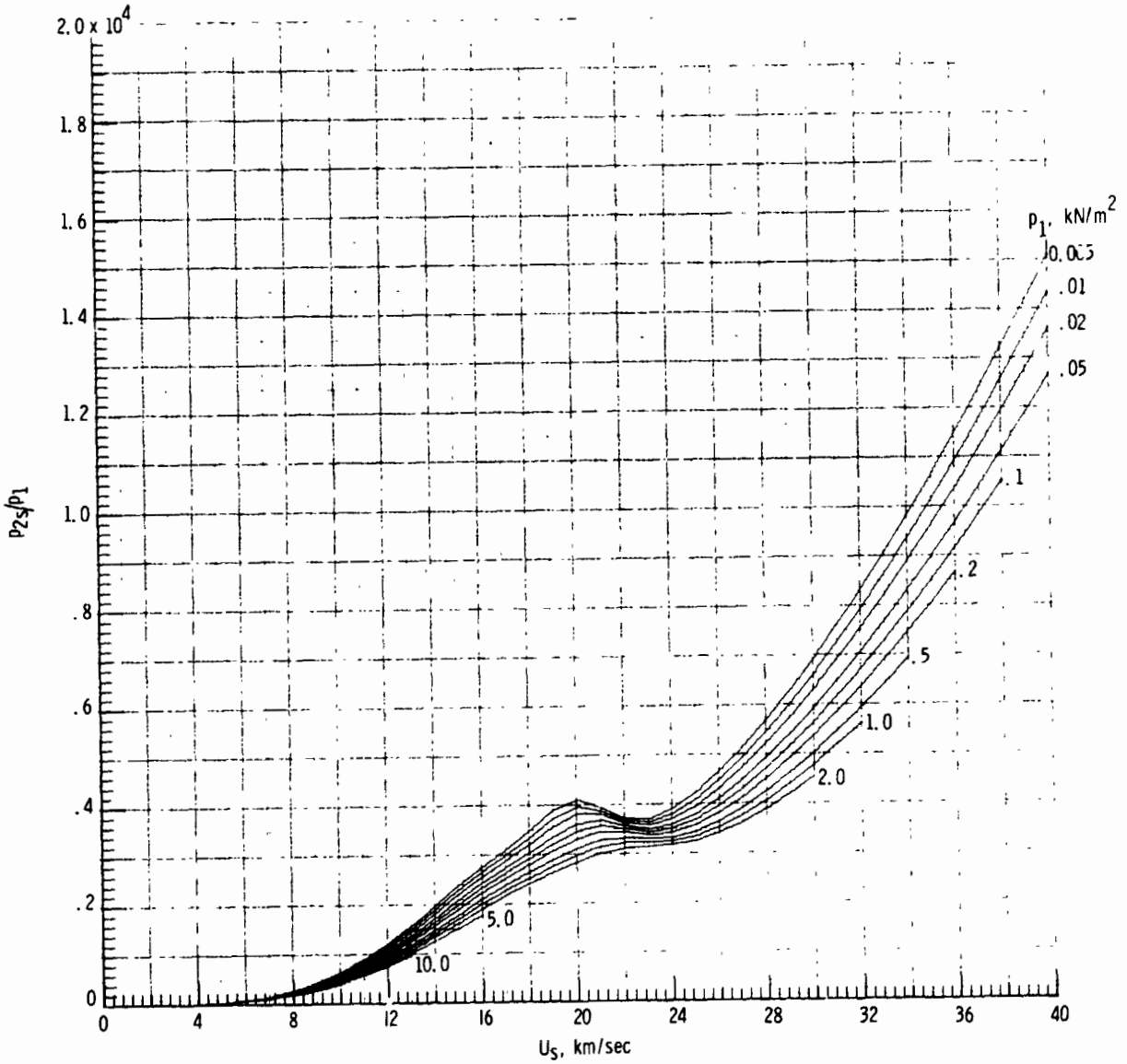
(i) Flow velocity U_2/a_1.

Figure 5.- Continued.



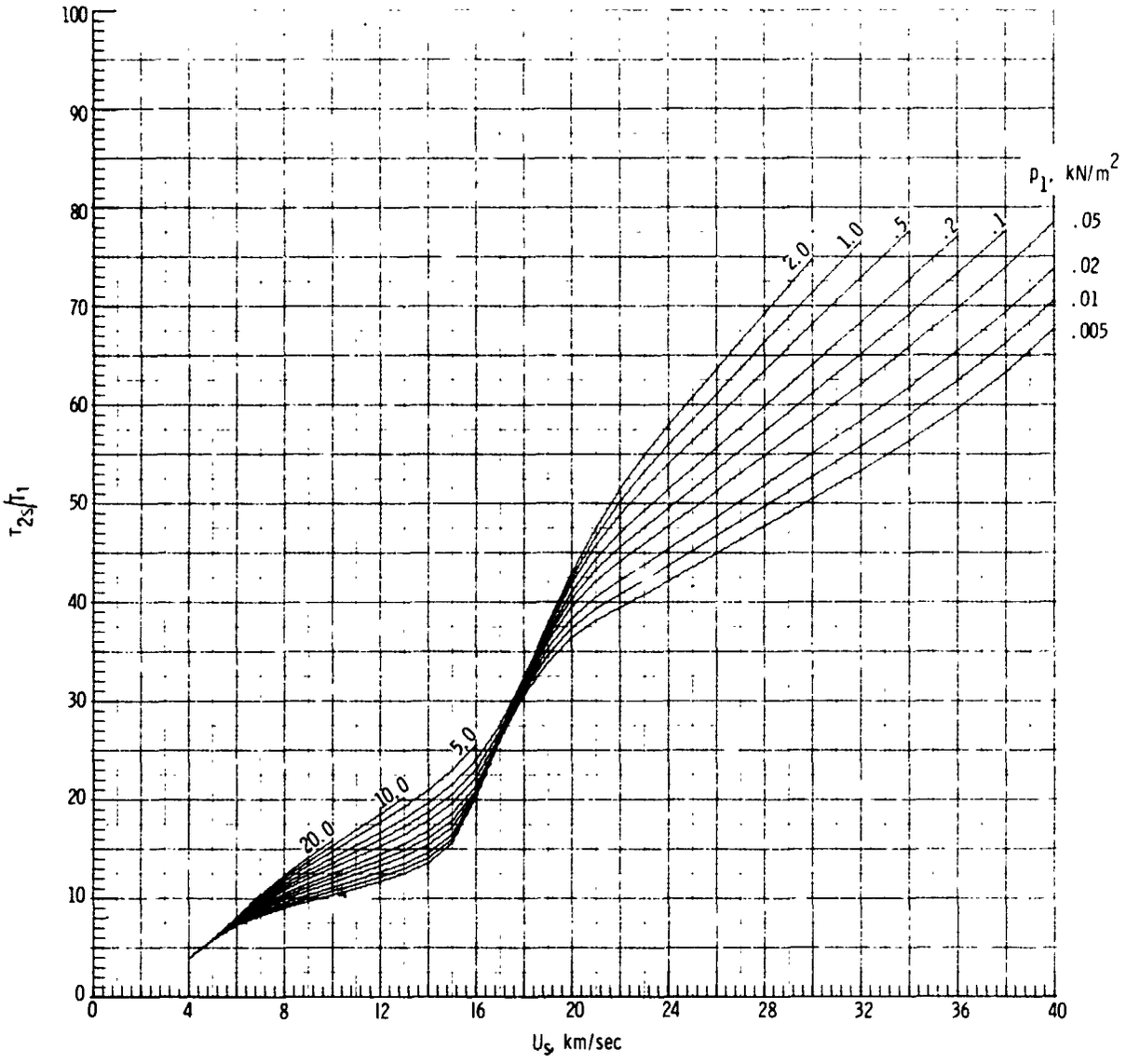
(i) Flow velocity U_2 a_1. Concluded.

Figure 5.- Concluded.



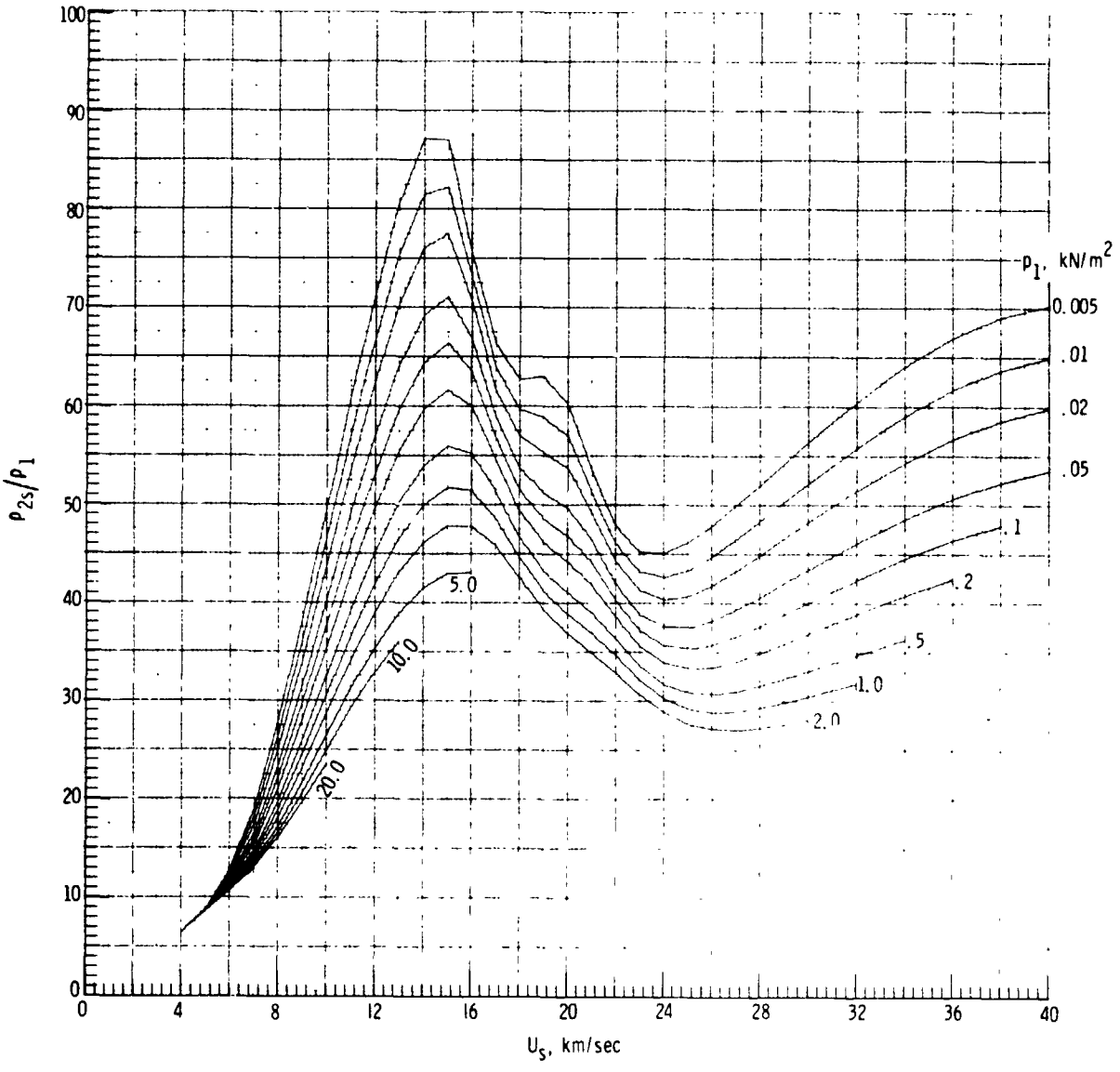
(a) Pressure p_{2s}/p_1.

Figure 6.- Thermodynamic properties and flow velocity behind a standing normal shock for a 0.20He-0.80H_2 mixture.



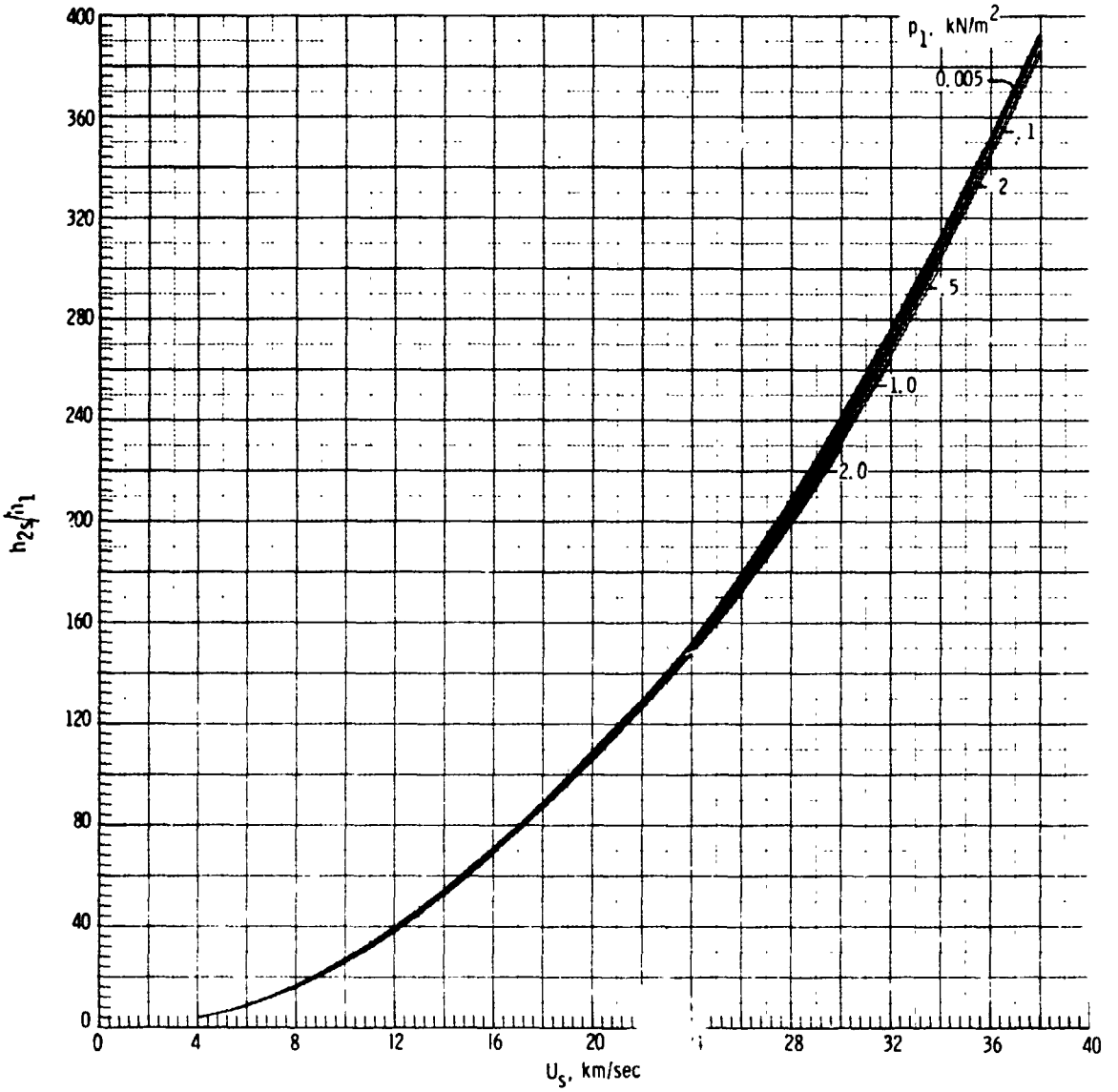
(b) Temperature T_{2s}/T_1.

Figure 6.- Continued.



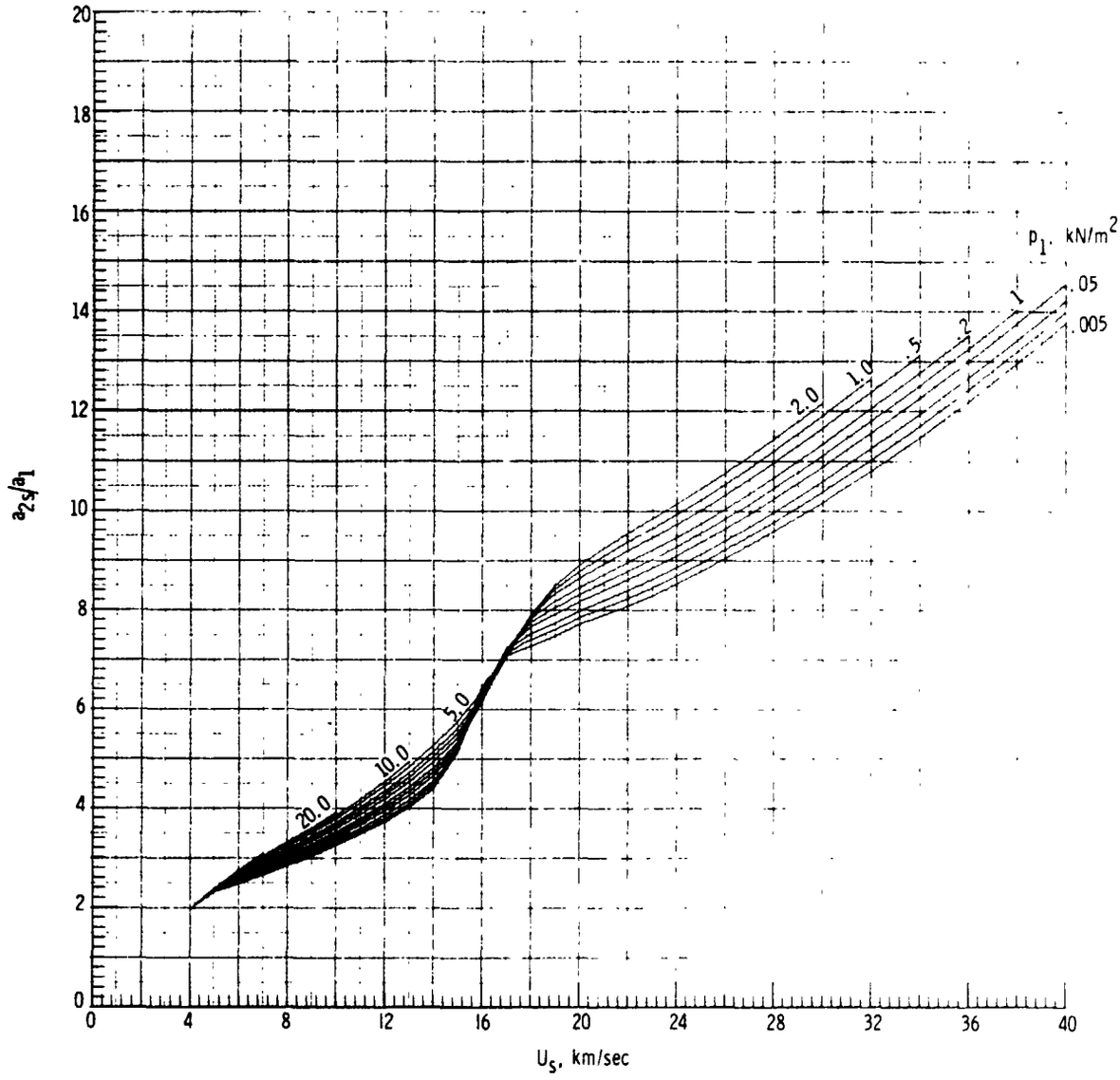
(c) Density ρ_{2s}/ρ_1.

Figure 6.- Continued.



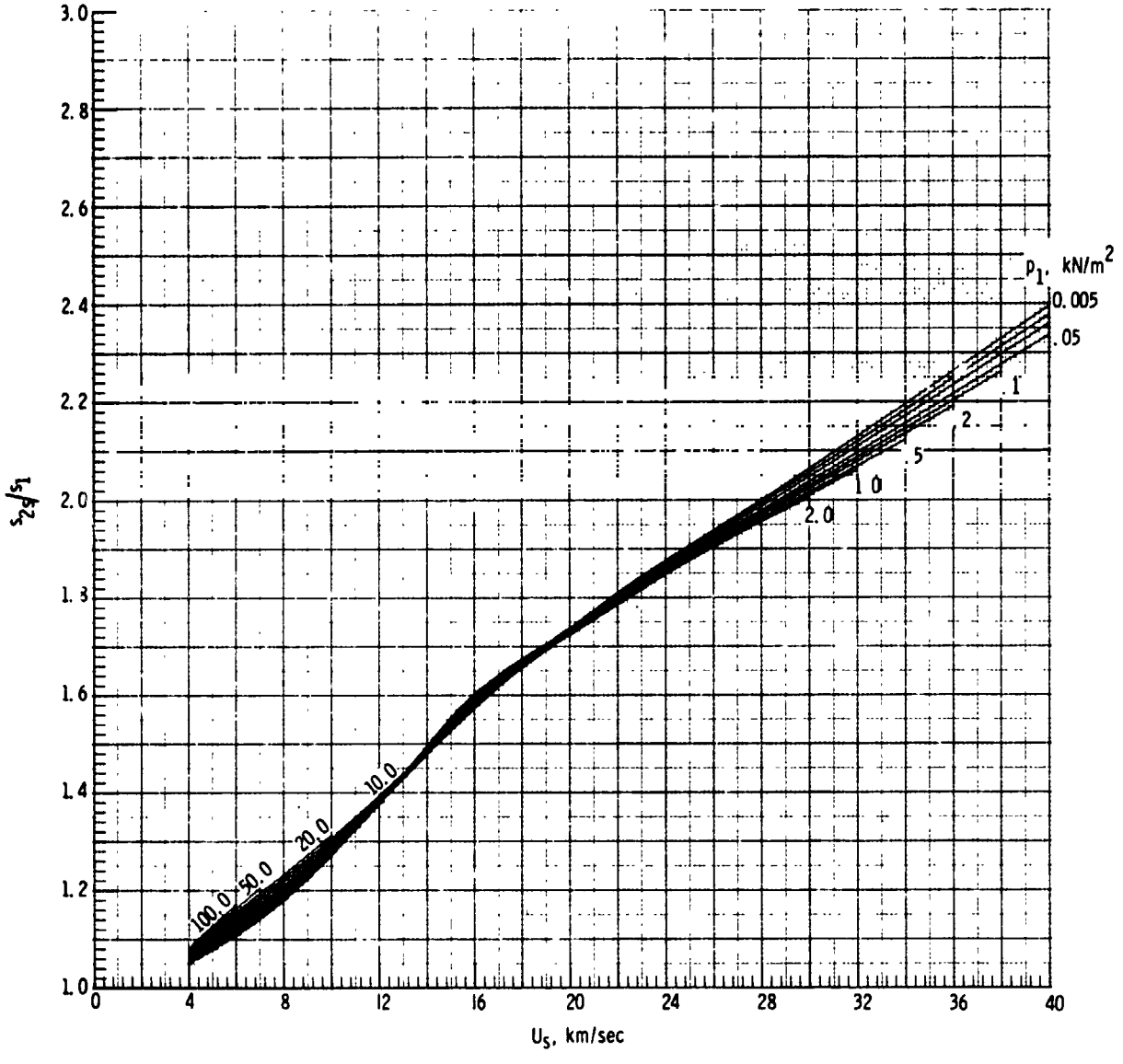
(d) Enthalpy h_{2s}/h_1.

Figure 6.- Continued.



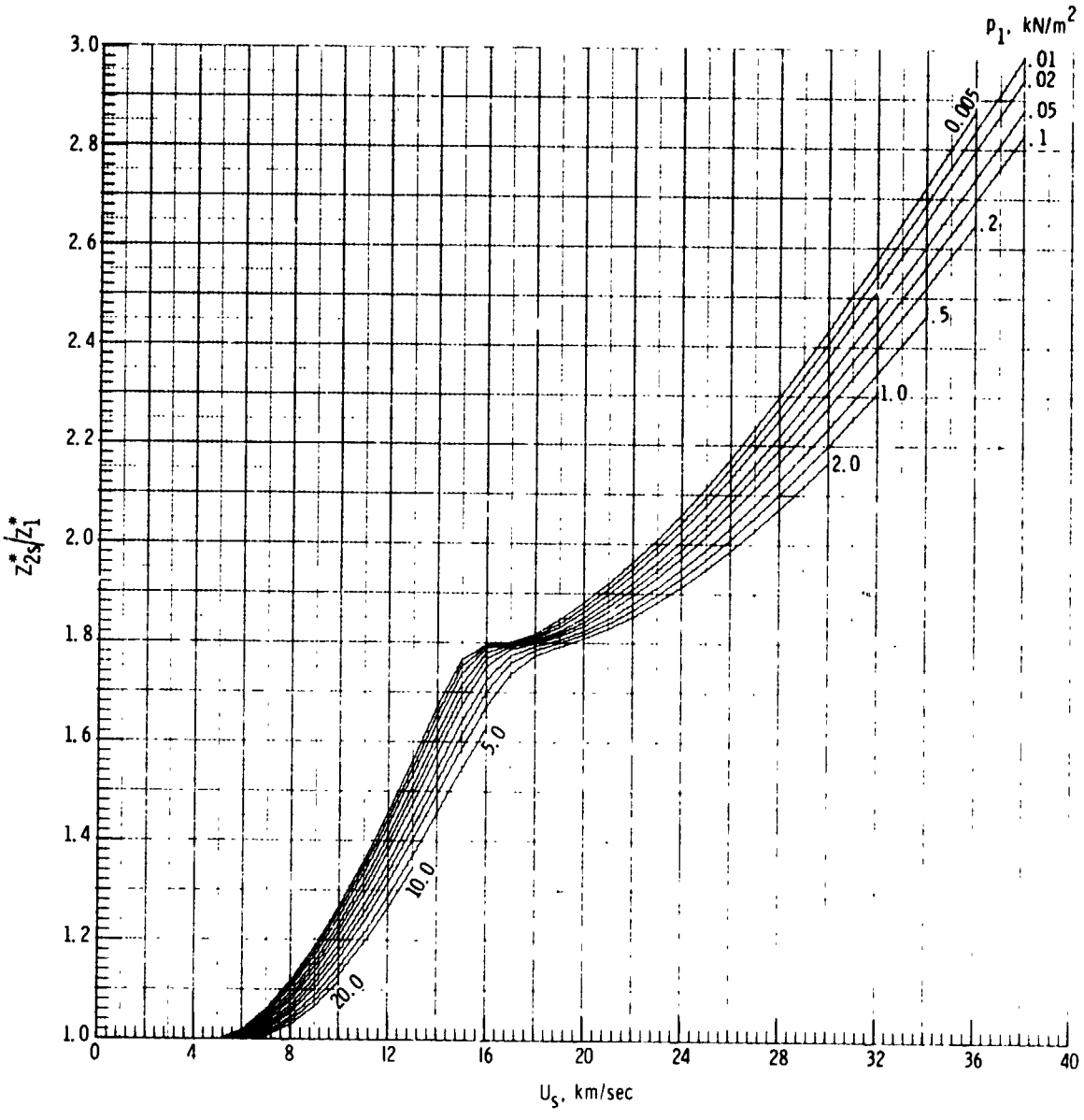
(e) Speed of sound a_{2s}/a_1.

Figure 6.- Continued.



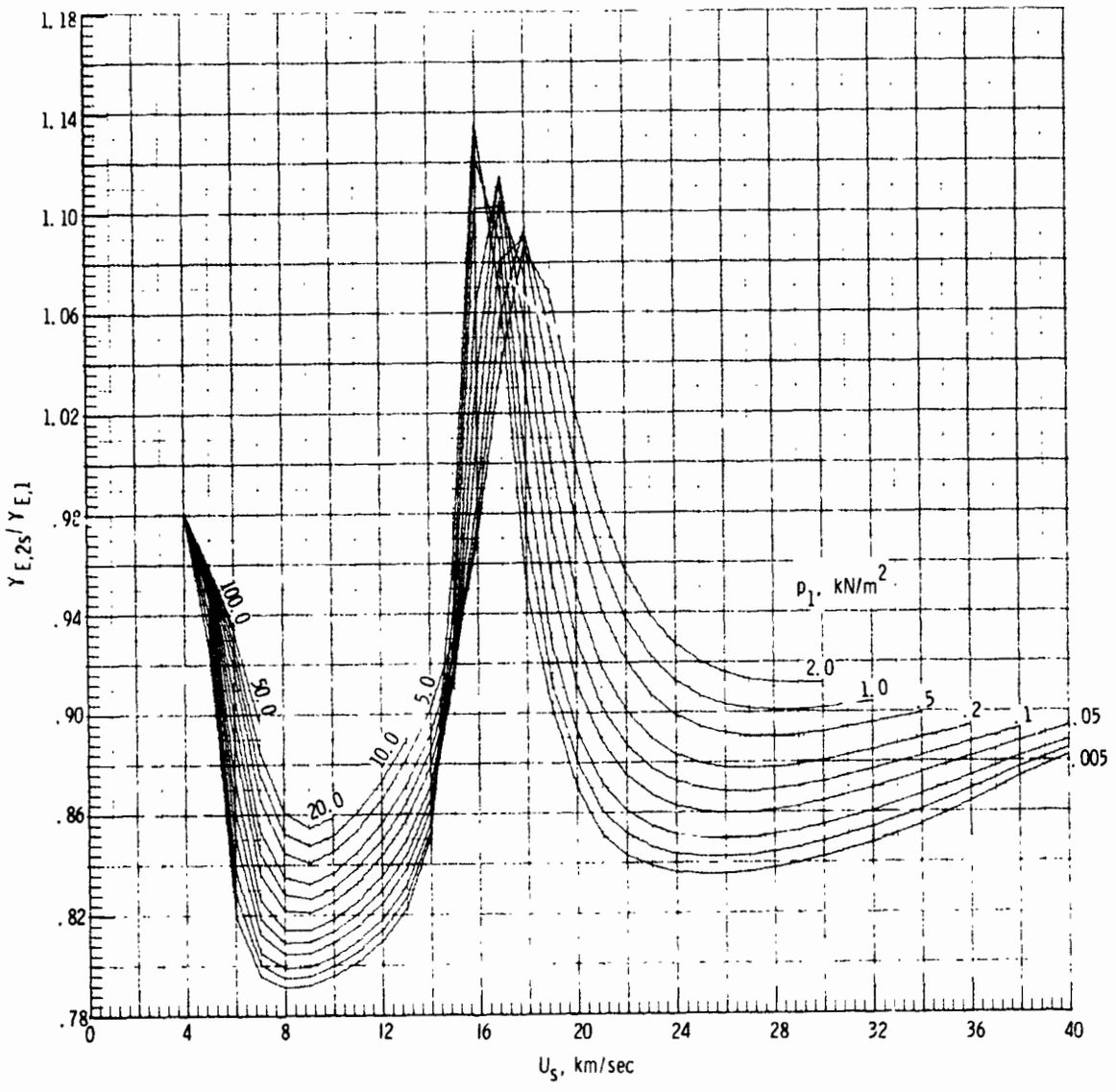
(f) Entropy s_{2s}/s_1.

Figure 6.- Continued.



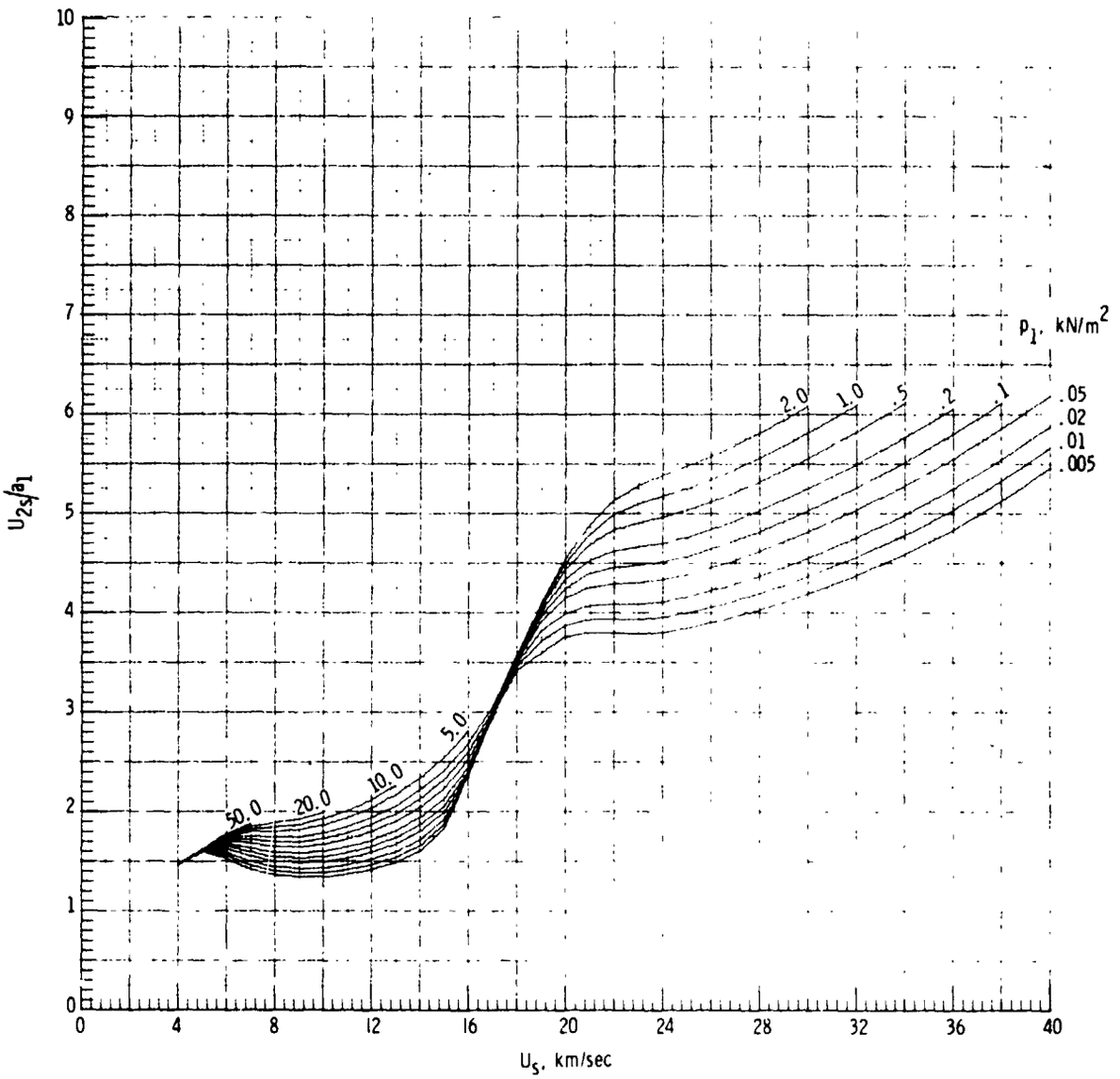
(g) Molecular-weight ratio Z^*_{2s}/Z^*_1.

Figure 6.- Continued.



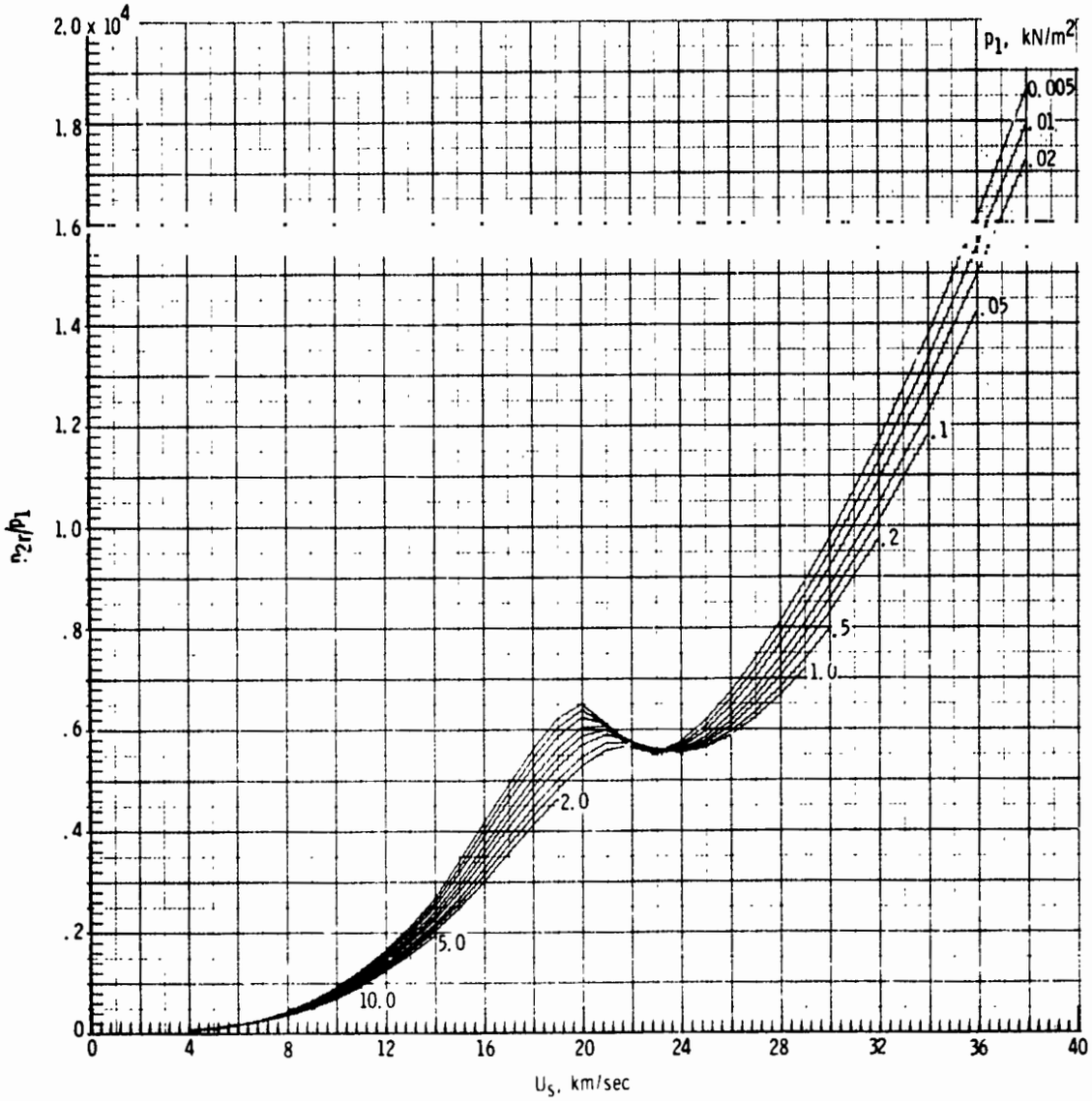
(n) Isentropic exponent $\gamma_{E,2s}/\gamma_{E,1}$.

Figure 6.- Continued.



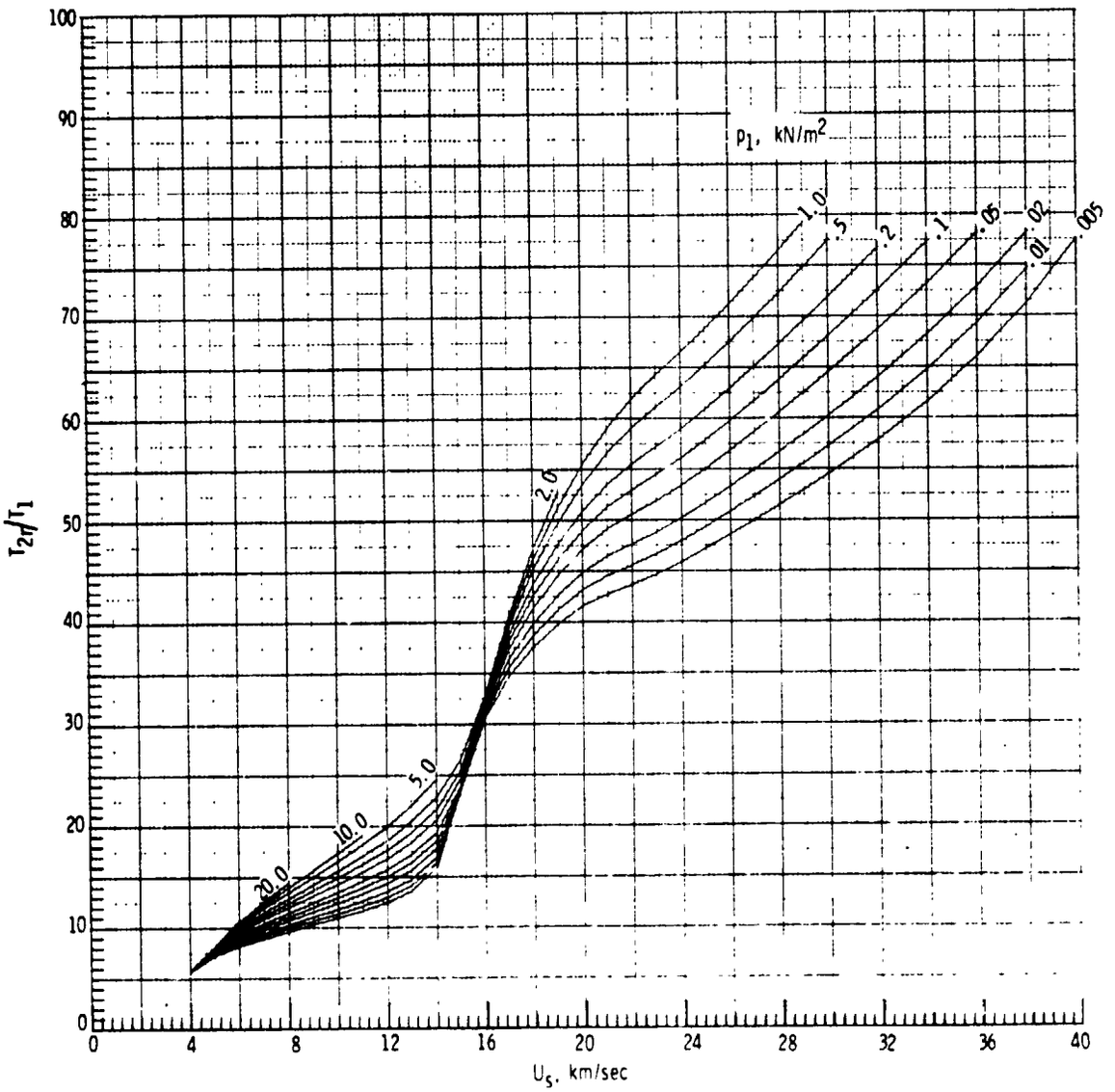
(i) Flow velocity U_{2s}/a_1.

Figure 6.- Concluded.



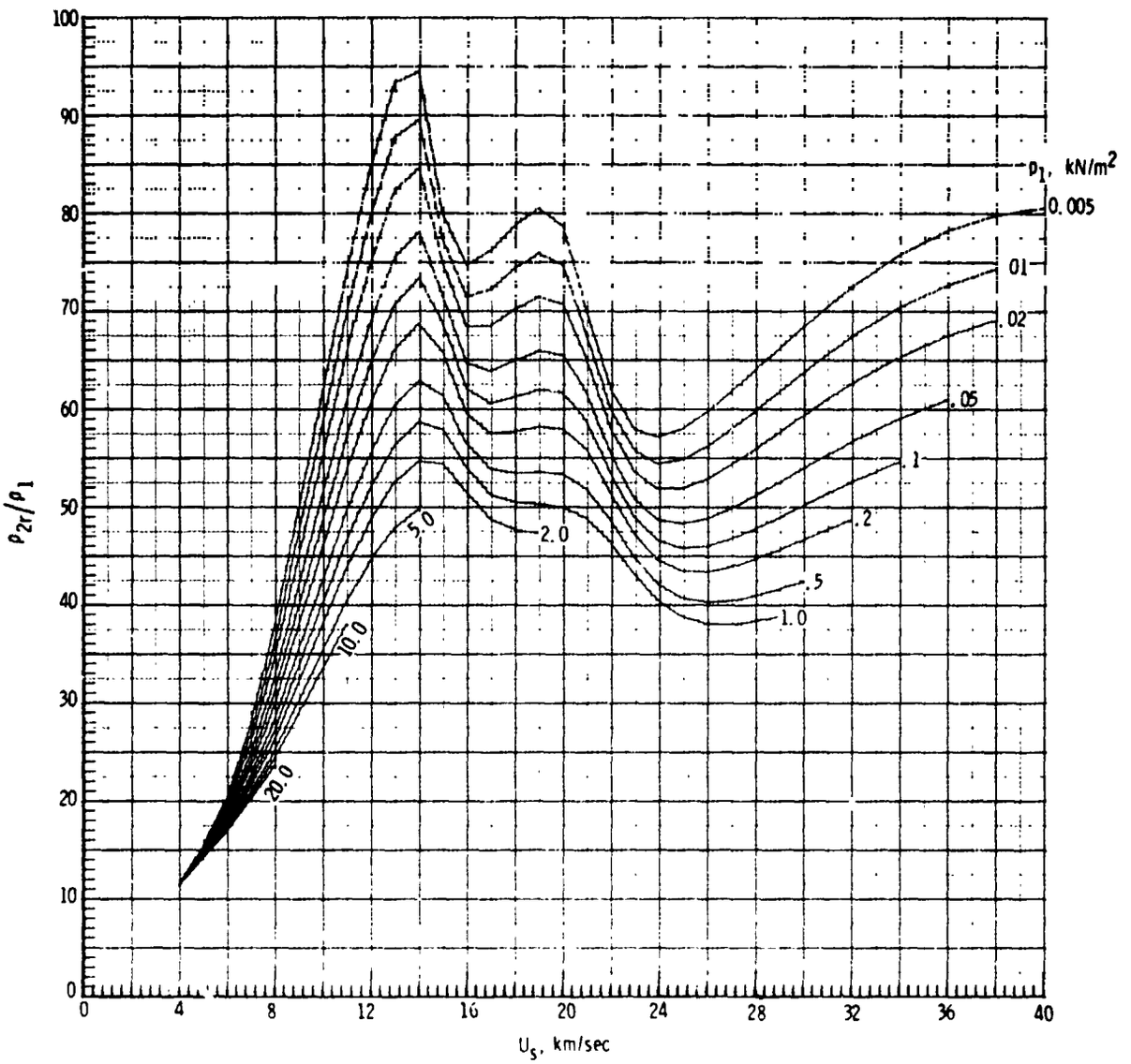
(a) Pressure p_{2r}/p_1.

Figure 7.- Thermodynamic properties behind a reflected normal shock and reflected shock velocity for a 0.20He-0.80H_2 mixture.



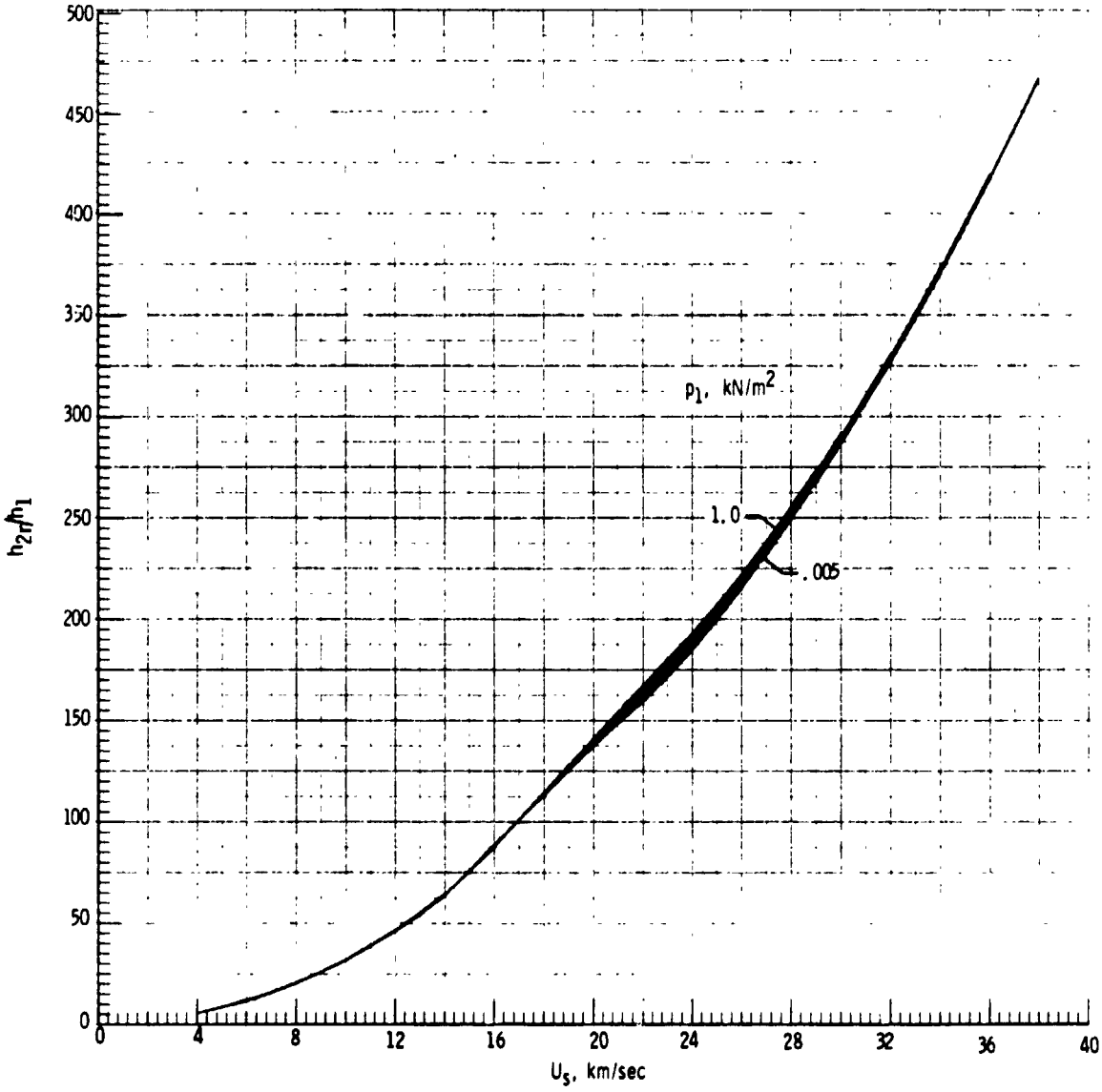
(b) Temperature T_{2r}/T_1.

Figure 7.- Continued.



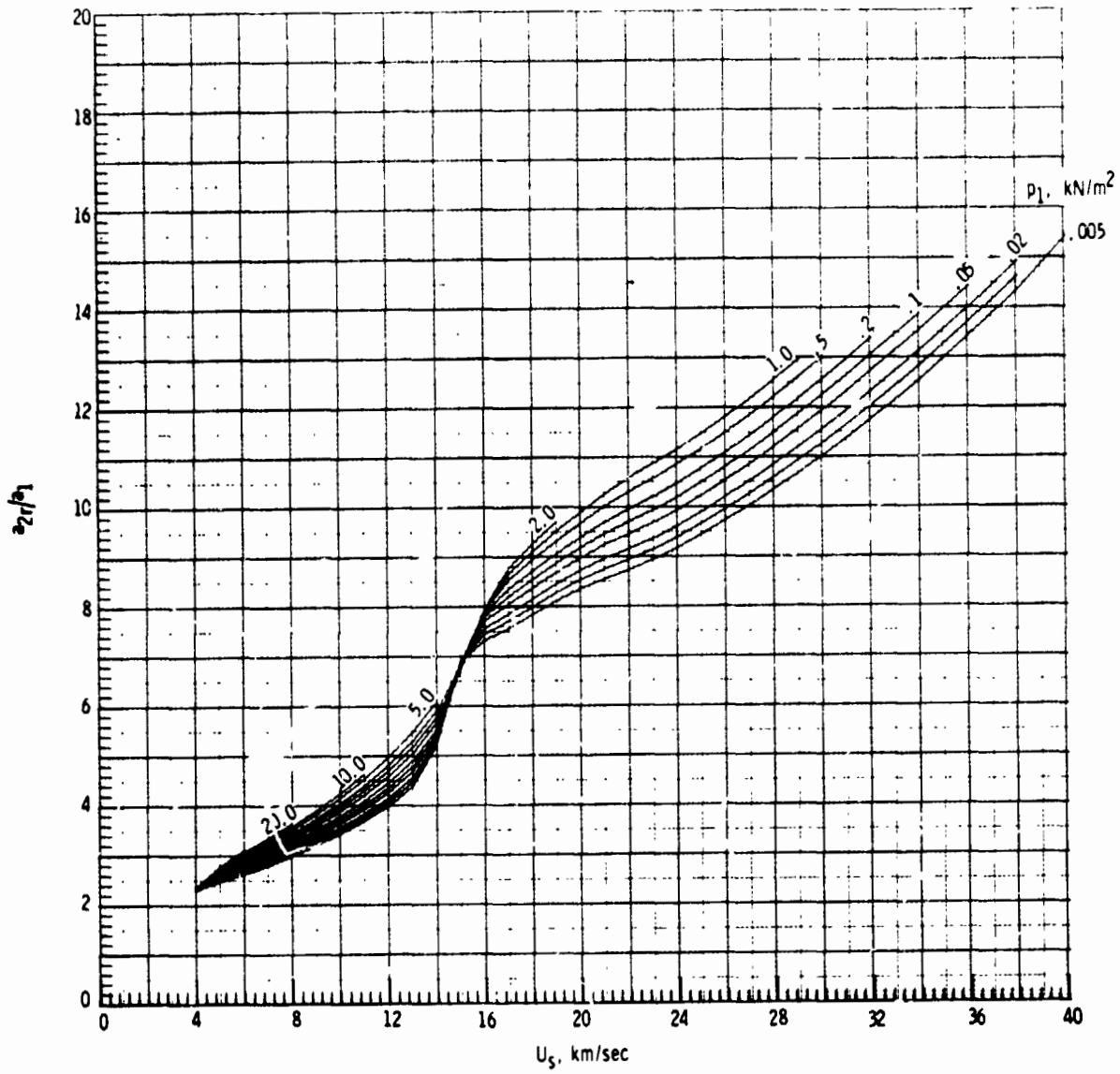
(c) Density ρ_{2r}/ρ_1.

Figure 7.- Continued.



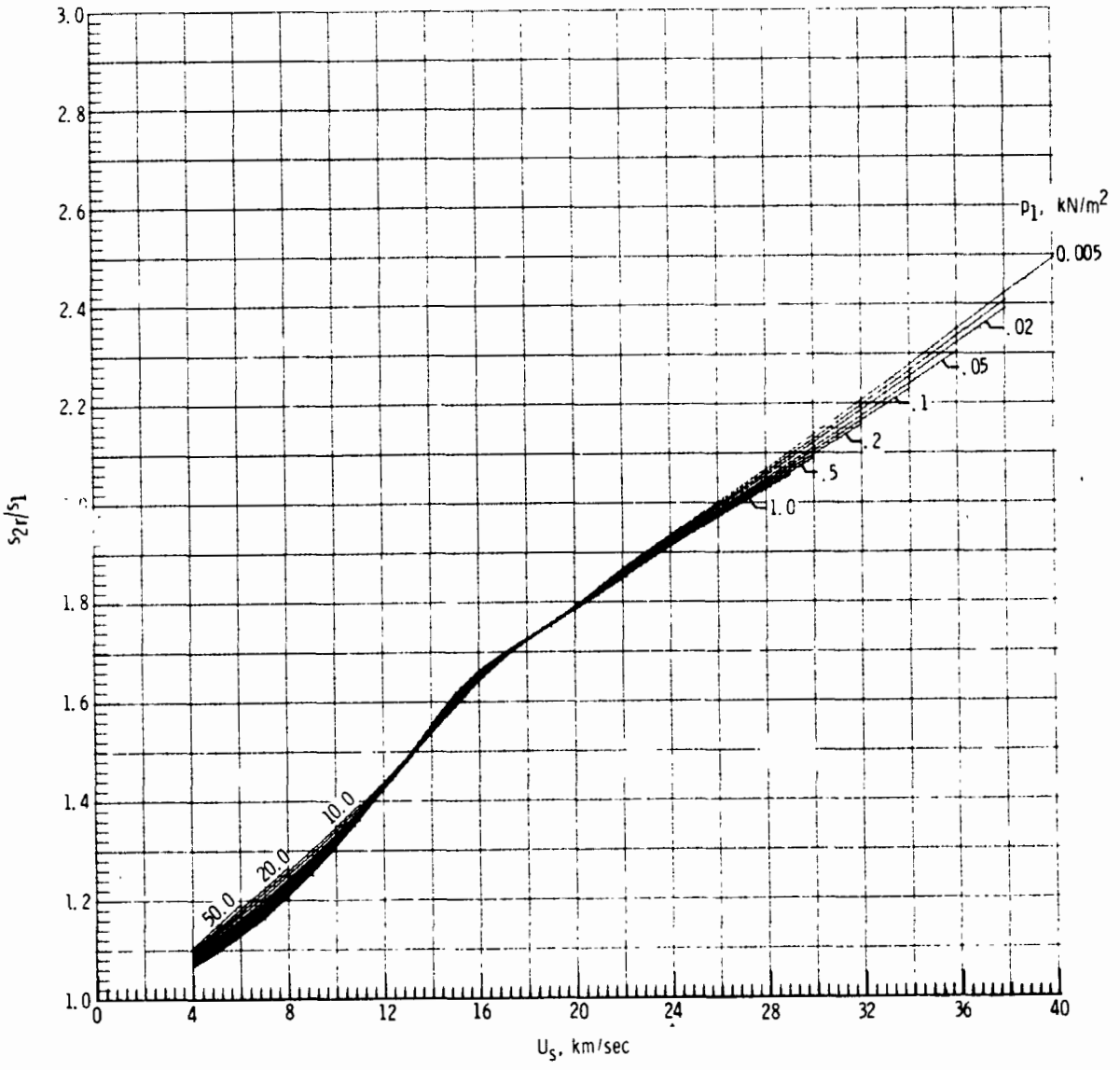
(d) Enthalpy h_{2r}/h_1.

Figure 7.- Continued.



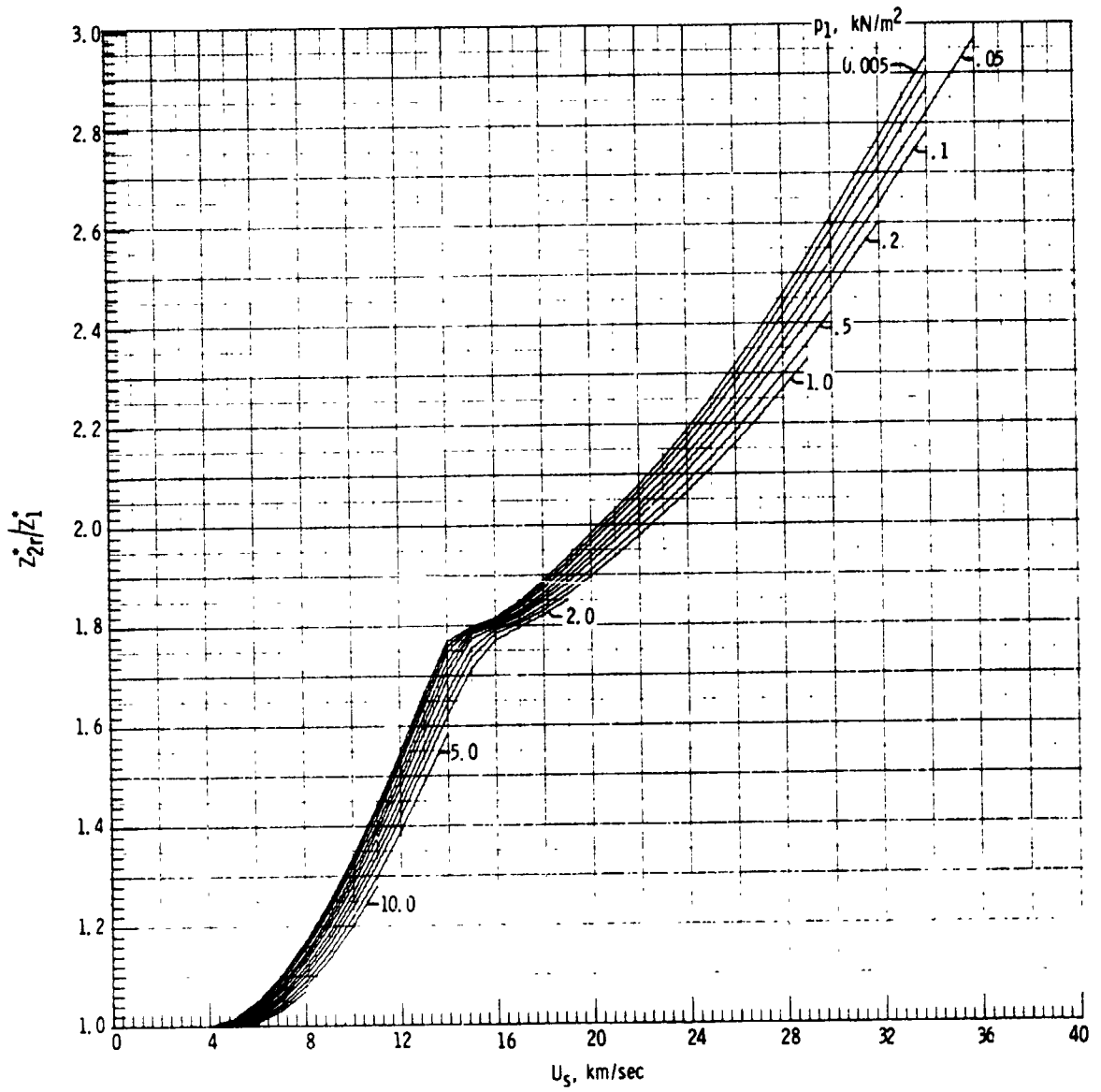
(e) Speed of sound a_{2r}/a_1.

Figure 7.- Continued.



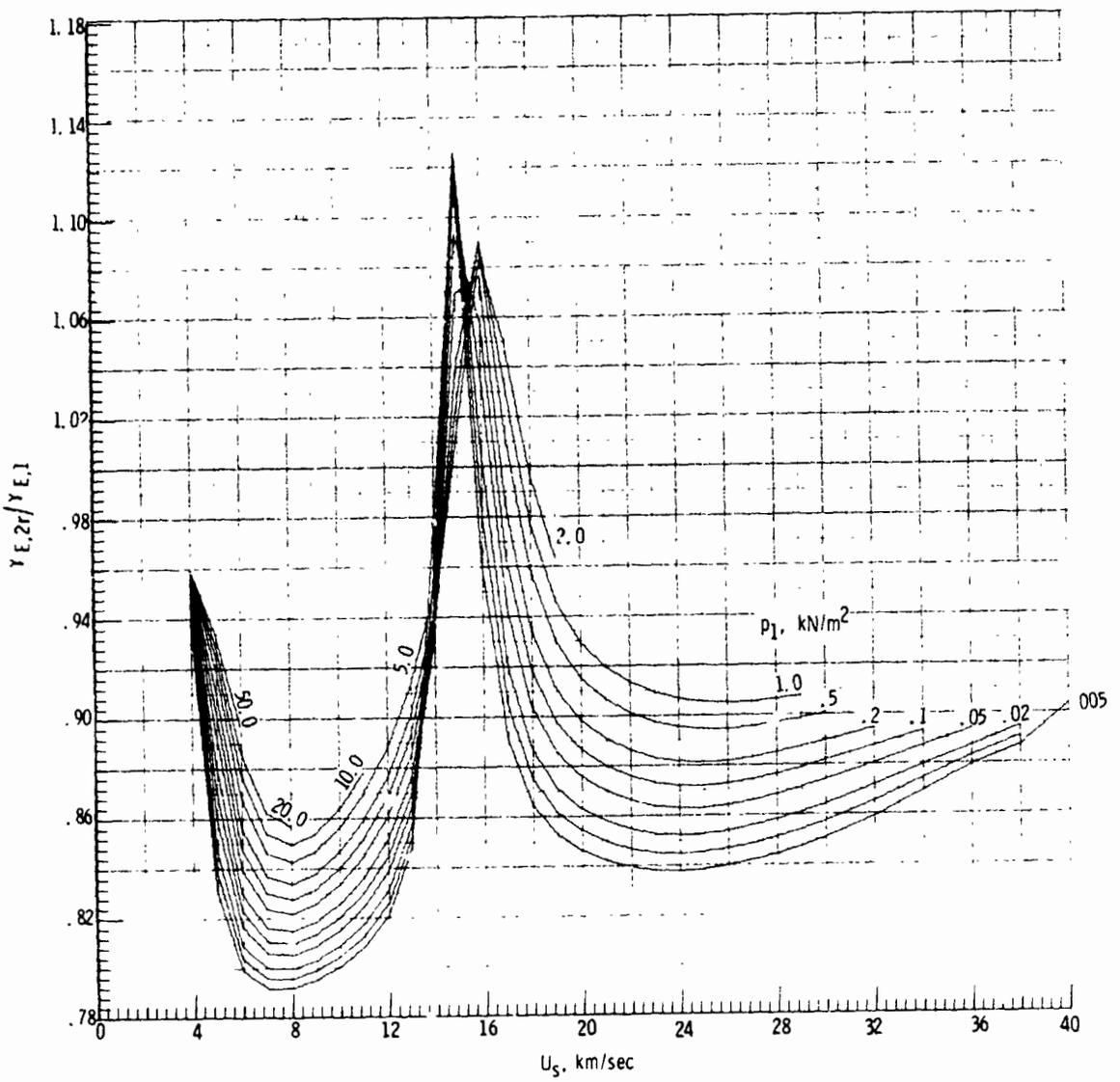
(f) Entropy s_{2r}/s_1.

Figure 7.- Continued.



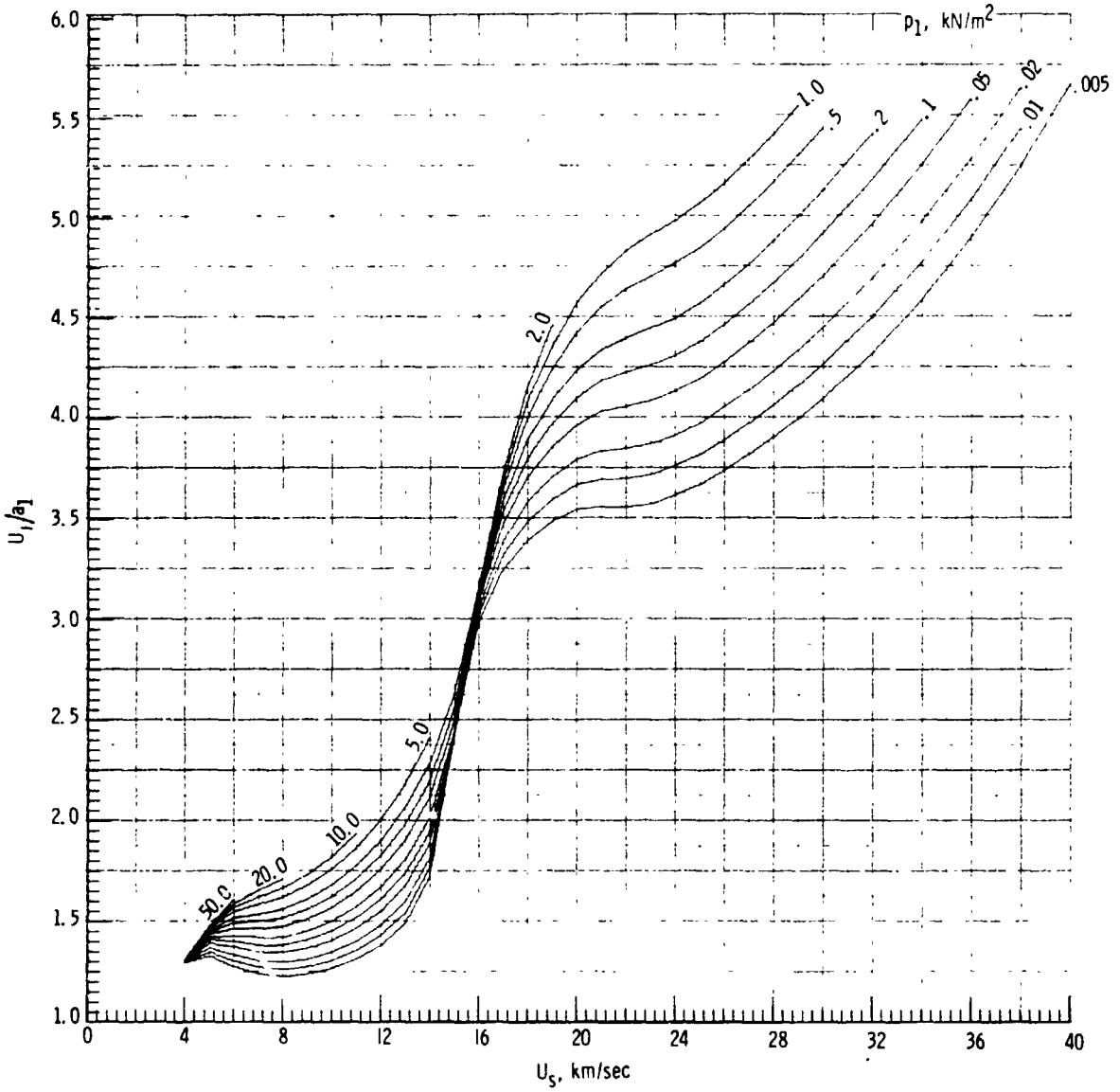
(g) Molecular-weight ratio Z^*_{2r}/Z^*_1.

Figure 7.- Continued.



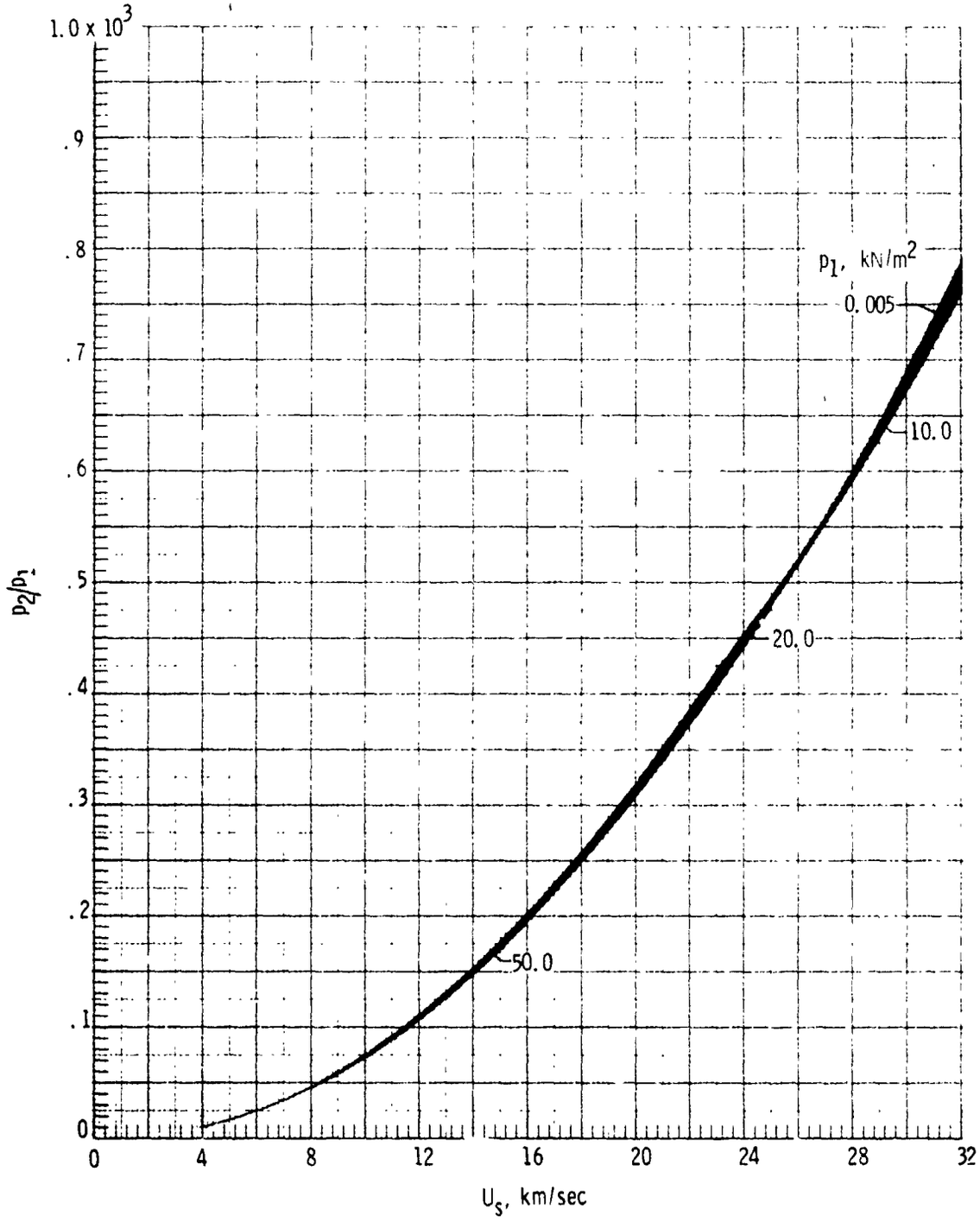
(h) Isentropic exponent $\gamma_{E,2r}/\gamma_{E,1}$.

Figure 7.- Continued.



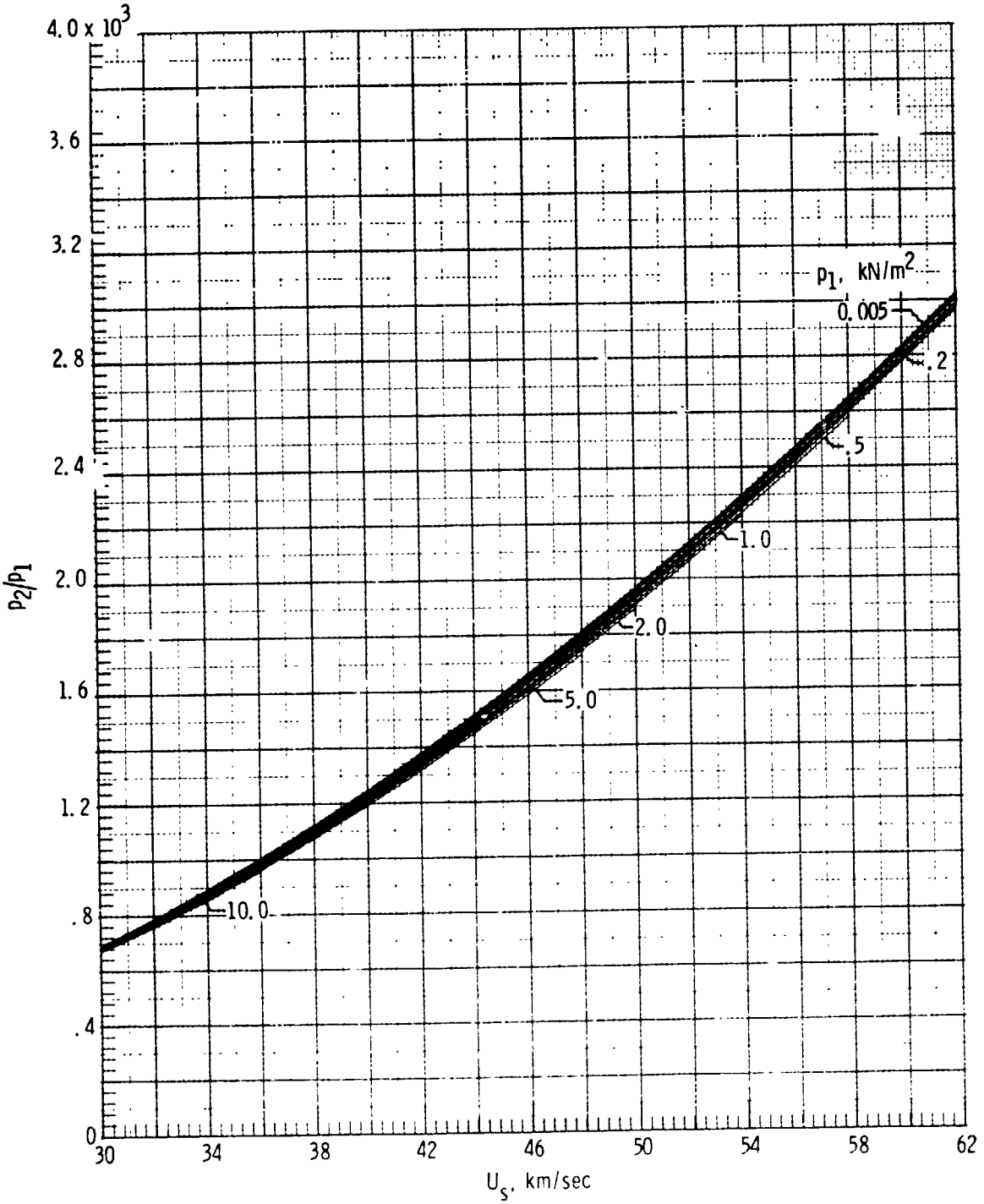
(i) Reflected shock velocity U_r/a_1.

Figure 7.- Concluded.



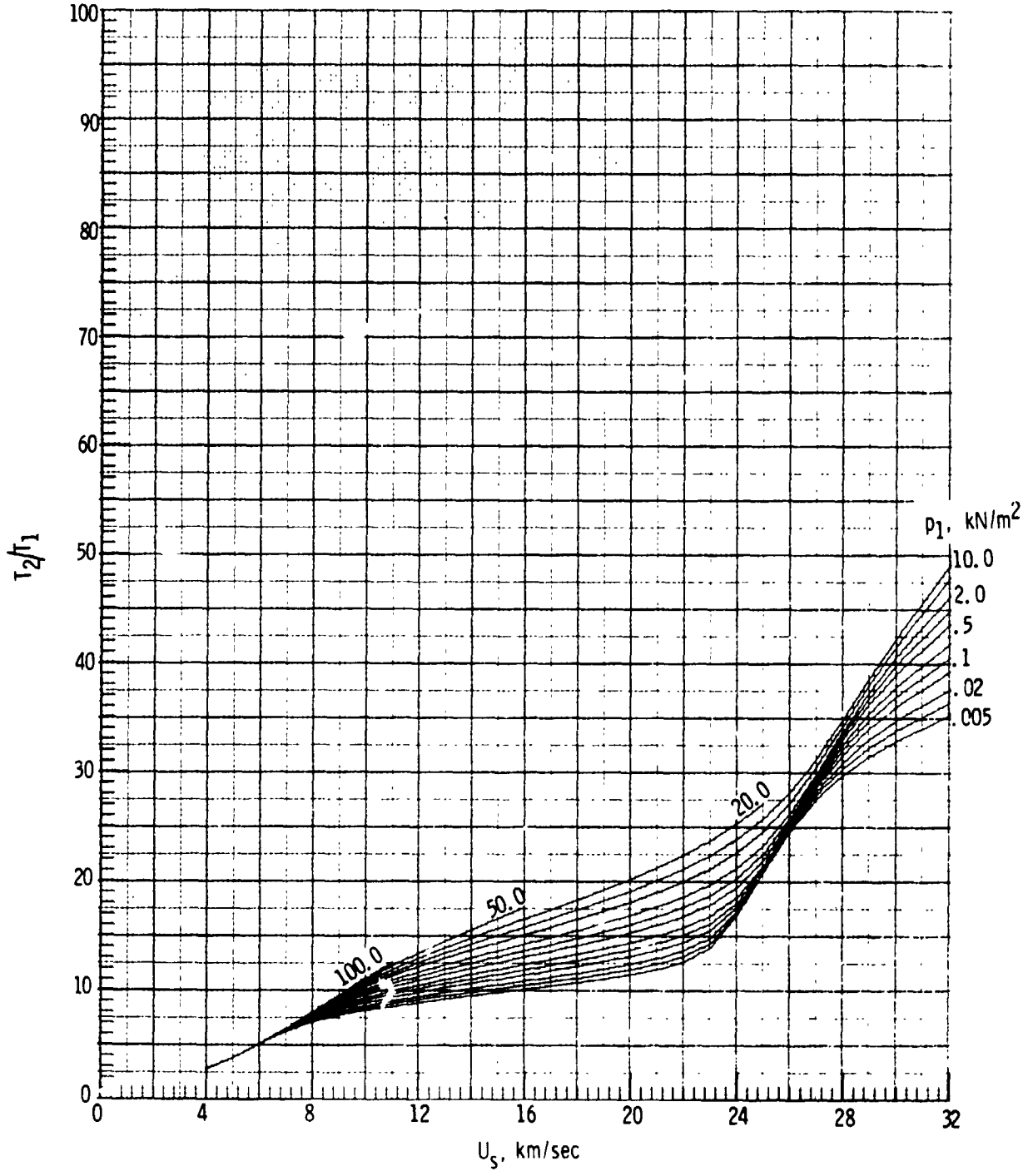
(a) Pressure p_2/p_1.

Figure 8.- Thermodynamic properties and flow velocity behind an incident normal shock intc a $0.05He-0.95H_2$ mixture.



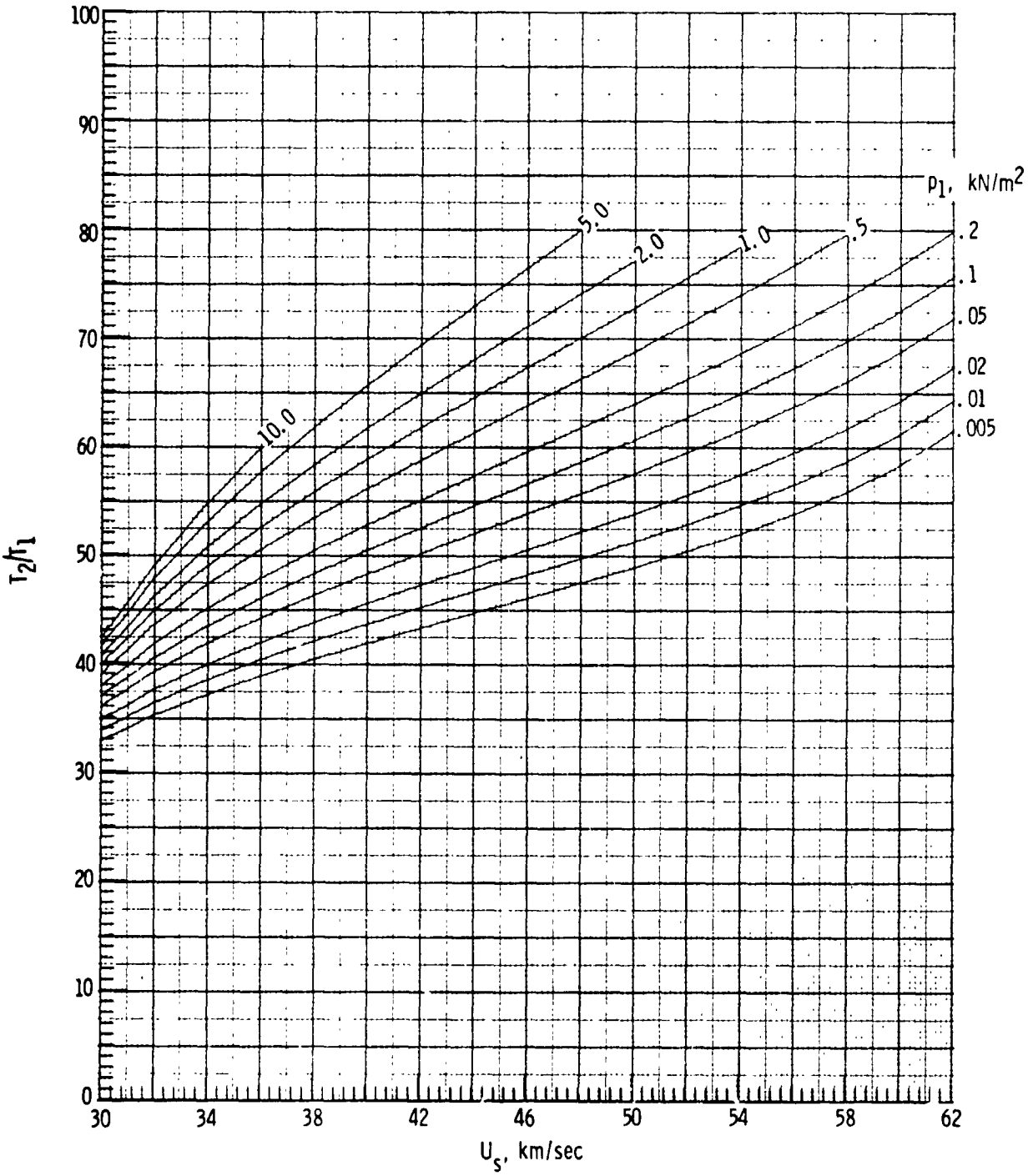
(a) Pressure p_2/p_1. Concluded.

Figure 8.- Continued.



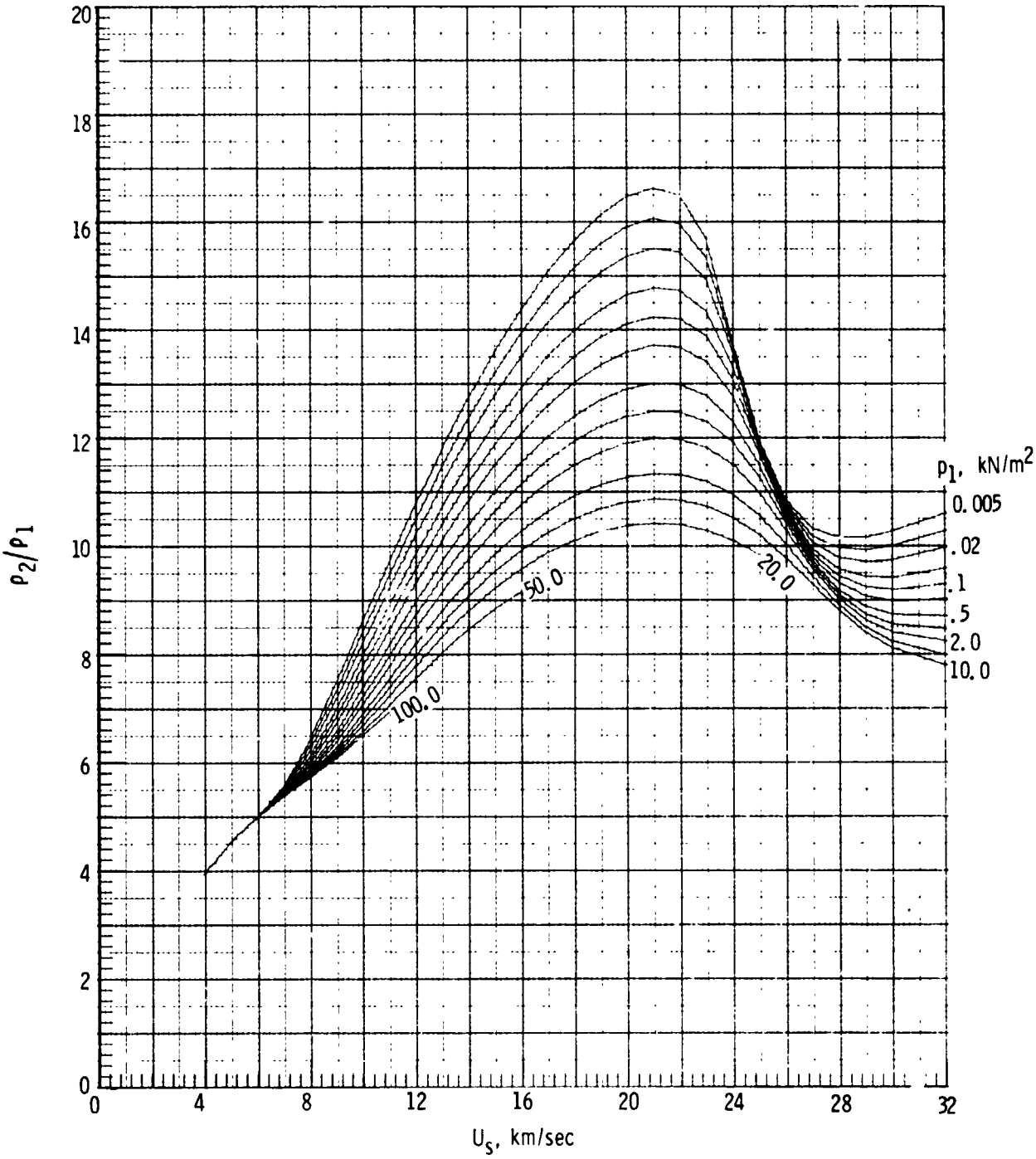
(b) Temperature T_2/T_1.

Figure 8.- Continued.



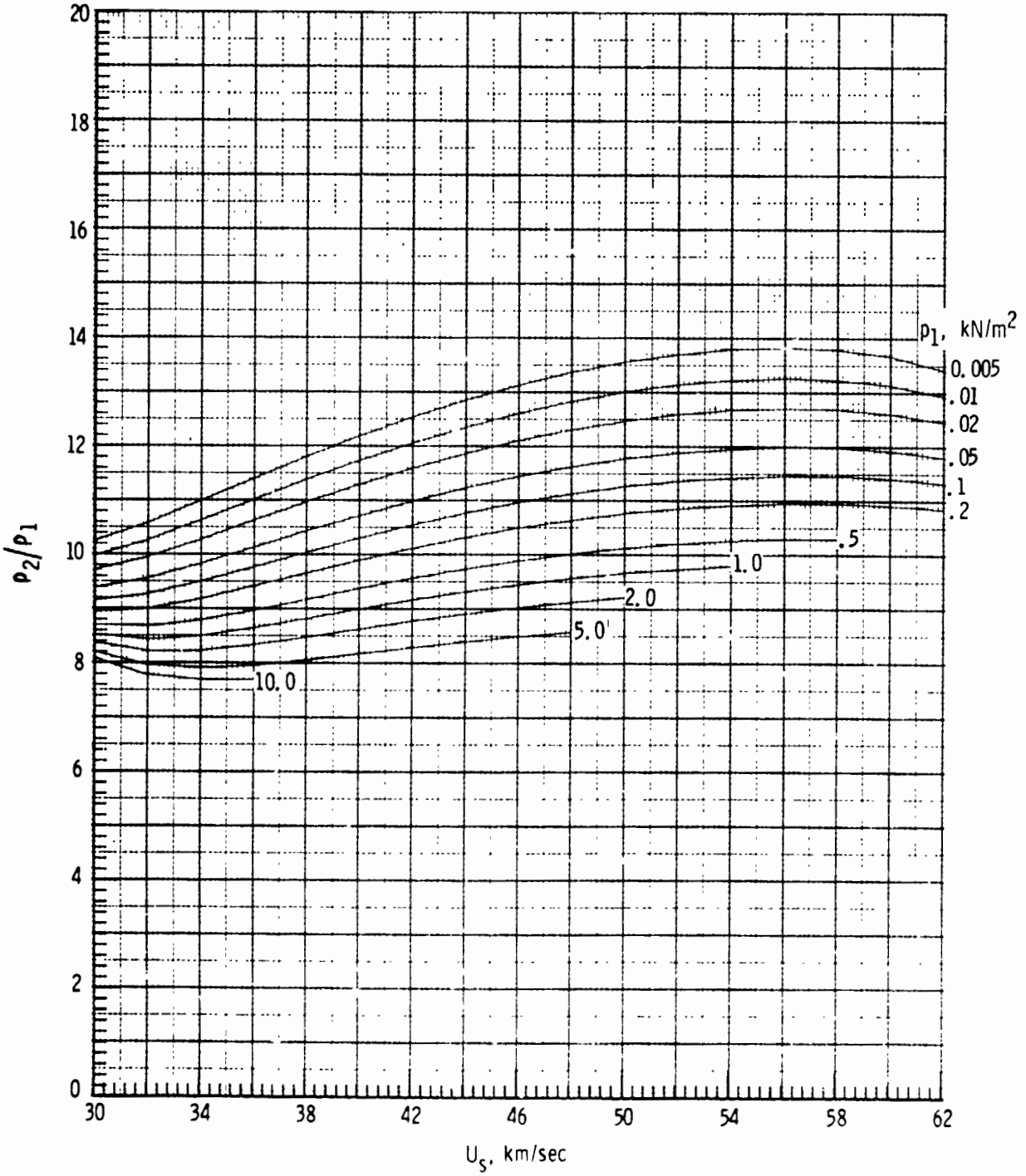
(b) Temperature T_2/T_1. Concluded.

Figure 8.- Continued.



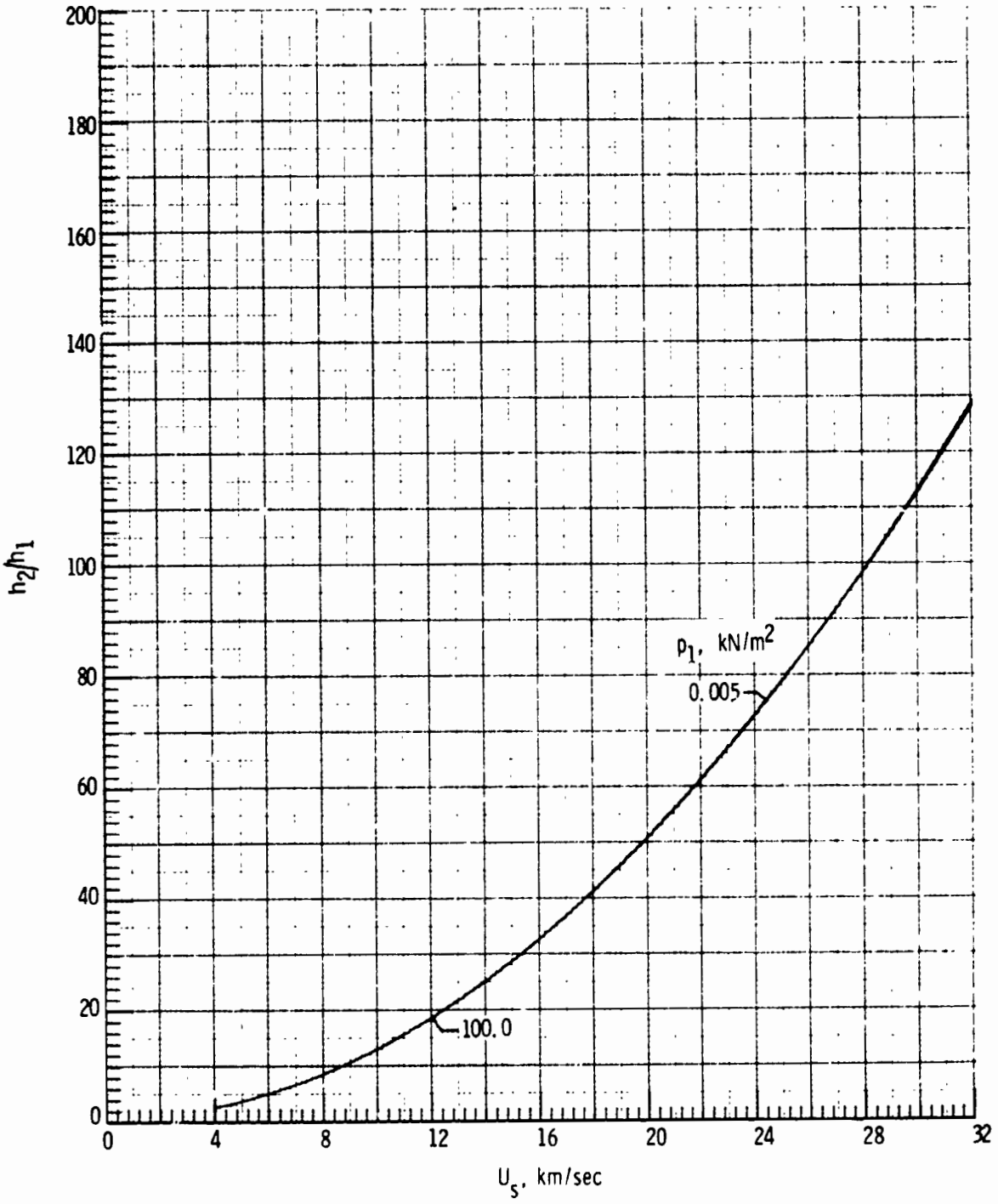
(c) Density ρ_2/ρ_1.

Figure 8.- Continued.



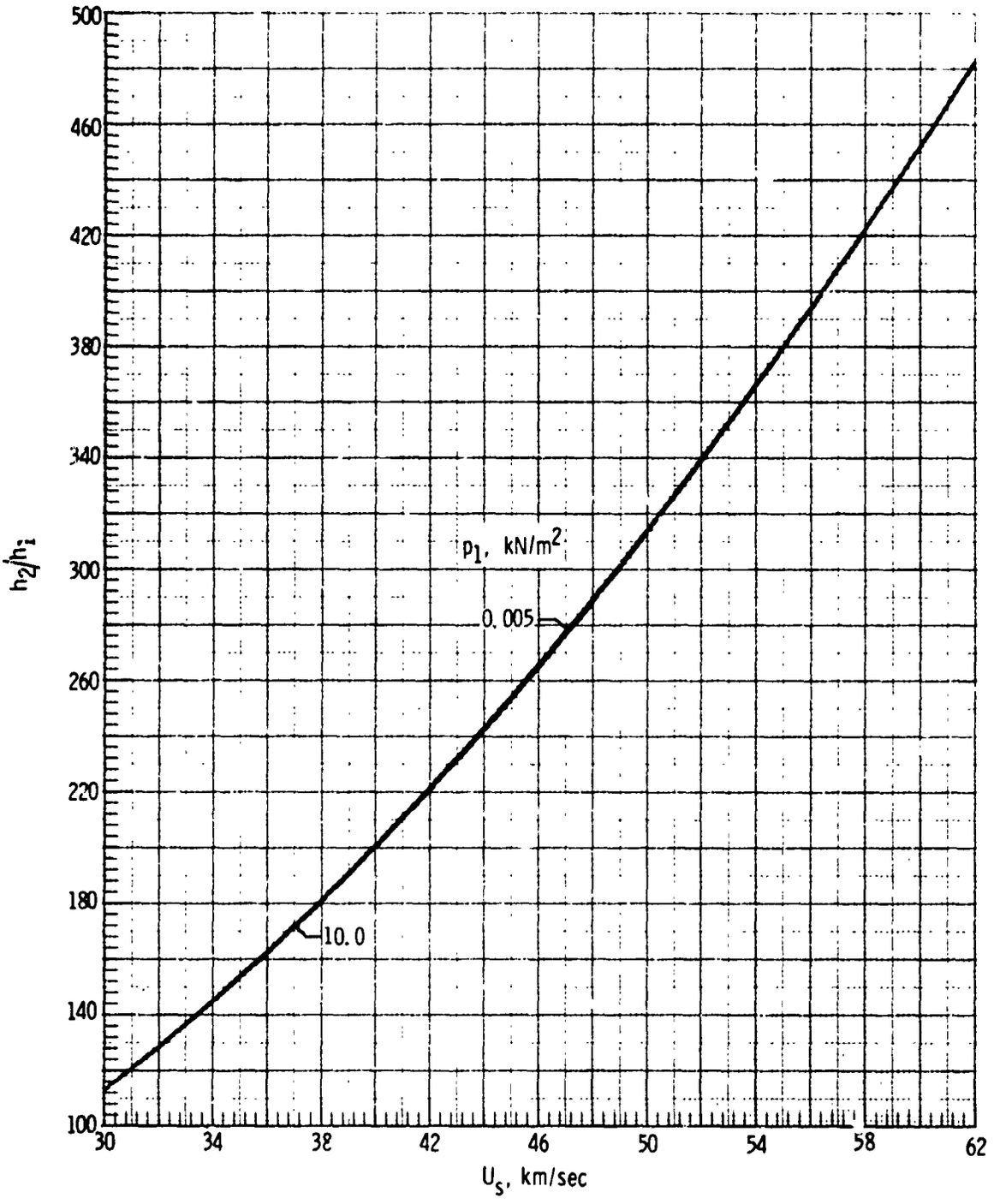
(c) Density ρ_2/ρ_1. Concluded.

Figure 8.- Continued.



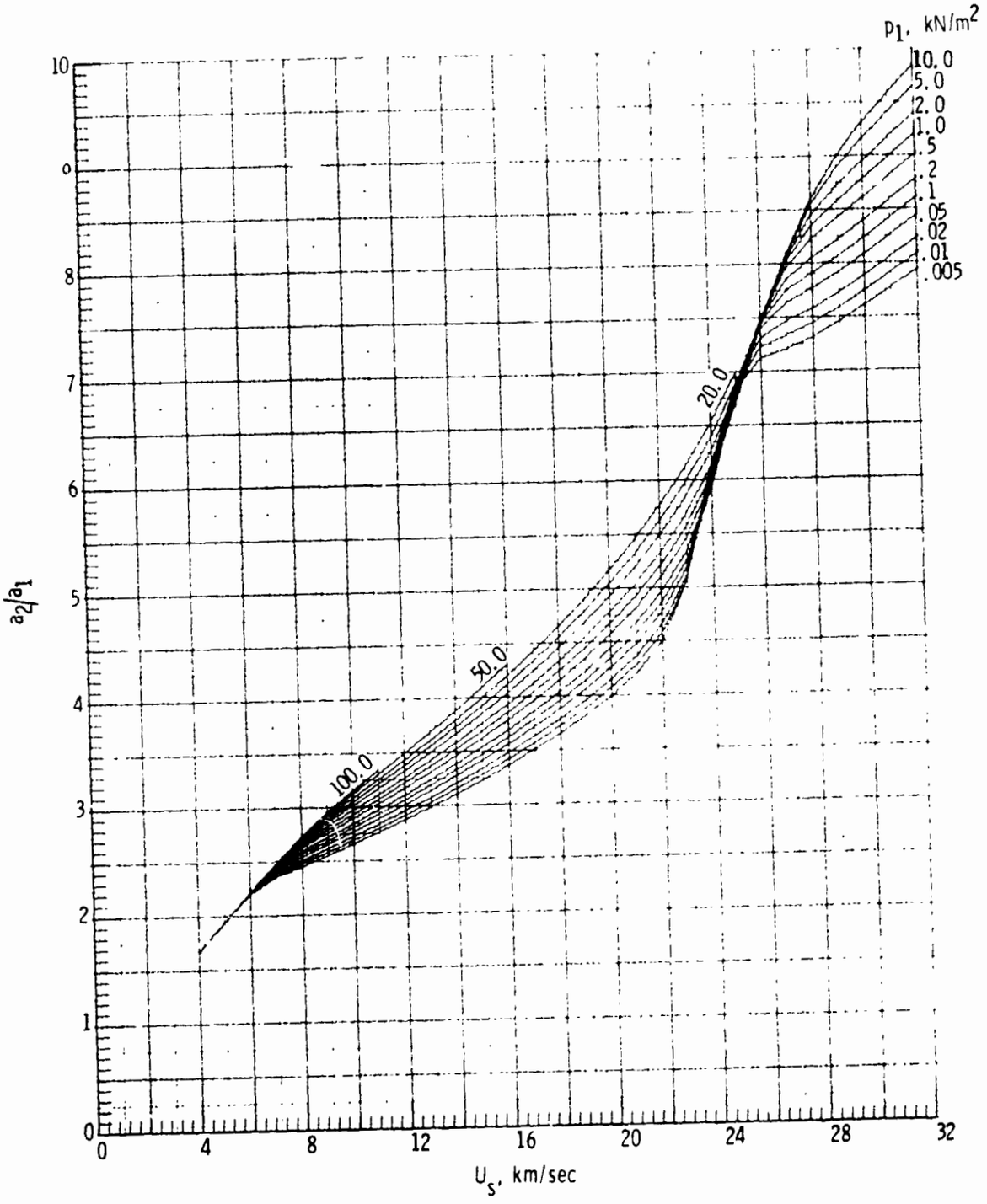
(d) Enthalpy h_2/h_1.

Figure 8.- Continued.



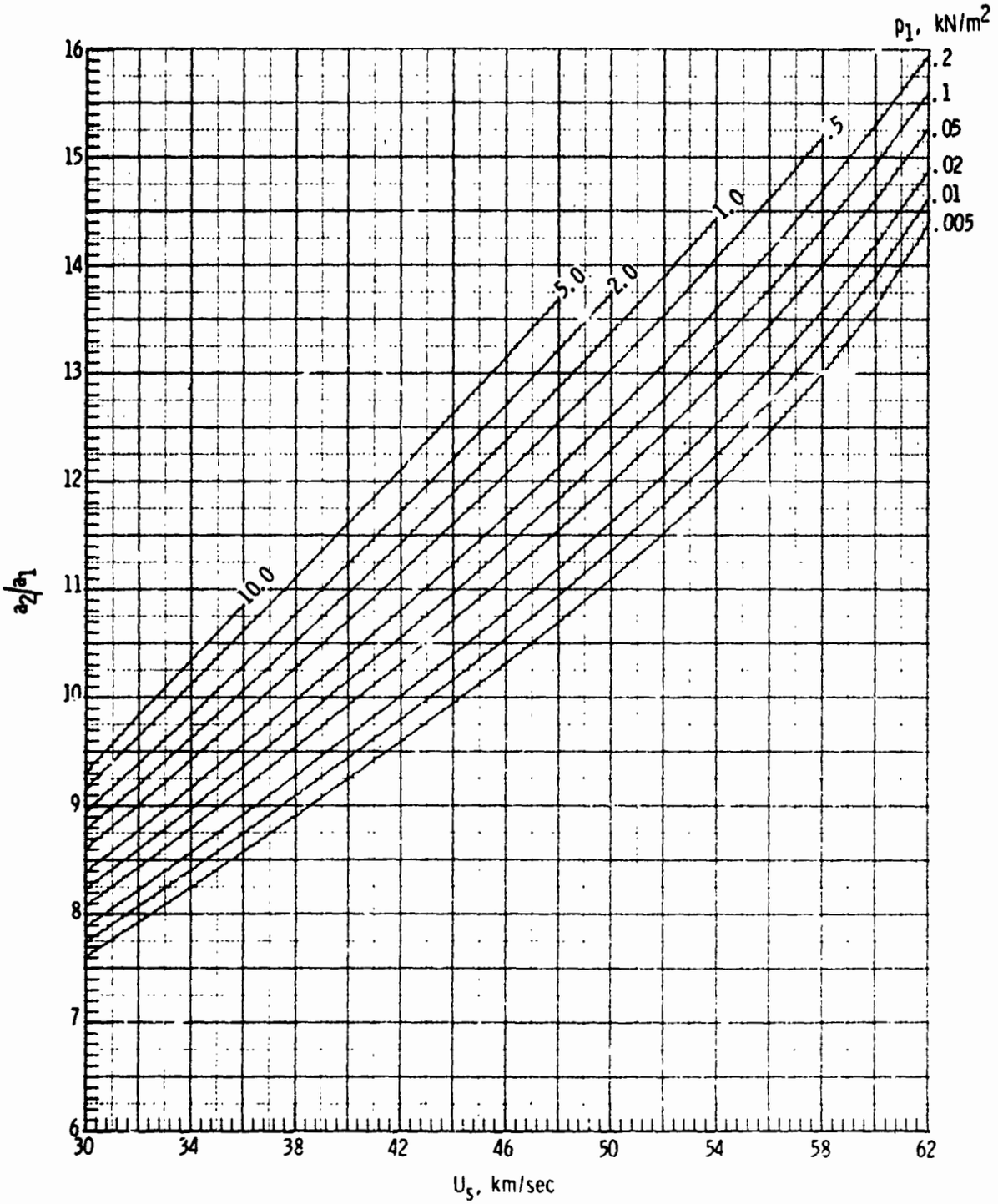
(d) Enthalpy h_2/h_1. Concluded.

Figure 8.- Continued.



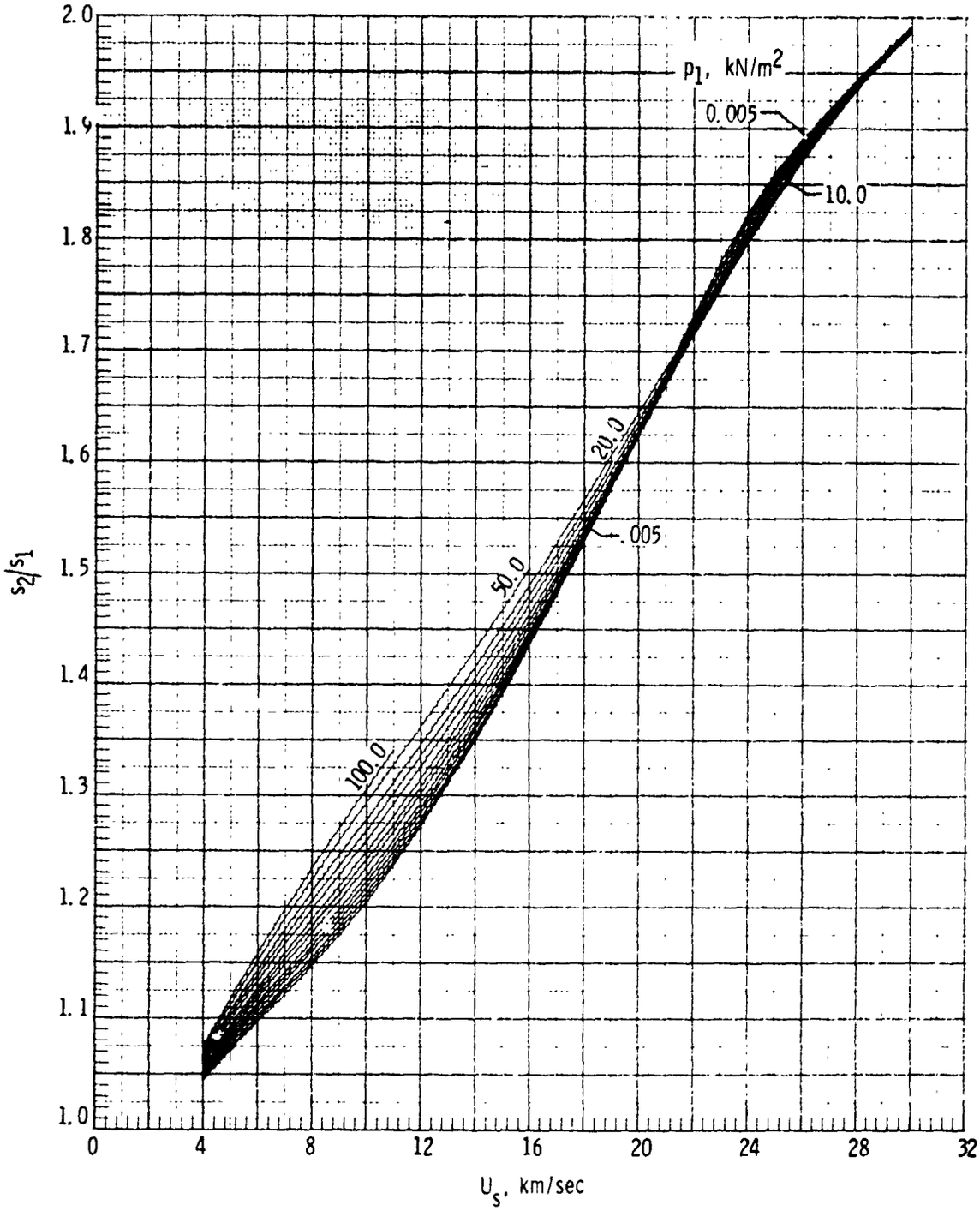
(e) Speed of sound a_2/a_1.

Figure 8.- Continued.



(e) Speed of sound a_2/a_1. Concluded.

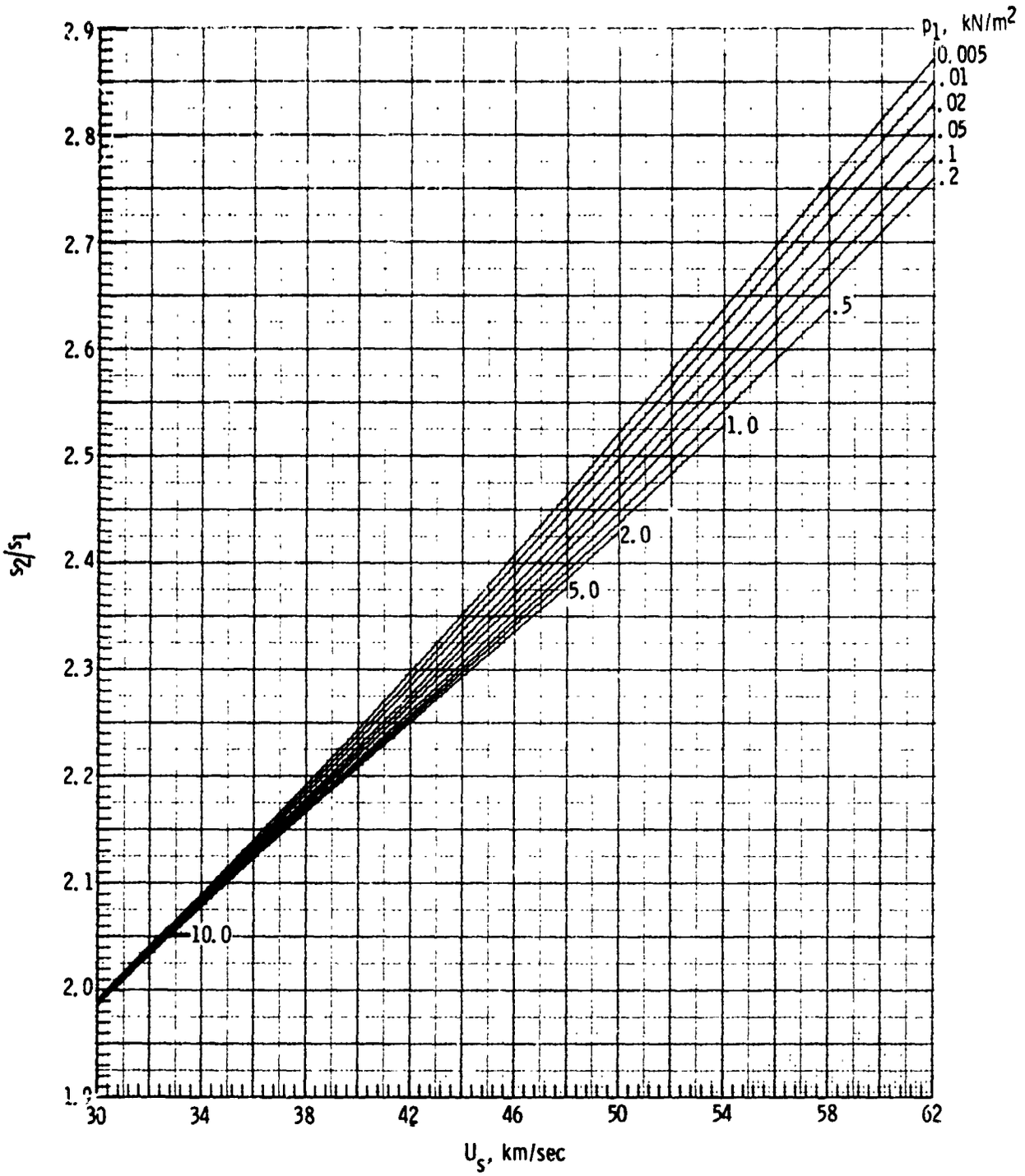
Figure 8.- Continued.



(f) Entropy s_2/s_1.

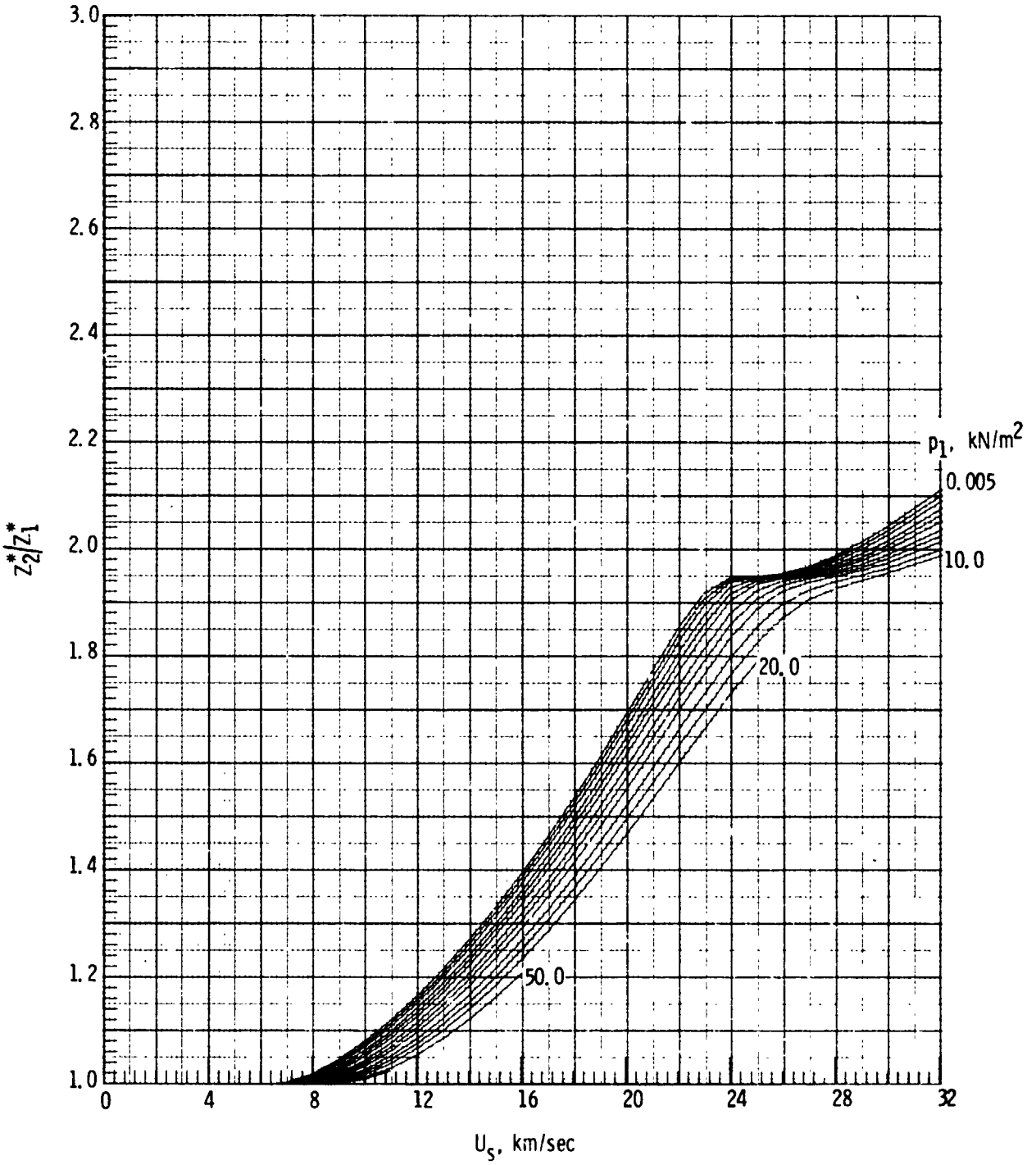
Figure 8.- Continued.

C-9



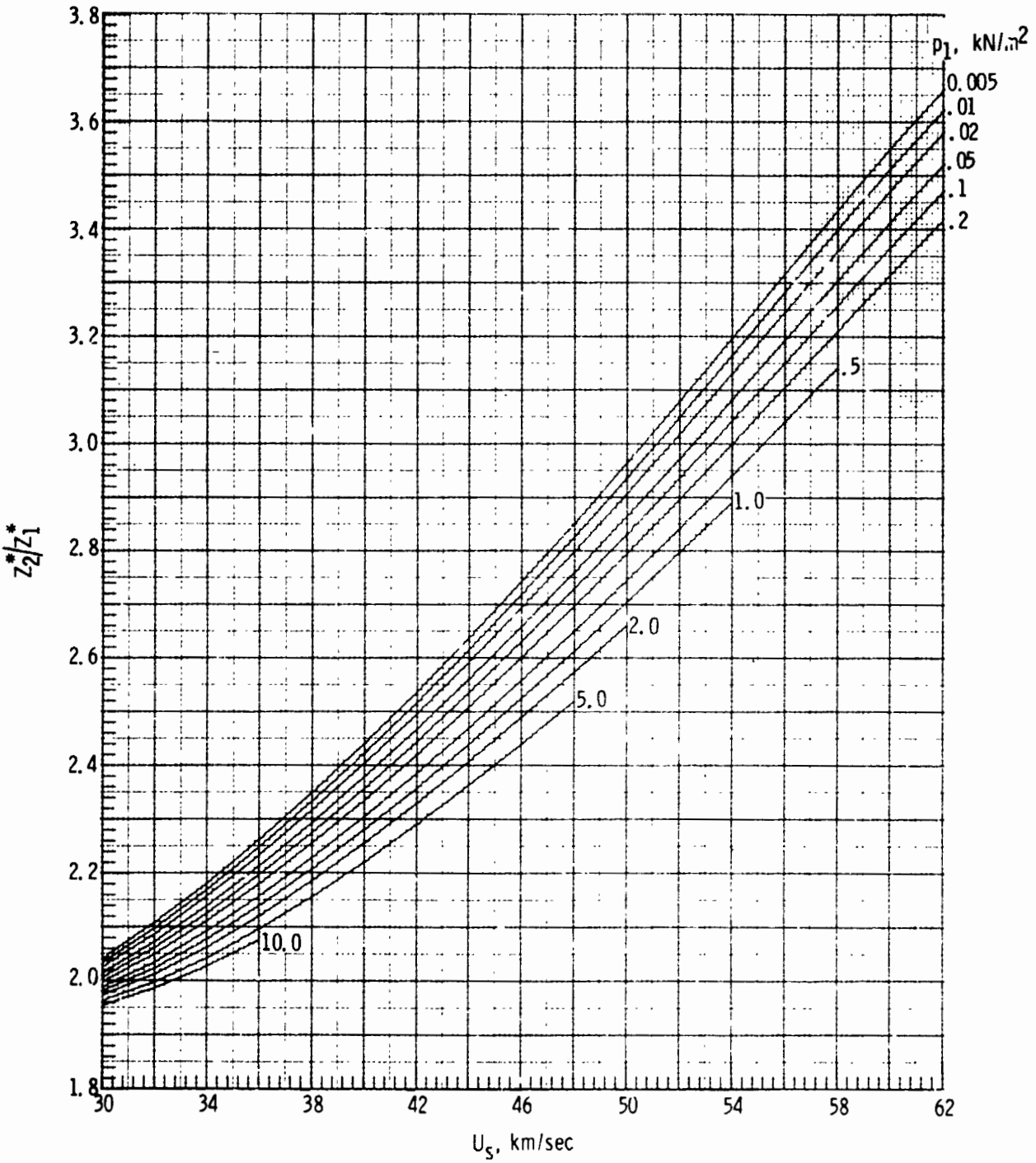
(f) Entropy s_2/s_1. Concluded.

Figure 8.- Continued.



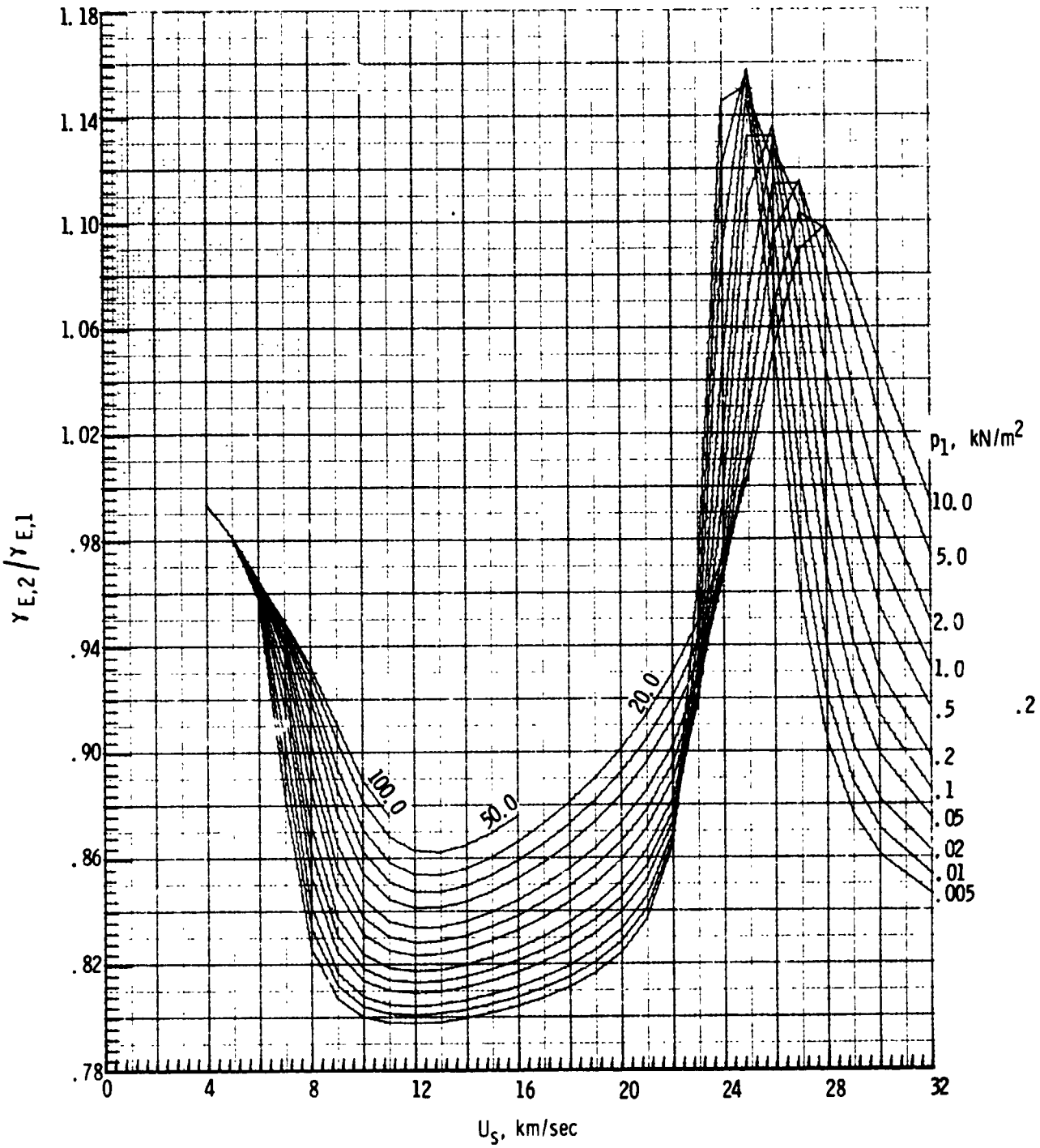
(g) Molecular-weight ratio Z_2^*/Z_1^*.

Figure 8.- Continued.



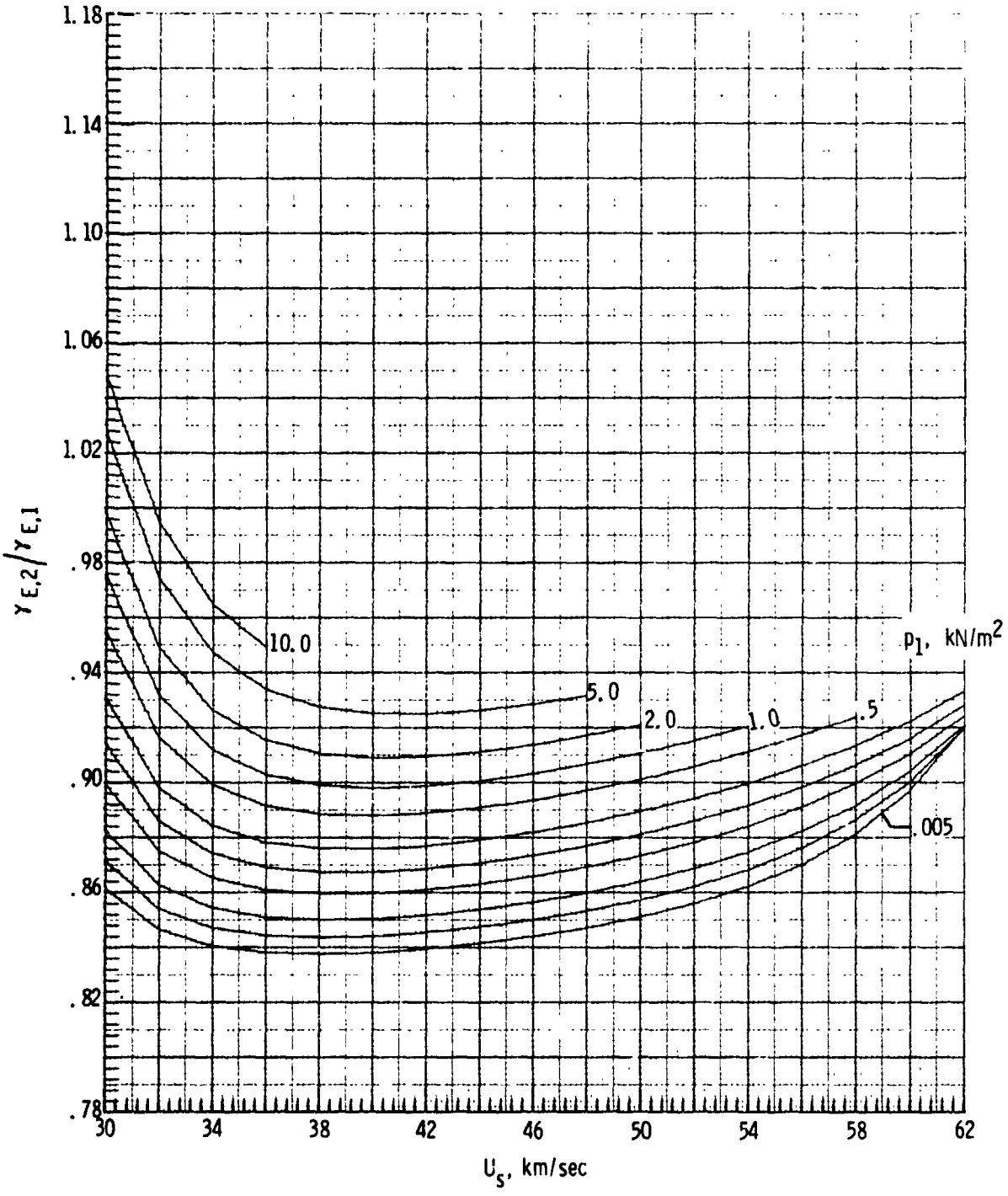
(g) Molecular-weight ratio Z_2^*/Z_1^*. Concluded.

Figure 8.- Continued.



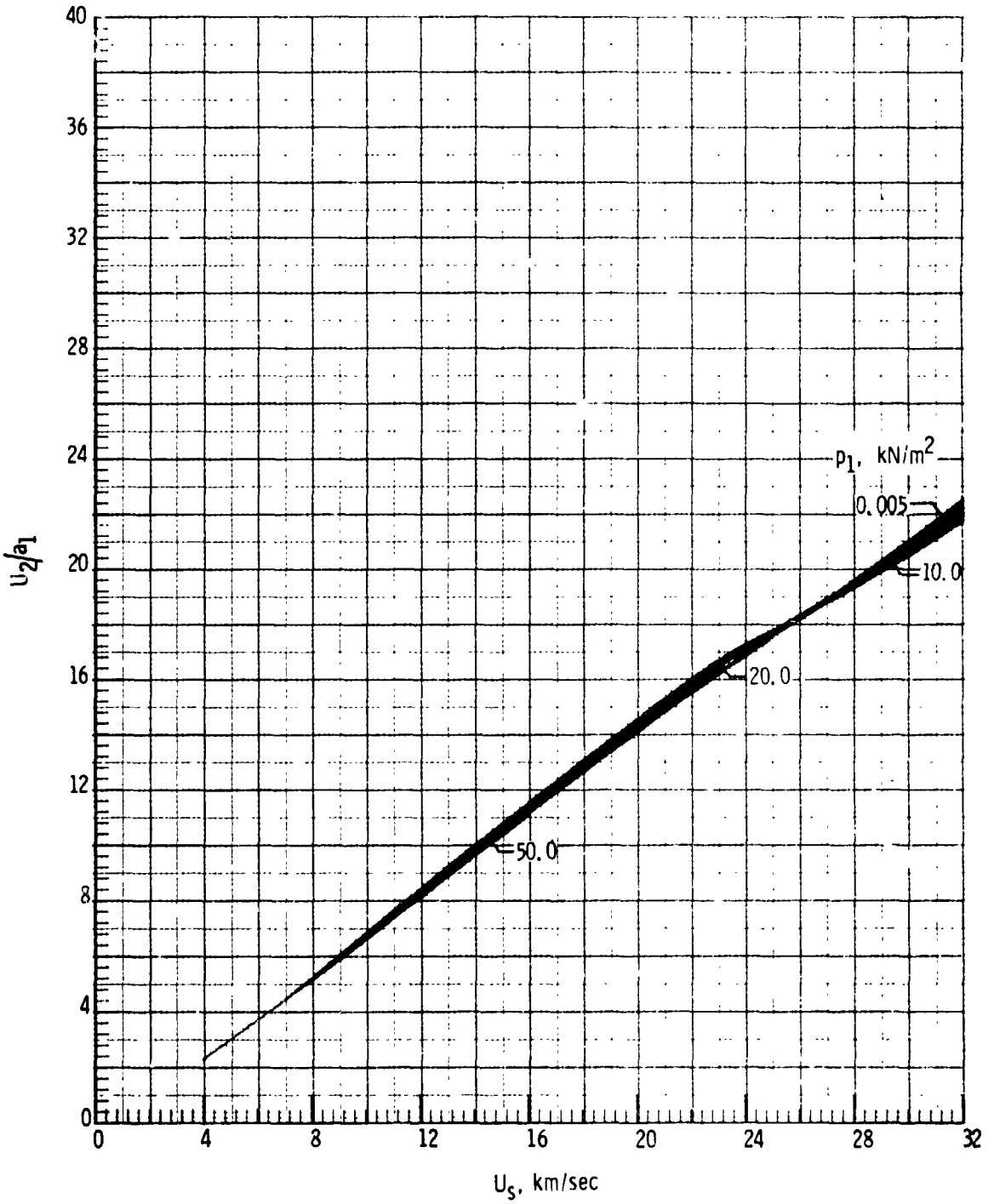
(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$.

Figure 8.- Continued.



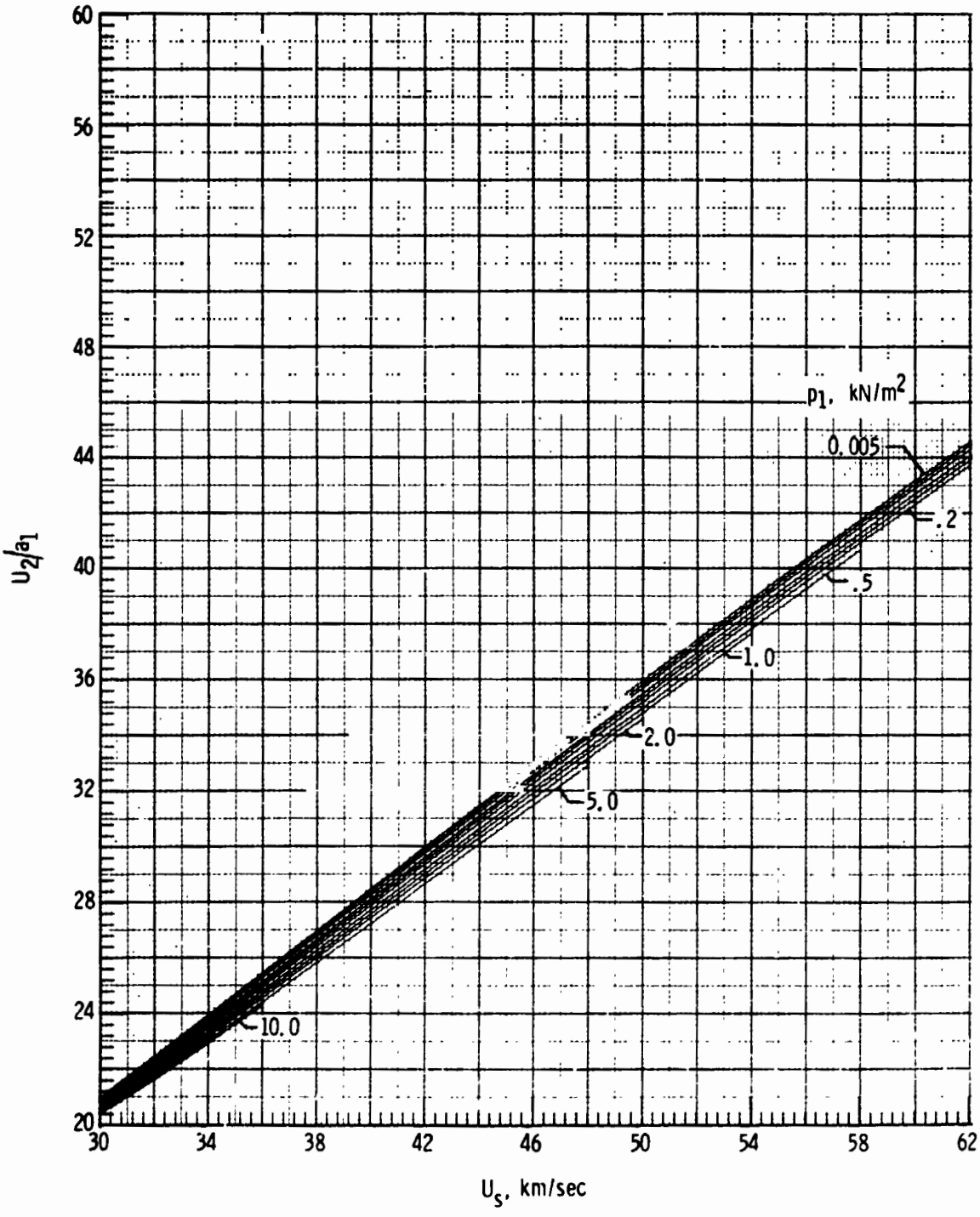
(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$. Concluded.

Figure 8.- Continued.



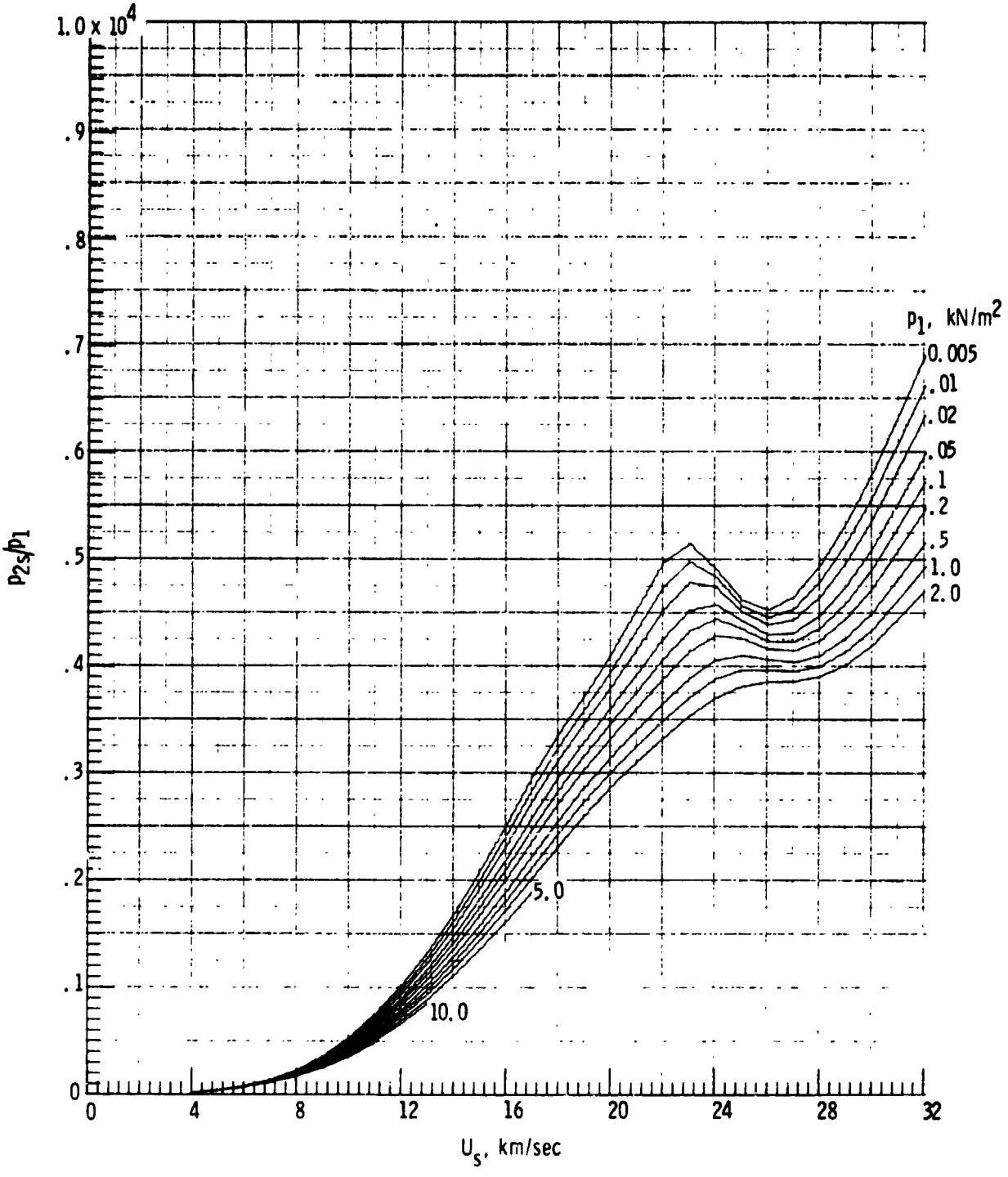
(i) Flow velocity U_2/a_1.

Figure 8.- Continued.



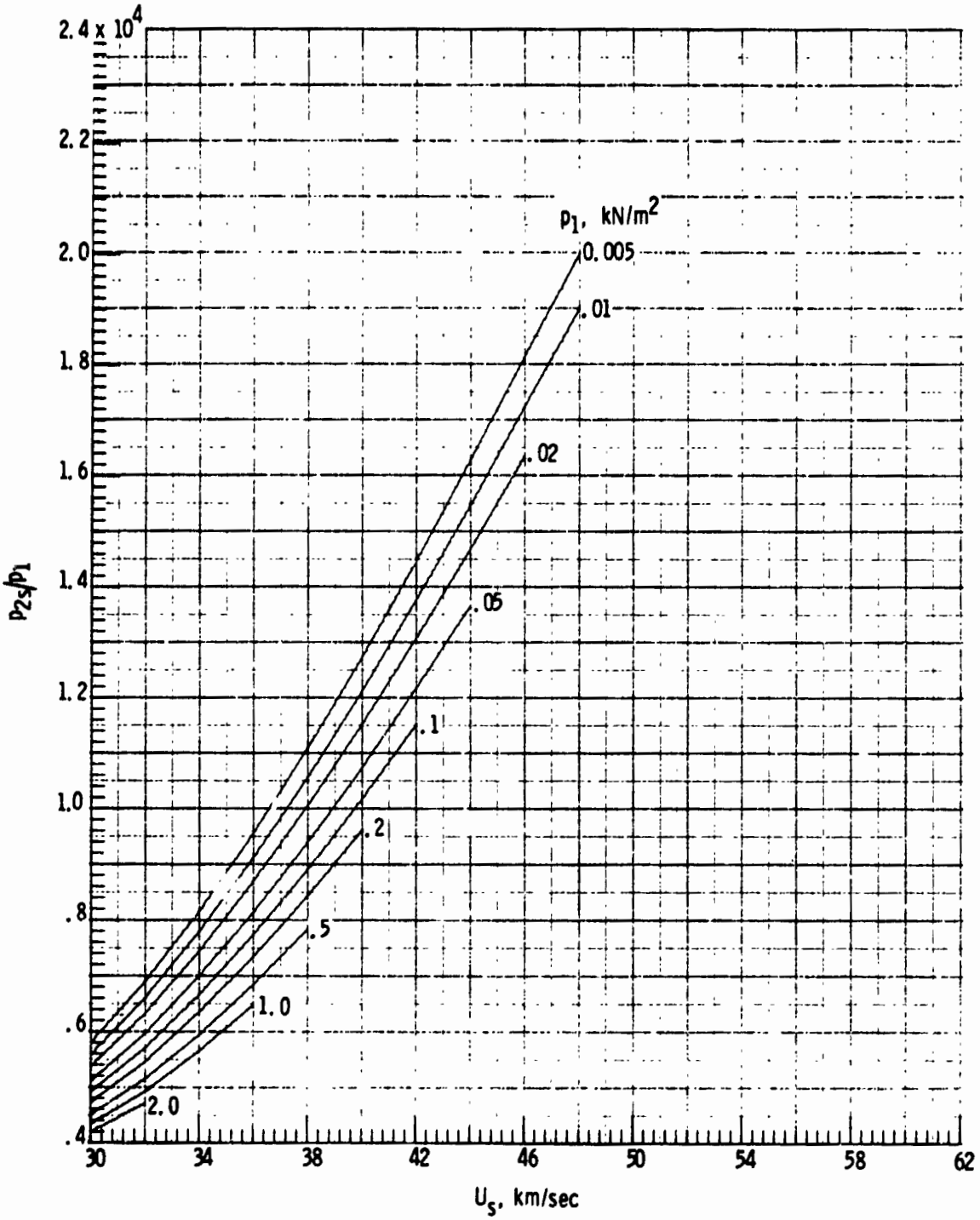
(i) Flow velocity U_2/a_1. Concluded.

Figure 8.- Concluded.



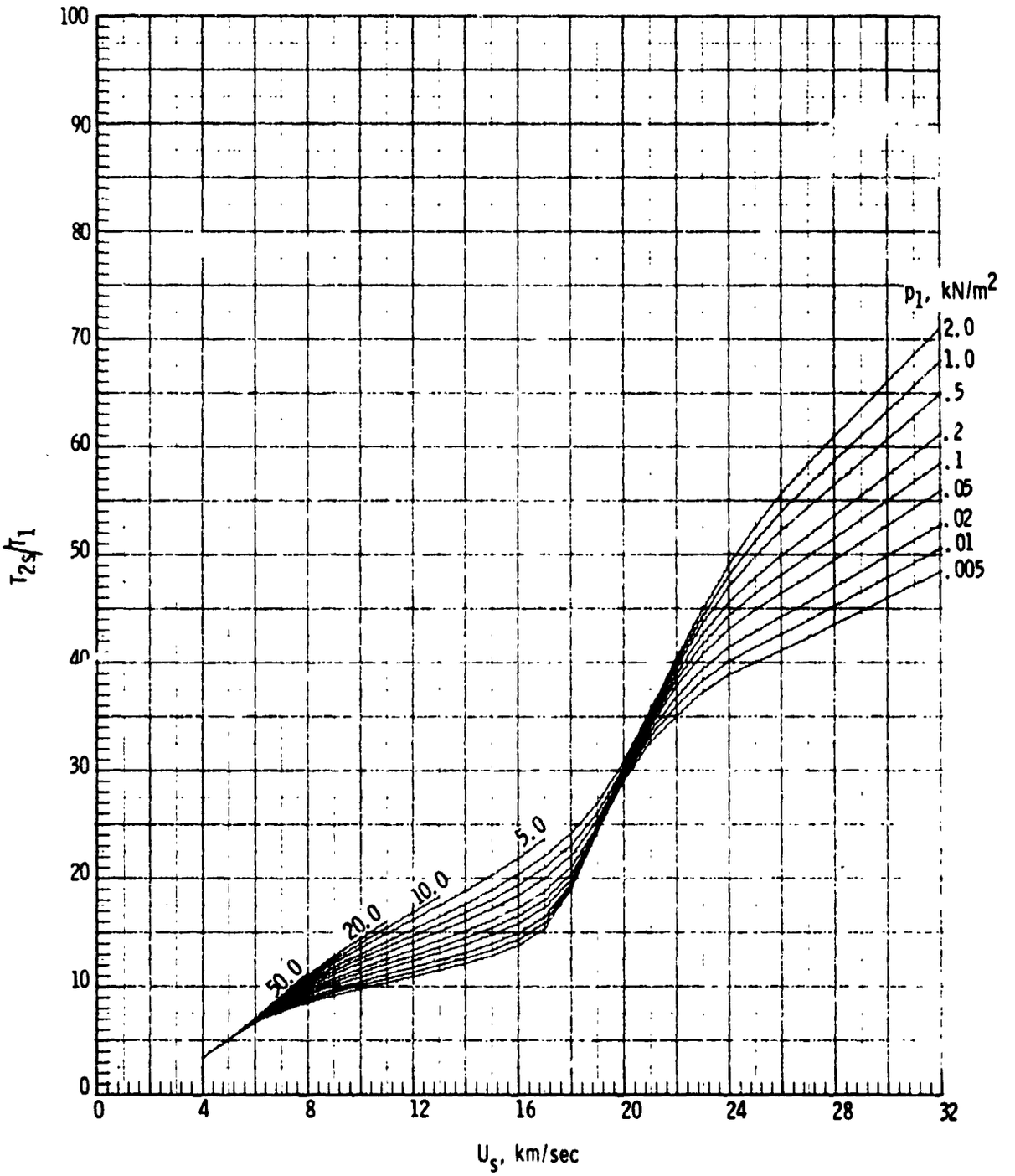
(a) Pressure p_{2s}/p_1.

Figure 9.- Thermodynamic properties and flow velocity behind a standing normal shock for a 0.05He-0.95H_2 mixture.



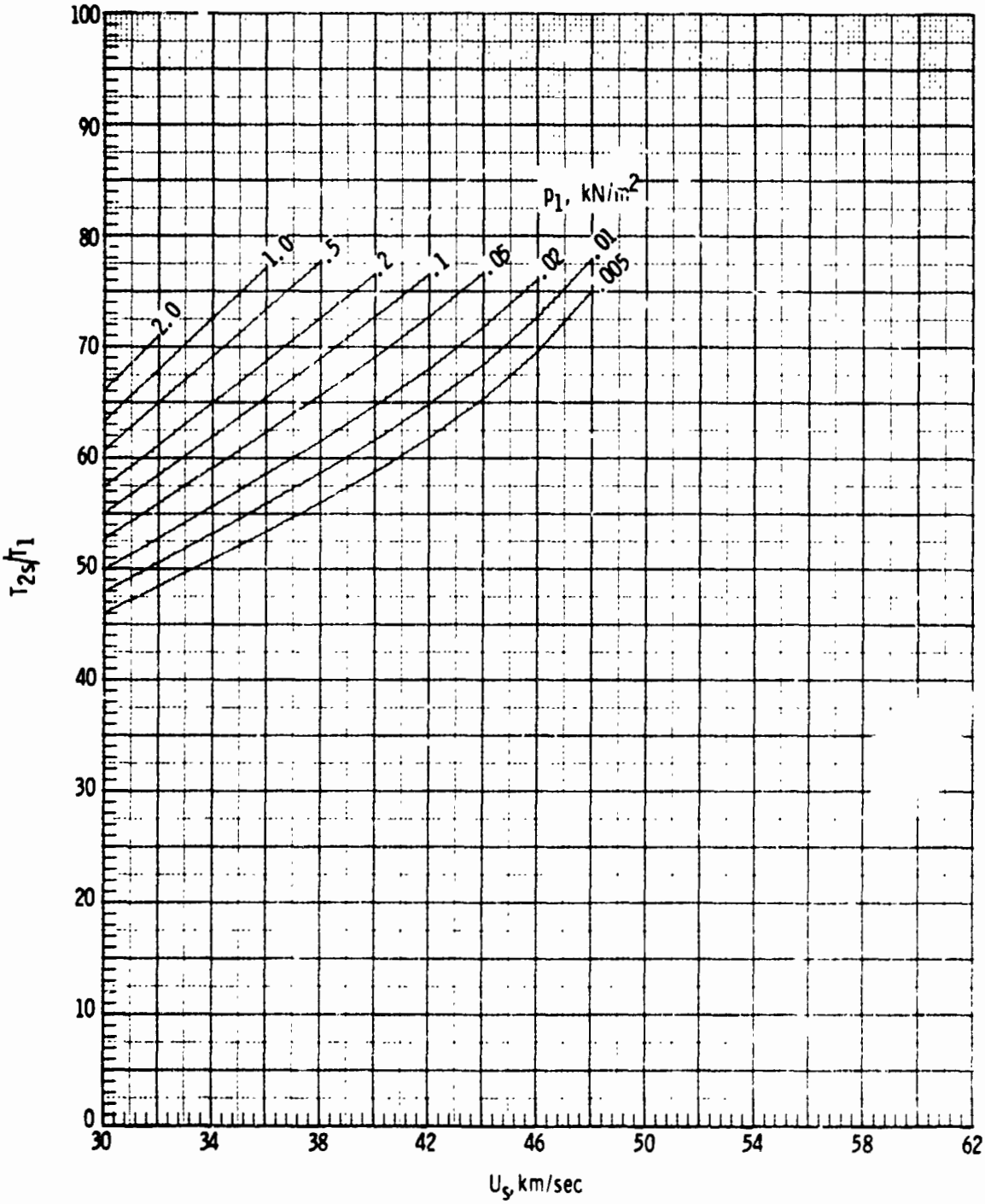
(a) Pressure p_{2s}/p_1. Concluded.

Figure 9.- Continued.



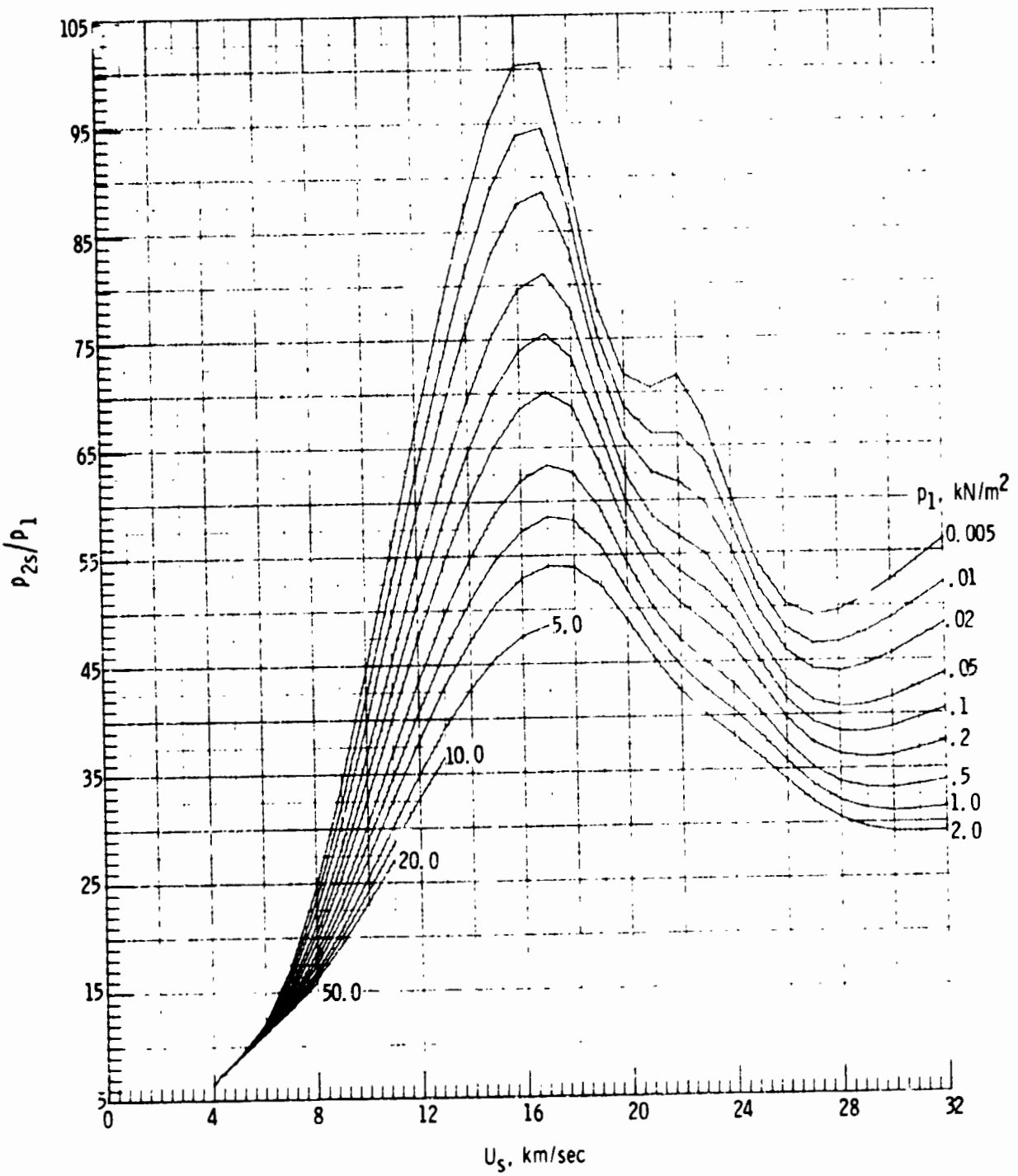
(b) Temperature T_{2s}/T_1.

Figure 9.- Continued.



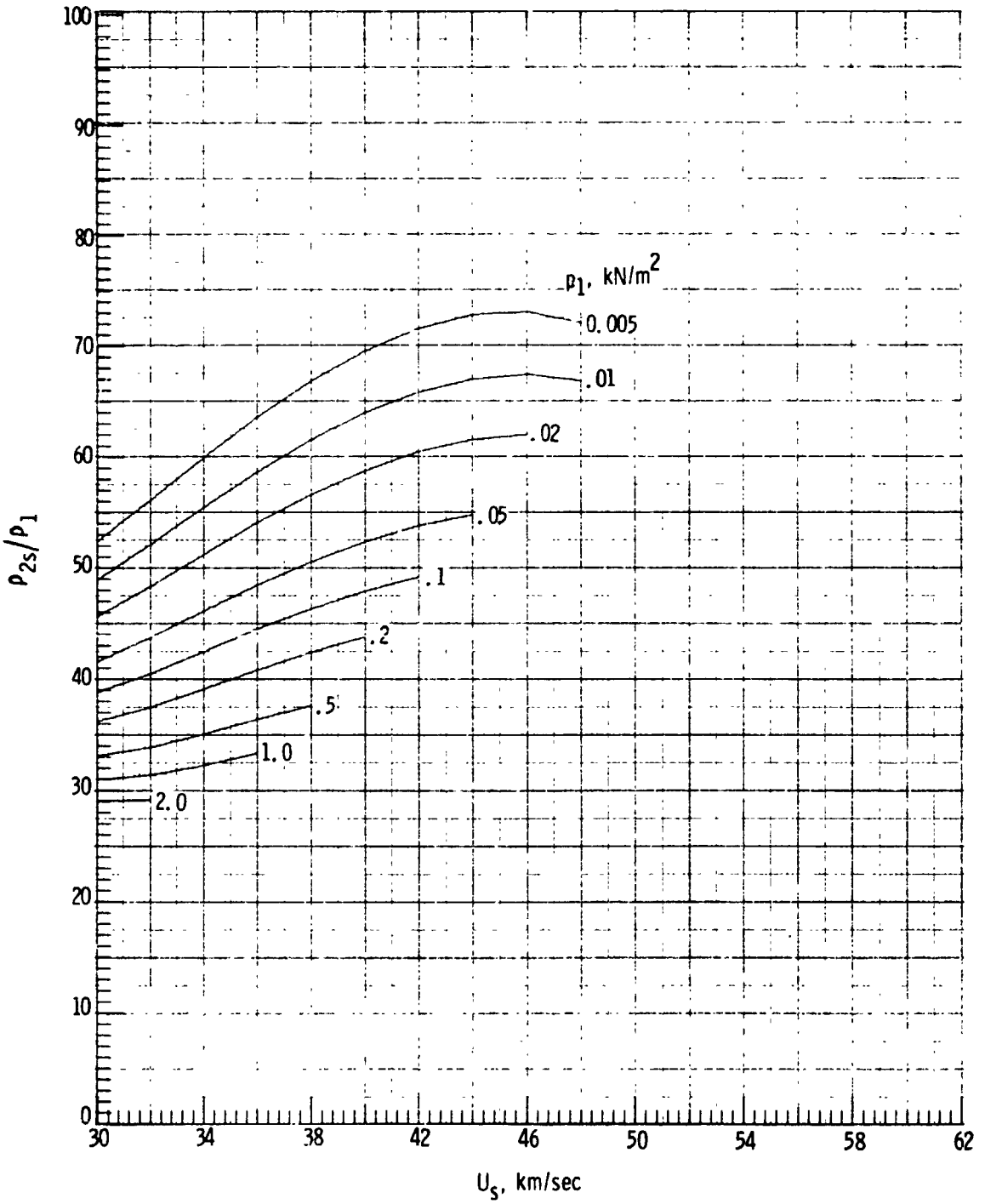
(b) Temperature T_{2s}/T_1. Concluded.

Figure 9.- Continued.



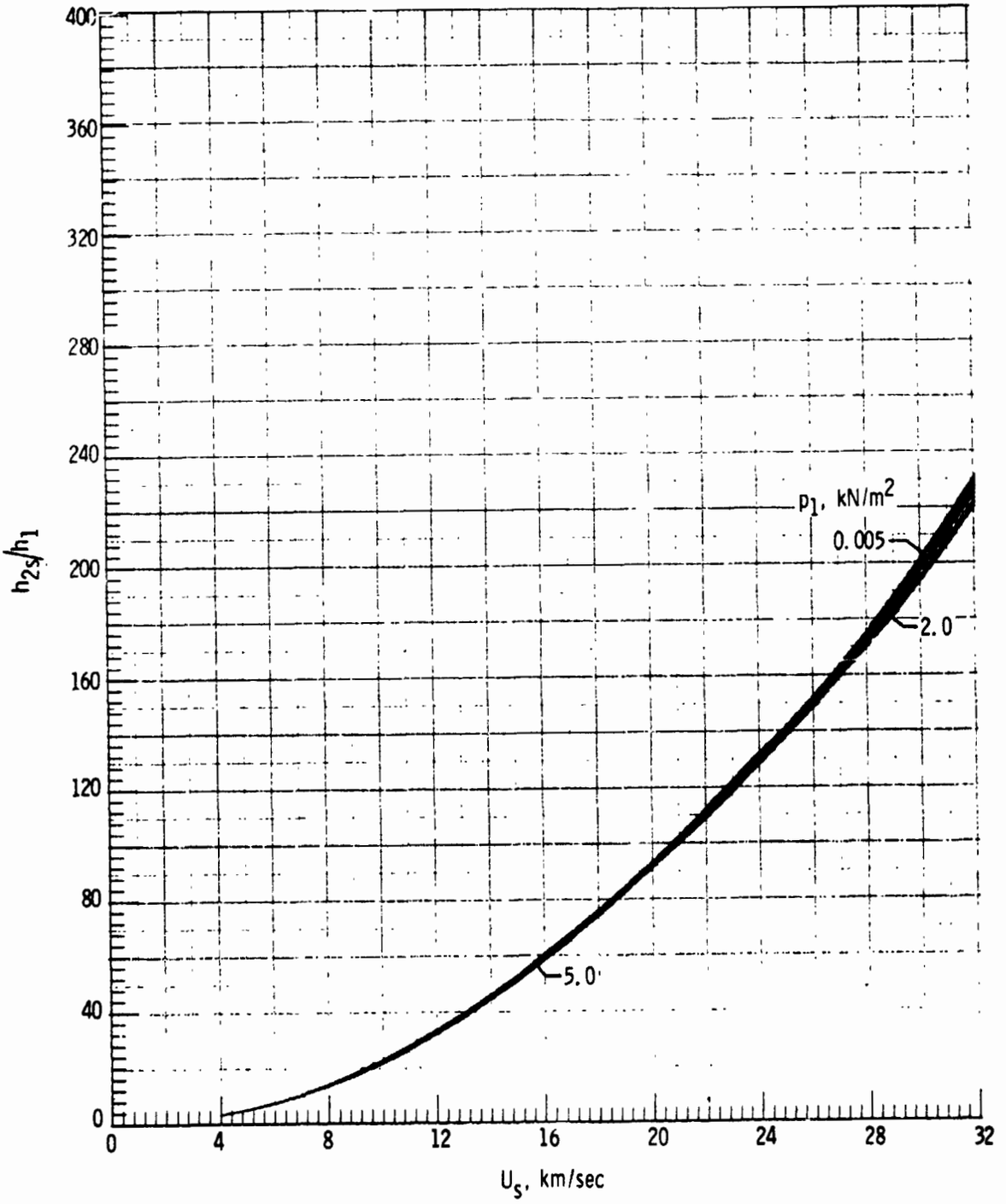
(c) Density ρ_{2s}/ρ_1.

Figure 9.- Continued.



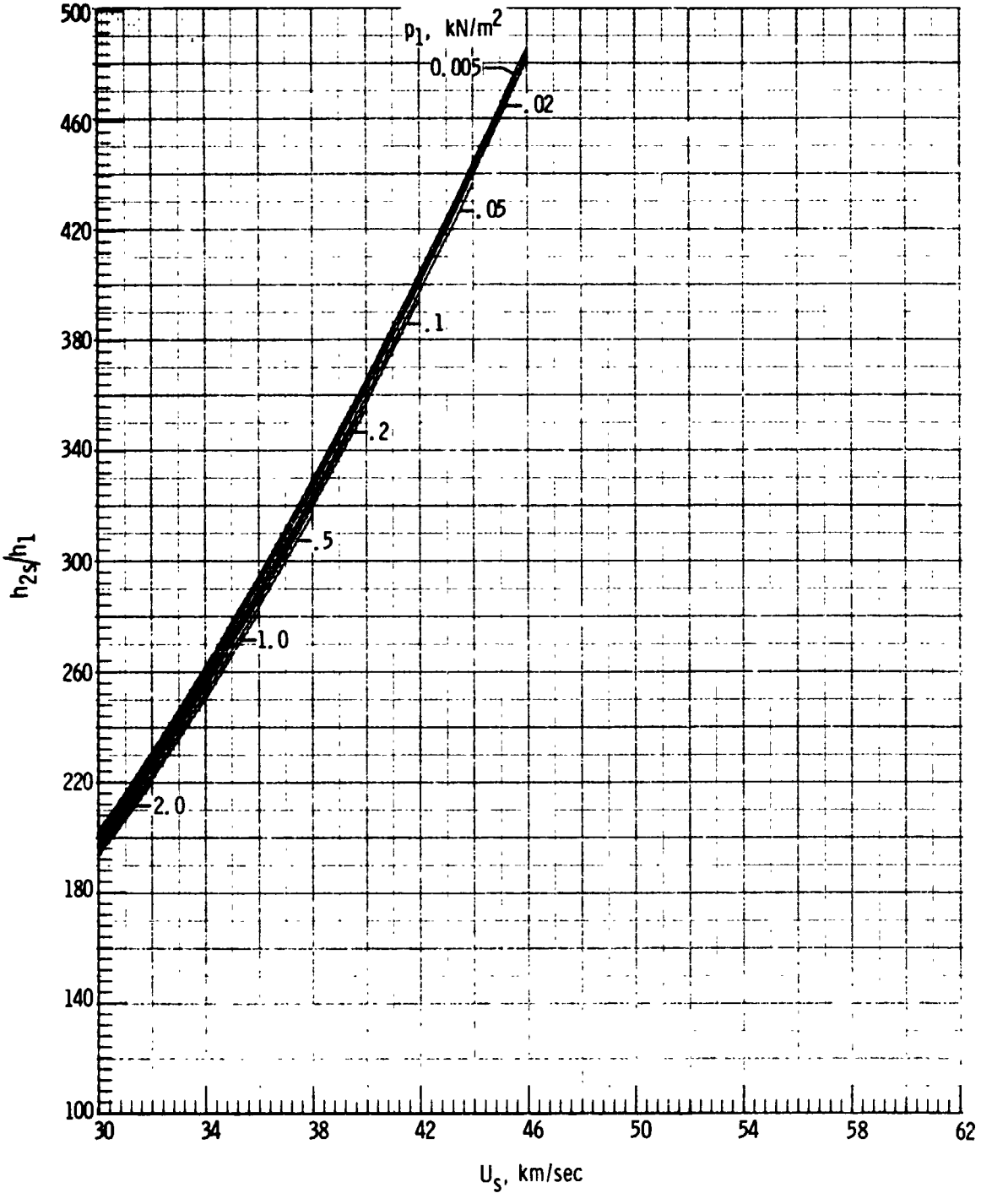
(c) Density ρ_{2s}/ρ_1. Concluded.

Figure 9.- Continued.



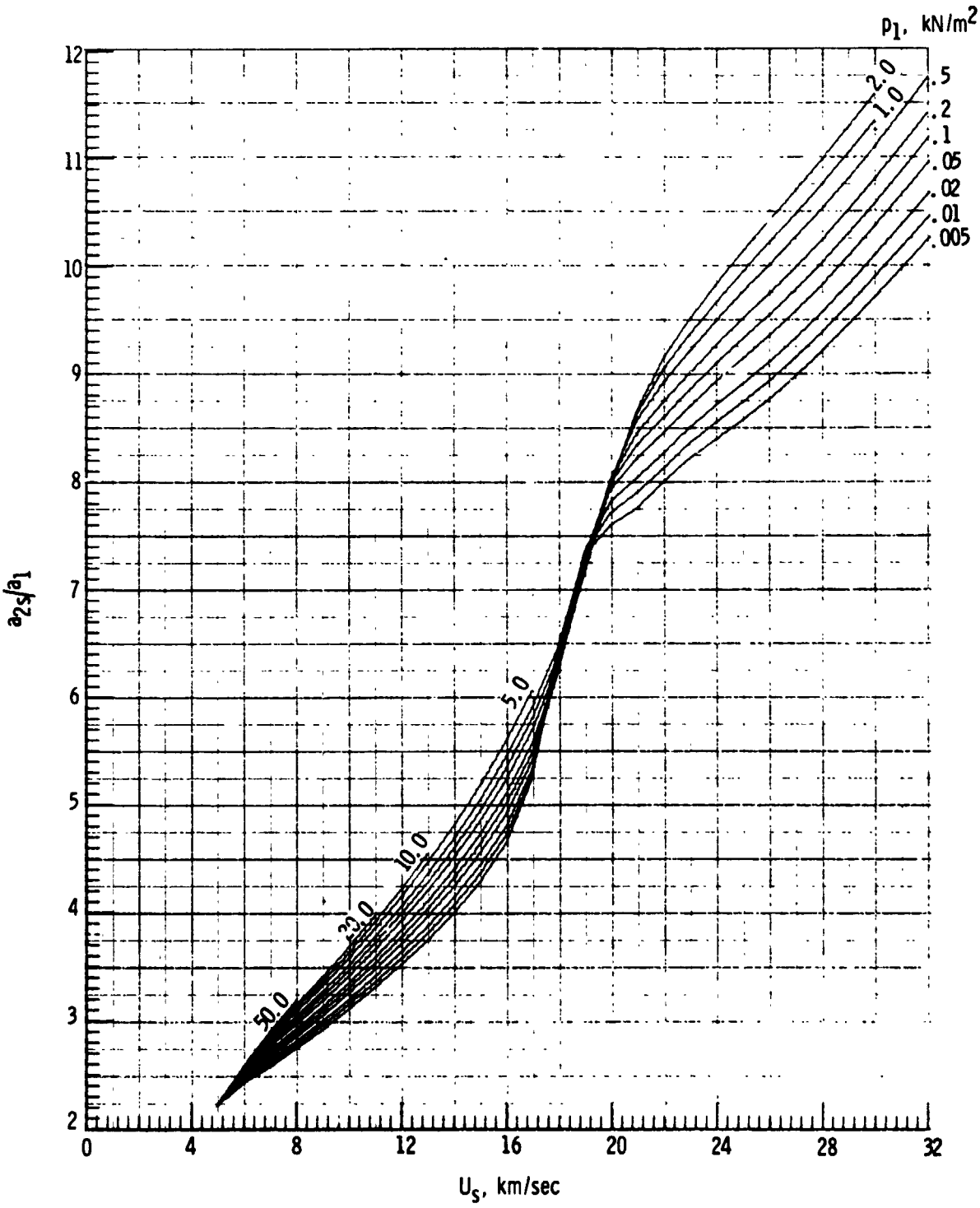
(d) Enthalpy h_{2s}/h_1.

Figure 9.- Continued.



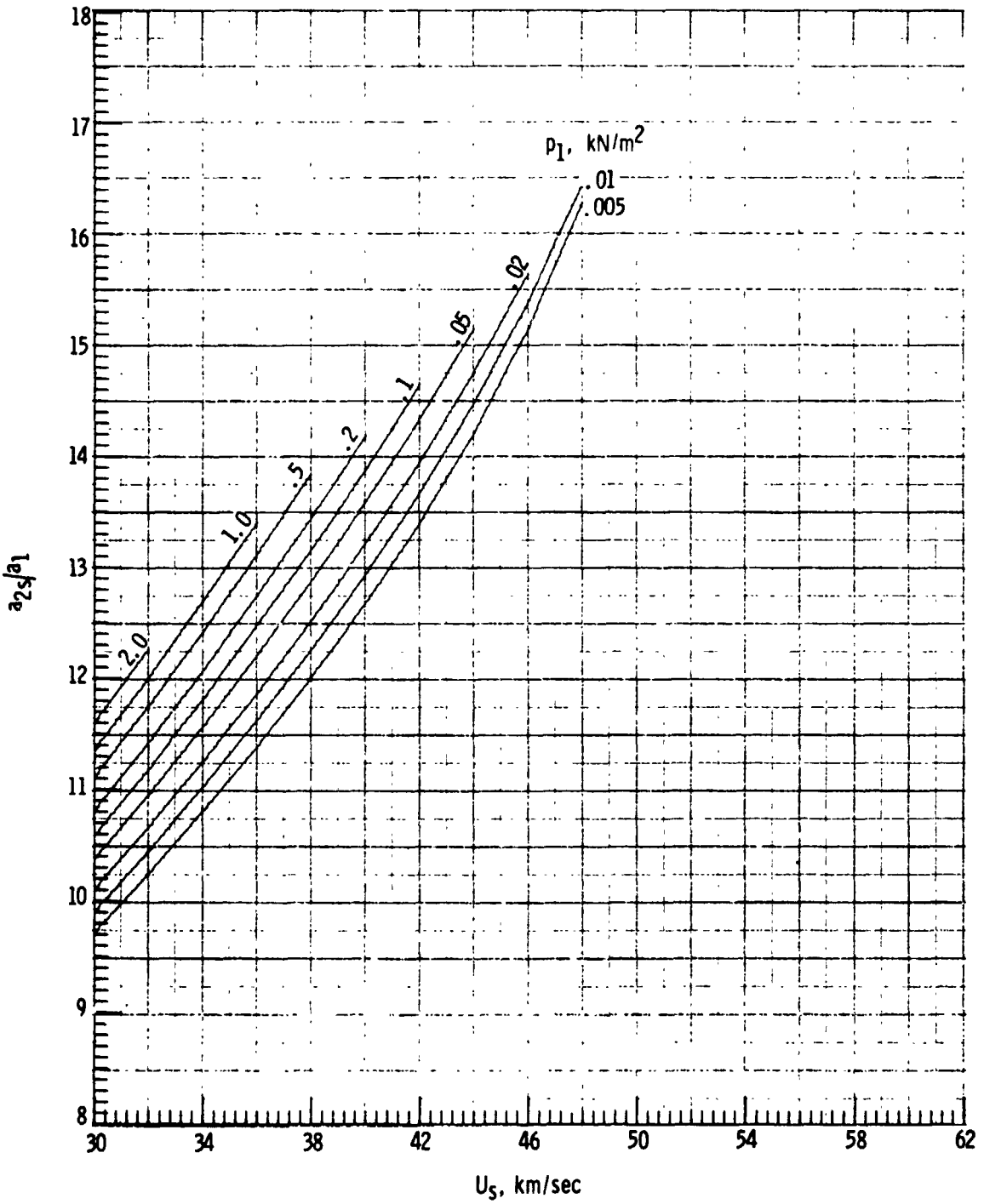
(d) Enthalpy h_{2s}/h_1. Concluded.

Figure 9.- Continued.



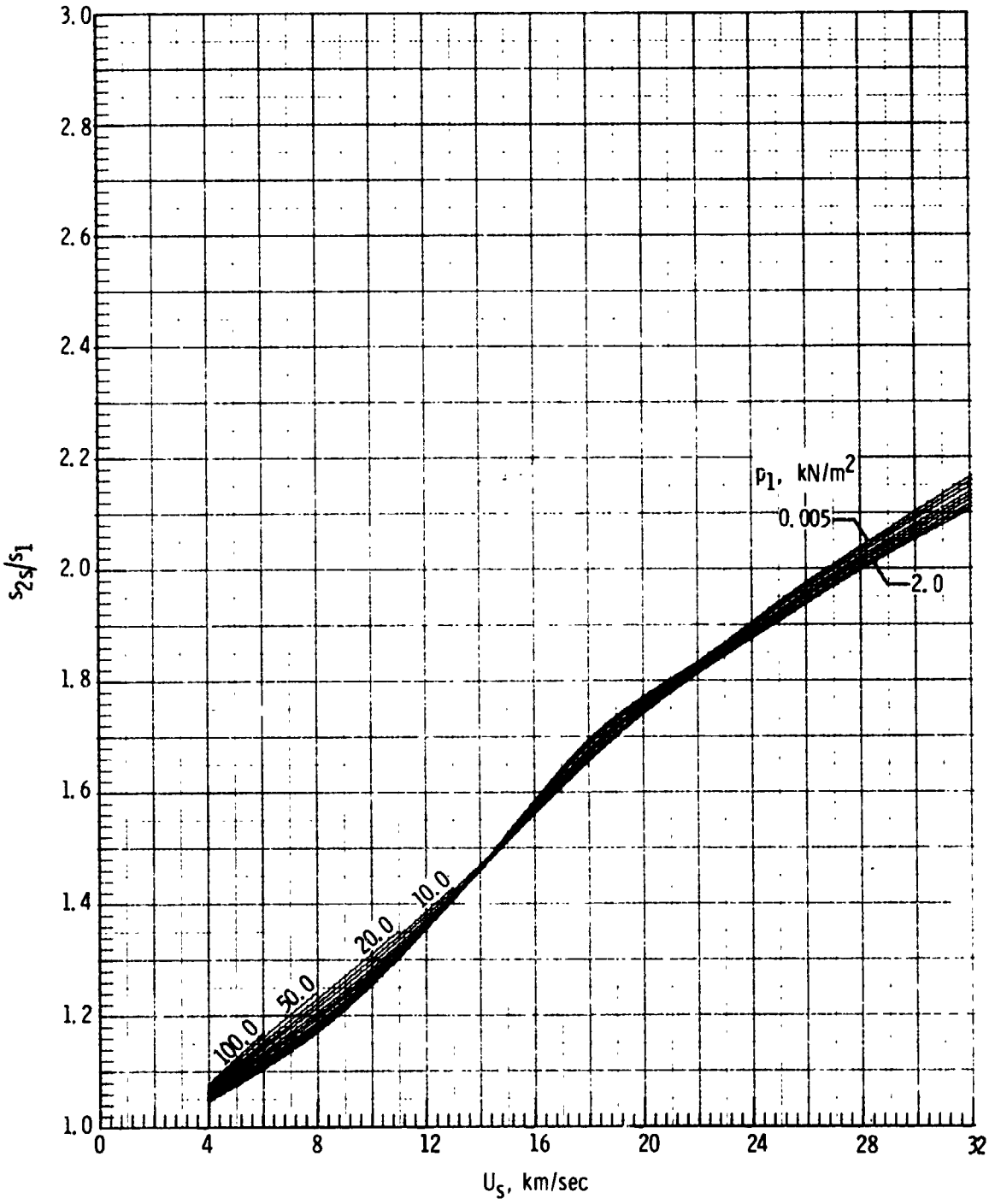
(e) Speed of sound a_{2s}/a_1.

Figure 9.- Continued.



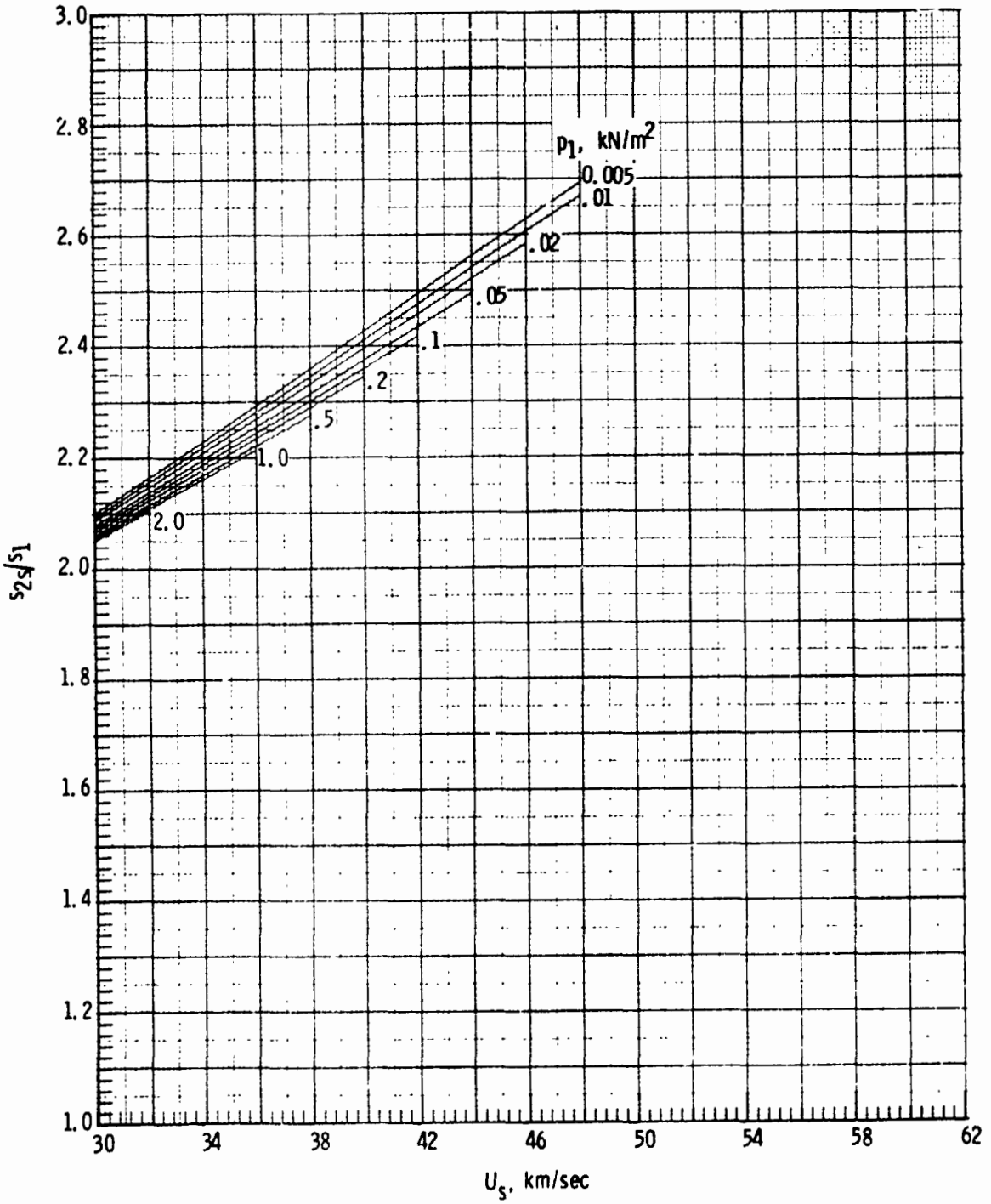
(e) Speed of sound a_{2s}/a_1. Concluded.

Figure 5.- Continued.



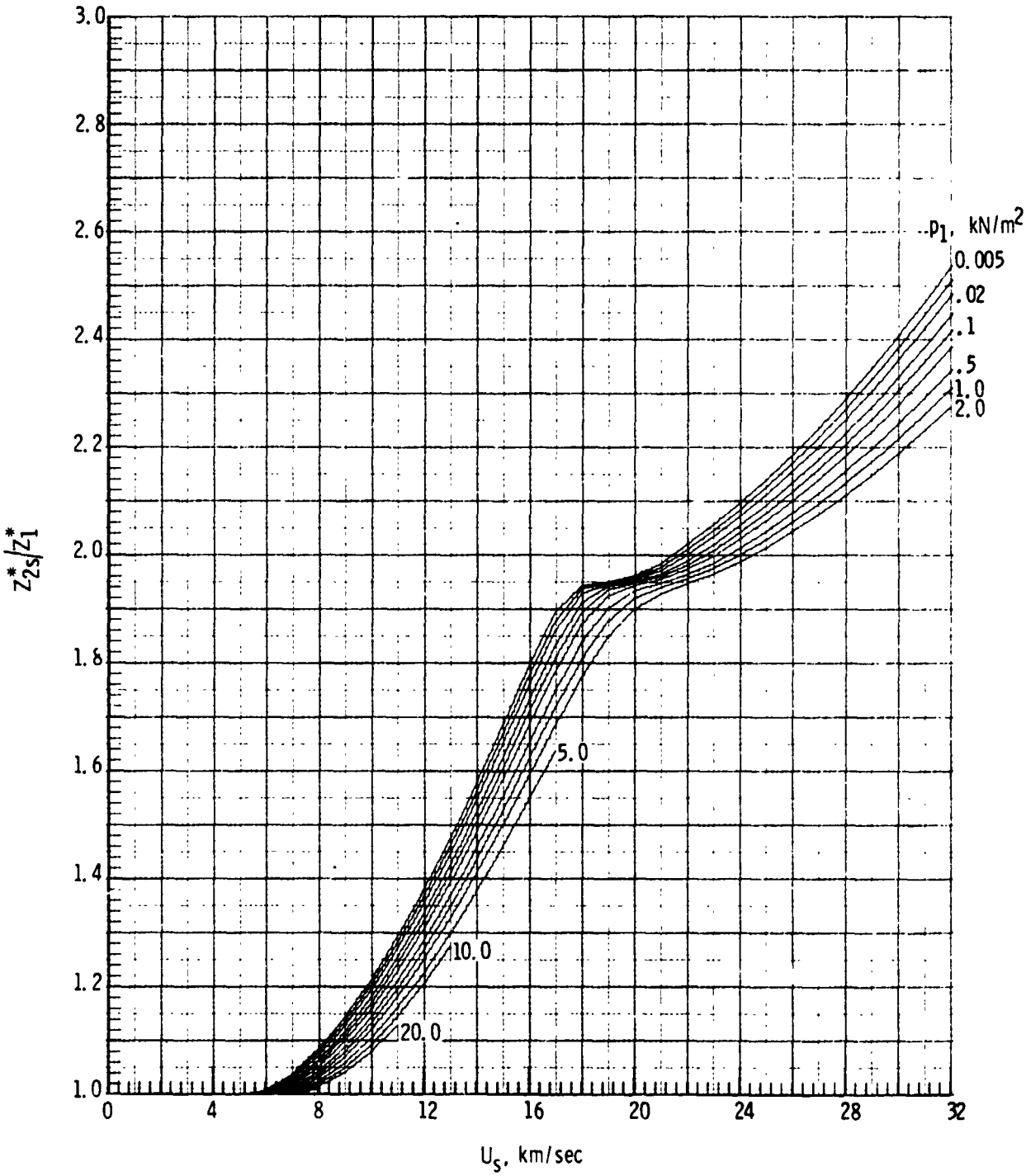
(f) Entropy s_{2s}/s_1.

Figure 9.- Continued.



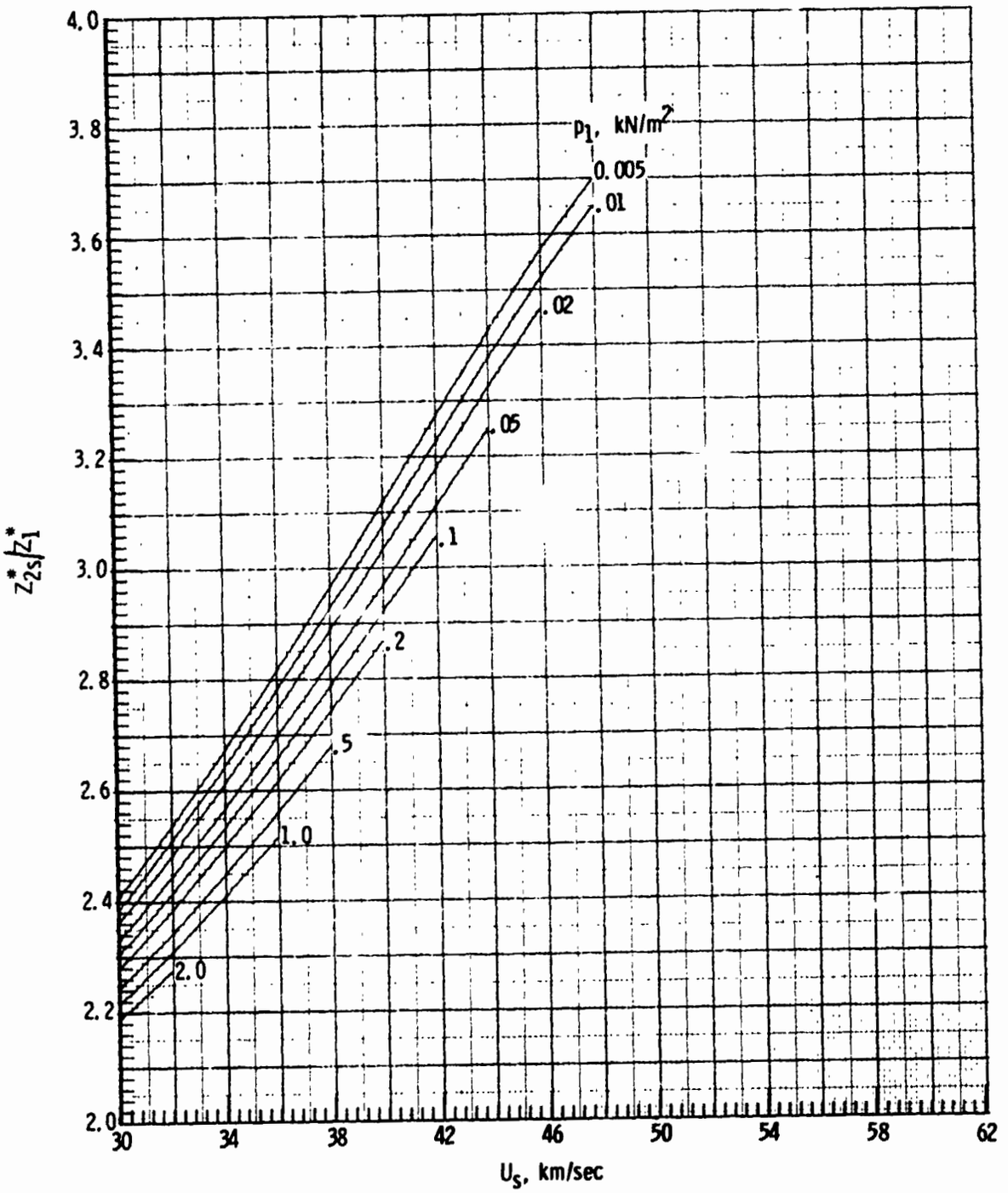
(f) Entropy s_{2s}/s_1. Concluded.

Figure 9.- Continued.



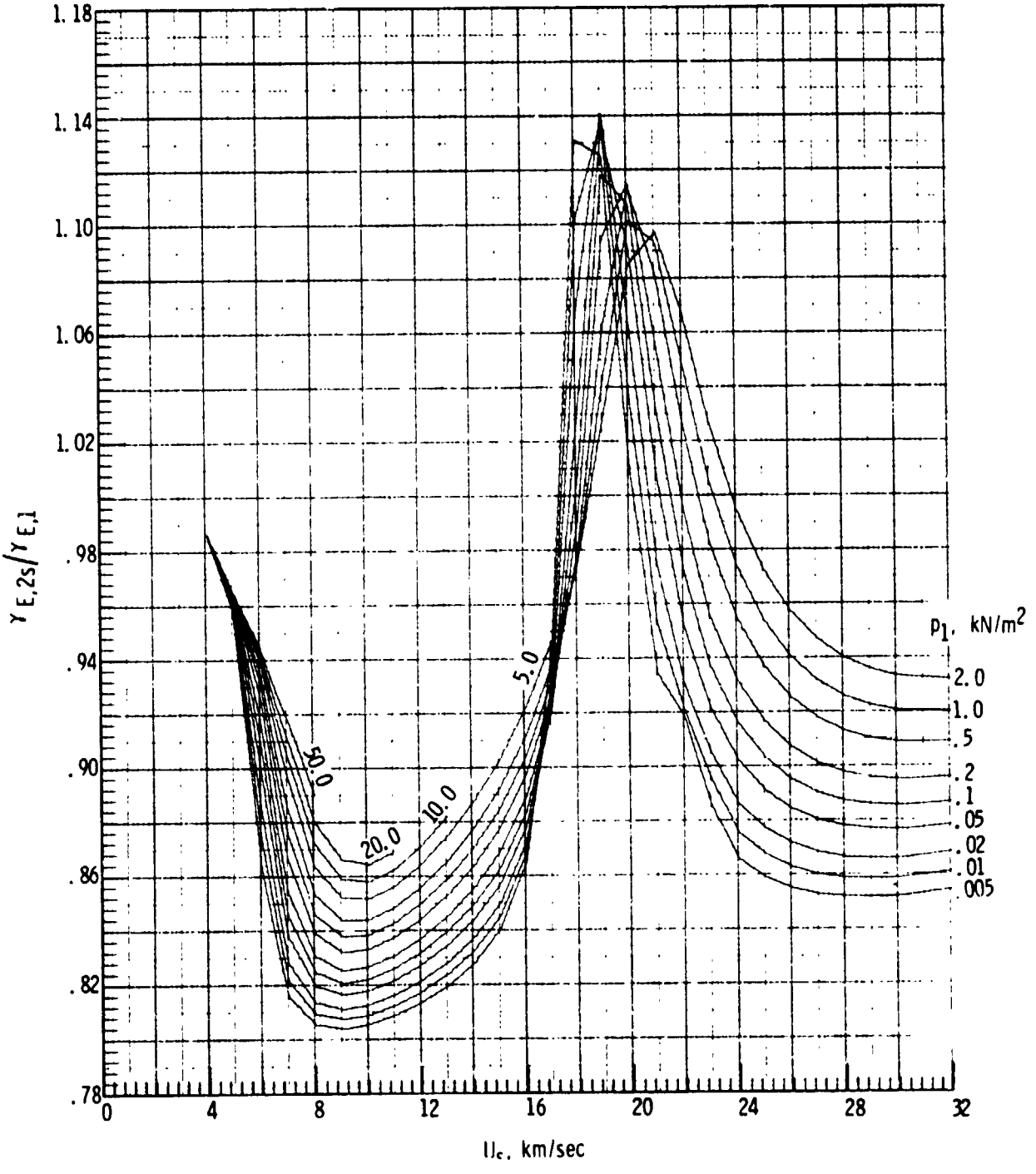
(g) Molecular-weight ratio Z^*_{2s}/Z^*_1.

Figure 9.- Continued.



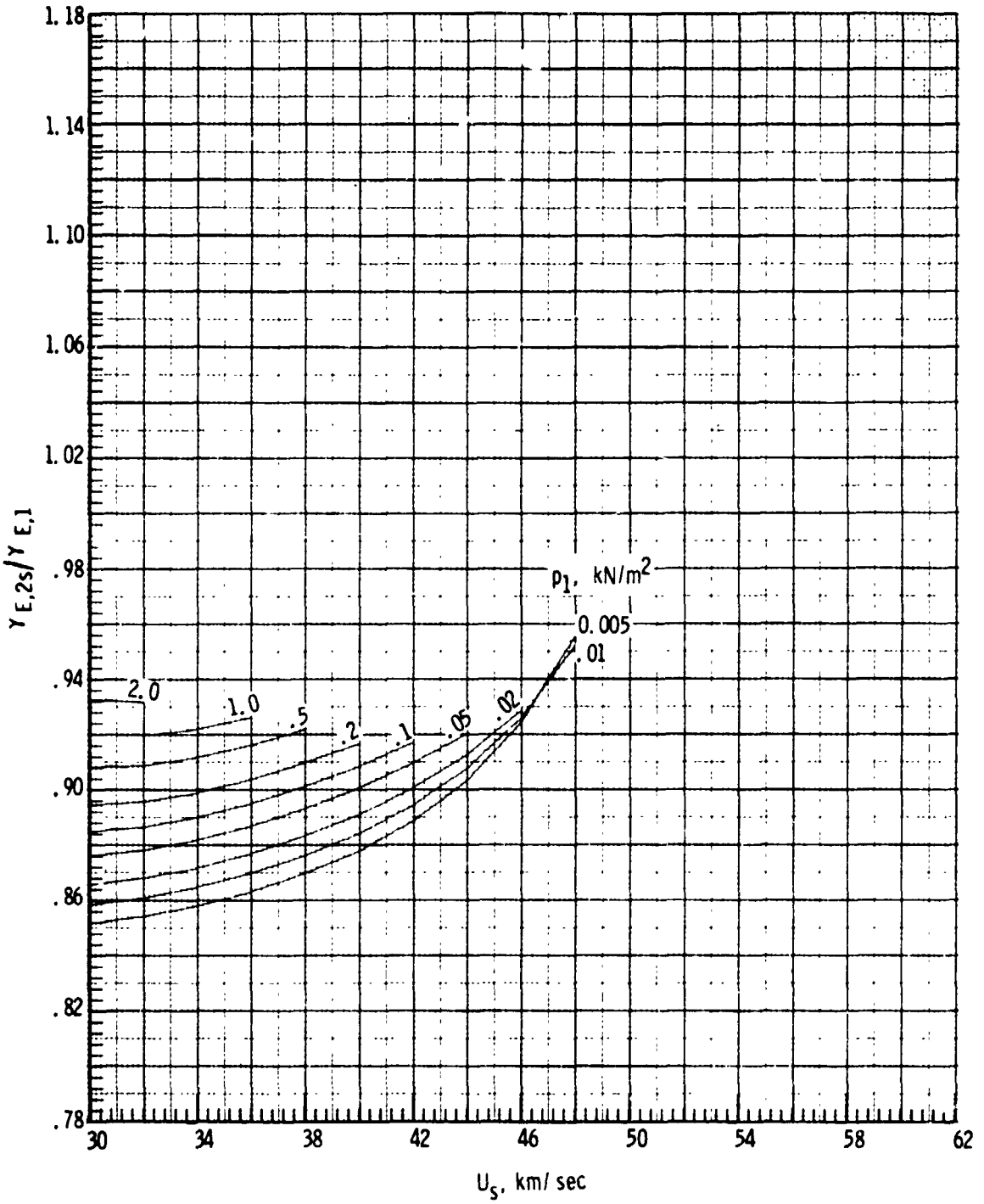
(g) Molecular-weight ratio Z^*_{2s}/Z^*_1. Concluded.

Figure 9.- Continued.



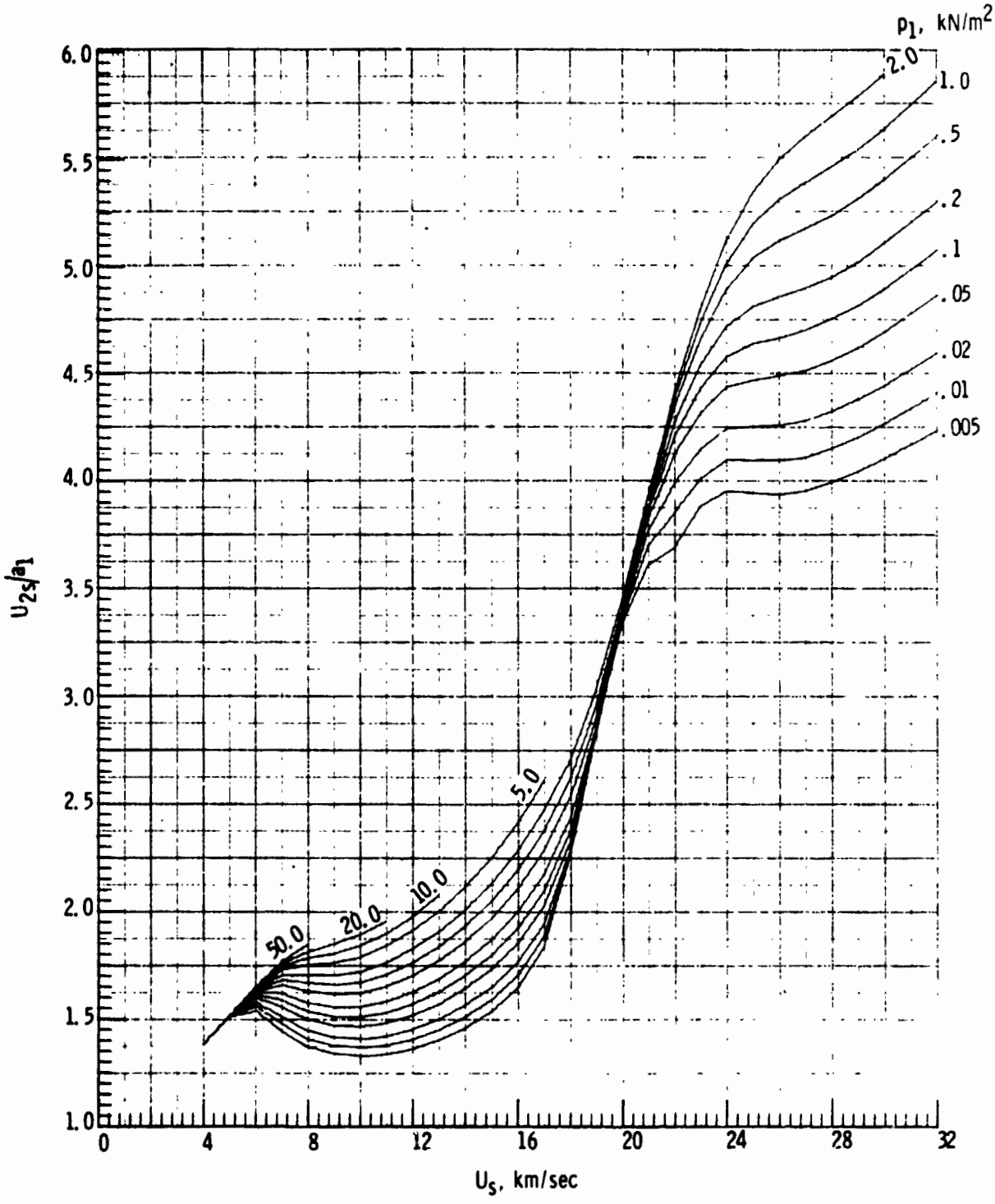
(h) Isentropic exponent $\gamma_{E,2s}/\gamma_{E,1}$.

Figure 9.- Continued.



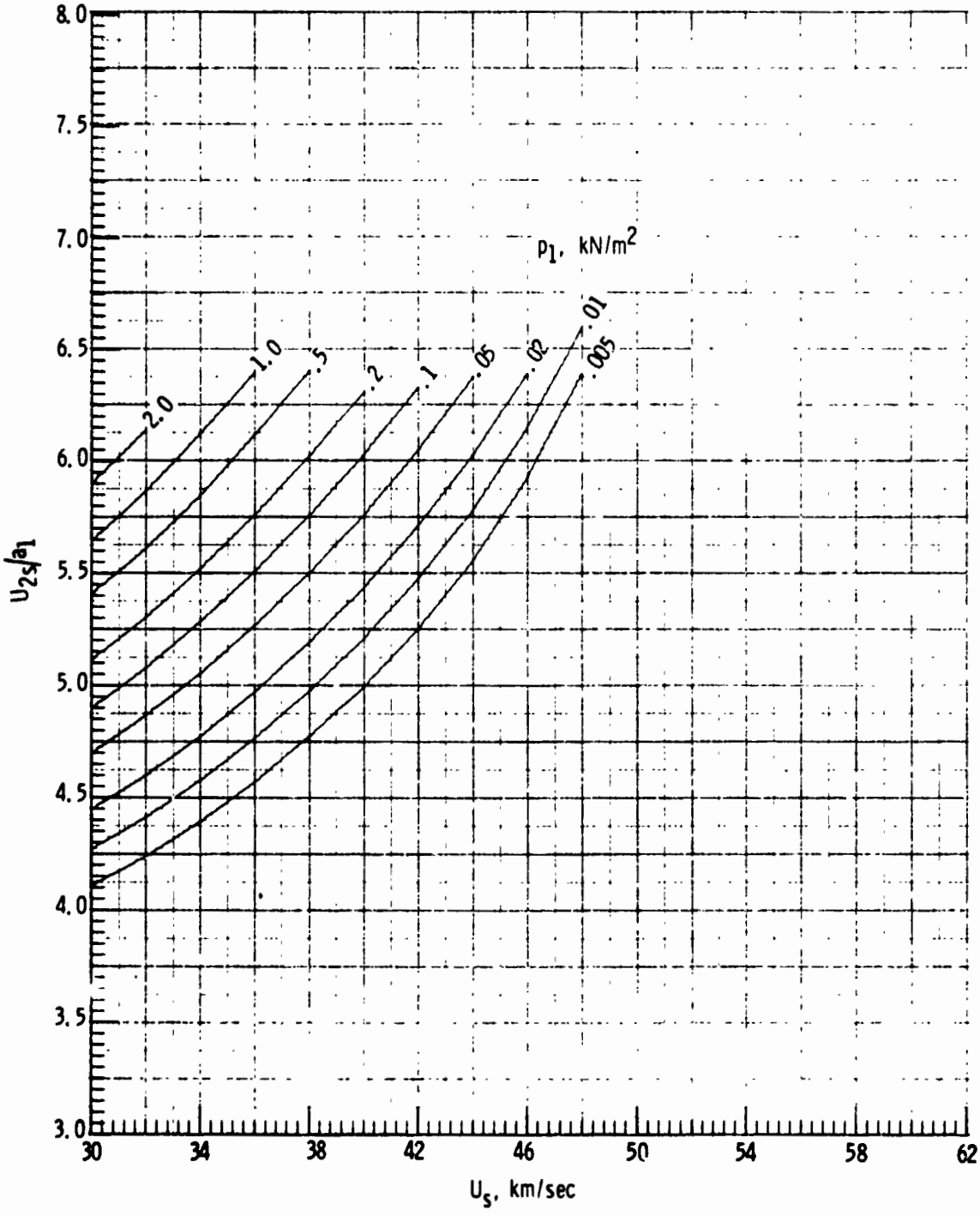
(h) Isentropic exponent $\gamma_{E,2s}/\gamma_{E,1}$. Concluded.

Figure 9.- Continued.



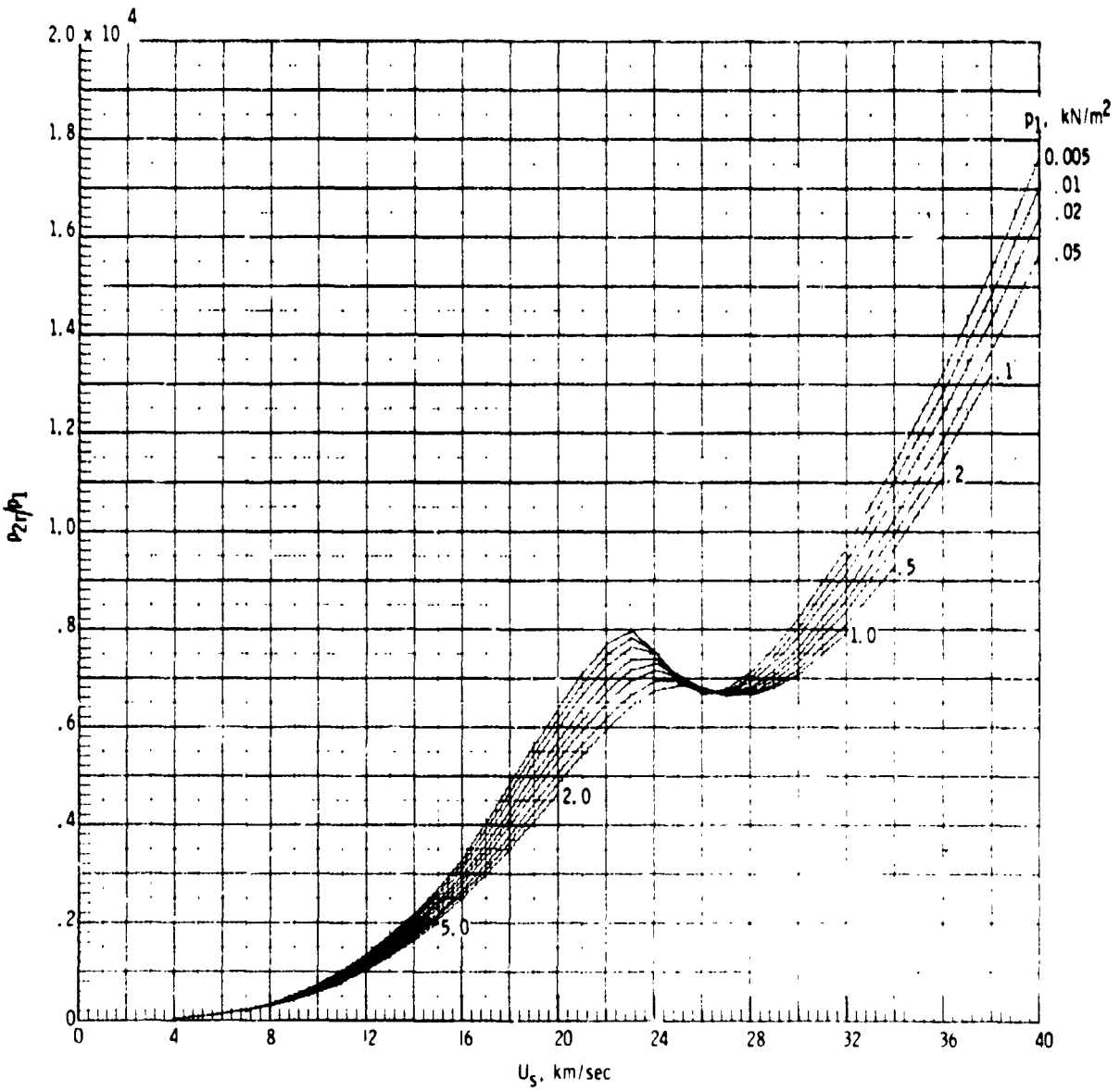
(i) Flow velocity U_{2s}/a_1.

Figure 9.- Continued.



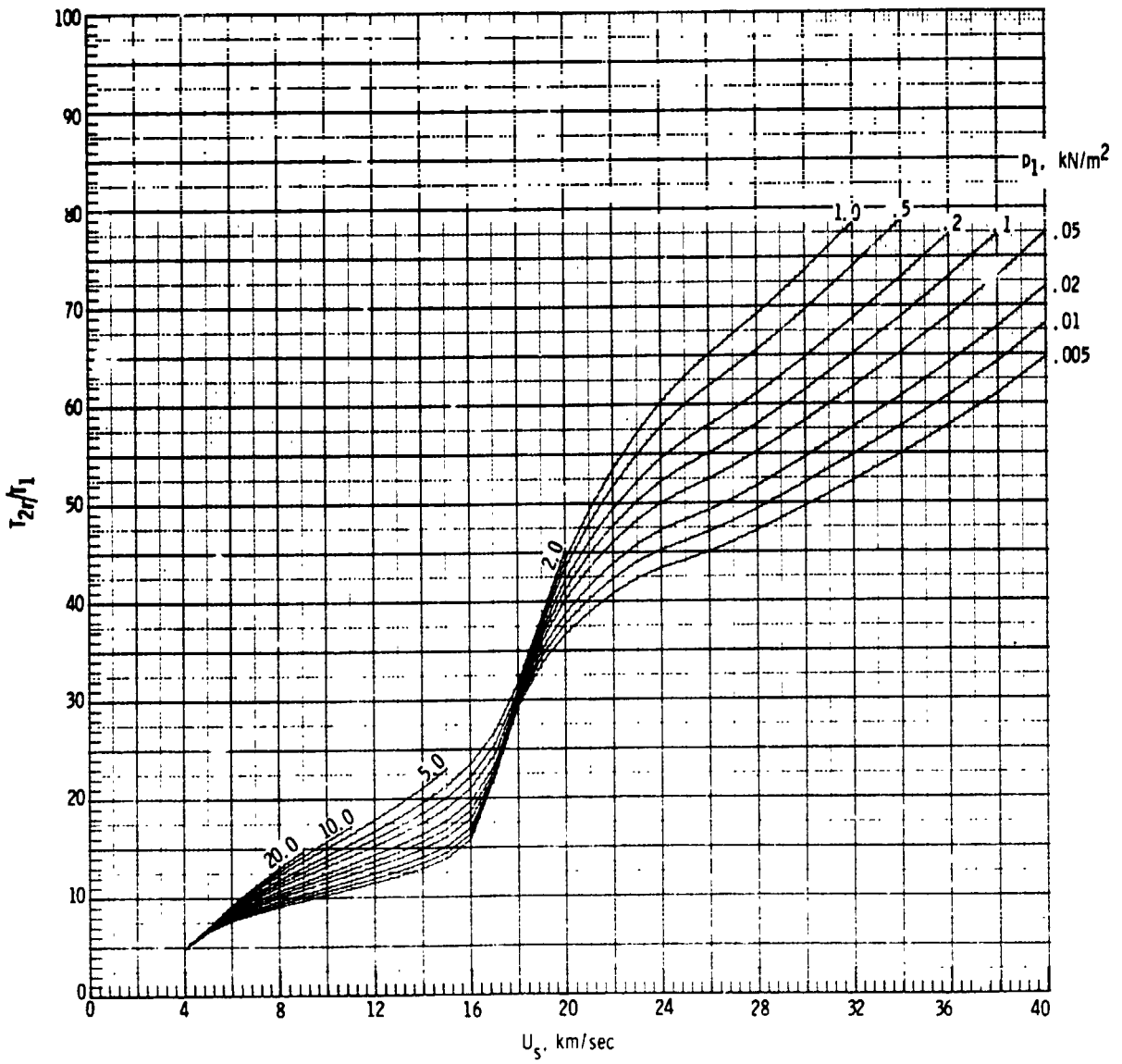
(i) Flow velocity U_{2s}/a_1. Concluded.

Figure 9.- Concluded.



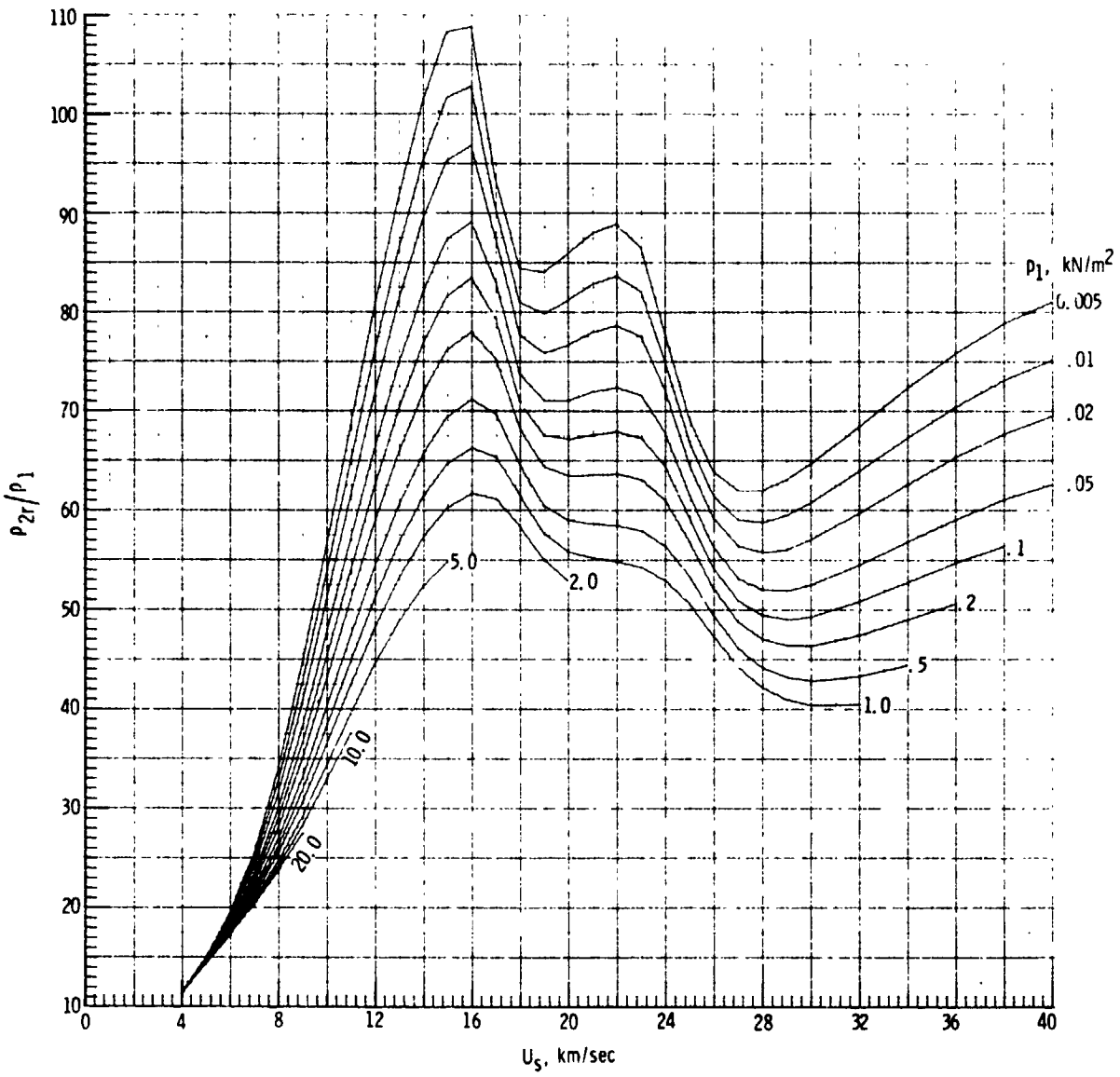
(a) Pressure p_{2r}/p_1.

Figure 10.- Thermodynamic properties behind a reflected normal shock and reflected shock velocity for a 0.05He-0.95H_2 mixture.



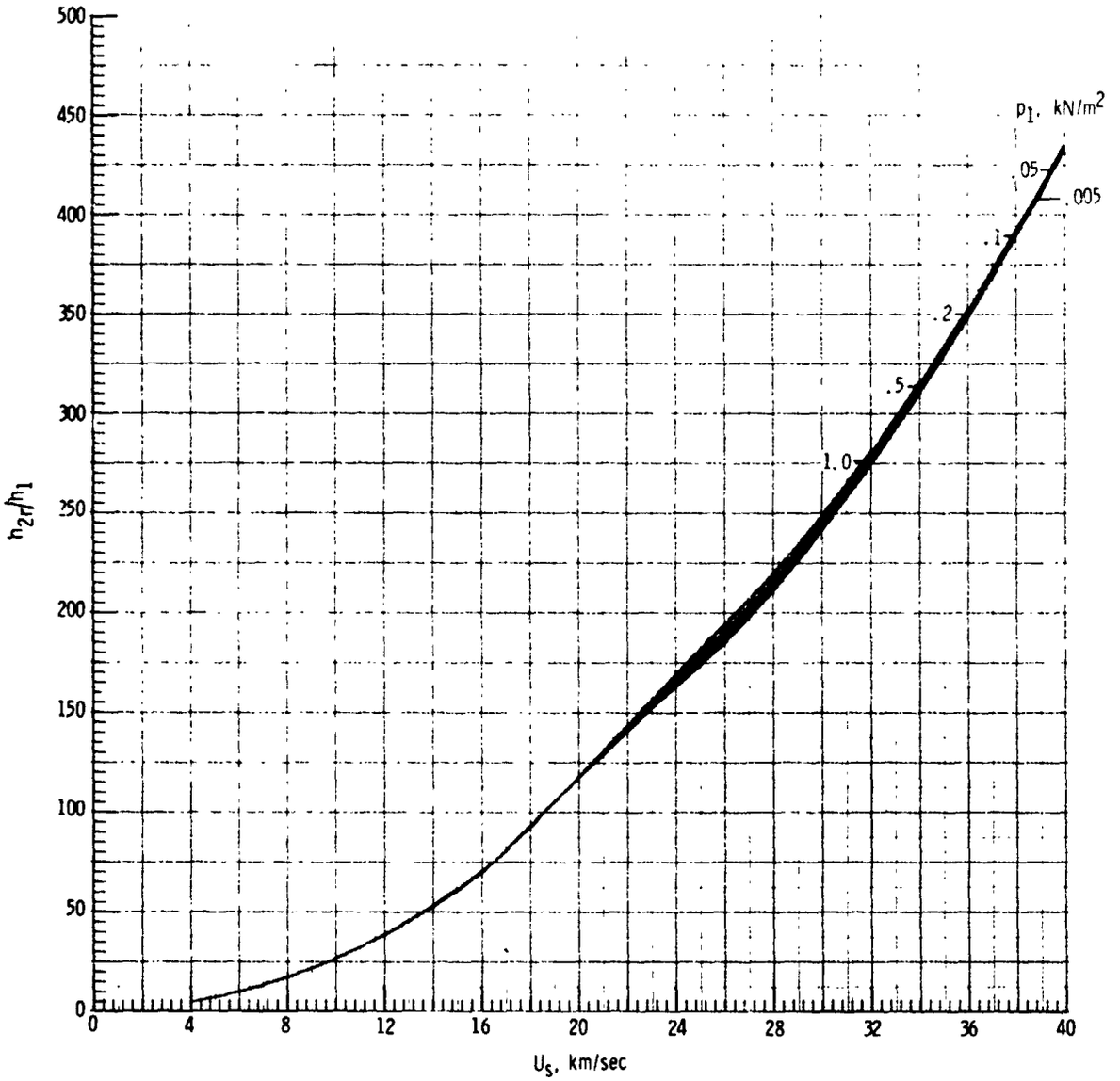
(b) Temperature T_{2r}/T_1.

Figure 10.- Continued.



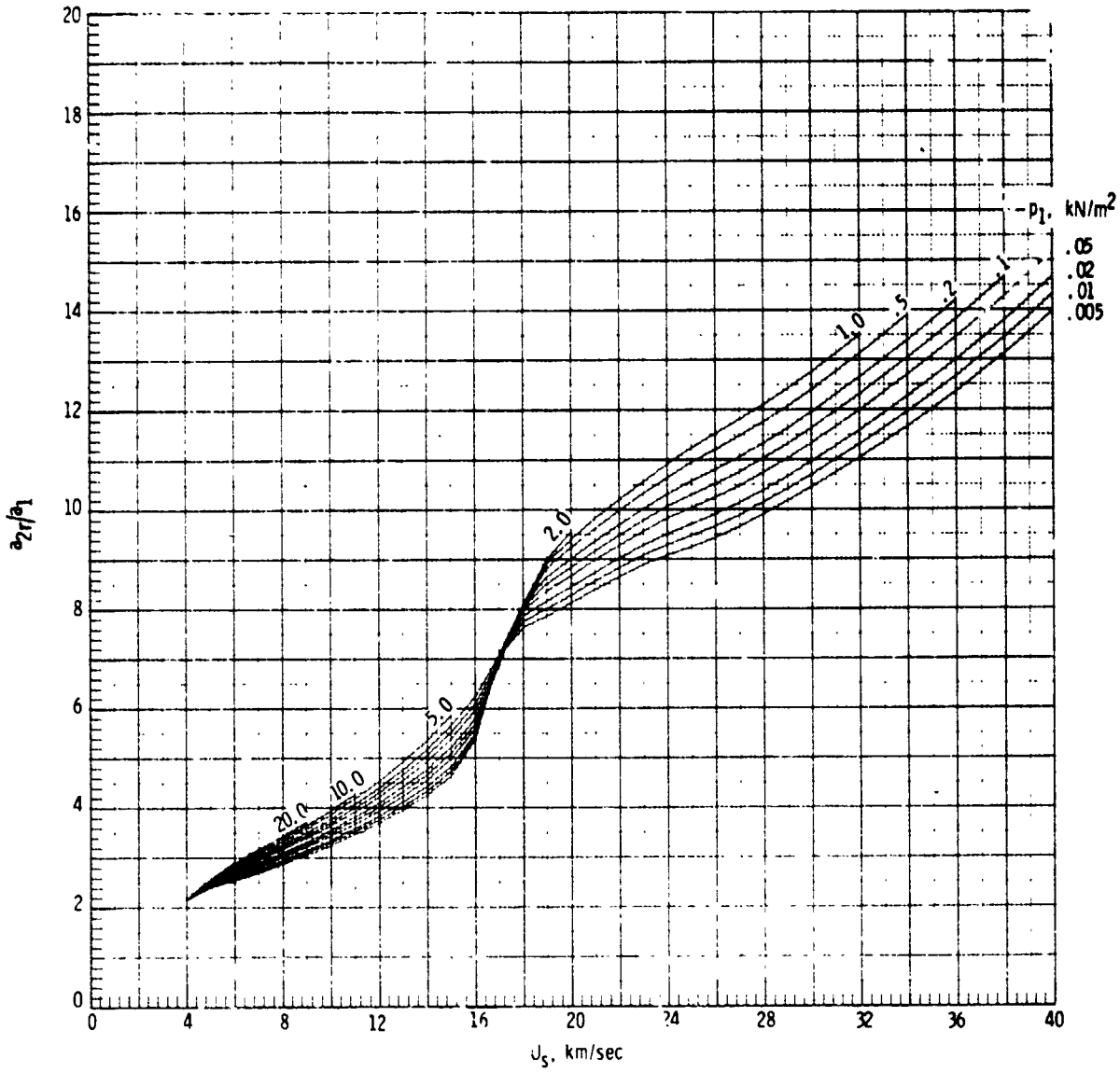
(c) Density ρ_{2r}/ρ_1.

Figure 10.- Continued.



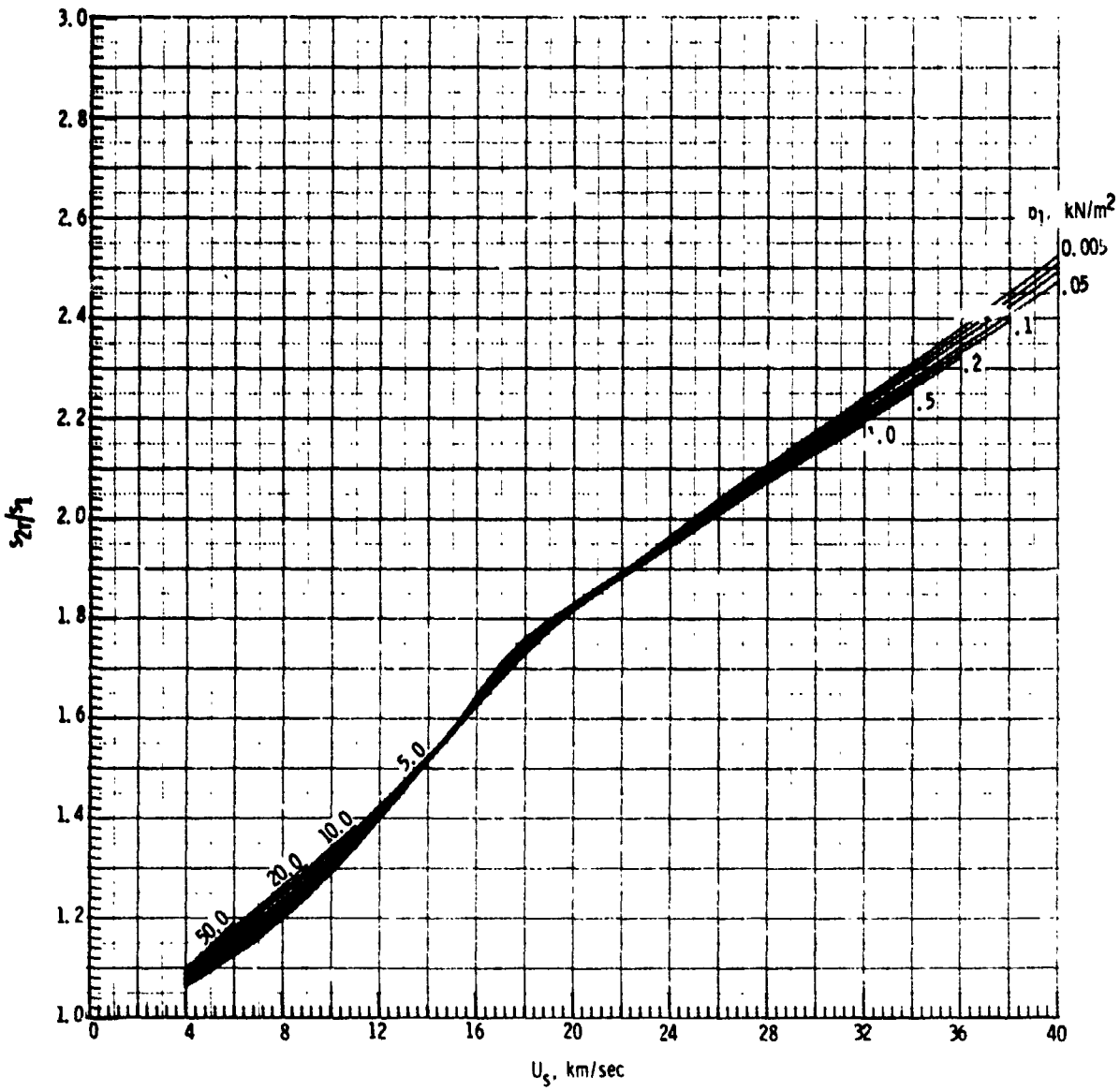
(d) Enthalpy h_{2r}/h_1.

Figure 10.- Continued.



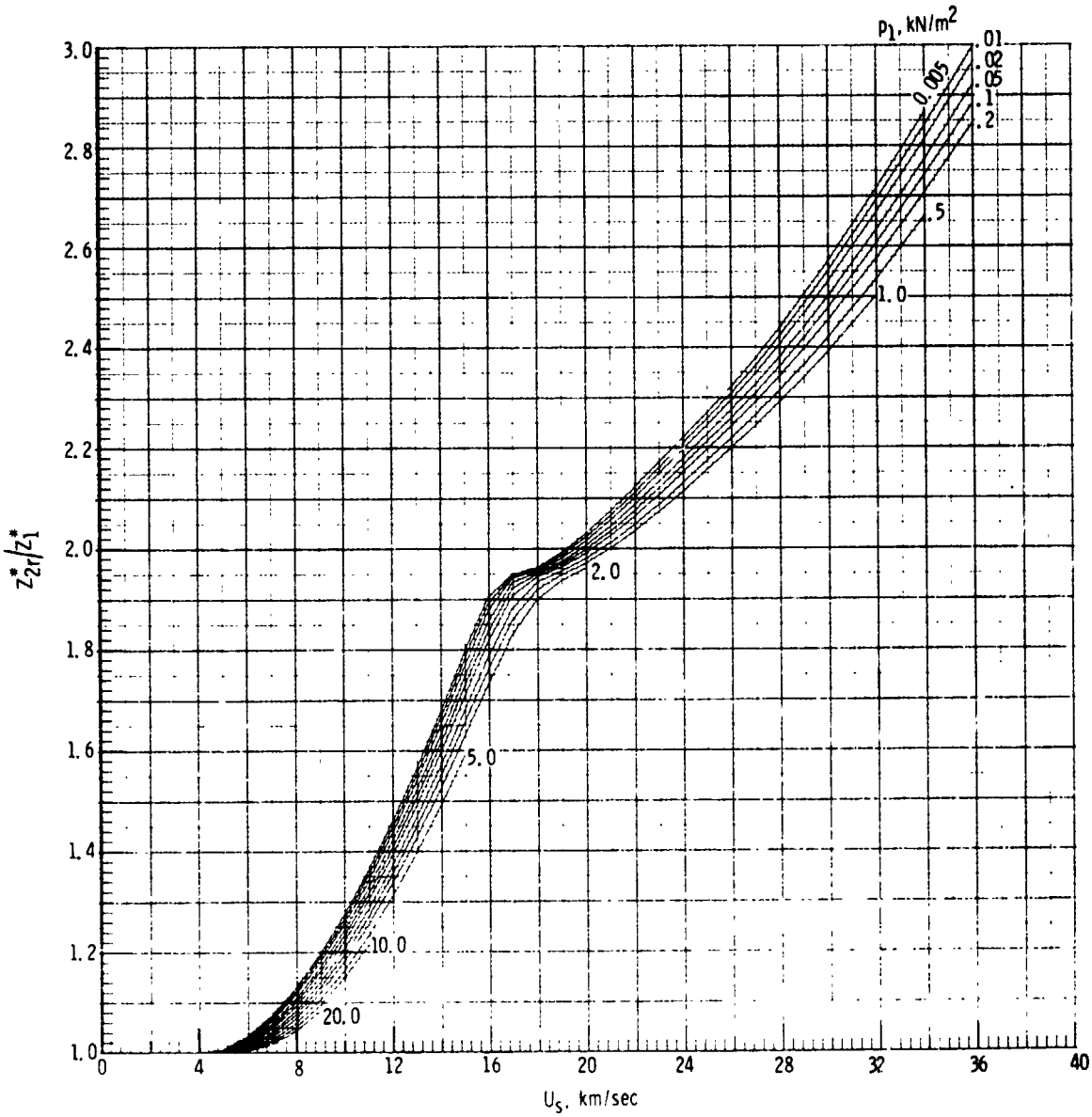
(e) Speed of sound a_{2r}/a_1.

Figure 10.- Continued.



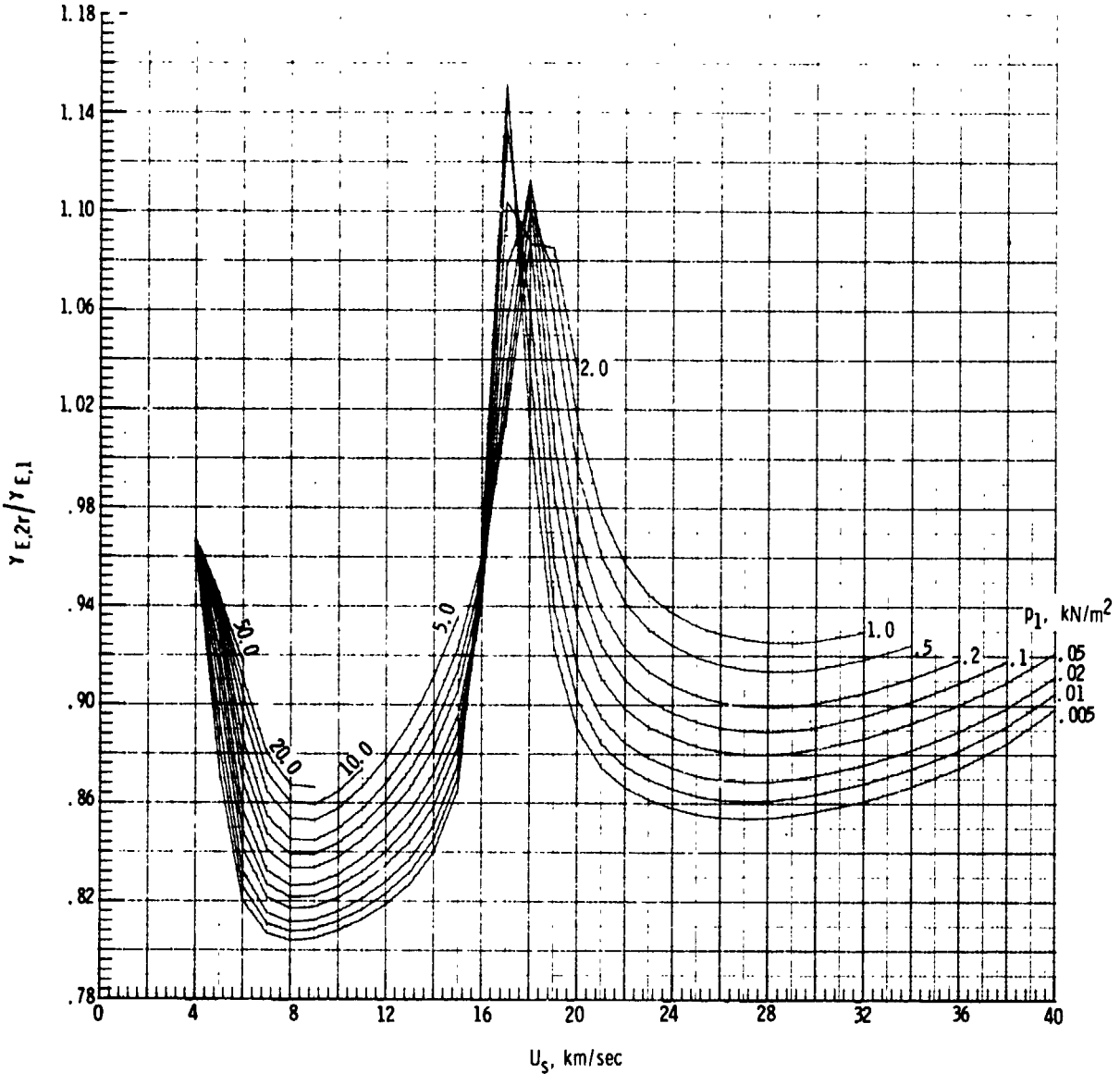
(f) Entropy s_{2r}/s_1.

Figure 10.- Continued.



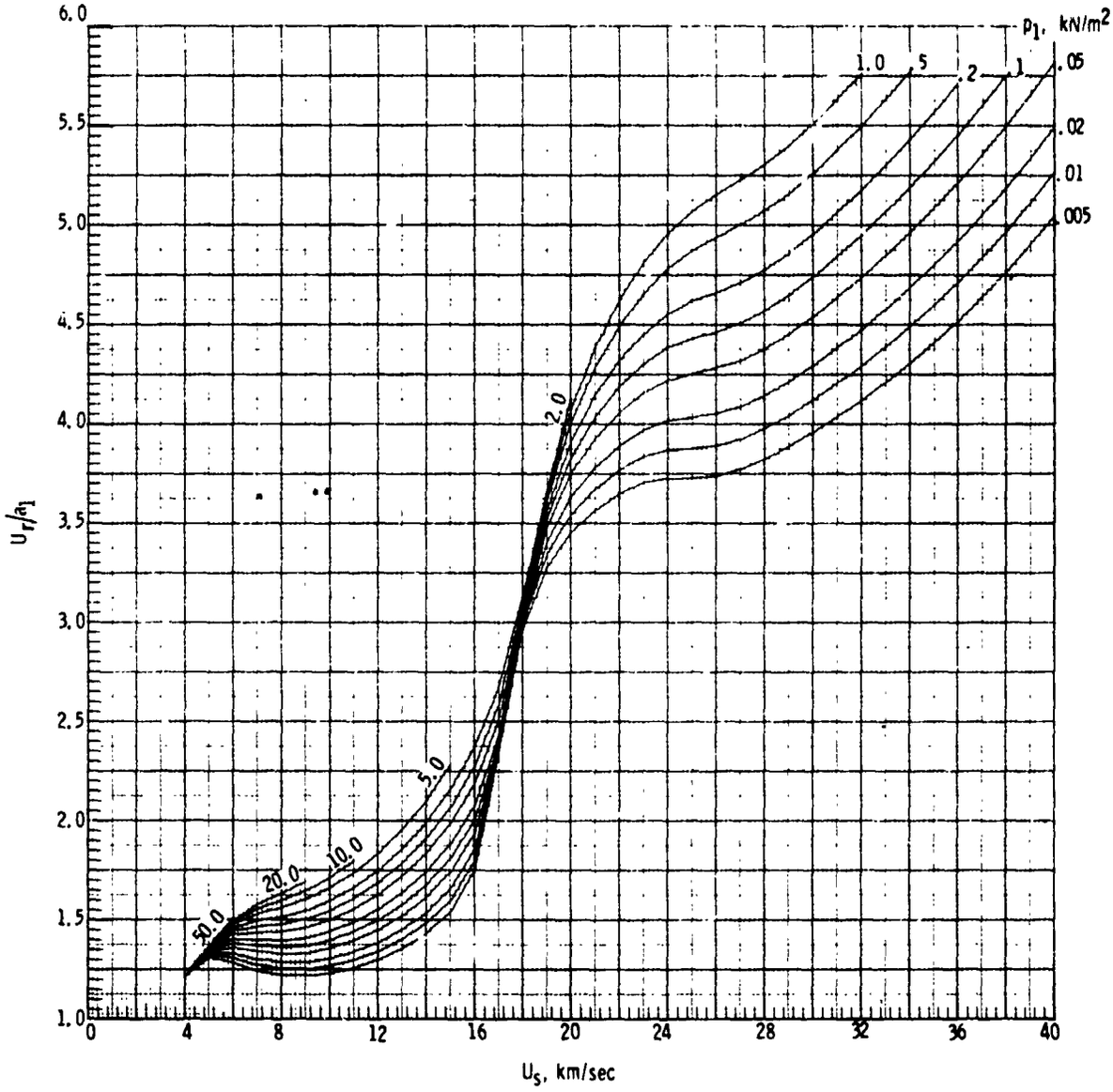
(g) Molecular-weight ratio Z^*_{2r}/Z^*_1.

Figure 10.- Continued.



(h) Isentropic exponent $\gamma_{E,2r}/\gamma_{E,1}$.

Figure 10.- Continued.



(i) Reflected shock velocity U_r/a_1.

Figure 10.- Concluded.

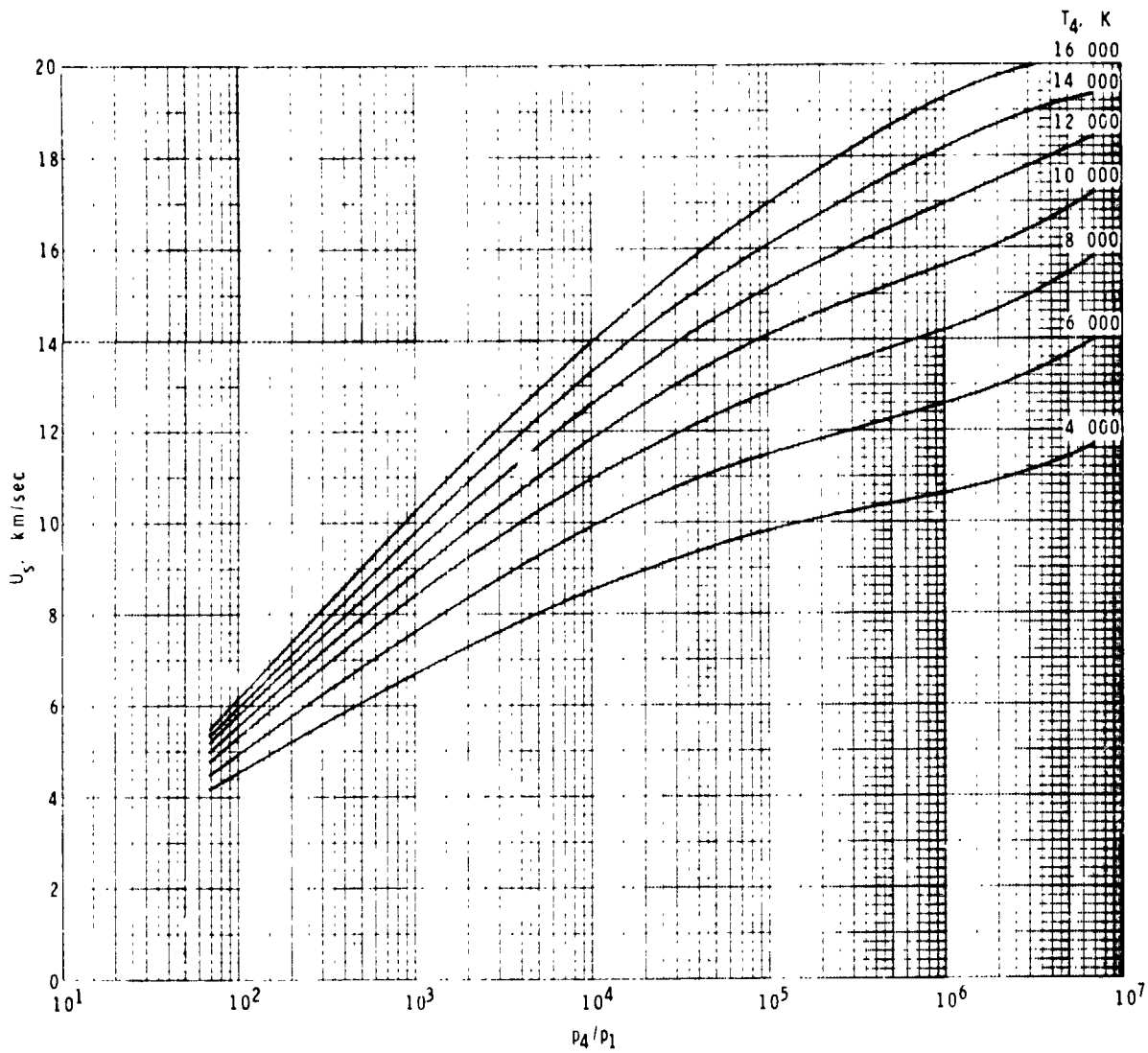


Figure 11.- Incident shock velocity as a function of ratio of helium driver gas pressure to test gas pressure for a 0.20He-0.80H_2 test gas. p_4 = 68.95 MN/m^2.

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