NASA SP-3085
Revised

TABLE AND CHARTS OF EQUILIBRIUM NORMAL-SHOCK PROPERTIES FOR HYDROGEN-HELIUM MIXTURES WITH VELOCITIES TO 70 km/sec

Volume 1.—0.95 H_2–0.05 He (By Volume)

MILLER and WILDER

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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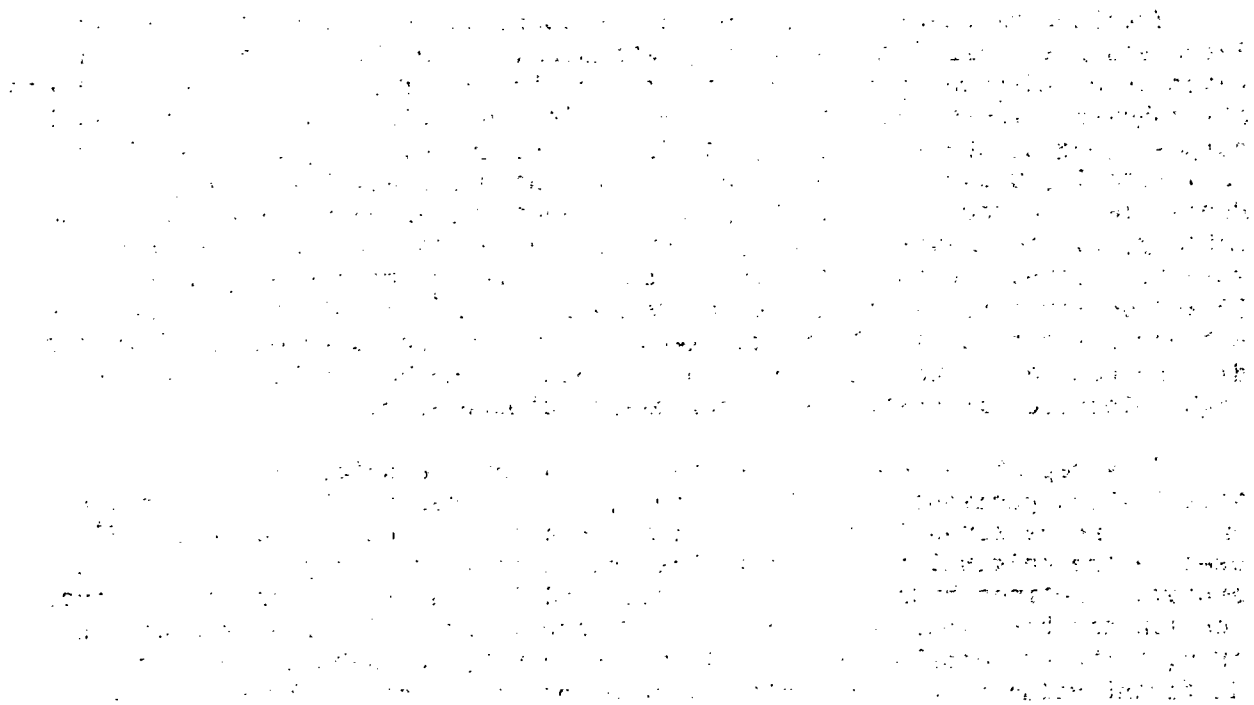

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PREFACE

Equilibrium thermodynamic and flow properties are presented in tabulated and graphical form for moving, standing, and reflected normal-shock waves into hydrogen-helium mixtures representative of postulated outer planet atmospheres. These results are presented in four volumes and the volumetric compositions of the mixtures are $0.95H_2$-0.05He in Volume I, $0.90H_2$-0.10He in Volume II, $0.85H_2$-0.15He in Volume III, and $0.75H_2$-0.25He in Volume IV. 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 for determining flow conditions behind the normal portion of the bow shock about a blunt body at high velocities in postulated outer planet atmospheres.

This report represents a revised version of the original edition of NASA SP-3085 published in 1974. Primary differences in these two versions are (1) errors found in the input data for atomic hydrogen and proton H^+ used in the original version have been corrected, (2) the present version employs a refined hydrogen-helium model, and (3) the format of the original version has been modified to consist of four volumes of tables and charts of equilibrium normal-shock solutions for four hydrogen-helium mixtures of different volumetric compositions instead of the original three mixtures.

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INTRODUCTION

Interest in the exploration of the outer planets with entry probes led to the development of a number of postulated atmospheric models; the most abundant gas in these models was hydrogen (refs. 1 to 3). In order to study the high-temperature gas behavior behind the normal portion of the bow shock about a probe entering a postulated outer planet atmosphere, a number of shock-tube investigations were initiated. (For example, see refs. 4 to 7.) Such studies require a convenient, rapid, and accurate means for determining equilibrium thermodynamic properties and flow velocities for hydrogen and hydrogen-helium mixtures. This need resulted in the publication of NASA SP-3085 (original edition) for hydrogen-helium mixtures and NASA SP-3087 (original edition) for pure hydrogen. The primary purposes of these two reports were: (1) to present charts and tables for use in the rapid determination of equilibrium thermodynamic properties, flow velocity, and species mole fractions for incident (moving), standing, and reflected normal shocks in hydrogen or hydrogen-helium mixtures and (2) to provide a convenient means for determining flow conditions behind the normal portion of the bow shock about a vehicle at extremely high velocities in proposed outer planet atmospheres.

The results of NASA SP-3085 and NASA SP-3087 were generated with the program of reference 8, which, in turn, employed the method of references 9 and 10 as the equation of state (i.e., the source of equilibrium thermodynamic properties for hydrogen-helium mixtures, where the density is a function of pressure and enthalpy) required in the solution of the conservation relations for incident, standing, and reflected normal shocks. As discussed in reference 11, following publication of the original editions of NASA SP-3085 and NASA SP-3087, an error was found in the spectroscopic constant input data for the proton H^+ that is required in the calculation of thermodynamic properties. Also, the input data for atomic hydrogen contained only a single energy level. The effect of these errors in the spectroscopic input for hydrogen species was examined in reference 11 and was found to produce uncertainties up to 20 percent in some of the thermodynamic properties behind an incident shock; corresponding mole fractions contained uncertainties of factors of two. Since the same hydrogen species input data were employed to generate the hydrogen-helium results presented in the original edition of NASA SP-3085, these results are in error also.

The primary purpose of this revised edition of NASA SP-3085 is to correct the errors in calculated thermodynamic properties and flow velocities contained in the original edition. In reference 11, the procedure for solving the conservation relations for normal shocks, the computational method for determining thermochemical equilibrium hydrogen properties, and the refinement of the hydrogen model used in these calculations are discussed in detail. Also presented in reference 11 are a tabulation of the heat of formation and spectroscopic constant input data required to calculate the thermodynamic properties of hydrogen and a relatively comprehensive comparison of hydrogen thermodynamic properties calculated by using the procedure of references 9 and 10 and a number of other sources of hydrogen properties.

To generate the present results in this revised edition of NASA SP-3085, the only change made to the procedure discussed in reference 11 was the addition of the helium species He, He^+, and He^{++} (alpha particle). Hence, the reader is referred to reference 11 for a detailed discussion of the computational procedure used herein.

Since the original edition, more recent analysis of the Jovian atmosphere revealed the presence of higher percentages of hydrogen than postulated for the earlier atmospheric models (ref. 3). For this reason, and for the sake of convenience in relation to the size of the publication, the original format of NASA SP-3085 has been modified to consist of four volumes of tables and charts of equilibrium normal-shock solutions for hydrogen-helium mixtures. These four volumes contain respective mixtures of $0.95H_2$-$0.05H_e$, $0.90H_2$-0.10He, $0.85H_2$-0.15He, and $0.75H_2$-0.25He. The revised editions of NASA SP-3085 and NASA SP-3087 supplement one another and provide a broad range of information concerning equilibrium thermodynamic properties for normal shocks into the postulated atmospheres of outer planets.

SYMBOLS

a	speed of sound, m/sec
h	specific enthalpy, 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 $0.95H_2$-0.05He mixture, kg/kmol
Z	number of kmoles of dissociated and ionized $0.95H_2$-0.05He mixture per number of kmoles of undissociated $0.95H_2$-0.05He 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)

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. 12) for the quantities presented in table I and figures 2 to 4 are as follows:

$1\ N/m^2 = 9.8692 \times 10^{-6}$ 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 for a $0.95H_2$-0.05He mixture at an initial temperature T_1 of 300 K are as follows:

$W_o = 2.115$ kg/kmol

$h_1 = 3.964$ MJ/kg

$a_{1,1} = 1.288$ km/sec

$\gamma_{E,1} = 1.408$

$Z_{1,1} = 1.000$

FLOW REGIONS AND COMPUTATION PROCEDURE

The regions of interest for a shock tube are illustrated in figure 1. The 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)). When the incident shock wave reaches the end wall of the shock tube, it is reflected back into region ② (fig. 1(c)). 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 velocity U_r, are designated as region ②r.

For a blunt model positioned in the driven section of the shock tube, a standing bow shock is formed at the model, provided the flow in region ② is supersonic (fig. 1(d)). The flow conditions immediately behind the normal portion of this standing shock are designated as region ②s.

The conservation relations for an incident normal shock into region ①, a standing normal shock, and a reflected normal shock are presented in reference 11, along with the method of solution (successive approximations). For the solution of these conservation relations, an equation of state (i.e., source of equilibrium thermodynamic properties for hydrogen-helium mixtures where the density is a function of pressure and enthalpy) is required. The program of reference 8 was used to generate the present results and the equation of state takes the form of the equilibrium procedure of references 9 and 10. This procedure is based on minimization of the Gibbs free energy, and basic assumptions and required input are discussed in references 9, 10, and 11. It should be noted that the procedure of references 9 and 10 does not include intermolecular force effects nor effects from Coulomb interaction.

The species used to model the hydrogen-helium mixture are the six species used in the hydrogen calculations of reference 11 (e^-, H_2, H_2^+, H, H^+, and H^-) plus the helium species He, He^+, and He^{++} (alpha particle). The source of heat of formation and spectroscopic constant inputs for the

hydrogen species are discussed in reference 11; the heat of formation and spectroscopic constant inputs for the helium species He and He^+ were obtained from the listings of reference 13 and were checked against those presented in the tabulations of reference 14. (The energy levels for He and He^+ presented in reference 13 were obtained from reference 14, and it was the grouping procedure (ref. 11) of reference 13 that was checked.) It should be noted that electrons are treated as atomic species in the procedure of references 9 and 10. The internal partition function for an electron is its spin degeneracy. Thus, the electron is assumed to have a ground-state degeneracy of two and no electronic excited states. Protons H^+ and alpha particles He^{++} are also treated as atomic species. Although the proton possesses a nuclear spin of 1/2, the same value of spin as the electron, the degeneracy input is unity instead of two for reasons discussed in reference 11. The alpha particle He^{++} also has a degeneracy of unity for the same reason as for the proton (i.e., nuclear spin is ignored).

The same iterative criterion used to solve the conservation relations in reference 11 was used for the present $0.95H_2$-0.05He mixture shock crossings (i.e., in the method of successive approximations, the density in region ②, ⑵s, or ⑵r was iterated upon until successive values were within 0.25 percent). The last value of density and the corresponding thermodynamic properties were assumed to be the correct values. Also, the same absolute criterion (ref. 9) used in determining thermodynamic properties for hydrogen in reference 11 was used herein. Uncertainties in the present calculations for hydrogen-helium mixtures are expected to be essentially the same as deduced in reference 11 for pure hydrogen.

DISCUSSION OF TABLE AND CHARTS

It should be noted that state properties immediately behind the normal portion of the bow shock wave of a hypervelocity entry body are equivalent to state 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.

Table

The solutions for incident (moving), standing, and reflected normal shocks are presented in table I. 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 table I, 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 value of p_1, a complete list of calculated thermodynamic properties (p, T, ρ, h, a, sW_o/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, ②s, and ②r. The temperature in region ① T_1 is 300 K for all cases in table I. Corresponding thermodynamic properties for a $0.95H_2$-0.05He mixture in region ① are given in the following table:

INITIAL CONDITIONS AHEAD OF INCIDENT NORMAL SHOCK

IN $0.95H_2$-0.05He

T_1 = 300 K

W_o = 2.115 kg/kmol

h_1 = 3.964 MJ/kg

a_1 = 1.288 km/sec

$\gamma_{E,1}$ = 1.408

Z_1 = 1.000

p_1, N/m^2	ρ_1, g/m^3	$s_1 W_o/R$
5	0.00424	25.81
10	.00848	25.11
20	.01696	24.42
50	.04240	23.50
100	.08480	22.81
200	.1696	22.12
500	.4240	21.20
1 000	.8480	20.51
2 000	1.696	19.82
5 000	4.240	18.90
10 000	8.480	18.21
20 000	16.96	17.51
50 000	42.40	16.60
100 000	84.80	15.90

In the present results of table I, no upper limitations on pressure and temperature are imposed; hence, the user of these tables is cautioned to exercise discretion in employing the present results at pressures exceeding 100 MN/m^2. (See ref. 11.)

No temperature restriction is placed on the present calculations for hydrogen-helium mixtures since, in the comparisons of reference 11 for pure hydrogen, thermodynamic properties calculated by using the procedure of references 9 and 10 were observed to be in good agreement (within 3 percent) with more rigorous calculations for hydrogen for temperatures from 2000 K to 50 000 K and pressures from 10 kN/m^2 to 100 MN/m^2. For these temperatures and pressures with a hydrogen-helium mixture which is predominantly hydrogen, the gas approaches being a plasma with some ionized helium species present. For this reason, no caution is presented in employing the present results at the temperatures encountered in region ② although Coulomb

interaction effects are expected. (See appendix B of ref. 11.) It should be recognized, however, that thermodynamic properties calculated at the extreme temperatures in regions (2s) and (2r) must be viewed only as estimates.

As demonstrated in reference 11, intermolecular force effects on thermodynamic properties in regions (2), (2s), and (2r) are negligible for pure hydrogen for the present range of p_1 and U_s. The compressibility factor for helium is significantly less than that for hydrogen at a given pressure and temperature (ref. 15); thus, intermolecular force effects for the present hydrogen-helium mixture are also negligible.

Charts

Working charts (corresponding to the results of table I) are given in figures 2 to 4. 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, the incident-shock-velocity scale is 0 to 36 km/sec and 34 to 70 km/sec. 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 table I, a maximum pressure limitation, $p < 100$ MN/m^2, is imposed on the results of figures 2 to 4; calculated quantities above this limit 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.

CONCLUDING REMARKS

Equilibrium thermodynamic and flow properties are presented in tabulated and graphical form for moving, standing, and reflected normal-shock waves into a $0.95H_2$-0.05He mixture. 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 for determining flow conditions behind the normal portion of the bow shock about a blunt body at high velocities in postulated outer planet atmospheres.

This document, comprised of four volumes corresponding to different hydrogen-helium compositions, is the second report by the present authors dealing with equilibrium, normal-shock flow properties for gases representative of postulated outer planet atmospheres. The other report (NASA SP-3087) presented results for pure hydrogen. The original editions of both NASA

SP-3085 and NASA SP-3087 were found to contain significant errors in post-normal-shock thermodynamic properties due to errors in the spectroscopic constant input data for two of the hydrogen species (H and H^+). This report represents a revised version of the original version of NASA SP-3085 and includes four hydrogen-helium compositions instead of the original three. The original version of NASA SP-3087 for pure hydrogen has also been corrected and the reader is referred to this hydrogen report for a detailed discussion of computational procedure, heat of formation and spectroscopic constant input data, and comparisons of predicted thermodynamic properties for real hydrogen between various sources.

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September 22, 1976

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TABLE I.- NONDIMENSIONAL THERMODYNAMIC PROPERTIES AND FLOW VELOCITY FOR INCIDENT (MOVING), STANDING, AND REFLECTED NORMAL SHOCKS IN $0.95H_2$-0.05He MIXTURE

[User cautioned about using table at pressures exceeding 100 MN/m^2]

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6561E+01
T	2.8250E+00	3.5120E+00	4.9458E+00
RHO	3.9387E+00	6.6012E+00	1.1435E+01
H	2.8883E+00	3.6144E+00	5.1955E+00
A	1.6758E+00	1.8612E+00	2.1800E+00
S	1.0465E+00	1.0480E+00	1.0626E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.9406E-01	9.8631E-01	9.6078E-01
U	2.3185E+00	1.3798E+00	1.2197E+00

SPECIES	MOLE FRACTIONS		
E-	2.4834E-61	1.1678E-42	4.0743E-27
H	8.7851E-10	1.2576E-07	2.6528E-04
H+	5.5753E-20	5.9947E-20	6.2168E-20
H2	9.5000E-01	9.5000E-01	9.4974E-01
H-	5.1133E-70	1.1329E-49	1.9009E-32
H2+	7.7071E-21	3.5138E-21	1.2840E-21
HE	5.0000E-02	5.0000E-02	4.9993E-02
HE+	2.0556E-74	1.5312E-63	2.0011E-54
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5442E+01	8.4360E+01	1.5585E+02
T	5.0823E+00	6.6489E+00	7.4533E+00
RHO	5.0041E+00	1.2541E+01	2.0144E+01
H	5.3603E+00	7.8091E+00	1.0202E+01
A	2.1995E+00	2.3807E+00	2.5034E+00
S	1.0978E+00	1.1051E+00	1.1249E+00
Z	1.0003E+00	1.0118E+00	1.0380E+00
GAME	9.5158E-01	8.4251E-01	8.1005E-01
U	3.7304E+00	1.4860E+00	1.2374E+00

SPECIES	MOLE FRACTIONS		
E-	9.0925E-25	9.3863E-17	1.3197E-14
H	6.5745E-04	2.3415E-02	7.3166E-02
H+	6.2655E-20	9.2949E-17	1.3072E-14
H2	9.4936E-01	9.2717E-01	8.7866E-01
H-	2.1326E-30	2.3650E-21	1.1955E-18
H2+	7.8535E-22	9.7857E-19	1.2565E-16
HE	4.9984E-02	4.9415E-02	4.8171E-02
HE+	1.4754E-53	1.1886E-42	7.7707E-39
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6779E+01	1.0059E+02
T	3.8703E+00	5.1526E+00	6.5578E+00
RHO	4.5268E+00	9.0736E+00	1.5204E+01
H	3.9997E+00	5.4397E+00	7.5439E+00
A	1.9489E+00	2.2149E+00	2.3765E+00
S	1.0725E+00	1.0762E+00	1.0930E+00
Z	1.0000E+00	1.0003E+00	1.0090E+00
GAME	9.8140E-01	9.5183E-01	8.5366E-01
U	3.0256E+00	1.5065E+00	1.2875E+00

SPECIES	MOLE FRACTIONS		
E-	3.8345E-39	1.1634E-23	4.6743E-17
H	3.1678E-06	6.3862E-04	1.7752E-02
H+	6.1517E-20	6.2444E-20	4.6272E-17
H2	9.5000E-01	9.4938E-01	9.3269E-01
H-	6.6596E-46	4.9917E-29	1.3331E-21
H2+	1.9438E-21	1.0078E-21	5.3604E-19
HE	5.0000E-02	4.9984E-02	4.9556E-02
HE+	5.2295E-62	1.0112E-52	1.5377E-43
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5210E+01	1.4555E+02	2.3649E+02
T	6.1927E+00	7.5526E+00	8.1026E+00
RHO	5.6481E+00	1.8419E+01	2.6972E+01
H	6.9875E+00	1.0783E+01	1.3399E+01
A	2.3175E+00	2.5240E+00	2.6474E+00
S	1.1226E+00	1.1377E+00	1.1613E+00
Z	1.0067E+00	1.0464E+00	1.0819E+00
GAME	8.6157E-01	8.0613E-01	7.9949E-01
U	4.4753E+00	1.3710E+00	1.1874E+00

SPECIES	MOLE FRACTIONS		
E-	6.2926E-18	2.1685E-14	2.8806E-13
H	1.3268E-02	8.8739E-02	1.5142E-01
H+	6.3052E-18	2.1487E-14	2.8545E-13
H2	9.3706E-01	8.6348E-01	8.0236E-01
H-	7.1213E-23	1.8619E-18	4.8535E-17
H2+	5.0465E-20	1.9992E-16	2.6625E-15
HE	4.9668E-02	4.7782E-02	4.6214E-02
HE+	1.8936E-45	3.9816E-38	6.8829E-36
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7125E+01	2.4345E+02	3.6536E+02
T	6.9024E+00	8.2310E+00	8.6845E+00
RHO	6.6539E+00	2.6973E+01	3.6911E+01
H	8.8906E+00	1.4364E+01	1.7287E+01
A	2.4019E+00	2.6843E+00	2.8096E+00
S	1.1489E+00	1.1754E+00	1.2029E+00
Z	1.0262E+00	1.0967E+00	1.1397E+00
GAME	8.1457E-01	7.9828E-01	7.9758E-01
U	5.2798E+00	1.3058E+00	1.1619E+00

SPECIES	MOLE FRACTIONS		
E-	9.5882E-16	4.7498E-13	2.8170E-12
H	5.1035E-02	1.7627E-01	2.4511E-01
H+	9.5248E-16	4.7063E-13	2.7914E-12
H2	9.0024E-01	7.7813E-01	7.1102E-01
H-	2.7124E-20	8.2515E-17	7.7997E-16
H2+	6.4291E-18	4.4362E-15	2.6304E-14
HE	4.8724E-02	4.5593E-02	4.3872E-02
HE+	1.6138E-41	7.5847E-35	1.3625E-33
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6399E+01	5.7056E+02	7.8204E+02
T	7.7787E+00	9.3384E+00	9.7362E+00
RHO	9.0077E+00	4.9670E+01	6.2355E+01
H	1.3458E+01	2.3100E+01	2.6791E+01
A	2.5956E+00	3.0306E+00	3.1711E+00
S	1.2098E+00	1.2664E+00	1.3014E+00
Z	1.0904E+00	1.2305E+00	1.2883E+00
GAME	7.9429E-01	7.9928E-01	8.0172E-01
U	6.9045E+00	1.2543E+00	1.1638E+00

SPECIES	MOLE FRACTIONS		
E-	1.2160E-13	2.2958E-11	7.7153E-11
H	1.6589E-01	3.7447E-01	4.4750E-01
H+	1.2089E-13	2.2742E-11	7.6466E-11
H2	7.8826E-01	5.8489E-01	5.1369E-01
H-	8.8942E-18	9.8948E-15	4.3449E-14
H2+	7.2076E-16	2.2562E-13	7.3053E-13
HE	4.5853E-02	4.0638E-02	3.8813E-02
HE+	5.4294E-37	5.3626E-31	2.1341E-30
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0902E+01	3.8416E+02	5.4613E+02
T	7.3904E+00	8.8116E+00	9.2219E+00
RHO	7.8121E+00	3.7635E+01	4.8996E+01
H	1.1050E+01	1.8484E+01	2.1757E+01
A	2.4971E+00	2.8533E+00	2.9841E+00
S	1.1778E+00	1.2184E+00	1.2496E+00
Z	1.0550E+00	1.1586E+00	1.2087E+00
GAME	7.9976E-01	7.9749E-01	7.9886E-01
U	6.0948E+00	1.2668E+00	1.1522E+00

SPECIES	MOLE FRACTIONS		
E-	1.6653E-14	4.2735E-12	1.6960E-11
H	1.0427E-01	2.7370E-01	3.4535E-01
H+	1.6550E-14	4.2342E-12	1.6806E-11
H2	8.4833E-01	6.8314E-01	6.1328E-01
H-	8.1622E-19	1.2486E-15	6.9574E-15
H2+	1.0377E-16	4.0636E-14	1.6109E-13
HE	4.7393E-02	4.3157E-02	4.1366E-02
HE+	6.4874E-39	7.8215E-33	7.2005E-32
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3520E+01	8.0403E+02	1.0740E+03
T	8.1147E+00	9.8379E+00	1.0241E+01
RHO	1.0183E+01	6.2348E+01	7.6156E+01
H	1.6115E+01	2.8190E+01	3.2349E+01
A	2.6971E+00	3.2173E+00	3.3712E+00
S	1.2446E+00	1.3186E+00	1.3576E+00
Z	1.1315E+00	1.3113E+00	1.3773E+00
GAME	7.9225E-01	8.0238E-01	8.0575E-01
U	7.7021E+00	1.2602E+00	1.1878E+00

SPECIES	MOLE FRACTIONS		
E-	5.9845E-13	9.8483E-11	2.9207E-10
H	2.3240E-01	4.7462E-01	5.4779E-01
H+	5.9522E-13	9.7595E-11	2.8959E-10
H2	7.2341E-01	4.8724E-01	4.1590E-01
H-	6.0719E-17	5.7544E-14	2.1096E-13
H2+	3.2875E-15	9.4520E-13	2.6817E-12
HE	4.4190E-02	3.8134E-02	3.6305E-02
HE+	1.0991E-35	7.1693E-30	4.6965E-29
HE++	0.	0.	0.

TABLE I.- Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1234E+02	1.0900E+03	1.4296E+03
T	8.4105E+00	1.0334E+01	1.0761E+01
RHO	1.1342E+01	7.5256E+01	9.0030E+01
H	1.9022E+01	3.3777E+01	3.8472E+01
A	2.8015E+00	3.4173E+00	3.5891E+00
S	1.2822E+00	1.3748E+00	1.4177E+00
Z	1.1779E+00	1.4010E+00	1.4758E+00
GAME	7.9222E-01	8.0662E-01	8.1113E-01
U	8.4965E+00	1.2820E+00	1.2241E+00

SPECIES	MOLE FRACTIONS		
E-	1.9187E-12	3.7777E-10	1.0073E-09
H	3.0198E-01	5.7237E-01	6.4477E-01
H+	1.9084E-12	3.7470E-10	9.9956E-10
H2	6.5557E-01	3.9194E-01	3.2135E-01
H-	2.3886E-16	2.7586E-13	8.8041E-13
H2+	1.0553E-14	3.3405E-12	8.6616E-12
HE	4.2450E-02	3.5691E-02	3.3881E-02
HE+	2.9655E-35	8.5935E-29	9.7912E-28
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5484E+02	1.8104E+03	2.3270E+03
T	8.9560E+00	1.1387E+01	1.1981E+01
RHO	1.3456E+01	9.9136E+01	1.1437E+02
H	2.5585E+01	4.6373E+01	5.2428E+01
A	3.0233E+00	3.8695E+00	4.1116E+00
S	1.3653E+00	1.4967E+00	1.5482E+00
Z	1.2851E+00	1.6036E+00	1.6983E+00
GAME	7.9418E-01	8.1966E-01	8.3085E-01
U	1.0063E+01	1.3680E+00	1.3456E+00

SPECIES	MOLE FRACTIONS		
E-	1.4579E-11	4.0889E-09	1.2657E-08
H	4.4360E-01	7.5285E-01	8.2239E-01
H+	1.4509E-11	4.0636E-09	1.2592E-08
H2	5.1749E-01	2.1597E-01	1.4817E-01
H-	2.5741E-15	3.9256E-12	1.3217E-11
H2+	7.3089E-14	2.9209E-11	7.8681E-11
HE	3.8910E-02	3.1179E-02	2.9440E-02
HE+	4.9590E-33	4.3946E-26	7.8795E-25
HE++	0.	0.	1.4816E-88

P1 = 5.00E+00 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3277E+02	1.4241E+03	1.8443E+03
T	8.6931E+00	1.0842E+01	1.1319E+01
RHO	1.2423E+01	8.7632E+01	1.0293E+02
H	2.2178E+01	3.9834E+01	4.5143E+01
A	2.9104E+00	3.6327E+00	3.8299E+00
S	1.3226E+00	1.4344E+00	1.4814E+00
Z	1.2290E+00	1.4986E+00	1.5830E+00
GAME	7.9280E-01	8.1222E-01	8.1861E-01
U	9.2817E+00	1.3180E+00	1.2738E+00

SPECIES	MOLE FRACTIONS		
E-	5.9483E-12	1.3053E-09	3.3952E-09
H	3.7275E-01	6.6557E-01	7.3655E-01
H+	5.9189E-12	1.2961E-09	3.3726E-09
H2	5.8657E-01	3.0107E-01	2.3186E-01
H-	9.0409E-16	1.1147E-12	3.3696E-12
H2+	3.0361E-14	1.0360E-11	2.5935E-11
HE	4.0681E-02	3.3361E-02	3.1586E-02
HE+	1.8152E-33	3.2605E-27	2.3280E-26
HE++	0.	0.	0.

P1 = 5.00E+00 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7852E+02	2.2398E+03	2.8710E+03
T	9.2180E+00	1.2029E+01	1.2902E+01
RHO	1.4389E+01	1.0862E+02	1.2242E+02
H	2.9243E+01	5.3376E+01	6.0341E+01
A	3.1421E+00	4.1433E+00	4.4871E+00
S	1.4105E+00	1.5610E+00	1.6170E+00
Z	1.3456E+00	1.7143E+00	1.8178E+00
GAME	7.9595E-01	8.3252E-01	8.5846E-01
U	1.0838E+01	1.4378E+00	1.4409E+00

SPECIES	MOLE FRACTIONS		
E-	3.6263E-11	1.4105E-08	6.3173E-08
H	5.1381E-01	8.3332E-01	8.9980E-01
H+	3.6103E-11	1.4037E-08	6.2960E-08
H2	4.4903E-01	1.3751E-01	7.2697E-02
H-	7.2603E-15	1.4136E-11	6.2008E-11
H2+	1.6736E-13	8.3021E-11	2.7515E-10
HE	3.7155E-02	2.9167E-02	2.7505E-02
HE+	1.1462E-31	8.9609E-25	4.2853E-23
HE++	0.	1.9554E-89	6.6248E-83

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0384E+02	2.7100E+03	3.5116E+03
T	9.4741E+00	1.2921E+01	1.5084E+01
RHO	1.5253E+01	1.1484E+02	1.2089E+02
H	3.3151E+01	6.0840E+01	6.9474E+01
A	3.2663E+00	4.5072E+00	5.3922E+00
S	1.4579E+00	1.6261E+00	1.6888E+00
Z	1.4108E+00	1.8263E+00	1.9258E+00
GAME	7.9823E-01	8.6085E-01	1.0010E+00
U	1.1609E+01	1.5439E+00	1.6753E+00

SPECIES	MOLE FRACTIONS		
E-	7.7717E-11	6.6422E-08	1.3441E-06
H	5.8222E-01	9.0491E-01	9.6147E-01
H+	7.7389E-11	6.6210E-08	1.3426E-06
H2	3.8233E-01	6.7712E-02	1.2564E-02
H-	1.7337E-14	6.1767E-11	8.4783E-10
H2+	3.4543E-13	2.7360E-10	2.2809E-09
HE	3.5444E-02	2.7377E-02	2.5963E-02
HE+	3.1434E-31	4.3559E-23	8.5444E-20
HE++	0.	6.3424E-83	6.5842E-71

P1 = 5.00E+00 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5924E+02	3.6027E+03	5.1953E+03
T	1.0015E+01	1.9215E+01	2.8630E+01
RHO	1.6662E+01	9.6232E+01	9.2191E+01
H	4.1720E+01	7.6736E+01	9.3742E+01
A	3.5384E+00	6.5947E+00	7.3616E+00
S	1.5587E+00	1.7428E+00	1.8073E+00
Z	1.5536E+00	1.9484E+00	1.9684E+00
GAME	8.0470E-01	1.1617E+00	9.6166E-01
U	1.3138E+01	2.2762E+00	2.8973E+00

SPECIES	MOLE FRACTIONS		
E-	3.6764E-10	7.6653E-05	9.3806E-03
H	7.1263E-01	9.7327E-01	9.5579E-01
H+	3.6637E-10	7.6643E-05	9.3805E-03
H2	2.5518E-01	9.1879E-04	5.0355E-05
H-	9.4277E-14	1.8124E-08	7.0490E-07
H2+	1.3582E-12	2.8818E-08	7.9223E-07
HE	3.2184E-02	2.5663E-02	2.5402E-02
HE+	1.7221E-29	2.0169E-15	3.5733E-10
HE++	0.	3.9253E-55	4.0669E-36

P1 = 5.00E+00 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3074E+02	3.1868E+03	4.3394E+03
T	9.7397E+00	1.4735E+01	2.2433E+01
RHO	1.6003E+01	1.1259E+02	9.9164E+01
H	3.7310E+01	6.8693E+01	8.1652E+01
A	3.3983E+00	5.2646E+00	7.0511E+00
S	1.5074E+00	1.6892E+00	1.7596E+00
Z	1.4801E+00	1.9208E+00	1.9506E+00
GAME	8.0110E-01	9.7926E-01	1.1362E+00
U	1.2375E+01	1.7606E+00	2.3782E+00

SPECIES	MOLE FRACTIONS		
E-	1.7722E-10	9.0586E-07	6.0363E-04
H	6.4885E-01	9.5878E-01	9.7289E-01
H+	1.7655E-10	9.0478E-07	6.0360E-04
H2	3.1738E-01	1.5189E-02	2.7155E-04
H-	4.2504E-14	5.7381E-10	9.3928E-08
H2+	7.0597E-13	1.6502E-09	1.2223E-07
HE	3.3779E-02	2.6030E-02	2.5633E-02
HE+	4.6828E-30	2.9669E-20	3.7770E-13
HE++	0.	1.0338E-72	6.5131E-47

P1 = 5.00E+00 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8930E+02	3.9963E+03	6.0071E+03
T	1.0318E+01	2.4469E+01	3.2053E+01
RHO	1.7191E+01	8.3607E+01	9.3582E+01
H	4.6380E+01	8.5051E+01	1.0494E+02
A	3.6912E+00	7.1930E+00	7.5689E+00
S	1.6117E+00	1.7847E+00	1.8440E+00
Z	1.6308E+00	1.9534E+00	2.0027E+00
GAME	8.0970E-01	1.0825E+00	8.9247E-01
U	1.3895E+01	2.8591E+00	3.1272E+00

SPECIES	MOLE FRACTIONS		
E-	8.3614E-10	1.8577E-03	2.6323E-02
H	7.7367E-01	9.7056E-01	9.2236E-01
H+	8.3370E-10	1.8577E-03	2.6323E-02
H2	1.9567E-01	1.2349E-04	2.6521E-05
H-	2.1978E-13	1.9189E-07	1.4932E-06
H2+	2.6677E-12	2.3197E-07	1.6594E-06
HE	3.0658E-02	2.5597E-02	2.4967E-02
HE+	1.7829E-28	5.6250E-12	4.9845E-09
HE++	0.	9.7915E-43	6.0580E-32

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2088E+02	4.4445E+03	6.8001E+03
T	1.0668E+01	2.8583E+01	3.4401E+01
RHO	1.7576E+01	7.9167E+01	9.6678E+01
H	5.1290E+01	9.3940E+01	1.1608E+02
A	3.8625E+00	7.3161E+00	7.8085E+00
S	1.6660E+00	1.8199E+00	1.8779E+00
Z	1.7113E+00	1.9699E+00	2.0446E+00
GAME	8.1720E-01	9.5257E-01	8.6687E-01
U	1.4646E+01	3.2545E+00	3.2527E+00

SPECIES	MOLE FRACTIONS		
E-	1.9970E-09	1.0152E-02	4.6299E-02
H	8.3130E-01	9.5426E-01	8.8293E-01
H+	1.9921E-09	1.0152E-02	4.6299E-02
H2	1.3949E-01	5.3134E-05	1.8235E-05
H-	5.2298E-13	6.5793E-07	2.2415E-06
H2+	5.3300E-12	7.3799E-07	2.5114E-06
HE	2.9218E-02	2.5382E-02	2.4454E-02
HE+	1.5940E-27	2.9759E-10	2.2174E-08
HE++	0.	1.3434E-37	1.4111E-29

P1 = 5.00E+00 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8803E+02	5.4756E+03	8.1458E+03
T	1.1795E+01	3.2693E+01	3.7761E+01
RHO	1.7557E+01	8.5473E+01	1.0076E+02
H	6.1850E+01	1.1383E+02	1.3901E+02
A	4.3731E+00	7.7736E+00	8.2830E+00
S	1.7762E+00	1.8837E+00	1.9459E+00
Z	1.8739E+00	2.0462E+00	2.1410E+00
GAME	8.6528E-01	9.3603E-01	8.4863E-01
U	1.6110E+01	3.3186E+00	3.3945E+00

SPECIES	MOLE FRACTIONS		
E-	2.2923E-08	4.7767E-02	8.9215E-02
H	9.3270E-01	8.7997E-01	7.9820E-01
H+	2.2897E-08	4.7767E-02	8.9215E-02
H2	4.0621E-02	7.3832E-05	1.0789E-05
H-	4.8832E-12	1.9324E-06	3.4366E-06
H2+	3.1186E-11	2.1503E-06	3.9534E-06
HE	2.6683E-02	2.4418E-02	2.3354E-02
HE+	6.4889E-25	1.0403E-08	1.3549E-07
HE++	3.8640E-90	5.1480E-33	1.0891E-26

P1 = 5.00E+00 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5388E+02	4.9855E+03	7.5478E+03
T	1.1112E+01	3.1137E+01	3.6244E+01
RHO	1.7757E+01	8.2121E+01	9.9583E+01
H	5.6448E+01	1.0365E+02	1.2744E+02
A	4.0685E+00	7.4575E+00	8.0499E+00
S	1.7211E+00	1.8517E+00	1.9114E+00
Z	1.7936E+00	2.0030E+00	2.0912E+00
GAME	8.3054E-01	9.1217E-01	8.5497E-01
U	1.5388E+01	3.3334E+00	3.3352E+00

SPECIES	MOLE FRACTIONS		
E-	5.4306E-09	2.6796E-02	6.7534E-02
H	8.8492E-01	9.2137E-01	8.4100E-01
H+	5.4205E-09	2.6796E-02	6.7533E-02
H2	8.7202E-02	8.1566E-05	1.3780E-05
H-	1.3601E-12	1.3417E-06	2.9062E-06
H2+	1.1421E-11	1.4788E-06	3.2977E-06
HE	2.7877E-02	2.4956E-02	2.3910E-02
HE+	1.6536E-26	2.2264E-09	6.2225E-08
HE++	0.	2.1389E-35	6.2339E-28

P1 = 5.00E+00 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2214E+02	5.4823E+03	8.2074E+03
T	1.3342E+01	3.5079E+01	3.8913E+01
RHO	1.6350E+01	7.5384E+01	9.6221E+01
H	6.7475E+01	1.2351E+02	1.5032E+02
A	5.1203E+00	7.9132E+00	8.4883E+00
S	1.8289E+00	1.9226E+00	1.9837E+00
Z	1.9352E+00	2.0795E+00	2.1920E+00
GAME	1.0154E+00	8.5985E-01	8.4470E-01
U	1.6767E+01	3.6417E+00	3.4271E+00

SPECIES	MOLE FRACTIONS		
E-	3.4370E-07	6.2381E-02	1.1040E-01
H	9.6652E-01	8.5118E-01	7.5637E-01
H+	3.4357E-07	6.2381E-02	1.1040E-01
H2	7.6408E-03	1.3829E-05	8.3696E-06
H-	4.5695E-11	2.1526E-06	3.6813E-06
H2+	1.8079E-10	2.4265E-06	4.2861E-06
HE	2.5837E-02	2.4042E-02	2.2810E-02
HE+	5.6871E-22	3.8276E-08	2.4120E-07
HE++	2.0110E-79	1.9529E-29	8.7675E-26

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5422E+02	5.0535E+03	7.4392E+03
T	1.6806E+01	3.6231E+01	3.9602E+01
RHO	1.3866E+01	6.5737E+01	8.3820E+01
H	7.3275E+01	1.3303E+02	1.6058E+02
A	6.1920E+00	8.0683E+00	8.6427E+00
S	1.8741E+00	1.9643E+00	2.0261E+00
Z	1.9491E+00	2.1218E+00	2.2411E+00
GAME	1.1704E+00	8.4679E-01	8.4163E-01
U	1.7293E+01	3.6524E+00	3.4228E+00

SPECIES	MOLE FRACTIONS		
E-	2.5665E-05	8.0971E-02	1.2989E-01
H	9.7383E-01	8.1448E-01	7.1790E-01
H+	2.5664E-05	8.0971E-02	1.2989E-01
H2	4.6902E-04	8.6688E-06	6.2587E-06
H-	1.3294E-09	2.2621E-06	3.5197E-06
H2+	2.7309E-09	2.5666E-06	4.1300E-06
HE	2.5652E-02	2.3565E-02	2.2310E-02
HE+	2.8185E-17	7.5611E-08	3.5364E-07
HE++	9.7496E-63	9.4003E-28	3.2264E-25

P1 = 5.00E+00 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2222E+02	4.7131E+03	6.7196E+03
T	2.4197E+01	3.8050E+01	4.0980E+01
RHO	1.1018E+01	5.5900E+01	6.9914E+01
H	8.5564E+01	1.5330E+02	1.8239E+02
A	6.8853E+00	8.4104E+00	8.9780E+00
S	1.9416E+00	2.0411E+00	2.1057E+00
Z	1.9587E+00	2.2159E+00	2.3453E+00
GAME	1.0002E+00	8.3897E-01	8.3865E-01
U	1.8358E+01	3.6237E+00	3.4305E+00

SPECIES	MOLE FRACTIONS		
E-	4.4775E-03	1.1999E-01	1.6856E-01
H	9.6550E-01	7.3745E-01	6.4155E-01
H+	4.4775E-03	1.1999E-01	1.6856E-01
H2	1.7420E-05	5.1232E-06	3.8180E-06
H-	6.2662E-08	2.4099E-06	3.3018E-06
H2+	7.6369E-08	2.7804E-06	3.9393E-06
HE	2.5527E-02	2.2564E-02	2.1319E-02
HE+	1.1197E-11	2.0755E-07	7.0401E-07
HE++	2.6572E-42	3.3258E-26	3.5606E-24

P1 = 5.00E+00 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8686E+02	4.7450E+03	6.8629E+03
T	2.0778E+01	3.7124E+01	4.0230E+01
RHO	1.2009E+01	5.8982E+01	7.4456E+01
H	7.9287E+01	1.4278E+02	1.7098E+02
A	6.7628E+00	8.2297E+00	8.7972E+00
S	1.9107E+00	2.0041E+00	2.0672E+00
Z	1.9511E+00	2.1670E+00	2.2912E+00
GAME	1.1281E+00	8.4187E-01	8.3962E-01
U	1.7797E+01	3.6287E+00	3.4181E+00

SPECIES	MOLE FRACTIONS		
E-	6.4337E-04	1.0016E-01	1.4892E-01
H	9.7303E-01	7.7660E-01	6.8033E-01
H+	6.4337E-04	1.0016E-01	1.4892E-01
H2	5.9504E-05	6.5021E-06	4.7984E-06
H-	1.5088E-08	2.3121E-06	3.3529E-06
H2+	2.1430E-08	2.6437E-06	3.9636E-06
HE	2.5626E-02	2.3073E-02	2.1822E-02
HE+	8.8695E-14	1.2734E-07	4.9476E-07
HE++	3.2819E-50	5.7764E-27	1.0048E-24

P1 = 5.00E+00 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.6121E+02	4.9356E+03	6.9596E+03
T	2.6642E+01	3.9056E+01	4.1884E+01
RHO	1.0661E+01	5.5691E+01	6.9096E+01
H	9.2142E+01	1.6487E+02	1.9517E+02
A	6.9372E+00	8.6153E+00	9.1906E+00
S	1.9698E+00	2.0762E+00	2.1426E+00
Z	1.9759E+00	2.2692E+00	2.4049E+00
GAME	9.1421E-01	8.3750E-01	8.3859E-01
U	1.9000E+01	3.6427E+00	3.4631E+00

SPECIES	MOLE FRACTIONS		
E-	1.3095E-02	1.4067E-01	1.8916E-01
H	9.4850E-01	6.9661E-01	6.0089E-01
H+	1.3095E-02	1.4067E-01	1.8915E-01
H2	8.8011E-06	4.1915E-06	3.1256E-06
H-	1.3621E-07	2.5673E-06	3.3515E-06
H2+	1.5688E-07	2.9938E-06	4.0454E-06
HE	2.5305E-02	2.2034E-02	2.0790E-02
HE+	1.6546E-10	3.3541E-07	1.0288E-06
HE++	4.3097E-38	1.9553E-25	1.4215E-23

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0322E+02	5.3135E+03	7.4265E+03
T	2.8408E+01	4.0097E+01	4.2872E+01
RHO	1.0617E+01	5.6960E+01	7.0159E+01
H	9.9012E+01	1.7732E+02	2.0905E+02
A	7.0469E+00	8.8362E+00	9.4250E+00
S	1.9967E+00	2.1106E+00	2.1791E+00
Z	1.9999E+00	2.3264E+00	2.4690E+00
GAME	8.7405E-01	8.3700E-01	8.3919E-01
U	1.9695E+01	3.6768E+00	3.5091E+00

SPECIES	MOLE FRACTIONS		
E-	2.4966E-02	1.6182E-01	2.1022E-01
H	9.2506E-01	6.5487E-01	5.5930E-01
H+	2.4966E-02	1.6182E-01	2.1022E-01
H2	5.7683E-06	3.4982E-06	2.5898E-06
H-	2.1668E-07	2.7444E-06	3.4337E-06
H2+	2.4400E-07	3.2391E-06	4.2002E-06
HE	2.5001E-02	2.1492E-02	2.0249E-02
HE+	8.6167E-10	5.3116E-07	1.5122E-06
HE++	1.8133E-35	1.0795E-24	5.9175E-23

P1 = 5.00E+00 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9412E+02	6.3288E+03	8.7250E+03
T	3.0934E+01	4.2185E+01	4.4952E+01
RHO	1.0892E+01	6.1231E+01	7.4435E+01
H	1.1356E+02	2.0421E+02	2.3926E+02
A	7.3282E+00	9.3058E+00	9.9329E+00
S	2.0494E+00	2.1796E+00	2.2529E+00
Z	2.0601E+00	2.4501E+00	2.6076E+00
GAME	8.4271E-01	8.3783E-01	8.4172E-01
U	2.1157E+01	3.7495E+00	3.6246E+00

SPECIES	MOLE FRACTIONS		
E-	5.3427E-02	2.0412E-01	2.5219E-01
H	8.6887E-01	5.7134E-01	4.7645E-01
H+	5.3427E-02	2.0412E-01	2.5218E-01
H2	3.3784E-06	2.4838E-06	1.7787E-06
H-	3.7257E-07	3.0561E-06	3.5470E-06
H2+	4.1413E-07	3.7037E-06	4.4690E-06
HE	2.4271E-02	2.0406E-02	1.9172E-02
HE+	6.4626E-09	1.2325E-06	3.1910E-06
HE++	2.8621E-32	2.5354E-23	9.6855E-22

P1 = 5.00E+00 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4763E+02	5.7868E+03	8.0285E+03
T	2.9787E+01	4.1144E+01	4.3901E+01
RHO	1.0719E+01	5.8925E+01	7.2090E+01
H	1.0616E+02	1.9046E+02	2.2379E+02
A	7.1830E+00	9.0673E+00	9.6736E+00
S	2.0231E+00	2.1450E+00	2.2158E+00
Z	2.0284E+00	2.3869E+00	2.5368E+00
GAME	8.5394E-01	8.3717E-01	8.4026E-01
U	2.0418E+01	3.7200E+00	3.5637E+00

SPECIES	MOLE FRACTIONS		
E-	3.8667E-02	1.8305E-01	2.3132E-01
H	8.9801E-01	6.1295E-01	5.1765E-01
H+	3.8667E-02	1.8304E-01	2.3131E-01
H2	4.2747E-06	2.9448E-06	2.1501E-06
H-	2.9630E-07	2.9125E-06	3.5057E-06
H2+	3.3050E-07	3.4821E-06	4.3503E-06
HE	2.4650E-02	2.0947E-02	1.9708E-02
HE+	2.7083E-09	8.1931E-07	2.2078E-06
HE++	1.1628E-33	5.4111E-24	2.4335E-22

P1 = 5.00E+00 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.9274E+02	7.5742E+03	1.0337E+04
T	3.2821E+01	4.4250E+01	4.7119E+01
RHO	1.1338E+01	6.6247E+01	7.9534E+01
H	1.2916E+02	2.3337E+02	2.7218E+02
A	7.6255E+00	9.8014E+00	1.0484E+01
S	2.1022E+00	2.2499E+00	2.3291E+00
Z	2.1302E+00	2.5838E+00	2.7582E+00
GAME	8.3169E-01	8.4025E-01	8.4567E-01
U	2.2657E+01	3.8839E+00	3.7628E+00

SPECIES	MOLE FRACTIONS		
E-	8.4616E-02	2.4530E-01	2.9302E-01
H	8.0729E-01	4.9003E-01	3.9583E-01
H+	8.4615E-02	2.4530E-01	2.9301E-01
H2	2.3295E-06	1.7532E-06	1.1825E-06
H-	5.1154E-07	3.2381E-06	3.4973E-06
H2+	5.6934E-07	4.0384E-06	4.5527E-06
HE	2.3471E-02	1.9349E-02	1.8121E-02
HE+	2.3470E-08	2.6211E-06	6.5213E-06
HE++	3.2518E-30	4.3483E-22	1.3960E-20

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9838E+02	9.0014E+03	1.2194E+04
T	3.4396E+01	4.6314E+01	4.9362E+01
RHO	1.1831E+01	7.1296E+01	8.4716E+01
H	1.4577E+02	2.6457E+02	3.0760E+02
A	7.9254E+00	1.0322E+01	1.1068E+01
S	2.1561E+00	2.3219E+00	2.4060E+00
Z	2.2078E+00	2.7260E+00	2.9159E+00
GAME	8.2715E-01	8.4384E-01	8.5103E-01
U	2.4169E+01	4.0169E+00	3.9223E+00

SPECIES	MOLE FRACTIONS		
E-	1.1675E-01	2.8468E-01	3.3126E-01
H	7.4384E-01	4.1230E-01	3.2034E-01
H+	1.1675E-01	2.8467E-01	3.3125E-01
H2	1.7115E-06	1.2040E-06	7.4995E-07
H-	6.2947E-07	3.2536E-06	3.2631E-06
H2+	7.0522E-07	4.1836E-06	4.4002E-06
HE	2.2647E-02	1.8337E-02	1.7134E-02
HE+	6.1346E-08	5.2603E-06	1.2992E-05
HE++	1.1541E-28	5.9045E-21	1.7740E-19

P1 = 5.00E+00 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1298E+03	1.2321E+04	1.6568E+04
T	3.7074E+01	5.0630E+01	5.4522E+01
RHO	1.2800E+01	8.0274E+01	9.3330E+01
H	1.8202E+02	3.3283E+02	3.8606E+02
A	8.5341E+00	1.1455E+01	1.2420E+01
S	2.2677E+00	2.4705E+00	2.5665E+00
Z	2.3808E+00	3.0314E+00	3.2560E+00
GAME	8.2514E-01	8.5489E-01	8.6898E-01
U	2.7201E+01	4.3439E+00	4.3313E+00

SPECIES	MOLE FRACTIONS		
E-	1.8093E-01	3.5674E-01	4.0110E-01
H	6.1713E-01	2.7003E-01	1.8249E-01
H+	1.8093E-01	3.5672E-01	4.0105E-01
H2	9.8459E-07	4.8474E-07	2.2110E-07
H-	7.9375E-07	2.7654E-06	2.2445E-06
H2+	9.0717E-07	3.8061E-06	3.2936E-06
HE	2.1002E-02	1.6474E-02	1.5300E-02
HE+	2.5943E-07	1.9818E-05	5.5985E-05
HE++	2.5238E-26	7.7266E-19	3.3885E-17

P1 = 5.00E+00 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0108E+03	1.0589E+04	1.4273E+04
T	3.5791E+01	4.8421E+01	5.1786E+01
RHO	1.2325E+01	7.6046E+01	8.9406E+01
H	1.6339E+02	2.9774E+02	3.4550E+02
A	8.2276E+00	1.0870E+01	1.1706E+01
S	2.2112E+00	2.3955E+00	2.4853E+00
Z	2.2915E+00	2.8756E+00	3.0826E+00
GAME	8.2541E-01	8.4861E-01	8.5837E-01
U	2.5685E+01	4.1692E+00	4.1065E+00

SPECIES	MOLE FRACTIONS		
E-	1.4901E-01	3.2189E-01	3.6743E-01
H	6.8015E-01	3.3883E-01	2.4894E-01
H+	1.4901E-01	3.2188E-01	3.6740E-01
H2	1.2920E-06	7.9001E-07	4.3532E-07
H-	7.2404E-07	3.0931E-06	2.8353E-06
H2+	8.1866E-07	4.1091E-06	3.9765E-06
HE	2.1820E-02	1.7377E-02	1.6194E-02
HE+	1.3354E-07	1.0234E-05	2.6273E-05
HE++	2.1000E-27	6.9135E-20	2.2862E-18

P1 = 5.00E+00 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2553E+03	1.4181E+04	1.9060E+04
T	3.8286E+01	5.3030E+01	5.7774E+01
RHO	1.3246E+01	8.3780E+01	9.6195E+01
H	2.0166E+02	3.6979E+02	4.2908E+02
A	8.8464E+00	1.2089E+01	1.3248E+01
S	2.3257E+00	2.5465E+00	2.6474E+00
Z	2.4753E+00	3.1918E+00	3.4296E+00
GAME	8.2578E-01	8.6346E-01	8.8573E-01
U	2.8714E+01	4.5465E+00	4.5764E+00

SPECIES	MOLE FRACTIONS		
E-	2.1221E-01	3.8907E-01	4.3142E-01
H	5.5539E-01	2.0623E-01	1.2270E-01
H+	2.1221E-01	3.8903E-01	4.3129E-01
H2	7.4960E-07	2.6978E-07	9.1838E-08
H-	8.3781E-07	2.2954E-06	1.5594E-06
H2+	9.6895E-07	3.2859E-06	2.4165E-06
HE	2.0199E-02	1.5626E-02	1.4447E-02
HE+	4.6752E-07	3.9339E-05	1.3180E-04
HE++	2.2880E-25	9.0099E-18	6.5117E-16

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3872E+03	1.6150E+04	2.1799E+04
T	3.9456E+01	5.5769E+01	6.2307E+01
RHO	1.3656E+01	8.6333E+01	9.7064E+01
H	2.2230E+02	4.0857E+02	4.7589E+02
A	9.1662E+00	1.2802E+01	1.4360E+01
S	2.3851E+00	2.6229E+00	2.7317E+00
Z	2.5747E+00	3.3543E+00	3.6044E+00
GAME	8.2707E-01	8.7606E-01	9.1818E-01
U	3.0224E+01	4.7870E+00	4.9456E+00

SPECIES	MOLE FRACTIONS		
E-	2.4263E-01	4.1866E-01	4.5900E-01
H	4.9532E-01	1.4785E-01	6.8535E-02
H+	2.4263E-01	4.1858E-01	4.5859E-01
H2	5.6603E-07	1.2950E-07	2.4588E-08
H-	8.5612E-07	1.7245E-06	8.3662E-07
H2+	1.0029E-06	2.5839E-06	1.3986E-06
HE	1.9419E-02	1.4823E-02	1.3468E-02
HE+	8.0067E-07	8.3315E-05	4.0385E-04
HE++	1.6883E-24	1.2369E-16	2.7999E-14

P1 = 5.00E+00 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6702E+03	2.0270E+04	2.8211E+04
T	4.1752E+01	6.3703E+01	8.1943E+01
RHO	1.4352E+01	8.6910E+01	8.9381E+01
H	2.6660E+02	4.9123E+02	5.8577E+02
A	9.8353E+00	1.4763E+01	1.8242E+01
S	2.5079E+00	2.7737E+00	2.8975E+00
Z	2.7873E+00	3.6612E+00	3.8517E+00
GAME	8.3122E-01	9.3451E-01	1.0543E+00
U	3.3229E+01	5.4940E+00	6.3467E+00

SPECIES	MOLE FRACTIONS		
E-	3.0039E-01	4.6739E-01	4.9374E-01
H	3.8128E-01	5.2173E-02	7.6124E-03
H+	3.0039E-01	4.6678E-01	4.8567E-01
H2	3.0654E-07	1.2186E-08	1.3280E-10
H-	8.1866E-07	5.6227E-07	5.2107E-08
H2+	9.8647E-07	9.6187E-07	1.1718E-07
HE	1.7937E-02	1.3047E-02	4.9167E-03
HE+	2.1518E-06	6.1010E-04	8.0644E-03
HE++	6.6230E-23	9.9021E-14	2.5996E-09

P1 = 5.00E+00 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5255E+03	1.8197E+04	2.4817E+04
T	4.0604E+01	5.9162E+01	6.9634E+01
RHO	1.4025E+01	8.7486E+01	9.4928E+01
H	2.4395E+02	4.4910E+02	5.2738E+02
A	9.4952E+00	1.3659E+01	1.6012E+01
S	2.4458E+00	2.7000E+00	2.8154E+00
Z	2.6788E+00	3.5157E+00	3.7543E+00
GAME	8.2889E-01	8.9699E-01	9.8069E-01
U	3.1729E+01	5.0884E+00	5.4901E+00

SPECIES	MOLE FRACTIONS		
E-	2.7206E-01	4.4535E-01	4.8059E-01
H	4.3722E-01	9.5278E-02	2.7381E-02
H+	2.7205E-01	4.4515E-01	4.7871E-01
H2	4.2104E-07	4.8277E-08	2.9291E-09
H-	8.4933E-07	1.1082E-06	2.7907E-07
H2+	1.0086E-06	1.7576E-06	5.2536E-07
HE	1.8664E-02	1.4019E-02	1.1429E-02
HE+	1.3259E-06	2.0260E-04	1.8892E-03
HE++	1.1022E-23	2.5322E-15	5.0639E-12

P1 = 5.00E+00 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8211E+03	2.2282E+04	3.2085E+04
T	4.2919E+01	7.0582E+01	1.0179E+02
RHO	1.4632E+01	8.3586E+01	8.1019E+01
H	2.9025E+02	5.3469E+02	6.5335E+02
A	1.0189E+01	1.6263E+01	2.1457E+01
S	2.5712E+00	2.8451E+00	2.9751E+00
Z	2.8999E+00	3.7768E+00	3.8905E+00
GAME	8.3414E-01	9.9216E-01	1.1626E+00
U	3.4724E+01	6.0861E+00	7.6354E+00

SPECIES	MOLE FRACTIONS		
E-	3.2755E-01	4.8369E-01	4.9878E-01
H	3.2765E-01	2.1837E-02	1.8819E-03
H+	3.2755E-01	4.8124E-01	4.8649E-01
H2	2.1681E-07	1.5876E-09	3.1791E-12
H-	7.6592E-07	1.9240E-07	6.7038E-09
H2+	9.3750E-07	3.6741E-07	1.8598E-08
HE	1.7239E-02	1.0787E-02	5.6158E-04
HE+	3.4618E-06	2.4516E-03	1.2289E-02
HE++	3.7874E-22	1.1288E-11	8.8518E-07

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9782E+03	2.4153E+04	3.6324E+04
T	4.4129E+01	8.0044E+01	1.2688E+02
RHO	1.4862E+01	7.8535E+01	7.3458E+01
H	3.1490E+02	5.7933E+02	7.2807E+02
A	1.0560E+01	1.7954E+01	2.4111E+01
S	2.6355E+00	2.9100E+00	3.0417E+00
Z	3.0162E+00	3.8485E+00	3.8974E+00
GAME	8.3778E-01	1.0464E+00	1.1757E+00
U	3.6212E+01	6.8590E+00	9.1702E+00

SPECIES	MOLE FRACTIONS		
E-	3.5349E-01	4.9331E-01	4.9966E-01
H	2.7644E-01	7.9136E-03	6.7198E-04
H+	3.5349E-01	4.8579E-01	4.8684E-01
H2	1.4757E-07	1.3615E-10	1.2321E-13
H-	6.9348E-07	5.0409E-08	1.3809E-09
H2+	8.6337E-07	1.1040E-07	3.7467E-09
HE	1.6572E-02	5.4729E-03	8.4432E-05
HE+	5.5843E-06	7.5192E-03	1.2662E-02
HE++	2.1255E-21	1.4508E-09	8.2946E-05

P1 = 5.00E+00 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3104E+03	2.7423E+04	4.4707E+04
T	4.6809E+01	1.0743E+02	1.7256E+02
RHO	1.5150E+01	6.5549E+01	6.6045E+01
H	3.6720E+02	6.7080E+02	8.7890E+02
A	1.1376E+01	2.2161E+01	2.7022E+01
S	2.7665E+00	3.0203E+00	3.1415E+00
Z	3.2579E+00	3.8944E+00	3.9229E+00
GAME	8.4858E-01	1.1739E+00	1.0787E+00
U	3.9162E+01	9.0616E+00	1.1655E+01

SPECIES	MOLE FRACTIONS		
E-	4.0146E-01	4.9928E-01	5.0292E-01
H	1.8175E-01	1.1739E-03	2.5374E-04
H+	4.0144E-01	4.8671E-01	4.8408E-01
H2	5.7337E-08	7.8036E-13	3.1222E-15
H-	5.0203E-07	2.9581E-09	4.4120E-10
H2+	6.5041E-07	8.4395E-09	6.2287E-10
HE	1.5332E-02	2.7606E-04	1.0834E-05
HE+	1.5506E-05	1.2559E-02	6.6393E-03
HE++	7.9099E-20	3.5769E-06	6.0956E-03

P1 = 5.00E+00 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1413E+03	2.5918E+04	4.0621E+04
T	4.5411E+01	9.2487E+01	1.5159E+02
RHO	1.5038E+01	7.2155E+01	6.8631E+01
H	3.4055E+02	6.2478E+02	8.0463E+02
A	1.0953E+01	2.0185E+01	2.5716E+01
S	2.7007E+00	2.9687E+00	3.0961E+00
Z	3.1358E+00	3.8839E+00	3.9044E+00
GAME	8.4242E-01	1.1343E+00	1.1173E+00
U	3.7692E+01	7.8595E+00	1.0588E+01

SPECIES	MOLE FRACTIONS		
E-	3.7815E-01	4.9792E-01	5.0057E-01
H	2.2777E-01	2.8361E-03	3.6377E-04
H+	3.7814E-01	4.8637E-01	4.8626E-01
H2	9.5339E-08	9.6399E-12	1.3028E-14
H-	6.0431E-07	1.1587E-08	6.3092E-10
H2+	7.6657E-07	2.9619E-08	1.2467E-09
HE	1.5936E-02	1.3175E-03	2.8721E-05
HE+	9.1560E-06	1.1556E-02	1.1246E-02
HE++	1.2487E-20	1.0154E-07	1.5312E-03

P1 = 5.00E+00 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4850E+03	2.8808E+04	4.8739E+04
T	4.8393E+01	1.2336E+02	1.9461E+02
RHO	1.5186E+01	5.9986E+01	6.3562E+01
H	3.9484E+02	7.1786E+02	9.5580E+02
A	1.1844E+01	2.3790E+01	2.9395E+01
S	2.8328E+00	3.0661E+00	3.1835E+00
Z	3.3815E+00	3.8975E+00	3.9401E+00
GAME	8.5725E-01	1.1771E+00	1.1269E+00
U	4.0620E+01	1.0273E+01	1.2704E+01

SPECIES	MOLE FRACTIONS		
E-	4.2333E-01	4.9969E-01	5.0509E-01
H	1.3858E-01	6.0673E-04	1.8752E-04
H+	4.2330E-01	4.8688E-01	4.8203E-01
H2	3.1091E-08	9.6026E-14	9.1525E-16
H-	3.9116E-07	1.0594E-09	3.3455E-10
H2+	5.1940E-07	2.9486E-09	3.4313E-10
HE	1.4759E-02	8.3394E-05	2.7213E-06
HE+	2.7805E-05	1.2685E-02	2.3071E-03
HE++	5.9191E-19	6.0490E-05	1.0380E-02

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6647E+03	2.9973E+04	5.2772E+04
T	5.0294E+01	1.3944E+02	2.2111E+02
RHO	1.5116E+01	5.5208E+01	6.0466E+01
H	4.2345E+02	7.6568E+02	1.0396E+03
A	1.2389E+01	2.5047E+01	3.1956E+01
S	2.8996E+00	3.1074E+00	3.2235E+00
Z	3.5052E+00	3.8999E+00	3.9471E+00
GAME	8.7067E-01	1.1532E+00	1.1701E+00
U	4.2055E+01	1.1506E+01	1.3999E+01

SPECIES	MOLE FRACTIONS		
E-	4.4368E-01	4.9999E-01	5.0597E-01
H	9.8433E-02	4.0163E-04	1.3775E-04
H+	4.4362E-01	4.8679E-01	4.8122E-01
H2	1.4318E-08	7.7811E-14	2.6520E-16
H-	2.7685E-07	6.7511E-10	2.4770E-10
H2+	3.7893E-07	1.6575E-09	1.8748E-10
HE	1.4210E-02	4.9948E-05	5.0407E-07
HE+	5.5119E-05	1.2348E-02	5.8351E-04
HE++	5.9563E-18	4.2247E-04	1.2083E-02

P1 = 5.00E+00 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0355E+03	3.1919E+04	5.9159E+04
T	5.6207E+01	1.6896E+02	2.8109E+02
RHO	1.4483E+01	4.9136E+01	5.3288E+01
H	4.8354E+02	8.6737E+02	1.2162E+03
A	1.4017E+01	2.5467E+01	3.6261E+01
S	3.0289E+00	3.1821E+00	3.2988E+00
Z	3.7289E+00	3.9218E+00	3.9495E+00
GAME	9.3742E-01	9.7167E-01	1.1843E+00
U	4.4819E+01	1.3175E+01	1.6667E+01

SPECIES	MOLE FRACTIONS		
E-	4.7706E-01	5.0280E-01	5.0627E-01
H	3.2878E-02	3.1276E-04	7.7700E-05
H+	4.7666E-01	4.8414E-01	4.8100E-01
H2	1.1677E-09	7.6428E-14	2.9489E-17
H-	8.0159E-08	6.3671E-10	1.2930E-10
H2+	1.2091E-07	1.6248E-09	6.3283E-11
HE	1.3011E-02	3.6870E-05	2.4617E-08
HE+	3.9768E-04	6.7703E-03	5.1623E-05
HE++	3.7716E-15	5.9417E-03	1.2608E-02

P1 = 5.00E+00 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8490E+03	3.1056E+04	5.6511E+04
T	5.2718E+01	1.5522E+02	2.5060E+02
RHO	1.4916E+01	5.1671E+01	5.7104E+01
H	4.5304E+02	8.1537E+02	1.1281E+03
A	1.3064E+01	2.5650E+01	3.4199E+01
S	2.9648E+00	3.1453E+00	3.2617E+00
Z	3.6230E+00	3.9054E+00	3.9490E+00
GAME	8.9356E-01	1.0817E+00	1.1819E+00
U	4.3466E+01	1.2527E+01	1.5392E+01

SPECIES	MOLE FRACTIONS		
E-	4.6177E-01	5.0069E-01	5.0620E-01
H	6.2778E-02	3.4913E-04	1.0254E-04
H+	4.6165E-01	4.8616E-01	4.8104E-01
H2	5.1423E-09	1.1835E-13	8.3565E-17
H-	1.6969E-07	7.2069E-10	1.8051E-10
H2+	2.4163E-07	1.7792E-09	1.0638E-10
HE	1.3673E-02	5.1190E-05	1.0055E-07
HE+	1.2793E-04	1.0977E-02	1.5694E-04
HE++	9.5818E-17	1.7751E-03	1.2504E-02

P1 = 5.00E+00 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2215E+03	3.1947E+04	6.0168E+04
T	6.1571E+01	1.7989E+02	3.1035E+02
RHO	1.3743E+01	4.5763E+01	4.9085E+01
H	5.1491E+02	9.1907E+02	1.3035E+03
A	1.5302E+01	2.7489E+01	3.8111E+01
S	3.0898E+00	3.2209E+00	3.3341E+00
Z	3.8073E+00	3.9482E+00	3.9497E+00
GAME	9.9892E-01	1.0784E+00	1.1849E+00
U	4.6080E+01	1.3822E+01	1.7869E+01

SPECIES	MOLE FRACTIONS		
E-	4.8783E-01	5.0614E-01	5.0629E-01
H	1.2973E-02	2.1280E-04	6.0149E-05
H+	4.8607E-01	4.8098E-01	4.8099E-01
H2	1.3618E-10	1.5026E-14	1.1764E-17
H-	2.5822E-08	3.2792E-10	9.1813E-11
H2+	4.2520E-08	7.0471E-10	3.9559E-11
HE	1.1376E-02	9.8524E-06	7.5768E-09
HE+	1.7568E-03	1.4348E-04	2.1286E-05
HE++	5.0323E-13	1.2510E-02	1.2638E-02

TABLE I. - Continued

$p_1 = 5\ N/m^2$

P1 = 5.00E+00 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4086E+03	3.0855E+04	6.0226E+04
T	6.8603E+01	1.9601E+02	3.4057E+02
RHO	1.2884E+01	3.9935E+01	4.4772E+01
H	5.4714E+02	9.6611E+02	1.3914E+03
A	1.6494E+01	3.0288E+01	3.9927E+01
S	3.1461E+00	3.2597E+00	3.3695E+00
Z	3.8563E+00	3.9478E+00	3.9498E+00
GAME	1.0283E+00	1.1882E+00	1.1851E+00
U	4.7279E+01	1.5239E+01	1.9049E+01

SPECIES	MOLE FRACTIONS		
E-	4.9434E-01	5.0604E-01	5.0630E-01
H	4.5627E-03	1.2182E-04	4.6781E-05
H+	4.8813E-01	4.8117E-01	4.8099E-01
H2	1.1831E-11	1.0731E-15	4.9236E-18
H-	6.8971E-09	1.4273E-10	6.4097E-11
H2+	1.2656E-08	1.7730E-10	2.5151E-11
HE	6.7592E-03	2.4054E-06	2.5912E-09
HE+	6.2065E-03	4.5327E-04	9.9282E-06
HE++	7.2016E-11	1.2210E-02	1.2649E-02

P1 = 5.00E+00 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7808E+03	2.8518E+04	5.8108E+04
T	8.7653E+01	2.2869E+02	3.9829E+02
RHO	1.1071E+01	3.1582E+01	3.6937E+01
H	6.1401E+02	1.0627E+03	1.5624E+03
A	1.9956E+01	3.2635E+01	4.3180E+01
S	3.2428E+00	3.3312E+00	3.4349E+00
Z	3.8960E+00	3.9488E+00	3.9499E+00
GAME	1.1661E+00	1.1793E+00	1.1852E+00
U	4.9446E+01	1.7312E+01	2.1126E+01

SPECIES	MOLE FRACTIONS		
E-	4.9949E-01	5.0618E-01	5.0631E-01
H	6.1222E-04	6.7481E-05	2.9690E-05
H+	4.8707E-01	4.8109E-01	4.8100E-01
H2	8.4921E-14	2.9933E-17	1.0879E-18
H-	4.4585E-10	6.4182E-11	3.1882E-11
H2+	1.0741E-09	4.5380E-11	1.1262E-11
HE	4.1172E-04	1.0081E-07	4.4518E-10
HE+	1.2422E-02	2.2812E-04	3.1735E-06
HE++	1.8607E-07	1.2434E-02	1.2655E-02

P1 = 5.00E+00 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5944E+03	2.9685E+04	5.9414E+04
T	7.7275E+01	2.1264E+02	3.6947E+02
RHO	1.1970E+01	3.5375E+01	4.0713E+01
H	5.8017E+02	1.0140E+03	1.4777E+03
A	1.8229E+01	3.1363E+01	4.1588E+01
S	3.1982E+00	3.2962E+00	3.4028E+00
Z	3.8861E+00	3.9467E+00	3.9498E+00
GAME	1.1065E+00	1.1715E+00	1.1852E+00
U	4.8391E+01	1.6358E+01	2.0141E+01

SPECIES	MOLE FRACTIONS		
E-	4.9821E-01	5.0591E-01	5.0631E-01
H	1.6077E-03	8.7797E-05	3.7082E-05
H+	4.8732E-01	4.8133E-01	4.8100E-01
H2	9.6740E-13	1.2371E-16	2.2554E-18
H-	1.7362E-09	9.1369E-11	4.5148E-11
H2+	3.6230E-09	7.9557E-11	1.6642E-11
HE	1.9819E-03	6.8567E-07	1.0283E-09
HE+	1.0885E-02	7.5851E-04	5.3605E-06
HE++	4.9990E-09	1.1910E-02	1.2653E-02

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6567E+01
T	2.8250E+00	3.5120E+00	4.9481E+00
RHO	3.9387E+00	6.6012E+00	1.1431E+01
H	2.8883E+00	3.6144E+00	5.1960E+00
A	1.6758E+00	1.8612E+00	2.1825E+00
S	1.0478E+00	1.0493E+00	1.0643E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.9406E-01	9.8632E-01	9.6253E-01
U	2.3185E+00	1.3798E+00	1.2202E+00

SPECIES	MOLE FRACTIONS		
E-	9.0572E-62	4.1881E-43	2.7686E-29
H	6.2120E-10	8.8911E-08	1.8924E-04
H+	5.3080E-20	5.8610E-20	6.1657E-20
H2	9.5000E-01	9.5000E-01	9.4982E-01
H-	2.6373E-70	5.7460E-50	2.1519E-33
H2+	1.0380E-20	4.8508E-21	1.7980E-21
HE	5.0000E-02	5.0000E-02	4.9995E-02
HE+	2.8178E-74	2.1353E-63	3.1223E-54
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6740E+01	1.0088E+02
T	3.8703E+00	5.1557E+00	6.6405E+00
RHO	4.5268E+00	9.0614E+00	1.5077E+01
H	3.9997E+00	5.4384E+00	7.5627E+00
A	1.9490E+00	2.2195E+00	2.4030E+00
S	1.0745E+00	1.0783E+00	1.0956E+00
Z	1.0000E+00	1.0002E+00	1.0075E+00
GAME	9.8145E-01	9.5523E-01	8.6306E-01
U	3.0256E+00	1.5085E+00	1.3024E+00

SPECIES	MOLE FRACTIONS		
E-	1.3710E-39	4.2579E-24	7.0408E-17
H	2.2403E-06	4.5723E-04	1.4845E-02
H+	6.0747E-20	6.2037E-20	6.9451E-17
H2	9.5000E-01	9.4955E-01	9.3553E-01
H-	3.3673E-46	2.5832E-29	3.9260E-21
H2+	2.7135E-21	1.4130E-21	1.0236E-18
HE	5.0000E-02	4.9989E-02	4.9629E-02
HE+	7.3319E-62	1.4584E-52	5.5947E-43
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOC
P	2.5437E+01	8.3569E+01	1.5632E+02
T	5.0863E+00	6.7257E+00	7.6181E+00
RHO	4.9994E+00	1.2305E+01	1.9825E+01
H	5.3600E+00	7.7909E+00	1.0238E+01
A	2.2045E+00	2.4055E+00	2.5346E+00
S	1.1005E+00	1.1078E+00	1.1279E+00
Z	1.0002E+00	1.0098E+00	1.0349E+00
GAME	9.5526E-01	8.5204E-01	8.1478E-01
U	3.7296E+00	1.5124E+00	1.2622E+00

SPECIES	MOLE FRACTIONS		
E-	3.3391E-25	1.1712E-16	1.9942E-14
H	4.7158E-04	1.9427E-02	6.7470E-02
H+	6.2344E-20	1.1562E-16	1.9690E-14
H2	9.4954E-01	9.3106E-01	8.8422E-01
H-	1.1076E-30	5.6019E-21	2.9222E-18
H2+	1.1021E-21	1.5706E-18	2.5481E-16
HE	4.9988E-02	4.9514E-02	4.8313E-02
HE+	2.1412E-53	1.2216E-43	4.3391E-38
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5140E+01	1.4269E+02	2.3473E+02
T	6.2479E+00	7.7081E+00	8.3127E+00
RHO	5.5946E+00	1.7763E+01	2.6204E+01
H	6.9838E+00	1.0743E+01	1.3425E+01
A	2.3411E+00	2.5517E+00	2.6821E+00
S	1.1259E+00	1.1404E+00	1.1643E+00
Z	1.0054E+00	1.0421E+00	1.0775E+00
GAME	8.7260E-01	8.1056E-01	8.0308E-01
U	4.4661E+00	1.4050E+00	1.2145E+00

SPECIES	MOLE FRACTIONS		
E-	1.3445E-18	3.3591E-14	4.6357E-13
H	1.0745E-02	8.0883E-02	1.4391E-01
H+	1.3776E-18	3.3196E-14	4.5795E-13
H2	9.3952E-01	8.7114E-01	8.0969E-01
H-	7.6789E-23	4.8556E-18	1.2534E-16
H2+	2.9972E-20	3.9994E-16	5.7431E-15
HE	4.9731E-02	4.7978E-02	4.6402E-02
HE+	2.2738E-44	8.3849E-38	3.9460E-35
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6974E+01	2.3703E+02	3.5890E+02
T	7.0272E+00	8.4347E+00	8.9345E+00
RHO	6.5318E+00	2.5766E+01	3.5419E+01
H	8.8838E+00	1.4306E+01	1.7297E+01
A	2.4285E+00	2.7160E+00	2.8483E+00
S	1.1523E+00	1.1779E+00	1.2057E+00
Z	1.0233E+00	1.0909E+00	1.1340E+00
GAME	8.2010E-01	8.0172E-01	8.0071E-01
U	5.2624E+00	1.3305E+00	1.1908E+00

SPECIES	MOLE FRACTIONS		
E-	1.5195E-15	7.1312E-13	4.7935E-12
H	4.5476E-02	1.6659E-01	2.3631E-01
H+	1.5065E-15	7.0432E-13	4.7363E-12
H2	9.0566E-01	7.8758E-01	7.1960E-01
H-	7.7525E-20	1.9200E-16	2.1363E-15
H2+	1.3102E-17	8.9947E-15	5.9348E-14
HE	4.8863E-02	4.5835E-02	4.4092E-02
HE+	6.3161E-41	5.1739E-34	9.6984E-33
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6175E+01	5.5242E+02	7.6417E+02
T	7.9770E+00	9.6226E+00	1.0062E+01
RHO	8.7955E+00	4.6990E+01	5.9304E+01
H	1.3451E+01	2.3014E+01	2.6808E+01
A	2.6281E+00	3.0718E+00	3.2208E+00
S	1.2131E+00	1.2678E+00	1.3033E+00
Z	1.0858E+00	1.2221E+00	1.2807E+00
GAME	7.9745E-01	8.0237E-01	8.0501E-01
U	6.8840E+00	1.2906E+00	1.1965E+00

SPECIES	MOLE FRACTIONS		
E-	2.0950E-13	3.9357E-11	1.3768E-10
H	1.5796E-01	3.6335E-01	4.3836E-01
H+	2.0790E-13	3.8877E-11	1.3608E-10
H2	7.9598E-01	5.9573E-01	5.2260E-01
H-	2.5583E-17	2.6934E-14	1.2411E-13
H2+	1.6249E-15	5.0699E-13	1.7203E-12
HE	4.6051E-02	4.0916E-02	3.9041E-02
HE+	1.2405E-36	2.3104E-30	1.9844E-29
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0702E+01	3.7216E+02	5.3451E+02
T	7.5601E+00	9.0564E+00	9.5109E+00
RHO	7.6386E+00	3.5698E+01	4.6747E+01
H	1.1042E+01	1.8406E+01	2.1776E+01
A	2.5264E+00	2.8893E+00	3.0282E+00
S	1.1813E+00	1.2205E+00	1.2522E+00
Z	1.0510E+00	1.1514E+00	1.2022E+00
GAME	8.0325E-01	8.0059E-01	8.0199E-01
U	6.0746E+00	1.3013E+00	1.1868E+00

SPECIES	MOLE FRACTIONS		
E-	2.9229E-14	6.8307E-12	2.9813E-11
H	9.7061E-02	2.6291E-01	3.3636E-01
H+	2.8998E-14	6.7467E-12	2.9459E-11
H2	8.5537E-01	6.9366E-01	6.2204E-01
H-	2.5235E-18	3.1427E-15	1.9646E-14
H2+	2.3337E-16	8.7153E-14	3.7381E-13
HE	4.7573E-02	4.3427E-02	4.1591E-02
HE+	3.3262E-38	6.0787E-32	6.0856E-31
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3295E+01	7.7902E+02	1.0499E+03
T	8.3346E+00	1.0160E+01	1.0605E+01
RHO	9.9404E+00	5.8910E+01	7.2317E+01
H	1.6108E+01	2.8103E+01	3.2387E+01
A	2.7324E+00	3.2645E+00	3.4279E+00
S	1.2478E+00	1.3195E+00	1.3589E+00
Z	1.1262E+00	1.3019E+00	1.3690E+00
GAME	7.9536E-01	8.0563E-01	8.0931E-01
U	7.6834E+00	1.2987E+00	1.2232E+00

SPECIES	MOLE FRACTIONS		
E-	9.4651E-13	1.7567E-10	5.2827E-10
H	2.2415E-01	4.6366E-01	5.3907E-01
H+	9.3943E-13	1.7364E-10	5.2247E-10
H2	7.3145E-01	4.9793E-01	4.2441E-01
H-	1.5172E-16	1.6257E-13	6.0934E-13
H2+	7.2294E-15	2.1870E-12	6.4064E-12
HE	4.4396E-02	3.8409E-02	3.6523E-02
HE+	5.6482E-35	5.8738E-30	4.6441E-28
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1205E+02	1.0527E+03	1.3927E+03
T	8.6605E+00	1.0689E+01	1.1160E+01
RHO	1.1038E+01	7.0834E+01	8.5094E+01
H	1.9014E+01	3.3667E+01	3.8508E+01
A	2.8403E+00	3.4697E+00	3.6523E+00
S	1.2852E+00	1.3748E+00	1.4182E+00
Z	1.1719E+00	1.3902E+00	1.4865E+00
GAME	7.9492E-01	8.1008E-01	8.1500E-01
U	8.4740E+00	1.3227E+00	1.2624E+00

SPECIES	MOLE FRACTIONS		
E-	3.6155E-12	6.6741E-10	1.8217E-09
H	2.9333E-01	5.6140E-01	6.3621E-01
H+	3.5906E-12	6.6044E-10	1.8036E-09
H2	6.6401E-01	4.0263E-01	3.2969E-01
H-	7.4809E-16	7.7015E-13	2.5296E-12
H2+	2.5665E-14	7.7449E-12	2.0716E-11
HE	4.2667E-02	3.5965E-02	3.4095E-02
HE+	1.2630E-33	9.1824E-28	9.4565E-27
HE++	0.	0.	0.

P1 = 1.00E+01 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5448E+02	1.7462E+03	2.2641E+03
T	9.2449E+00	1.1811E+01	1.2463E+01
RHO	1.3073E+01	9.2953E+01	1.0766E+02
H	2.3577E+01	4.6238E+01	5.2503E+01
A	3.0687E+00	3.9342E+00	4.1915E+00
S	1.3677E+00	1.4947E+00	1.5469E+00
Z	1.2780E+00	1.5905E+00	1.6874E+00
GAME	7.9706E-01	8.2392E-01	8.3543E-01
U	1.0039E+01	1.4141E+00	1.3921E+00

SPECIES	MOLE FRACTIONS		
E-	2.7556E-11	7.0000E-09	2.2297E-08
H	4.3510E-01	7.4252E-01	8.1474E-01
H+	2.7383E-11	6.9433E-09	2.2147E-08
H2	5.2578E-01	2.2605E-01	1.5563E-01
H-	7.9640E-15	1.0657E-11	3.6967E-11
H2+	1.8032E-13	6.7350E-11	1.8682E-10
HE	3.9123E-02	3.1437E-02	2.9631E-02
HE+	1.1856E-31	2.8556E-25	5.7290E-24
HE++	0.	3.6716E-91	2.5919E-85

P1 = 1.00E+01 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3246E+02	1.3767E+03	1.7983E+03
T	8.9570E+00	1.1230E+01	1.1760E+01
RHO	1.2097E+01	8.2456E+01	9.7217E+01
H	2.2171E+01	3.9718E+01	4.5201E+01
A	2.9519E+00	3.6909E+00	3.9015E+00
S	1.3252E+00	1.4334E+00	1.4810E+00
Z	1.2226E+00	1.4868E+00	1.5730E+00
GAME	7.9574E-01	8.1591E-01	8.2288E-01
U	9.2599E+00	1.3608E+00	1.3157E+00

SPECIES	MOLE FRACTIONS		
E-	1.0180E-11	2.1854E-09	6.1353E-09
H	3.6410E-01	6.5479E-01	7.2849E-01
H+	1.0112E-11	2.1647E-09	6.0826E-09
H2	5.9501E-01	3.1158E-01	2.3972E-01
H-	2.5147E-15	2.9850E-12	9.6600E-12
H2+	7.1191E-14	2.3676E-11	6.2300E-11
HE	4.0898E-02	3.3630E-02	3.1788E-02
HE+	5.0960E-33	1.5808E-26	2.0723E-25
HE++	0.	0.	1.4802E-90

P1 = 1.00E+01 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7814E+02	2.1613E+03	2.7945E+03
T	9.5214E+00	1.2488E+01	1.3421E+01
RHO	1.3983E+01	1.0182E+02	1.1529E+02
H	2.9235E+01	5.3232E+01	6.0435E+01
A	3.1905E+00	4.2141E+00	4.5714E+00
S	1.4124E+00	1.5578E+00	1.6145E+00
Z	1.3381E+00	1.6999E+00	1.8061E+00
GAME	7.9899E-01	8.3655E-01	8.6211E-01
U	1.0814E+01	1.4874E+00	1.4900E+00

SPECIES	MOLE FRACTIONS		
E-	6.4406E-11	2.3740E-08	1.0384E-07
H	5.0530E-01	8.2347E-01	8.9265E-01
H+	6.4022E-11	2.3588E-08	1.0337E-07
H2	4.5733E-01	1.4712E-01	7.9668E-02
H-	2.1116E-14	3.7753E-11	1.6376E-10
H2+	4.0453E-13	1.8994E-10	6.3058E-10
HE	3.7368E-02	2.9413E-02	2.7684E-02
HE+	6.5840E-31	5.8250E-24	2.4737E-22
HE++	0.	6.1624E-86	5.3821E-80

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 1.60E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0340E+02	2.6112E+03	3.4068E+03
T	9.7992E+00	1.3397E+01	1.5464E+01
RHO	1.4797E+01	1.0762E+02	1.1498E+02
H	3.3142E+01	6.0676E+01	6.9476E+01
A	3.3188E+00	4.5755E+00	5.3831E+00
S	1.4594E+00	1.6218E+00	1.6847E+00
Z	1.4026E+00	1.8111E+00	1.9159E+00
GAME	8.0140E-01	8.6286E-01	9.7804E-01
U	1.1584E+01	1.5949E+00	1.7061E+00

SPECIES	MOLE FRACTIONS		
E-	1.4757E-10	1.0259E-07	1.5207E-06
H	5.7412E-01	8.9568E-01	9.5612E-01
H+	1.4677E-10	1.0215E-07	1.5182E-06
H2	3.9024E-01	7.6708E-02	1.7779E-02
H-	5.3522E-14	1.5353E-10	1.6612E-09
H2+	8.6095E-13	5.9655E-10	4.1755E-09
HE	3.5647E-02	2.7608E-02	2.6097E-02
HE+	5.5520E-30	2.1825E-22	1.8804E-19
HE++	0.	3.0475E-80	3.3624E-69

P1 = 1.00E+01 N/SQ-M, US1 = 1.80E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5871E+02	3.4875E+03	5.0345E+03
T	1.0376E+01	1.9187E+01	2.9024E+01
RHO	1.6146E+01	9.3377E+01	8.8271E+01
H	4.1710E+01	7.6591E+01	9.3749E+01
A	3.5987E+00	6.5566E+00	7.4891E+00
S	1.5590E+00	1.7387E+00	1.8053E+00
Z	1.5444E+00	1.9466E+00	1.9651E+00
GAME	8.0818E-01	1.1510E+00	9.8337E-01
U	1.3111E+01	2.2639E+00	2.9330E+00

SPECIES	MOLE FRACTIONS		
E-	6.7323E-10	5.3841E-05	7.7775E-03
H	7.0494E-01	9.7240E-01	9.5891E-01
H+	6.7015E-10	5.3827E-05	7.7774E-03
H2	2.6268E-01	1.8020E-03	8.9730E-05
H-	2.8245E-13	2.4778E-08	1.0832E-06
H2+	3.3594E-12	3.9489E-08	1.2136E-06
HE	3.2376E-02	2.5686E-02	2.5444E-02
HE+	1.0066E-28	1.3621E-15	3.6166E-10
HE++	0.	3.7272E-56	6.7471E-36

P1 = 1.00E+01 N/SQ-M, US1 = 1.70E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3026E+02	3.0751E+03	4.1982E+03
T	1.0081E+01	1.5083E+01	2.2352E+01
RHO	1.5523E+01	1.0682E+02	9.6331E+01
H	3.7301E+01	6.8525E+01	8.1441E+01
A	3.4543E+00	5.2480E+00	7.0689E+00
S	1.5083E+00	1.6842E+00	1.7556E+00
Z	1.4714E+00	1.9088E+00	1.9498E+00
GAME	8.0440E-01	9.5664E-01	1.1466E+00
U	1.2350E+01	1.7966E+00	2.3695E+00

SPECIES	MOLE FRACTIONS		
E-	3.2005E-10	1.0101E-06	4.1403E-04
H	6.4079E-01	9.5220E-01	9.7299E-01
H+	3.1845E-10	1.0082E-06	4.1399E-04
H2	3.2523E-01	2.1600E-02	5.4183E-04
H-	1.2580E-13	1.1054E-09	1.2640E-07
H2+	1.7311E-12	2.9720E-09	1.6508E-07
HE	3.3980E-02	2.6195E-02	2.5644E-02
HE+	3.3425E-29	6.5295E-20	2.4151E-13
HE++	0.	4.0068E-71	1.7749E-47

P1 = 1.00E+01 N/SQ-M, US1 = 1.90E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8871E+02	3.8622E+03	5.8273E+03
T	1.0699E+01	2.4480E+01	3.2830E+01
RHO	1.6647E+01	8.0816E+01	8.8872E+01
H	4.6370E+01	8.4879E+01	1.0513E+02
A	3.7559E+00	7.2654E+00	7.7044E+00
S	1.6113E+00	1.7817E+00	1.8429E+00
Z	1.6210E+00	1.9522E+00	1.9973E+00
GAME	8.1338E-01	1.1046E+00	9.0528E-01
U	1.3867E+01	2.8582E+00	3.1957E+00

SPECIES	MOLE FRACTIONS		
E-	1.5399E-09	1.3441E-03	2.3709E-02
H	7.6625E-01	9.7146E-01	9.2750E-01
H+	1.5340E-09	1.3440E-03	2.3709E-02
H2	2.0291E-01	2.3828E-04	4.5129E-05
H-	6.5943E-13	2.6815E-07	2.4190E-06
H2+	6.6122E-12	3.2406E-07	2.6924E-06
HE	3.0844E-02	2.5613E-02	2.5034E-02
HE+	1.5708E-27	4.1042E-12	6.1267E-09
HE++	0.	5.8168E-43	2.1572E-31

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2024E+02	4.2767E+03	6.6002E+03
T	1.1066E+01	2.8900E+01	3.5421E+01
RHO	1.7014E+01	7.5336E+01	9.1443E+01
H	5.1279E+01	9.3683E+01	1.1639E+02
A	3.9305E+00	7.4520E+00	7.9521E+00
S	1.6649E+00	1.8178E+00	1.8770E+00
Z	1.7009E+00	1.9658E+00	2.0378E+00
GAME	8.2082E-01	9.7799E-01	8.7610E-01
U	1.4617E+01	3.3034E+00	3.3404E+00

SPECIES	MOLE FRACTIONS		
E-	3.4805E-09	8.1082E-03	4.3100E-02
H	8.2412E-01	9.5826E-01	8.8922E-01
H+	3.4691E-09	8.1081E-03	4.3100E-02
H2	1.4648E-01	8.1947E-05	3.0523E-05
H-	1.5062E-12	9.7443E-07	3.7012E-06
H2+	1.2923E-11	1.0921E-06	4.1735E-06
HE	2.9397E-02	2.5435E-02	2.4537E-02
HE+	8.8511E-27	3.2282E-10	2.9346E-08
HE++	0.	1.0039E-36	6.5019E-29

P1 = 1.00E+01 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8730E+02	5.2267E+03	7.9271E+03
T	1.2210E+01	3.3854E+01	3.9107E+01
RHO	1.7028E+01	7.8143E+01	9.5086E+01
H	6.1838E+01	1.1334E+02	1.3948E+02
A	4.4360E+00	7.8662E+00	8.4450E+00
S	1.7736E+00	1.8823E+00	1.9446E+00
Z	1.8628E+00	2.0338E+00	2.1318E+00
GAME	8.6513E-01	9.1993E-01	8.5547E-01
U	1.6080E+01	3.5107E+00	3.5028E+00

SPECIES	MOLE FRACTIONS		
E-	3.5842E-08	4.1742E-02	8.5305E-02
H	9.2636E-01	8.9185E-01	8.0591E-01
H+	3.5785E-08	4.1742E-02	8.5304E-02
H2	4.6796E-02	8.5487E-05	1.7903E-05
H-	1.2797E-11	3.0367E-06	5.7609E-06
H2+	7.0750E-11	3.4015E-06	6.7217E-06
HE	2.6841E-02	2.4573E-02	2.3454E-02
HE+	3.3961E-24	1.3435E-08	1.8981E-07
HE++	4.6730E-87	4.0337E-32	6.0842E-26

P1 = 1.00E+01 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5318E+02	4.7614E+03	7.3284E+03
T	1.1527E+01	3.1908E+01	3.7442E+01
RHO	1.7188E+01	7.5911E+01	9.3961E+01
H	5.6436E+01	1.0323E+02	1.2783E+02
A	4.1392E+00	7.5966E+00	8.2024E+00
S	1.7193E+00	1.8503E+00	1.9104E+00
Z	1.7827E+00	1.9943E+00	2.0831E+00
GAME	8.3382E-01	9.1750E-01	8.6263E-01
U	1.5357E+01	3.4812E+00	3.4346E+00

SPECIES	MOLE FRACTIONS		
E-	9.2090E-09	2.2436E-02	6.3921E-02
H	8.7806E-01	9.2997E-01	8.4812E-01
H+	9.1855E-09	2.2436E-02	6.3920E-02
H2	9.3890E-02	8.7782E-05	2.2908E-05
H-	3.8261E-12	2.0260E-06	4.8404E-06
H2+	2.7272E-11	2.2423E-06	5.5510E-06
HE	2.8048E-02	2.5068E-02	2.4003E-02
HE+	7.8680E-26	2.8203E-09	8.5303E-08
HE++	6.8869E-91	2.0857E-34	3.2472E-27

P1 = 1.00E+01 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2165E+02	5.3392E+03	8.0989E+03
T	1.3615E+01	3.6071E+01	4.0412E+01
RHO	1.6064E+01	7.1835E+01	9.1839E+01
H	6.7466E+01	1.2319E+02	1.5097E+02
A	5.0830E+00	8.0502E+00	8.6636E+00
S	1.8261E+00	1.9194E+00	1.9814E+00
Z	1.9279E+00	2.0694E+00	2.1821E+00
GAME	9.8435E-01	8.7038E-01	8.5115E-01
U	1.6748E+01	3.7496E+00	3.5450E+00

SPECIES	MOLE FRACTIONS		
E-	3.6531E-07	5.7813E-02	1.0641E-01
H	9.6261E-01	8.6018E-01	7.6425E-01
H+	3.6507E-07	5.7813E-02	1.0641E-01
H2	1.1450E-02	2.4642E-05	1.3978E-05
H-	8.8435E-11	3.5601E-06	6.2602E-06
H2+	3.2705E-10	4.0463E-06	7.4166E-06
HE	2.5935E-02	2.4159E-02	2.2913E-02
HE+	1.0057E-21	4.8785E-08	3.4656E-07
HE++	2.6875E-77	5.9894E-29	5.3630E-25

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5416E+02	4.9998E+03	7.4681E+03
T	1.6840E+01	3.7422E+01	4.1232E+01
RHO	1.3843E+01	6.3312E+01	8.1183E+01
H	7.3274E+01	1.3281E+02	1.6147E+02
A	6.1740E+00	8.2134E+00	8.8315E+00
S	1.8721E+00	1.9602E+00	2.0230E+00
Z	1.9483E+00	2.1103E+00	2.2311E+00
GAME	1.1618E+00	8.5422E-01	8.4786E-01
U	1.7290E+01	3.7846E+00	3.5490E+00

SPECIES	MOLE FRACTIONS		
E-	1.8786E-05	7.5971E-02	1.2599E-01
H	9.7338E-01	8.2434E-01	7.2558E-01
H+	1.8784E-05	7.5971E-02	1.2599E-01
H2	9.1595E-04	1.4806E-05	1.0541E-05
H-	1.9279E-09	3.8212E-06	6.0833E-06
H2+	3.9422E-09	4.3814E-06	7.2812E-06
HE	2.5664E-02	2.3693E-02	2.2410E-02
HE+	2.1850E-17	1.0236E-07	5.2103E-07
HE++	9.9116E-63	4.5664E-27	2.1787E-24

P1 = 1.00E+01 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2176E+02	4.6294E+03	6.6912E+03
T	2.4413E+01	3.9409E+01	4.2714E+01
RHO	1.0922E+01	5.3353E+01	6.7137E+01
H	8.5552E+01	1.5296E+02	1.8322E+02
A	7.0007E+00	8.5635E+00	9.1740E+00
S	1.9412E+00	2.0369E+00	2.1023E+00
Z	1.9568E+00	2.2018E+00	2.3333E+00
GAME	1.0259E+00	8.4516E-01	8.4447E-01
U	1.8341E+01	3.7596E+00	3.5593E+00

SPECIES	MOLE FRACTIONS		
E-	3.5297E-03	1.1437E-01	1.6428E-01
H	9.6736E-01	7.4854E-01	6.5000E-01
H+	3.5297E-03	1.1437E-01	1.6428E-01
H2	3.2615E-05	8.6792E-06	6.4122E-06
H-	9.5704E-08	4.0861E-06	5.6859E-06
H2+	1.1589E-07	4.7839E-06	6.9400E-06
HE	2.5551E-02	2.2709E-02	2.1428E-02
HE+	1.0282E-11	2.8833E-07	1.0372E-06
HE++	2.8327E-42	1.8055E-25	2.3824E-23

P1 = 1.00E+01 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8677E+02	4.6936E+03	6.8861E+03
T	2.0821E+01	3.8413E+01	4.1922E+01
RHO	1.1985E+01	5.6715E+01	7.2030E+01
H	7.9285E+01	1.4254E+02	1.7190E+02
A	6.8087E+00	8.3800E+00	8.9912E+00
S	1.9095E+00	1.9999E+00	2.0638E+00
Z	1.9507E+00	2.1544E+00	2.2804E+00
GAME	1.1414E+00	8.4856E-01	8.4563E-01
U	1.7793E+01	3.7647E+00	3.5467E+00

SPECIES	MOLE FRACTIONS		
E-	4.6836E-04	9.4887E-02	1.4491E-01
H	9.7331E-01	7.8700E-01	6.8823E-01
H+	4.6835E-04	9.4886E-02	1.4491E-01
H2	1.1684E-04	1.1068E-05	8.0782E-06
H-	2.1793E-08	3.9271E-06	5.8022E-06
H2+	3.0870E-08	4.5479E-06	7.0072E-06
HE	2.5632E-02	2.3208E-02	2.1925E-02
HE+	6.7315E-14	1.7583E-07	7.3257E-07
HE++	2.1187E-50	3.0921E-26	7.0373E-24

P1 = 1.00E+01 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.6026E+02	4.8094E+03	6.8712E+03
T	2.7089E+01	4.0480E+01	4.3665E+01
RHO	1.0488E+01	5.2723E+01	6.5807E+01
H	9.2116E+01	1.6438E+02	1.9587E+02
A	7.0586E+00	8.7710E+00	9.3890E+00
S	1.9697E+00	2.0718E+00	2.1390E+00
Z	1.9720E+00	2.2535E+00	2.3913E+00
GAME	9.3269E-01	8.4334E-01	8.4426E-01
U	1.8968E+01	3.7781E+00	3.5924E+00

SPECIES	MOLE FRACTIONS		
E-	1.1159E-02	1.3468E-01	1.8455E-01
H	9.5231E-01	7.0844E-01	6.0998E-01
H+	1.1159E-02	1.3468E-01	1.8455E-01
H2	1.5745E-05	7.0748E-06	5.2373E-06
H-	2.1922E-07	4.3382E-06	5.7392E-06
H2+	2.5073E-07	5.1438E-06	7.0981E-06
HE	2.5355E-02	2.2188E-02	2.0908E-02
HE+	1.8305E-10	4.6633E-07	1.5048E-06
HE++	1.0439E-37	1.0488E-24	9.3388E-23

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0191E+02	5.1546E+03	7.2978E+03
T	2.9020E+01	4.1598E+01	4.4721E+01
RHO	1.0402E+01	5.3664E+01	6.6499E+01
H	9.8975E+01	1.7671E+02	2.0969E+02
A	7.1644E+00	8.9965E+00	9.6285E+00
S	1.9963E+00	2.1057E+00	2.1750E+00
Z	1.9941E+00	2.3091E+00	2.4540E+00
GAME	8.8699E-01	8.4262E-01	8.4478E-01
U	1.9653E+01	3.8147E+00	3.6408E+00

SPECIES	MOLE FRACTIONS		
E-	2.2126E-02	1.5553E-01	2.0538E-01
H	9.3066E-01	6.6727E-01	5.6885E-01
H+	2.2126E-02	1.5553E-01	2.0537E-01
H2	1.0114E-05	5.8982E-06	4.3406E-06
H-	3.5775E-07	4.6335E-06	5.8645E-06
H2+	4.0085E-07	5.5720E-06	7.3639E-06
HE	2.5074E-02	2.1653E-02	2.0373E-02
HE+	1.0430E-09	7.3997E-07	2.2025E-06
HE++	6.1070E-35	5.8499E-24	3.8250E-22

P1 = 1.00E+01 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9221E+02	6.0976E+03	8.5117E+03
T	3.1817E+01	4.3838E+01	4.6948E+01
RHO	1.0601E+01	5.7251E+01	7.0013E+01
H	1.1351E+02	2.0341E+02	2.3982E+02
A	7.4517E+00	9.4767E+00	1.0149E+01
S	2.0492E+00	2.1735E+00	2.2476E+00
Z	2.0522E+00	2.4295E+00	2.5895E+00
GAME	8.5040E-01	8.4321E-01	8.4726E-01
U	2.1099E+01	3.9127E+00	3.7624E+00

SPECIES	MOLE FRACTIONS		
E-	4.9822E-02	1.9739E-01	2.4698E-01
H	8.7598E-01	5.8463E-01	4.8673E-01
H+	4.9822E-02	1.9739E-01	2.4697E-01
H2	5.7645E-06	4.1932E-06	2.9914E-06
H-	6.3436E-07	5.1555E-06	6.0380E-06
H2+	7.0484E-07	6.3920E-06	7.8394E-06
HE	2.4364E-02	2.0578E-02	1.9304E-02
HE+	8.7855E-09	1.7177E-06	4.6074E-06
HE++	1.4528E-31	1.3564E-22	5.9641E-21

P1 = 1.00E+01 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4597E+02	5.5851E+03	7.8463E+03
T	3.0576E+01	4.2717E+01	4.5816E+01
RHO	1.0448E+01	5.5216E+01	6.7954E+01
H	1.0611E+02	1.8975E+02	2.2436E+02
A	7.3049E+00	9.2321E+00	9.8823E+00
S	2.0235E+00	2.1396E+00	2.2112E+00
Z	2.0221E+00	2.3679E+00	2.5202E+00
GAME	8.6308E-01	8.4263E-01	8.4580E-01
U	2.0366E+01	3.8594E+00	3.6975E+00

SPECIES	MOLE FRACTIONS		
E-	3.5644E-02	1.7651E-01	2.2626E-01
H	9.0398E-01	6.2585E-01	5.2764E-01
H+	3.5644E-02	1.7651E-01	2.2625E-01
H2	7.3191E-06	4.9602E-06	3.6051E-06
H-	5.0099E-07	4.9092E-06	5.9689E-06
H2+	5.5726E-07	5.9922E-06	7.6175E-06
HE	2.4727E-02	2.1114E-02	1.9837E-02
HE+	3.5953E-09	1.1412E-06	3.1978E-06
HE++	5.5582E-33	2.9569E-23	1.5282E-21

P1 = 1.00E+01 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.9040E+02	7.2752E+03	1.0051E+04
T	3.3879E+01	4.6061E+01	4.9271E+01
RHO	1.1001E+01	6.1699E+01	7.4557E+01
H	1.2909E+02	2.3242E+02	2.7276E+02
A	7.7582E+00	9.9850E+00	1.0712E+01
S	2.1016E+00	2.2423E+00	2.3216E+00
Z	2.1206E+00	2.5600E+00	2.7361E+00
GAME	8.3776E-01	8.4553E-01	8.5124E-01
U	2.2590E+01	4.0342E+00	3.9088E+00

SPECIES	MOLE FRACTIONS		
E-	8.0475E-02	2.3829E-01	2.8732E-01
H	8.1547E-01	5.0387E-01	4.0708E-01
H+	8.0475E-02	2.3829E-01	2.8731E-01
H2	3.9438E-06	2.9781E-06	2.0121E-06
H-	8.8054E-07	5.4737E-06	5.9638E-06
H2+	9.8391E-07	7.0113E-06	8.0303E-06
HE	2.3578E-02	1.9528E-02	1.8265E-02
HE+	3.3259E-08	3.6472E-06	9.3021E-06
HE++	1.9540E-29	2.2960E-21	8.1623E-20

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9568E+02	8.6291E+03	1.1833E+04
T	3.5593E+01	4.8281E+01	5.1699E+01
RHO	1.1456E+01	6.6223E+01	7.9146E+01
H	1.4570E+02	2.6350E+02	3.0824E+02
A	8.0679E+00	1.0519E+01	1.1317E+01
S	2.1548E+00	2.3127E+00	2.3974E+00
Z	2.1966E+00	2.6988E+00	2.8918E+00
GAME	8.3255E-01	8.4911E-01	8.5671E-01
U	2.4097E+01	4.1750E+00	4.0774E+00

SPECIES	MOLE FRACTIONS		
E-	1.1226E-01	2.7748E-01	3.2570E-01
H	7.5271E-01	4.2651E-01	3.3132E-01
H+	1.1226E-01	2.7747E-01	3.2567E-01
H2	2.8901E-06	2.0653E-06	1.2873E-06
H-	1.0897E-06	5.5200E-06	5.5755E-06
H2+	1.2303E-06	7.3171E-06	7.8086E-06
HE	2.2763E-02	1.8919E-02	1.7272E-02
HE+	8.8780E-08	7.2813E-06	1.8406E-05
HE++	7.5124E-28	3.0672E-20	1.0155E-18

P1 = 1.00E+01 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1264E+03	1.1782E+04	1.6038E+04
T	3.8499E+01	5.2904E+01	5.7202E+01
RHO	1.2363E+01	7.4310E+01	8.6970E+01
H	1.8194E+02	3.3150E+02	3.8691E+02
A	8.6967E+00	1.1678E+01	1.2700E+01
S	2.2648E+00	2.4574E+00	2.5533E+00
Z	2.3666E+00	2.9970E+00	3.2238E+00
GAME	8.3011E-01	8.6015E-01	8.7459E-01
U	2.7120E+01	4.5187E+00	4.5078E+00

SPECIES	MOLE FRACTIONS		
E-	1.7603E-01	3.4936E-01	3.9513E-01
H	6.2681E-01	2.8461E-01	1.9431E-01
H+	1.7603E-01	3.4933E-01	3.9505E-01
H2	1.6658E-06	8.6203E-07	4.0267E-07
H-	1.3823E-06	4.7619E-06	3.9259E-06
H2+	1.6023E-06	6.8027E-06	6.0257E-06
HE	2.1127E-02	1.6656E-02	1.5434E-02
HE+	3.8217E-07	2.6762E-05	7.5584E-05
HE++	1.7108E-25	3.7119E-18	1.6421E-16

P1 = 1.00E+01 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0077E+03	1.0137E+04	1.3830E+04
T	3.7108E+01	5.0543E+01	5.4304E+01
RHO	1.1917E+01	7.0497E+01	8.3359E+01
H	1.6332E+02	2.9655E+02	3.4623E+02
A	8.3802E+00	1.1081E+01	1.1974E+01
S	2.2091E+00	2.3844E+00	2.4749E+00
Z	2.2788E+00	2.8449E+00	3.0553E+00
GAME	8.3051E-01	8.5389E-01	8.6413E-01
U	2.5608E+01	4.3356E+00	4.2713E+00

SPECIES	MOLE FRACTIONS		
E-	1.4428E-01	3.1458E-01	3.6177E-01
H	6.8949E-01	3.5328E-01	2.6012E-01
H+	1.4428E-01	3.1456E-01	3.6173E-01
H2	2.1819E-06	1.3749E-06	7.6198E-07
H-	1.2578E-06	5.2780E-06	4.8778E-06
H2+	1.4380E-06	7.2539E-06	7.1321E-06
HE	2.1941E-02	1.7561E-02	1.6328E-02
HE+	1.9550E-07	1.4033E-05	3.6628E-05
HE++	1.4138E-26	3.4995E-19	1.2458E-17

P1 = 1.00E+01 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2516E+03	1.3549E+04	1.8432E+04
T	3.9813E+01	5.5448E+01	6.0667E+01
RHO	1.2781E+01	7.7484E+01	8.9438E+01
H	2.0158E+02	3.6833E+02	4.3001E+02
A	9.0191E+00	1.2324E+01	1.3550E+01
S	2.3218E+00	2.5313E+00	2.6337E+00
Z	2.4595E+00	3.1537E+00	3.3970E+00
GAME	8.3070E-01	8.6856E-01	8.9092E-01
U	2.8629E+01	4.7295E+00	4.7597E+00

SPECIES	MOLE FRACTIONS		
E-	2.0717E-01	3.8168E-01	4.2597E-01
H	5.6532E-01	2.2084E-01	1.3351E-01
H+	2.0717E-01	3.8162E-01	4.2580E-01
H2	1.2720E-06	4.9582E-07	1.7455E-07
H-	1.4622E-06	4.0116E-06	2.7815E-06
H2+	1.7199E-06	5.9787E-06	4.5252E-06
HE	2.0328E-02	1.5803E-02	1.4547E-02
HE+	6.9078E-07	5.1850E-05	1.7211E-04
HE++	1.5740E-24	3.9897E-17	2.8562E-15

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3832E+03	1.5420E+04	2.1059E+04
T	4.1079E+01	5.8311E+01	6.5245E+01
RHO	1.3166E+01	7.9830E+01	9.0465E+01
H	2.2221E+02	4.0697E+02	4.7683E+02
A	9.3490E+00	1.3042E+01	1.4633E+01
S	2.3801E+00	2.6057E+00	2.7150E+00
Z	2.5574E+00	3.3125E+00	3.5679E+00
GAME	8.3199E-01	8.8055E-01	9.1985E-01
U	3.0135E+01	4.9772E+00	5.1305E+00

SPECIES	MOLE FRACTIONS		
E-	2.3750E-01	4.1133E-01	4.5346E-01
H	5.0544E-01	1.6235E-01	7.9545E-02
H+	2.3750E-01	4.1122E-01	4.5298E-01
H2	9.6448E-07	2.5107E-07	5.3772E-08
H-	1.4973E-06	3.0925E-06	1.6016E-06
H2+	1.7886E-06	4.8358E-06	2.8123E-06
HE	1.9550E-02	1.4989E-02	1.3540E-02
HE+	1.1837E-06	1.0555E-04	4.7437E-04
HE++	1.1632E-23	4.8406E-16	8.8451E-14

P1 = 1.00E+01 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6654E+03	1.9347E+04	2.7154E+04
T	4.3560E+01	6.6194E+01	8.3519E+01
RHO	1.3820E+01	8.0811E+01	8.4918E+01
H	2.6650E+02	4.8939E+02	5.8553E+02
A	1.0039E+01	1.4929E+01	1.8228E+01
S	2.5005E+00	2.7527E+00	2.8763E+00
Z	2.7666E+00	3.6169E+00	3.8287E+00
GAME	8.3625E-01	9.3085E-01	1.0391E+00
U	3.3134E+01	5.6732E+00	6.4509E+00

SPECIES	MOLE FRACTIONS		
E-	2.9516E-01	4.6086E-01	4.9069E-01
H	3.9161E-01	6.5083E-02	1.2451E-02
H+	2.9515E-01	4.6023E-01	4.8380E-01
H2	5.2905E-07	3.1311E-08	6.2895E-10
H-	1.4392E-06	1.1684E-06	1.5237E-07
H2+	1.7774E-06	2.0835E-06	3.5118E-07
HE	1.8070E-02	1.3192E-02	6.1700E-03
HE+	3.1648E-06	6.3243E-04	6.8893E-03
HE++	4.4643E-22	2.0781E-13	1.9757E-09

P1 = 1.00E+01 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5211E+03	1.7366E+04	2.3940E+04
T	4.2321E+01	6.1735E+01	7.2230E+01
RHO	1.3513E+01	8.1077E+01	8.9082E+01
H	2.4386E+02	4.4736E+02	5.2804E+02
A	9.6883E+00	1.3878E+01	1.6169E+01
S	2.4397E+00	2.6758E+00	2.7965E+00
Z	2.6598E+00	3.4695E+00	3.7206E+00
GAME	8.3385E-01	8.9920E-01	9.7277E-01
U	3.1637E+01	5.2800E+00	5.6553E+00

SPECIES	MOLE FRACTIONS		
E-	2.6687E-01	4.3797E-01	4.7590E-01
H	4.4746E-01	1.0988E-01	3.6570E-02
H+	2.6687E-01	4.3773E-01	4.7409E-01
H2	7.2135E-07	1.0428E-07	8.7444E-09
H-	1.4889E-06	2.0994E-06	6.3122E-07
H2+	1.8076E-06	3.4771E-06	1.2395E-06
HE	1.8796E-02	1.4174E-02	1.1637E-02
HE+	1.9573E-06	2.3713E-04	1.8014E-03
HE++	7.5867E-23	7.7232E-15	8.2059E-12

P1 = 1.00E+01 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8159E+03	2.1293E+04	3.0767E+04
T	4.4817E+01	7.2524E+01	1.0162E+02
RHO	1.4082E+01	7.8514E+01	7.7996E+01
H	2.9014E+02	5.3280E+02	6.5098E+02
A	1.0403E+01	1.6303E+01	2.1258E+01
S	2.5624E+00	2.8227E+00	2.9533E+00
Z	2.8773E+00	3.7394E+00	3.8818E+00
GAME	8.3924E-01	9.8001E-01	1.1456E+00
U	3.4624E+01	6.2165E+00	7.6013E+00

SPECIES	MOLE FRACTIONS		
E-	3.2229E-01	4.7853E-01	4.9766E-01
H	3.3804E-01	3.1649E-02	3.6338E-03
H+	3.2229E-01	4.7645E-01	4.8583E-01
H2	3.7775E-07	5.7330E-09	2.2947E-11
H-	1.3515E-06	4.8202E-07	2.4923E-08
H2+	1.6995E-06	9.5045E-07	6.9124E-08
HE	1.7372E-02	1.1289E-02	1.0539E-03
HE+	5.0621E-06	2.0817E-03	1.1826E-02
HE++	2.4958E-21	1.2053E-11	4.2788E-07

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9726E+03	2.3150E+04	3.4804E+04
T	4.6116E+01	8.1244E+01	1.2611E+02
RHO	1.4297E+01	7.4534E+01	7.0866E+01
H	3.1479E+02	5.7743E+02	7.2521E+02
A	1.0784E+01	1.7891E+01	2.4040E+01
S	2.6253E+00	2.8873E+00	3.0217E+00
Z	2.9918E+00	3.8230E+00	3.8943E+00
GAME	8.4296E-01	1.0306E+00	1.1768E+00
U	3.6108E+01	6.9364E+00	9.1178E+00

SPECIES	MOLE FRACTIONS		
E-	3.4821E-01	4.8992E-01	4.9927E-01
H	2.8686E-01	1.3243E-02	1.3217E-03
H+	3.4821E-01	4.8375E-01	4.8657E-01
H2	2.6030E-07	6.8455E-10	9.4882E-13
H-	1.2300E-06	1.5216E-07	5.2740E-09
H2+	1.5768E-06	3.4004E-07	1.4401E-08
HE	1.6704E-02	6.9093E-03	1.6874E-04
HE+	8.0989E-06	6.1696E-03	1.2632E-02
HE++	1.3736E-20	9.5839E-10	3.8502E-05

P1 = 1.00E+01 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3038E+03	2.6327E+04	4.2907E+04
T	4.8973E+01	1.0719E+02	1.7394E+02
RHO	1.4567E+01	6.3151E+01	6.3001E+01
H	3.6707E+02	6.6902E+02	8.7729E+02
A	1.1620E+01	2.2035E+01	2.7203E+01
S	2.7534E+00	3.0004E+00	3.1257E+00
Z	3.2295E+00	3.8891E+00	3.9155E+00
GAME	8.5377E-01	1.1647E+00	1.0866E+00
U	3.9051E+01	9.0198E+00	1.1708E+01

SPECIES	MOLE FRACTIONS		
E-	3.9619E-01	4.9860E-01	5.0198E-01
H	1.9216E-01	2.2768E-03	4.7401E-04
H+	3.9617E-01	4.8627E-01	4.8478E-01
H2	1.0540E-07	5.7073E-12	1.9929E-16
H-	9.0677E-07	1.1083E-08	1.5718E-09
H2+	1.2152E-06	3.1609E-08	2.1802E-09
HE	1.5461E-02	5.3117E-04	2.5140E-05
HE+	2.1823E-05	1.2324E-02	8.2834E-03
HE++	4.6231E-19	1.7443E-06	4.4611E-03

P1 = 1.00E+01 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1353E+03	2.4847E+04	3.8948E+04
T	4.7488E+01	9.2875E+01	1.5147E+02
RHO	1.4461E+01	6.9111E+01	6.5929E+01
H	3.4043E+02	6.2294E+02	8.0226E+02
A	1.1188E+01	1.9971E+01	2.5973E+01
S	2.6890E+00	2.9474E+00	3.0781E+00
Z	3.1094E+00	3.8711E+00	3.9003E+00
GAME	8.4765E-01	1.1093E+00	1.1419E+00
U	3.7585E+01	7.8682E+00	1.0582E+01

SPECIES	MOLE FRACTIONS		
E-	3.7287E-01	4.9627E-01	5.0004E-01
H	2.3819E-01	5.2555E-03	6.9924E-04
H+	3.7285E-01	4.8556E-01	4.8644E-01
H2	1.7107E-07	6.2158E-11	9.2791E-14
H-	1.0797E-06	4.0402E-08	2.3251E-09
H2+	1.4135E-06	1.0389E-07	4.6099E-09
HE	1.6067E-02	2.2136E-03	5.8572E-05
HE+	1.3116E-05	1.0703E-02	1.1925E-02
HE++	7.7089E-20	5.4689E-08	8.3618E-04

P1 = 1.00E+01 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4780E+03	2.7674E+04	4.6781E+04
T	5.0637E+01	1.2303E+02	1.9510E+02
RHO	1.4604E+01	5.7750E+01	6.0952E+01
H	3.9470E+02	7.1603E+02	9.5398E+02
A	1.2096E+01	2.3752E+01	2.9177E+01
S	2.8181E+00	3.0478E+00	3.1671E+00
Z	3.3510E+00	3.8949E+00	3.9339E+00
GAME	8.6219E-01	1.1773E+00	1.1092E+00
U	4.0505E+01	1.0215E+01	1.2755E+01

SPECIES	MOLE FRACTIONS		
E-	4.1809E-01	4.9934E-01	5.0431E-01
H	1.4893E-01	1.1784E-03	3.5706E-04
H+	4.1805E-01	4.8664E-01	4.8262E-01
H2	5.9279E-08	7.0026E-13	6.2801E-15
H-	7.1875E-07	3.9722E-09	1.2194E-09
H2+	9.8929E-07	1.1082E-08	1.2463E-09
HE	1.4883E-02	1.6265E-04	8.3134E-06
HE+	3.8089E-05	1.2645E-02	3.7070E-03
HE++	3.1769E-18	3.0006E-05	8.9946E-03

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6575E+03	2.8815E+04	5.0658E+04
T	5.2589E+01	1.3900E+02	2.2099E+02
RHO	1.4553E+01	5.3196E+01	5.8111E+01
H	4.2331E+02	7.6373E+02	1.0365E+03
A	1.2638E+01	2.5130E+01	3.1788E+01
S	2.8828E+00	3.0899E+00	3.2088E+00
Z	3.4723E+00	3.8979E+00	3.9447E+00
GAME	8.7465E-01	1.1655E+00	1.1592E+00
U	4.1941E+01	1.1467E+01	1.3981E+01

SPECIES	MOLE FRACTIONS		
E-	4.3841E-01	4.9973E-01	5.0566E-01
H	1.0885E-01	7.2899E-04	2.6482E-04
H+	4.3834E-01	4.8672E-01	4.8140E-01
H2	2.9131E-08	1.6401E-13	1.8871E-15
H-	5.2516E-07	2.0375E-09	9.1397E-10
H2+	7.4626E-07	4.8749E-09	6.9328E-10
HE	1.4328E-02	7.4684E-05	1.7947E-06
HE+	7.1950E-05	1.2495E-02	1.0810E-03
HE++	2.7345E-17	2.5793E-04	1.1592E-02

P1 = 1.00E+01 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0283E+03	3.0615E+04	5.7113E+04
T	5.8362E+01	1.6963E+02	2.7943E+02
RHO	1.4033E+01	4.6541E+01	5.1758E+01
H	4.8339E+02	8.6372E+02	1.2117E+03
A	1.4172E+01	2.6304E+01	3.6137E+01
S	3.0100E+00	3.1664E+00	3.2839E+00
Z	3.6975E+00	3.9137E+00	3.9490E+00
GAME	9.3076E-01	1.0395E+00	1.1834E+00
U	4.4712E+01	1.3446E+01	1.6586E+01

SPECIES	MOLE FRACTIONS		
E-	4.7262E-01	5.0176E-01	5.0620E-01
H	4.1653E-02	4.5876E-04	1.5250E-04
H+	4.7220E-01	4.8501E-01	4.8098E-01
H2	3.2349E-09	1.6861E-13	2.2520E-16
H-	1.7855E-07	1.4096E-09	4.9274E-10
H2+	2.7927E-07	3.0495E-09	2.4327E-10
HE	1.3107E-02	3.9781E-05	9.8503E-08
HE+	4.1578E-04	8.7210E-03	1.0509E-04
HE++	8.7346E-15	4.0146E-03	1.2556E-02

P1 = 1.00E+01 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8414E+03	2.9813E+04	5.4222E+04
T	5.5030E+01	1.5494E+02	2.4887E+02
RHO	1.4383E+01	4.9458E+01	5.5186E+01
H	4.5288E+02	8.1279E+02	1.1225E+03
A	1.3296E+01	2.6025E+01	3.4027E+01
S	2.9471E+00	3.1291E+00	3.2462E+00
Z	3.5899E+00	3.9023E+00	3.9479E+00
GAME	8.9490E-01	1.1190E+00	1.1784E+00
U	4.3350E+01	1.2588E+01	1.5252E+01

SPECIES	MOLE FRACTIONS		
E-	4.5681E-01	5.0030E-01	5.0607E-01
H	7.2598E-02	5.4489E-04	2.0067E-04
H+	4.5666E-01	4.8634E-01	4.8106E-01
H2	1.1574E-08	1.9766E-13	6.3511E-16
H-	3.3888E-07	1.6006E-09	6.8149E-10
H2+	5.0142E-07	3.4602E-09	4.0683E-10
HE	1.3773E-02	5.4289E-05	4.0164E-07
HE+	1.5508E-04	1.1562E-02	3.2020E-04
HE++	3.4915E-16	1.1964E-03	1.2344E-02

P1 = 1.00E+01 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2156E+03	3.0878E+04	5.8661E+04
T	6.3266E+01	1.8200E+02	3.0951E+02
RHO	1.3435E+01	4.3586E+01	4.7990E+01
H	5.1478E+02	9.1533E+02	1.3000E+03
A	1.5355E+01	2.7432E+01	3.8054E+01
S	3.0704E+00	3.2043E+00	3.3200E+00
Z	3.7833E+00	3.9346E+00	3.9494E+00
GAME	9.8510E-01	1.0575E+00	1.1846E+00
U	4.5996E+01	1.4162E+01	1.7811E+01

SPECIES	MOLE FRACTIONS		
E-	4.8458E-01	5.0442E-01	5.0625E-01
H	1.9105E-02	3.5381E-04	1.1815E-04
H+	4.8310E-01	4.8252E-01	4.8097E-01
H2	5.3212E-10	5.1884E-14	8.9500E-17
H-	6.9223E-08	9.5540E-10	3.5269E-10
H2+	1.1735E-07	1.7683E-09	1.5244E-10
HE	1.1737E-02	1.5742E-05	2.9704E-08
HE+	1.4791E-03	3.4824E-03	4.2426E-05
HE++	5.7060E-13	9.2091E-03	1.2618E-02

TABLE I. - Continued

$p_1 = 10\ N/m^2$

P1 = 1.00E+01 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4034E+03	3.0246E+04	5.8991E+04
T	7.0011E+01	1.9651E+02	3.3902E+02
RHO	1.2656E+01	3.9114E+01	4.4057E+01
H	5.4702E+02	9.6444E+02	1.3874E+03
A	1.6575E+01	2.9790E+01	3.9833E+01
S	3.1277E+00	3.2428E+00	3.3550E+00
Z	3.8410E+00	3.9434E+00	3.9496E+00
GAME	1.0217E+00	1.1482E+00	1.1850E+00
U	4.7207E+01	1.5258E+01	1.8955E+01

SPECIES	MOLE FRACTIONS		
E-	4.9232E-01	5.0550E-01	5.0627E-01
H	7.4318E-03	2.3533E-04	9.2772E-05
H+	4.8723E-01	4.8158E-01	4.8097E-01
H2	5.7969E-11	5.5143E-15	3.8602E-17
H-	2.0910E-08	5.3285E-10	2.5040E-10
H2+	3.9353E-08	6.2759E-10	9.8652E-11
HE	7.9288E-03	4.3955E-06	1.0461E-08
HE+	5.0887E-03	1.4262E-03	2.0139E-05
HE++	5.7899E-11	1.1249E-02	1.2640E-02

P1 = 1.00E+01 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7788E+03	2.8350E+04	5.7806E+04
T	8.8172E+01	2.2874E+02	3.9837E+02
RHO	1.1010E+01	3.1396E+01	3.6739E+01
H	6.1396E+02	1.0621E+03	1.5628E+03
A	1.9892E+01	3.2566E+01	4.3183E+01
S	3.2258E+00	3.3148E+00	3.4216E+00
Z	3.8926E+00	3.9477E+00	3.9497E+00
GAME	1.1529E+00	1.1744E+00	1.1852E+00
U	4.9421E+01	1.7309E+01	2.1188E+01

SPECIES	MOLE FRACTIONS		
E-	4.9904E-01	5.0605E-01	5.0630E-01
H	1.1699E-03	1.3401E-04	5.9036E-05
H+	4.8694E-01	4.8115E-01	4.8099E-01
H2	6.0287E-13	2.3102E-16	8.5517E-18
H-	1.6652E-09	2.5327E-10	1.2609E-10
H2+	4.0405E-09	1.7875E-10	4.4536E-11
HE	7.4160E-04	3.7518E-07	1.7581E-09
HE+	1.2103E-02	4.3577E-04	6.3042E-06
HE++	1.0610E-07	1.2229E-02	1.2653E-02

P1 = 1.00E+01 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5929E+03	2.9470E+04	5.8964E+04
T	7.7967E+01	2.1285E+02	3.6896E+02
RHO	1.1888E+01	3.5095E+01	4.0462E+01
H	5.8013E+02	1.0135E+03	1.4764E+03
A	1.8072E+01	3.1279E+01	4.1558E+01
S	3.1785E+00	3.2791E+00	3.3883E+00
Z	3.8764E+00	3.9449E+00	3.9497E+00
GAME	1.0807E+00	1.1650E+00	1.1851E+00
U	4.8370E+01	1.6368E+01	2.0108E+01

SPECIES	MOLE FRACTIONS		
E-	4.9696E-01	5.0569E-01	5.0629E-01
H	2.9674E-03	1.7328E-04	7.3866E-05
H+	4.8718E-01	4.8146E-01	4.8098E-01
H2	6.3508E-12	8.3430E-16	1.7850E-17
H-	6.1975E-09	3.5708E-10	1.7882E-10
H2+	1.3098E-08	3.0581E-10	6.5974E-11
HE	3.1163E-03	1.6877E-06	4.1094E-09
HE+	9.7822E-03	1.1094E-03	1.0738E-05
HE++	2.9324E-09	1.1563E-02	1.2649E-02

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6572E+01
T	2.8250E+00	3.5120E+00	4.9497E+00
RHO	3.9387E+00	6.6011E+00	1.1429E+01
H	2.8883E+00	3.6144E+00	5.1963E+00
A	1.6758E+00	1.8612E+00	2.1842E+00
S	1.0491E+00	1.0507E+00	1.0661E+00
Z	1.0000E+00	1.0000E+00	1.0001E+00
GAME	9.9406E-01	9.8632E-01	9.6380E-01
U	2.3185E+00	1.3798E+00	1.2206E+00

SPECIES	MOLE FRACTIONS		
E-	3.3431E-62	1.5103E-43	3.6478E-28
H	4.3926E-10	6.2864E-08	1.3467E-04
H+	4.9708E-20	5.6807E-20	6.0946E-20
H2	9.5000E-01	9.5000E-01	9.4987E-01
H-	1.3767E-70	2.9304E-50	1.6761E-33
H2+	1.3753E-20	6.6537E-21	2.5106E-21
HE	5.0000E-02	5.0000E-02	4.9997E-02
HE+	3.8172E-74	2.9612E-63	4.6896E-54
HE++	0.	0.	0.

P1 = 2.00E+01 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5433E+01	8.2863E+01	1.5683E+02
T	5.0893E+00	6.7945E+00	7.7828E+00
RHO	4.9961E+00	1.2099E+01	1.9528E+01
H	5.3598E+00	7.7741E+00	1.0275E+01
A	2.2083E+00	2.4303E+00	2.5664E+00
S	1.1033E+00	1.1106E+00	1.1311E+00
Z	1.0002E+00	1.0080E+00	1.0319E+00
GAME	9.5800E-01	8.6241E-01	8.2016E-01
U	3.7289E+00	1.5367E+00	1.2866E+00

SPECIES	MOLE FRACTIONS		
E-	1.2169E-25	1.2736E-16	2.8092E-14
H	3.3691E-04	1.5822E-02	6.1733E-02
H+	6.1905E-20	1.2516E-16	2.7612E-14
H2	9.4967E-01	9.3457E-01	8.8981E-01
H-	5.7087E-31	9.9404E-21	6.5013E-18
H2+	1.5447E-21	2.2747E-18	4.8639E-16
HE	4.9992E-02	4.9604E-02	4.8457E-02
HE+	3.0739E-53	1.8229E-42	1.7374E-37
HE++	0.	0.	0.

P1 = 2.00E+01 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6711E+01	1.0113E+02
T	3.8703E+00	5.1580E+00	6.7148E+00
RHO	4.5267E+00	9.0526E+00	1.4966E+01
H	3.9997E+00	5.4375E+00	7.5794E+00
A	1.9490E+00	2.2228E+00	2.4289E+00
S	1.0766E+00	1.0805E+00	1.0984E+00
Z	1.0000E+00	1.0002E+00	1.0061E+00
GAME	9.8148E-01	9.5776E-01	8.7313E-01
U	3.0256E+00	1.5100E+00	1.3156E+00

SPECIES	MOLE FRACTIONS		
E-	4.9165E-40	1.5490E-24	7.6296E-17
H	1.5844E-06	3.2621E-04	1.2216E-02
H+	5.9690E-20	6.1474E-20	7.6825E-17
H2	9.5000E-01	9.4968E-01	9.3809E-01
H-	1.7084E-46	1.3288E-29	6.8273E-21
H2+	3.7707E-21	1.9772E-21	1.5418E-18
HE	5.0030E-02	4.9992E-02	4.9695E-02
HE+	1.0235E-61	2.0829E-52	1.4125E-42
HE++	0.	0.	0.

P1 = 2.00E+01 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5077E+01	1.4005E+02	2.3332E+02
T	6.2967E+00	7.8636E+00	8.5301E+00
RHO	5.5477E+00	1.7157E+01	2.5491E+01
H	6.9805E+00	1.0704E+01	1.3454E+01
A	2.3639E+00	2.5799E+00	2.7178E+00
S	1.1293E+00	1.1434E+00	1.1675E+00
Z	1.0043E+00	1.0379E+00	1.0730E+00
GAME	8.8373E-01	8.1546E-01	8.0697E-01
U	4.4579E+00	1.4395E+00	1.2423E+00

SPECIES	MOLE FRACTIONS		
E-	1.0885E-18	4.8293E-14	7.1898E-13
H	8.5086E-03	7.3035E-02	1.3614E-01
H+	1.1177E-18	4.7546E-14	7.0723E-13
H2	9.4170E-01	8.7882E-01	8.1726E-01
H-	9.1977E-23	1.1380E-17	3.0707E-16
H2+	3.3886E-20	7.5880E-16	1.2059E-14
HE	4.9787E-02	4.8175E-02	4.6596E-02
HE+	2.8653E-44	6.8816E-37	2.0379E-35
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6829E+01	2.3052E+02	3.5307E+02
T	7.1471E+00	8.6441E+00	9.1964E+00
RHO	6.4197E+00	2.4588E+01	3.4026E+01
H	8.8772E+00	1.4242E+01	1.7312E+01
A	2.4556E+00	2.7481E+00	2.8882E+00
S	1.1560E+00	1.1807E+00	1.2088E+00
Z	1.0203E+00	1.0848E+00	1.1281E+00
GAME	8.2670E-01	8.0538E-01	8.0405E-01
U	5.2459E+00	1.3669E+00	1.2208E+00

SPECIES	MOLE FRACTIONS		
E-	1.9472E-15	1.1066E-12	8.0539E-12
H	4.0102E-02	1.5642E-01	2.2710E-01
H+	1.9247E-15	1.0887E-12	7.9271E-12
H2	9.1090E-01	7.9749E-01	7.2858E-01
H-	1.5571E-19	4.7555E-16	5.7591E-15
H2+	2.2740E-17	1.8330E-14	1.3249E-13
HE	4.8997E-02	4.6089E-02	4.4322E-02
HE+	2.0212E-40	1.6439E-33	6.4912E-32
HE++	0.	0.	0.

P1 = 2.00E+01 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5940E+01	5.3434E+02	7.4632E+02
T	8.1840E+00	9.9207E+00	1.0406E+01
RHO	8.5837E+00	4.4404E+01	5.6351E+01
H	1.3443E+01	2.2924E+01	2.6826E+01
A	2.6613E+00	3.1141E+00	3.2723E+00
S	1.2168E+00	1.2697E+00	1.3056E+00
Z	1.0808E+00	1.2133E+00	1.2727E+00
GAME	8.0064E-01	8.0565E-01	8.0851E-01
U	6.8625E+00	1.3286E+00	1.2306E+00

SPECIES	MOLE FRACTIONS		
E-	3.5462E-13	6.7207E-11	2.4325E-10
H	1.4958E-01	3.5153E-01	4.2853E-01
H+	3.5106E-13	6.6149E-11	2.3958E-10
H2	8.0416E-01	6.0726E-01	5.3219E-01
H-	7.1516E-17	7.2851E-14	3.4985E-13
H2+	3.6298E-15	1.1302E-12	4.0170E-12
HE	4.6261E-02	4.1212E-02	3.9287E-02
HE+	1.4994E-35	6.8111E-30	1.6453E-28
HE++	0.	0.	0.

P1 = 2.00E+01 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0510E+01	3.6087E+02	5.2364E+02
T	7.7278E+00	9.3123E+00	9.8150E+00
RHO	7.4777E+00	3.3884E+01	4.4635E+01
H	1.1034E+01	1.8328E+01	2.1790E+01
A	2.5564E+00	2.9263E+00	3.0736E+00
S	1.1851E+00	1.2228E+00	1.2549E+00
Z	1.0471E+00	1.1439E+00	1.1952E+00
GAME	8.0762E-01	8.0389E-01	8.0532E-01
U	6.0550E+00	1.3376E+00	1.2189E+00

SPECIES	MOLE FRACTIONS		
E-	4.2559E-14	1.1094E-11	5.1759E-11
H	8.9887E-02	2.5161E-01	3.2663E-01
H+	4.2104E-14	1.0915E-11	5.0955E-11
H2	8.6236E-01	7.0408E-01	6.3154E-01
H-	5.8046E-16	8.0785E-15	5.4635E-14
H2+	4.6033E-16	1.6664E-13	8.5881E-13
HE	4.7753E-02	4.3710E-02	4.1834E-02
HE+	1.2554E-37	2.6817E-31	4.6710E-30
HE++	0.	0.	0.

P1 = 2.00E+01 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.3051E+01	7.5331E+02	1.0247E+03
T	8.5702E+00	1.0499E+01	1.0992E+01
RHO	9.6883E+00	5.5544E+01	6.8537E+01
H	1.6101E+01	2.8008E+01	3.2423E+01
A	2.7690E+00	3.3128E+00	3.4866E+00
S	1.2514E+00	1.3208E+00	1.3605E+00
Z	1.1206E+00	1.2919E+00	1.3602E+00
GAME	7.9837E-01	8.0907E-01	8.1309E-01
U	7.6631E+00	1.3389E+00	1.2602E+00

SPECIES	MOLE FRACTIONS		
E-	1.7158E-12	3.0726E-10	9.4570E-10
H	2.1525E-01	4.5187E-01	5.2960E-01
H+	1.6993E-12	3.0271E-10	9.3227E-10
H2	7.4013E-01	5.0942E-01	4.3364E-01
H-	4.5934E-16	4.4918E-13	1.7351E-12
H2+	1.6965E-14	4.9941E-12	1.5170E-11
HE	4.4619E-02	3.8703E-02	3.6760E-02
HE+	4.9018E-34	1.3869E-28	4.0181E-27
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1176E+02	1.0176E+03	1.3587E+03
T	8.9154E+00	1.1066E+01	1.1589E+01
RHO	1.0755E+01	6.6685E+01	8.0481E+01
H	1.9006E+01	3.3557E+01	3.8554E+01
A	2.8799E+00	3.5239E+00	3.7187E+00
S	1.2885E+00	1.3751E+00	1.4191E+00
Z	1.1657E+00	1.3790E+00	1.4567E+00
GAME	7.9806E-01	8.1375E-01	8.1913E-01
U	8.4519E+00	1.3654E+00	1.3029E+00

SPECIES	MOLE FRACTIONS		
E-	5.9681E-12	1.1412E-09	3.2766E-09
H	2.8426E-01	5.4961E-01	6.2703E-01
H+	5.9119E-12	1.1256E-09	3.2344E-09
H2	6.7285E-01	4.1413E-01	3.3865E-01
H-	1.9836E-15	2.0860E-12	7.2160E-12
H2+	5.8217E-14	1.7692E-11	4.9415E-11
HE	4.2894E-02	3.6260E-02	3.4324E-02
HE+	8.9899E-34	5.5404E-27	8.1629E-26
HE++	0.	0.	4.9762E-92

P1 = 2.00E+01 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5412E+02	1.6845E+03	2.2033E+03
T	9.5463E+00	1.2264E+01	1.2980E+01
RHO	1.2706E+01	8.7123E+01	1.0132E+02
H	2.5569E+01	4.6100E+01	5.2564E+01
A	3.1154E+00	4.0015E+00	4.2745E+00
S	1.3703E+00	1.4929E+00	1.5456E+00
Z	1.2706E+00	1.5765E+00	1.6753E+00
GAME	8.0019E-01	8.2814E-01	8.4028E-01
U	1.0015E+01	1.4630E+00	1.4359E+00

SPECIES	MOLE FRACTIONS		
E-	4.8827E-11	1.1858E-08	3.8875E-08
H	4.2590E-01	7.3137E-01	8.0621E-01
H+	4.8419E-11	1.1732E-08	3.8536E-08
H2	5.3475E-01	2.3691E-01	1.6395E-01
H-	2.2993E-14	2.8584E-11	1.0212E-10
H2+	4.3120E-13	1.5433E-10	4.4087E-10
HE	3.9353E-02	3.1716E-02	2.9845E-02
HE+	7.9319E-31	1.6884E-24	3.9724E-23
HE++	0.	2.0111E-86	3.4747E-82

P1 = 2.00E+01 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3212E+02	1.3279E+03	1.7503E+03
T	9.2406E+00	1.1645E+01	1.2232E+01
RHO	1.1759E+01	7.7355E+01	9.1605E+01
H	2.2162E+01	3.9590E+01	4.5258E+01
A	2.9954E+00	3.7515E+00	3.9761E+00
S	1.3282E+00	1.4327E+00	1.4810E+00
Z	1.2157E+00	1.4741E+00	1.5621E+00
GAME	7.9870E-01	8.1986E-01	8.2741E-01
U	9.2359E+00	1.4063E+00	1.3598E+00

SPECIES	MOLE FRACTIONS		
E-	1.8785E-11	3.7704E-09	1.0960E-08
H	3.5437E-01	6.4326E-01	7.1968E-01
H+	1.8621E-11	3.7300E-09	1.0839E-08
H2	6.0400E-01	3.2282E-01	2.4831E-01
H-	7.6041E-15	8.1341E-12	2.7285E-11
H2+	1.7214E-13	5.4486E-11	1.4842E-10
HE	4.1128E-02	3.3918E-02	3.2008E-02
HE+	1.0206E-31	1.1343E-25	1.6516E-24
HE++	0.	1.7618E-92	2.8120E-87

P1 = 2.00E+01 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7773E+02	2.0824E+03	2.7170E+03
T	9.8452E+00	1.2978E+01	1.3580E+01
RHO	1.3573E+01	9.5249E+01	1.0837E+02
H	2.9226E+01	5.3076E+01	6.0531E+01
A	3.2411E+00	4.2875E+00	4.6598E+00
S	1.4147E+00	1.5549E+00	1.6123E+00
Z	1.3300E+00	1.6846E+00	1.7934E+00
GAME	8.0220E-01	8.4083E-01	8.6607E-01
U	1.0789E+01	1.5398E+00	1.5420E+00

SPECIES	MOLE FRACTIONS		
E-	1.1653E-10	3.9557E-08	1.6885E-07
H	4.9626E-01	8.1276E-01	8.8481E-01
H+	1.1561E-10	3.9225E-08	1.6784E-07
H2	4.6615E-01	1.5756E-01	8.7306E-02
H-	6.2347E-14	9.9501E-11	4.2695E-10
H2+	9.8310E-13	4.3139E-10	1.4361E-09
HE	3.7593E-02	2.9081E-02	2.7880E-02
HE+	3.9962E-30	3.5805E-23	1.3560E-21
HE++	0.	5.5856E-83	3.4247E-77

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0294E+02	2.5141E+03	3.3084E+03
T	1.0143E+01	1.3910E+01	1.5953E+01
RHO	1.4352E+01	1.0071E+02	1.0886E+02
H	3.3133E+01	6.0504E+01	6.9563E+01
A	3.3733E+00	4.6483E+00	5.4114E+00
S	1.4611E+00	1.6177E+00	1.6815E+00
Z	1.3940E+00	1.7947E+00	1.9051E+00
GAME	8.0476E-01	8.6548E-01	9.6350E-01
U	1.1558E+01	1.6494E+00	1.7561E+00

SPECIES	MOLE FRACTIONS		
E-	2.7049E-10	1.5881E-07	1.9090E-06
H	5.6529E-01	8.8563E-01	9.5019E-01
H+	2.6854E-10	1.5789E-07	1.9044E-06
H2	3.9884E-01	8.6515E-02	2.3565E-02
H-	1.5975E-13	3.8053E-10	3.5116E-09
H2+	2.1117E-12	1.3012E-09	8.1374E-09
HE	3.5868E-02	2.7859E-02	2.6245E-02
HE+	4.8260E-29	1.0927E-21	5.6935E-19
HE++	0.	1.3896E-77	1.2946E-67

P1 = 2.00E+01 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5815E+02	3.3681E+03	4.8716E+03
T	1.0763E+01	1.9197E+01	2.9359E+01
RHO	1.5630E+01	9.0279E+01	8.4572E+01
H	4.1700E+01	7.6421E+01	9.3709E+01
A	3.6619E+00	6.4957E+00	7.6153E+00
S	1.5596E+00	1.7344E+00	1.8033E+00
Z	1.5345E+00	1.9434E+00	1.9620E+00
GAME	8.1195E-01	1.1310E+00	1.0068E+00
U	1.3082E+01	2.2664E+00	2.9627E+00

SPECIES	MOLE FRACTIONS		
E-	1.2772E-09	3.9054E-05	6.2987E-03
H	6.9670E-01	9.7074E-01	9.6175E-01
H+	1.2697E-09	3.9034E-05	6.2985E-03
H2	2.7072E-01	3.4493E-03	1.6201E-04
H-	8.6341E-13	3.4565E-08	1.6358E-06
H2+	8.3914E-12	5.5020E-08	1.8287E-06
HE	3.2583E-02	2.5728E-02	2.5484E-02
HE+	1.8572E-27	1.0143E-15	3.4601E-10
HE++	0.	1.0056E-55	1.0758E-35

P1 = 2.00E+01 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2976E+02	2.9627E+03	4.0576E+03
T	1.0445E+01	1.5504E+01	2.2268E+01
RHO	1.5045E+01	1.0086E+02	9.3520E+01
H	3.7291E+01	6.8343E+01	8.1215E+01
A	3.5126E+00	5.2576E+00	7.0656E+00
S	1.5095E+00	1.6793E+00	1.7514E+00
Z	1.4622E+00	1.8946E+00	1.9484E+00
GAME	8.0790E-01	9.4108E-01	1.1506E+00
U	1.2323E+01	1.8402E+00	2.3597E+00

SPECIES	MOLE FRACTIONS		
E-	5.6984E-10	1.2006E-06	2.8349E-04
H	6.3215E-01	9.4435E-01	9.7269E-01
H+	5.6598E-10	1.1973E-06	2.8344E-04
H2	3.3365E-01	2.9253E-02	1.0805E-03
H-	3.6730E-13	2.2283E-09	1.6965E-07
H2+	4.2179E-12	5.5576E-09	2.2239E-07
HE	3.4196E-02	2.6391E-02	2.5661E-02
HE+	1.3817E-28	1.6275E-19	1.5470E-13
HE++	0.	2.2459E-69	8.3298E-48

P1 = 2.00E+01 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8810E+02	3.7311E+03	5.6482E+03
T	1.1104E+01	2.4466E+01	3.3593E+01
RHO	1.6110E+01	7.8167E+01	8.4412E+01
H	4.6358E+01	8.4702E+01	1.0529E+02
A	3.8229E+00	7.3188E+00	7.8442E+00
S	1.6112E+00	1.7787E+00	1.8418E+00
Z	1.6105E+00	1.9510E+00	1.9918E+00
GAME	8.1722E-01	1.1222E+00	9.1959E-01
U	1.3837E+01	2.8536E+00	3.2621E+00

SPECIES	MOLE FRACTIONS		
E-	2.7418E-09	9.6052E-04	2.1085E-02
H	7.5817E-01	9.7199E-01	9.3264E-01
H+	2.7276E-09	9.6044E-04	2.1084E-02
H2	2.1079E-01	4.6295E-04	7.7384E-05
H-	1.9227E-12	3.7124E-07	3.8801E-06
H2+	1.6148E-11	4.4880E-07	4.3300E-06
HE	3.1046E-02	2.5628E-02	2.5102E-02
HE+	1.0426E-26	2.9067E-12	7.2925E-09
HE++	0.	3.0053E-43	6.7830E-31

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1956E+02	4.1128E+03	6.3997E+03
T	1.1493E+01	2.9145E+01	3.6460E+01
RHO	1.6455E+01	7.1921E+01	8.6437E+01
H	5.1267E+01	9.3421E+01	1.1669E+02
A	4.0021E+00	7.5782E+00	8.1006E+00
S	1.6640E+00	1.8156E+00	1.8763E+00
Z	1.6897E+00	1.9622E+00	2.0307E+00
GAME	8.2479E-01	1.0042E+00	8.8628E-01
U	1.4586E+01	3.3467E+00	3.4292E+00

SPECIES	MOLE FRACTIONS		
E-	6.1537E-09	6.3623E-03	3.9799E-02
H	8.1636E-01	9.6165E-01	8.9572E-01
H+	6.1266E-09	6.3621E-03	3.9798E-02
H2	1.5405E-01	1.4380E-04	5.1354E-05
H-	4.3630E-12	1.4310E-06	6.0665E-06
H2+	3.1471E-11	1.6019E-06	6.8959E-06
HE	2.9591E-02	2.5482E-02	2.4622E-02
HE+	5.0904E-26	3.1099E-10	3.8002E-08
HE++	3.9633E-91	4.6262E-36	2.7236E-28

P1 = 2.00E+01 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8652E+02	4.9877E+03	7.7059E+03
T	1.2660E+01	3.4912E+01	4.0515E+01
RHO	1.6495E+01	7.1896E+01	8.9624E+01
H	6.1824E+01	1.1284E+02	1.3996E+02
A	4.5044E+00	7.9755E+00	8.6131E+00
S	1.7713E+00	1.8810E+00	1.9435E+00
Z	1.8509E+00	2.0224E+00	2.1222E+00
GAME	8.6589E-01	9.1344E-01	8.6282E-01
U	1.6047E+01	3.6859E+00	3.6166E+00

SPECIES	MOLE FRACTIONS		
E-	5.6389E-08	3.6138E-02	8.1183E-02
H	9.1943E-01	9.0290E-01	8.1402E-01
H+	5.6262E-08	3.6137E-02	8.1181E-02
H2	5.3555E-02	1.0085E-04	2.9805E-05
H-	3.3600E-11	4.7390E-06	9.6024E-06
H2+	1.6120E-10	5.3419E-06	1.1390E-05
HE	2.7014E-02	2.4717E-02	2.3560E-02
HE+	1.7193E-23	1.6916E-08	2.6213E-07
HE++	8.3322E-85	3.0833E-31	3.2289E-25

P1 = 2.00E+01 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5244E+02	4.5489E+03	7.1085E+03
T	1.1974E+01	3.2503E+01	3.8682E+01
RHO	1.6621E+01	7.0775E+01	8.8577E+01
H	5.6423E+01	1.0282E+02	1.2822E+02
A	4.2143E+00	7.7362E+00	8.3604E+00
S	1.7176E+00	1.8488E+00	1.9097E+00
Z	1.7709E+00	1.9866E+00	2.0747E+00
GAME	8.3760E-01	9.2981E-01	8.7655E-01
U	1.5325E+01	3.6090E+00	3.5369E+00

SPECIES	MOLE FRACTIONS		
E-	1.5998E-08	1.8601E-02	6.0137E-02
H	8.7060E-01	9.3752E-01	8.5557E-01
H+	1.5943E-08	1.8601E-02	6.0136E-02
H2	1.0116E-01	1.0500E-04	3.8240E-05
H-	1.0879E-11	3.0511E-06	8.0118E-06
H2+	6.5609E-11	3.3883E-06	9.3046E-06
HE	2.8235E-02	2.5167E-02	2.4100E-02
HE+	5.4077E-25	3.4075E-09	1.1495E-07
HE++	2.3445E-87	1.8573E-33	1.5713E-26

P1 = 2.00E+01 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2104E+02	5.1677E+03	7.9499E+03
T	1.3972E+01	3.7107E+01	4.1980E+01
RHO	1.5701E+01	6.7938E+01	8.7203E+01
H	6.7455E+01	1.2282E+02	1.5160E+02
A	5.0797E+00	8.1864E+00	8.8441E+00
S	1.8238E+00	1.9167E+00	1.9796E+00
Z	1.9193E+00	2.0586E+00	2.1717E+00
GAME	9.6221E-01	8.7960E-01	8.5798E-01
U	1.6724E+01	3.8683E+00	3.6668E+00

SPECIES	MOLE FRACTIONS		
E-	4.3923E-07	5.2903E-02	1.0210E-01
H	9.5798E-01	8.6985E-01	7.7273E-01
H+	4.3879E-07	5.2903E-02	1.0210E-01
H2	1.5972E-02	4.1651E-05	2.3362E-05
H-	1.8699E-10	5.8209E-06	1.0552E-05
H2+	6.3362E-10	6.6766E-06	1.2753E-05
HE	2.6091E-02	2.4286E-02	2.3023E-02
HE+	2.9567E-21	6.1125E-08	4.8952E-07
HE++	1.2501E-76	2.2288E-28	3.0910E-24

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5404E+02	4.9370E+03	7.4881E+03
T	1.6902E+01	3.8647E+01	4.2963E+01
RHO	1.3800E+01	6.0879E+01	7.8498E+01
H	7.3271E+01	1.3255E+02	1.6240E+02
A	6.1407E+00	8.3627E+00	9.0283E+00
S	1.8699E+00	1.9962E+00	2.0200E+00
Z	1.9466E+00	2.0984E+00	2.2203E+00
GAME	1.1461E+00	8.6237E-01	8.5448E-01
U	1.7286E+01	3.9217E+00	3.6835E+00

SPECIES	MOLE FRACTIONS		
E-	1.4138E-05	7.0748E-02	1.2179E-01
H	9.7253E-01	8.3464E-01	7.3387E-01
H+	1.4135E-05	7.0747E-02	1.2178E-01
H2	1.7546E-03	2.5393E-05	1.7805E-05
H-	2.8529E-09	6.4052E-06	1.0457E-05
H2+	5.7852E-09	7.4359E-06	1.2807E-05
HE	2.5686E-02	2.3828E-02	2.2518E-02
HE+	1.8205E-17	1.3568E-07	7.5822E-07
HE++	1.0998E-62	2.1441E-26	1.4296E-23

P1 = 2.00E+01 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2138E+02	4.5519E+03	6.6754E+03
T	2.4596E+01	4.0835E+01	4.4576E+01
RHO	1.0842E+01	5.0965E+01	6.4535E+01
H	8.5541E+01	1.5261E+02	1.8414E+02
A	7.1106E+00	8.7225E+00	9.3801E+00
S	1.9408E+00	2.0327E+00	2.0990E+00
Z	1.9552E+00	2.1872E+00	2.3205E+00
GAME	1.0514E+00	8.5185E-01	8.5062E-01
U	1.8328E+01	3.9034E+00	3.6962E+00

SPECIES	MOLE FRACTIONS		
E-	2.7325E-03	1.0847E-01	1.5969E-01
H	9.6890E-01	7.6017E-01	6.5904E-01
H+	2.7325E-03	1.0847E-01	1.5969E-01
H2	6.1721E-05	1.4777E-05	1.0816E-05
H-	1.4428E-07	6.8999E-06	9.7646E-06
H2+	1.7380E-07	8.2173E-06	1.2235E-05
HE	2.5573E-02	2.2860E-02	2.1545E-02
HE+	9.0596E-12	3.9515E-07	1.5155E-06
HE++	3.5272E-42	9.3701E-25	1.5743E-22

P1 = 2.00E+01 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8670E+02	4.6423E+03	6.9143E+03
T	2.0858E+01	3.9756E+01	4.3732E+01
RHO	1.1965E+01	5.4532E+01	6.9684E+01
H	7.9283E+01	1.4229E+02	1.7289E+02
A	6.8423E+00	8.5357E+00	9.1945E+00
S	1.9084E+00	1.9957E+00	2.0606E+00
Z	1.9502E+00	2.1413E+00	2.2689E+00
GAME	1.1509E+00	8.5584E-01	8.5199E-01
U	1.7791E+01	3.9075E+00	3.6828E+00

SPECIES	MOLE FRACTIONS		
E-	3.3953E-04	8.9363E-02	1.4059E-01
H	9.7345E-01	7.9789E-01	6.9675E-01
H+	3.3952E-04	8.9362E-02	1.4059E-01
H2	2.2997E-04	1.8931E-05	1.3658E-05
H-	3.1378E-08	6.6341E-06	1.0002E-05
H2+	4.4346E-08	7.7983E-06	1.2382E-05
HE	2.5636E-02	2.3350E-02	2.2036E-02
HE+	5.0629E-14	2.3883E-07	1.0736E-06
HE++	1.5652E-50	1.5697E-25	4.6540E-23

P1 = 2.00E+01 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5927E+02	4.6881E+03	6.7927E+03
T	2.7507E+01	4.1975E+01	4.5573E+01
RHO	1.0330E+01	4.9927E+01	6.2714E+01
H	9.2088E+01	1.6385E+02	1.9661E+02
A	7.1844E+00	8.9319E+00	9.5664E+00
S	1.9696E+00	2.0674E+00	2.1354E+00
Z	1.9683E+00	2.2370E+00	2.3767E+00
GAME	9.5334E-01	8.4961E-01	8.5023E-01
U	1.8934E+01	3.9224E+00	3.7297E+00

SPECIES	MOLE FRACTIONS		
E-	9.3450E-03	1.2832E-01	1.7956E-01
H	9.5588E-01	7.2097E-01	6.1983E-01
H+	9.3449E-03	1.2832E-01	1.7955E-01
H2	2.8467E-05	1.1999E-05	8.8192E-06
H-	3.4838E-07	7.2992E-06	9.7975E-06
H2+	3.9620E-07	8.8212E-06	1.2458E-05
HE	2.5402E-02	2.2351E-02	2.1035E-02
HE+	1.9413E-10	6.3944E-07	2.1800E-06
HE++	2.2533E-37	5.4224E-24	5.8331E-22

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 2.80E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0044E+02	4.9902E+03	7.1616E+03
T	2.9661E+01	4.3169E+01	4.6692E+01
RHO	1.0178E+01	5.0460E+01	6.2922E+01
M	9.8932E+01	1.7604E+02	2.1031E+02
A	7.2899E+00	9.1608E+00	9.8395E+00
S	1.9968E+00	2.1011E+00	2.1711E+00
Z	1.9890E+00	2.2909E+00	2.4376E+00
GAME	9.0079E-01	8.4859E-01	8.5062E-01
U	1.9605E+01	3.9594E+00	3.7794E+00

SPECIES	MOLE FRACTIONS		
E-	1.9635E-02	1.4881E-01	2.0006E-01
H	9.3557E-01	6.8053E-01	5.7934E-01
H+	1.9635E-02	1.4881E-01	2.0006E-01
H2	1.7685E-05	9.9804E-06	7.3029E-06
H-	5.8995E-07	7.7763E-06	9.9667E-06
H2+	6.5846E-07	9.5511E-06	1.2889E-05
HE	2.5138E-02	2.1825E-02	2.0509E-02
HE+	1.2666E-09	1.0152E-06	3.1694E-06
HE++	2.0583E-34	2.9891E-23	2.3262E-21

P1 = 2.00E+01 N/SQ-M, US1 = 3.00E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.9006E+02	5.8078E+03	8.3003E+03
T	3.2721E+01	4.5580E+01	4.9085E+01
RHO	1.0316E+01	5.3467E+01	6.5802E+01
M	1.1345E+02	2.0252E+02	2.4036E+02
A	7.5830E+00	9.6518E+00	1.0373E+01
S	2.0492E+00	2.1676E+00	2.2423E+00
Z	2.0442E+00	2.4077E+00	2.5699E+00
GAME	8.5897E-01	8.4885E-01	8.5300E-01
U	2.1033E+01	4.0640E+00	3.9081E+00

SPECIES	MOLE FRACTIONS		
E-	4.6111E-02	1.9012E-01	2.4122E-01
H	8.8331E-01	5.9897E-01	4.9808E-01
H+	4.6111E-02	1.9012E-01	2.4121E-01
H2	9.8859E-06	7.1081E-06	5.0539E-06
H-	1.0730E-06	8.6558E-06	1.0239E-05
H2+	1.1940E-06	1.1008E-05	1.3746E-05
HE	2.4459E-02	2.0764E-02	1.9450E-02
HE+	1.1739E-08	2.3616E-06	6.5783E-06
HE++	6.9526E-31	7.0316E-22	3.5364E-20

P1 = 2.00E+01 N/SQ-M, US1 = 2.90E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4418E+02	5.3941E+03	7.6808E+03
T	3.1337E+01	4.4376E+01	4.7872E+01
RHO	1.0202E+01	5.1770E+01	6.4121E+01
M	1.0606E+02	1.8897E+02	2.2495E+02
A	7.4282E+00	9.4021E+00	1.0100E+01
S	2.0232E+00	2.1343E+00	2.2066E+00
Z	2.0148E+00	2.3479E+00	2.5022E+00
GAME	8.7389E-01	8.4842E-01	8.5159E-01
U	2.0310E+01	4.0079E+00	3.8399E+00

SPECIES	MOLE FRACTIONS		
E-	3.2196E-02	1.6950E-01	2.2072E-01
H	9.1078E-01	6.3968E-01	5.3856E-01
H+	3.2196E-02	1.6950E-01	2.2071E-01
H2	1.2722E-05	8.4015E-06	6.0783E-06
H-	8.3558E-07	8.2451E-06	1.0137E-05
H2+	9.2840E-07	1.0302E-05	1.3351E-05
HE	2.4816E-02	2.1294E-02	1.9978E-02
HE+	4.5337E-09	1.5693E-06	4.5882E-06
HE++	2.1944E-32	1.5247E-22	9.2362E-21

P1 = 2.00E+01 N/SQ-M, US1 = 3.20E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8798E+02	6.9823E+03	9.7726E+03
T	3.4981E+01	4.7982E+01	5.1596E+01
RHO	1.0672E+01	5.7406E+01	6.9803E+01
M	1.2903E+02	2.3143E+02	2.7338E+02
A	7.8961E+00	1.0174E+01	1.0954E+01
S	2.1012E+00	2.2351E+00	2.3150E+00
Z	2.1107E+00	2.5349E+00	2.7134E+00
GAME	8.4442E-01	8.5103E-01	8.5698E-01
U	2.2521E+01	4.1929E+00	4.0629E+00

SPECIES	MOLE FRACTIONS		
E-	7.6151E-02	2.3075E-01	2.8137E-01
H	8.2400E-01	5.1876E-01	4.1883E-01
H+	7.6151E-02	2.3074E-01	2.8135E-01
H2	6.7045E-06	5.0761E-06	3.4250E-06
H-	1.5082E-06	9.2130E-06	1.0120E-05
H2+	1.6957E-06	1.2155E-05	1.4149E-05
HE	2.3689E-02	1.9720E-02	1.8414E-02
HE+	4.6462E-08	5.0178E-06	1.3193E-05
HE++	1.1101E-28	1.1844E-20	4.7081E-19

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9286E+02	8.2640E+03	1.1479E+04
T	3.6851E+01	5.0375E+01	5.4217E+01
RHO	1.1089E+01	6.1441E+01	7.3882E+01
H	1.4562E+02	2.6236E+02	3.0892E+02
A	8.2163E+00	1.0721E+01	1.1576E+01
S	2.1538E+00	2.3037E+00	2.3891E+00
Z	2.1849E+00	2.6700E+00	2.8656E+00
GAME	8.3841E-01	8.5454E-01	8.6250E-01
U	2.4021E+01	4.3418E+00	4.2410E+00

SPECIES	MOLE FRACTIONS		
E-	1.0753E-01	2.6969E-01	3.1954E-01
H	7.6205E-01	4.4188E-01	3.4347E-01
H+	1.0753E-01	2.6968E-01	3.1951E-01
H2	4.8996E-06	3.5558E-06	2.2192E-06
H-	1.8782E-06	9.3244E-06	9.4905E-06
H2+	2.1423E-06	1.2780E-05	1.3857E-05
HE	2.2384E-02	1.8710E-02	1.7422E-02
HE+	1.2695E-07	9.9669E-06	2.5815E-05
HE++	4.5671E-27	1.5334E-19	5.6126E-18

P1 = 2.00E+01 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1228E+03	1.1253E+04	1.5516E+04
T	4.0013E+01	5.5334E+01	6.0143E+01
RHO	1.1933E+01	6.8698E+01	8.0830E+01
H	1.8186E+02	3.3009E+02	3.8780E+02
A	8.8662E+00	1.1907E+01	1.3000E+01
S	2.2621E+00	2.4446E+00	2.5419E+00
Z	2.3516E+00	2.9603E+00	3.1916E+00
GAME	8.3541E-01	8.6549E-01	8.8043E-01
U	2.7034E+01	4.7028E+00	4.6937E+00

SPECIES	MOLE FRACTIONS		
E-	1.7079E-01	3.4129E-01	3.8903E-01
H	6.3715E-01	3.0055E-01	2.0636E-01
H+	1.7079E-01	3.4125E-01	3.8893E-01
H2	2.8283E-06	1.5377E-06	7.2552E-07
H-	2.3983E-06	8.1610E-06	6.7923E-06
H2+	2.8278E-06	1.2140E-05	1.0955E-05
HE	2.1261E-02	1.6855E-02	1.5564E-02
HE+	5.5748E-07	3.5763E-05	1.0225E-04
HE++	1.1238E-24	1.7062E-17	7.9872E-16

P1 = 2.00E+01 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0045E+03	9.6930E+03	1.3396E+04
T	3.8501E+01	5.2807E+01	5.7021E+01
RHO	1.1517E+01	6.5271E+01	7.7651E+01
H	1.6324E+02	2.9527E+02	3.4699E+02
A	8.5392E+00	1.1296E+01	1.2251E+01
S	2.2074E+00	2.3736E+00	2.4647E+00
Z	2.2655E+00	2.8122E+00	3.0254E+00
GAME	8.3600E-01	8.5929E-01	8.6995E-01
U	2.5527E+01	4.5110E+00	4.4451E+00

SPECIES	MOLE FRACTIONS		
E-	1.3926E-01	3.0661E-01	3.5547E-01
H	6.9940E-01	3.6899E-01	2.7256E-01
H+	1.3926E-01	3.0659E-01	3.5542E-01
H2	3.6987E-06	2.4016E-06	1.3399E-06
H-	2.1763E-06	8.9662E-06	8.3584E-06
H2+	2.5226E-06	1.2788E-05	1.2790E-05
HE	2.2070E-02	1.7760E-02	1.6476E-02
HE+	2.8315E-07	1.9032E-05	5.0528E-05
HE++	9.0004E-26	1.6919E-18	6.4509E-17

P1 = 2.00E+01 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2476E+03	1.2928E+04	1.7813E+04
T	4.1440E+01	5.8039E+01	6.3773E+01
RHO	1.2324E+01	7.1563E+01	8.3143E+01
H	2.0148E+02	3.6677E+02	4.3C97E+02
A	9.1992E+00	1.2564E+01	1.3855E+01
S	2.3181E+00	2.5165E+00	2.6194E+00
Z	2.4429E+00	3.1127E+00	3.3595E+00
GAME	8.3593E-01	8.7372E-01	8.9603E-01
U	2.8539E+01	4.9224E+00	4.9529E+00

SPECIES	MOLE FRACTIONS		
E-	2.0178E-01	3.7356E-01	4.1556E-01
H	5.7597E-01	2.3688E-01	1.4620E-01
H+	2.0178E-01	3.7348E-01	4.1934E-01
H2	2.1663E-06	9.1253E-07	3.3500E-07
H-	2.5426E-06	6.9725E-06	4.9546E-06
H2+	3.0514E-06	1.0854E-05	8.4923E-06
HE	2.0466E-02	1.5995E-02	1.4662E-02
HE+	1.0111E-06	6.7720E-05	2.2144E-04
HE++	1.0414E-23	1.6995E-16	1.1829E-14

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3788E+03	1.4702E+04	2.0331E+04
T	4.2813E+01	6.1043E+01	6.8456E+01
RHO	1.2684E+01	7.3709E+01	8.4195E+01
H	2.2211E+02	4.0527E+02	4.7781E+02
A	9.5398E+00	1.3287E+01	1.4922E+01
S	2.3753E+00	2.5888E+00	2.6585E+00
Z	2.5390E+00	3.2676E+00	3.5274E+00
GAME	8.3722E-01	8.8515E-01	9.2218E-01
U	3.0041E+01	5.1770E+00	5.3266E+00

SPECIES	MOLE FRACTIONS		
E-	2.3199E-01	4.0324E-01	4.4718E-01
H	5.1632E-01	1.7834E-01	9.2009E-02
H+	2.3199E-01	4.0310E-01	4.4662E-01
H2	1.6495E-06	4.8540E-07	1.1572E-07
H-	2.6094E-06	5.5034E-06	3.0226E-06
H2+	3.1893E-06	9.0112E-06	5.5964E-06
HE	1.9691E-02	1.5169E-02	1.3615E-02
HE+	1.7340E-06	1.3293E-04	5.5942E-04
HE++	7.7672E-23	1.8359E-15	2.8033E-13

P1 = 2.00E+01 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6603E+03	1.8434E+04	2.6111E+04
T	4.5500E+01	6.8961E+01	8.5702E+01
RHO	1.3296E+01	7.4926E+01	8.0191E+01
H	2.6639E+02	4.8739E+02	5.8524E+02
A	1.0251E+01	1.5119E+01	1.8289E+01
S	2.4932E+00	2.7319E+00	2.8559E+00
Z	2.7445E+00	3.5677E+00	3.7994E+00
GAME	8.4156E-01	9.2911E-01	1.0272E+00
U	3.3032E+01	5.8709E+00	6.5604E+00

SPECIES	MOLE FRACTIONS		
E-	2.8949E-01	4.5343E-01	4.8676E-01
H	4.0279E-01	7.9792E-02	1.9295E-02
H+	2.8949E-01	4.5276E-01	4.8078E-01
H2	9.1673E-07	7.6722E-08	2.5860E-09
H-	2.5218E-06	2.3531E-06	4.1053E-07
H2+	3.2032E-06	4.3920E-06	9.7657E-07
HE	1.8214E-02	1.3343E-02	7.1868E-03
HE+	4.6137E-06	6.7219E-04	5.9732E-03
HE++	2.9170E-21	4.6709E-13	1.8196E-09

P1 = 2.00E+01 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5164E+03	1.6550E+04	2.3071E+04
T	4.4159E+01	6.4557E+01	7.5180E+01
RHO	1.3009E+01	7.4930E+01	8.3373E+01
H	2.4375E+02	4.4551E+02	5.2858E+02
A	9.8899E+00	1.4116E+01	1.6358E+01
S	2.4337E+00	2.6608E+00	2.7775E+00
Z	2.6396E+00	3.4213E+00	3.6808E+00
GAME	8.3911E-01	9.0213E-01	9.6692E-01
U	3.1539E+01	5.4831E+00	5.8199E+00

SPECIES	MOLE FRACTIONS		
E-	2.6127E-01	4.3005E-01	4.7023E-01
H	4.5852E-01	1.2555E-01	4.7726E-02
H+	2.6127E-01	4.2977E-01	4.6845E-01
H2	1.2410E-06	2.1917E-07	2.4484E-08
H-	2.6011E-06	3.8978E-06	1.3718E-06
H2+	3.2397E-06	6.7684E-06	2.8226E-06
HE	1.8939E-02	1.4333E-02	1.1808E-02
HE+	2.8630E-06	2.8091E-04	1.7755E-03
HE++	4.9797E-22	2.4261E-14	1.4708E-11

P1 = 2.00E+01 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8104E+03	2.0308E+04	2.9502E+04
T	4.6857E+01	7.4862E+01	1.0204E+02
RHO	1.3541E+01	7.3428E+01	7.4771E+01
H	2.9002E+02	5.3074E+02	6.4917E+02
A	1.0627E+01	1.6379E+01	2.1056E+01
S	2.5538E+00	2.8001E+00	2.9312E+00
Z	2.8533E+00	3.6943E+00	3.8669E+00
GAME	8.4462E-01	9.6997E-01	1.1236E+00
U	3.4518E+01	6.3757E+00	7.6132E+00

SPECIES	MOLE FRACTIONS		
E-	3.1658E-01	4.7217E-01	4.9572E-01
H	3.4931E-01	4.3990E-02	6.7531E-03
H+	3.1658E-01	4.7030E-01	4.8460E-01
H2	6.6089E-07	1.8624E-08	1.4859E-10
H-	2.3772E-06	1.1337E-06	8.7178E-08
H2+	3.0822E-06	2.3207E-06	2.4279E-07
HE	1.7516E-02	1.1672E-02	1.8090E-03
HE+	7.3374E-06	1.8623E-03	1.1121E-02
HE++	1.5926E-20	1.5339E-11	2.3164E-07

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9660E+03	2.2103E+04	3.3311E+04
T	4.8256E+01	8.3057E+01	1.2523E+02
RHO	1.3742E+01	7.0204E+01	6.8403E+01
H	3.1466E+02	5.7531E+02	7.2216E+02
A	1.1019E+01	1.7903E+01	2.3905E+01
S	2.6152E+00	2.8656E+00	3.0000E+00
Z	2.9657E+00	3.7906E+00	3.8886E+00
GAME	8.4840E-01	1.0180E+00	1.1734E+00
U	3.5999E+01	7.0516E+00	9.0614E+00

SPECIES	MOLE FRACTIONS		
E-	3.4248E-01	4.8557E-01	4.9854E-01
H	2.9820E-01	2.0817E-02	2.6051E-03
H+	3.4246E-01	4.8042E-01	4.8600E-01
H2	4.6117E-07	2.9333E-09	7.3730E-12
H-	2.1746E-06	4.1860E-07	2.0201E-08
H2+	2.8815E-06	9.6191E-07	5.5544E-08
HE	1.6848E-02	8.0326E-03	3.3663E-04
HE+	1.1640E-05	5.1578E-03	1.2504E-02
HE++	8.5008E-20	7.8724E-10	1.7432E-05

P1 = 2.00E+01 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2969E+03	2.5223E+04	4.1142E+04
T	5.1308E+01	1.0723E+02	1.7487E+02
RHO	1.3994E+01	6.0636E+01	6.0205E+01
H	3.6692E+02	6.6699E+02	8.7562E+02
A	1.1875E+01	2.1870E+01	2.7460E+01
S	2.7403E+00	2.9796E+00	3.1085E+00
Z	3.1990E+00	3.8794E+00	3.9079E+00
GAME	8.5922E-01	1.1458E+00	1.1034E+00
U	3.8934E+01	9.0110E+00	1.1768E+01

SPECIES	MOLE FRACTIONS		
E-	3.9044E-01	4.9734E-01	5.0101E-01
H	2.0352E-01	4.3370E-03	8.9226E-04
H+	3.9041E-01	4.8543E-01	4.8530E-01
H2	1.9447E-07	3.9613E-11	1.3113E-13
H-	1.6321E-06	4.0311E-08	5.6458E-09
H2+	2.2711E-06	1.1507E-07	7.7457E-09
HE	1.5599E-02	9.7817E-04	5.5642E-05
HE+	3.0463E-05	1.1910E-02	9.7685E-03
HE++	2.6084E-18	8.8768E-07	2.9704E-03

P1 = 2.00E+01 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1238E+03	2.3773E+04	3.7244E+04
T	4.9726E+01	9.3721E+01	1.5094E+02
RHO	1.3895E+01	6.5869E+01	6.3334E+01
H	3.4030E+02	6.2089E+02	7.9843E+02
A	1.1433E+01	1.9781E+01	2.6113E+01
S	2.6775E+00	2.9255E+00	3.0591E+00
Z	3.0811E+00	3.8509E+00	3.8959E+00
GAME	8.5313E-01	1.0841E+00	1.1595E+00
U	3.7471E+01	7.9085E+00	1.0492E+01

SPECIES	MOLE FRACTIONS		
E-	3.6711E-01	4.9363E-01	4.9948E-01
H	2.4956E-01	9.3681E-03	1.3529E-03
H+	3.6709E-01	4.8402E-01	4.8634E-01
H2	3.0824E-07	3.6109E-10	6.7900E-13
H-	1.9228E-06	1.3256E-07	8.6239E-09
H2+	2.6080E-06	3.4470E-07	1.7252E-08
HE	1.6209E-02	3.3808E-03	1.1728E-04
HE+	1.8628E-05	9.6031E-03	1.2290E-02
HE++	4.5961E-19	3.2353E-08	4.2619E-04

P1 = 2.00E+01 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4706E+03	2.6549E+04	4.4884E+04
T	5.3062E+01	1.2271E+02	1.9659E+02
RHO	1.4031E+01	5.5621E+01	5.8148E+01
H	3.9454E+02	7.1403E+02	9.5264E+02
A	1.2358E+01	2.3670E+01	2.9137E+01
S	2.8034E+00	3.0283E+00	3.1516E+00
Z	3.3184E+00	3.8899E+00	3.9264E+00
GAME	8.6740E-01	1.1738E+00	1.0598E+00
U	4.0384E+01	1.0166E+01	1.2845E+01

SPECIES	MOLE FRACTIONS		
E-	4.1237E-01	4.9871E-01	5.0336E-01
H	1.6025E-01	2.2842E-03	6.6864E-04
H+	4.1231E-01	4.8615E-01	4.8323E-01
H2	1.1326E-07	5.1328E-12	4.0465E-14
H-	1.3150E-06	1.4855E-08	4.3557E-09
H2+	1.8834E-06	4.1538E-08	4.3819E-09
HE	1.5016E-02	3.1532E-04	2.2190E-05
HE+	5.1806E-05	1.2524E-02	5.2939E-03
HE++	1.6439E-17	1.4721E-05	7.4182E-03

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6496E+03	2.7698E+04	4.8520E+04
T	5.5086E+01	1.3864E+02	2.2041E+02
RHO	1.3992E+01	5.1300E+01	5.5868E+01
H	4.2314E+02	7.6184E+02	1.0326E+03
A	1.2902E+01	2.5159E+01	3.1510E+01
S	2.8666E+00	3.0715E+00	3.1920E+00
Z	3.4377E+00	3.8945E+00	3.9402E+00
GAME	8.7909E-01	1.1723E+00	1.1432E+00
U	4.1817E+01	1.1373E+01	1.3932E+01

SPECIES	MOLE FRACTIONS		
E-	4.3275E-01	4.9930E-01	5.0510E-01
H	1.2004E-01	1.4005E-03	5.1096E-04
H+	4.3266E-01	4.8646E-01	4.8170E-01
H2	5.8782E-08	9.2983E-13	1.3645E-14
H-	9.8684E-07	7.3967E-09	3.3799E-09
H2+	1.4617E-06	1.7677E-08	2.5830E-09
HE	1.4451E-02	1.4112E-04	6.3122E-06
HE+	9.3986E-05	1.2560E-02	1.9718E-03
HE++	1.2488E-16	1.3750E-04	1.0712E-02

P1 = 2.00E+01 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0203E+03	2.9399E+04	5.5052E+04
T	6.0779E+01	1.7000E+02	2.7795E+02
RHO	1.3568E+01	4.4409E+01	5.0169E+01
H	4.8322E+02	8.6053E+02	1.2080E+03
A	1.4364E+01	2.6905E+01	3.6009E+01
S	2.9910E+00	3.1498E+00	3.2686E+00
Z	3.6625E+00	3.9070E+00	3.9480E+00
GAME	9.2686E-01	1.0890E+00	1.1816E+00
U	4.4594E+01	1.3591E+01	1.6558E+01

SPECIES	MOLE FRACTIONS		
E-	4.6758E-01	5.0090E-01	5.0608E-01
H	5.1633E-02	7.5483E-04	2.9829E-04
H+	4.6713E-01	4.8555E-01	4.8096E-01
H2	8.4967E-09	3.2482E-13	1.7011E-15
H-	3.8475E-07	3.7653E-09	1.8671E-09
H2+	6.2679E-07	6.6075E-09	9.2920E-10
HE	1.3203E-02	5.5616E-05	3.8830E-07
HE+	4.4899E-04	1.0135E-02	2.1151E-04
HE++	2.2154E-14	2.6067E-03	1.2453E-02

P1 = 2.00E+01 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8331E+03	2.8624E+04	5.2068E+04
T	5.7558E+01	1.5465E+02	2.4840E+02
RHO	1.3848E+01	4.7505E+01	5.3121E+01
H	4.5271E+02	8.1036E+02	1.1196E+03
A	1.3548E+01	2.6274E+01	3.3904E+01
S	2.9295E+00	3.1118E+00	3.2315E+00
Z	3.5543E+00	3.8988E+00	3.9460E+00
GAME	8.9715E-01	1.1447E+00	1.1727E+00
U	4.3224E+01	1.2583E+01	1.5270E+01

SPECIES	MOLE FRACTIONS		
E-	4.5138E-01	4.9985E-01	5.0583E-01
H	8.3367E-02	9.6879E-04	3.6734E-04
H+	4.5119E-01	4.8636E-01	4.8111E-01
H2	2.5571E-08	3.6704E-13	4.5869E-15
H-	6.6682E-07	4.7690E-09	2.5290E-09
H2+	1.0294E-06	9.2828E-09	1.5158E-09
HE	1.3878E-02	8.2773E-05	1.4836E-06
HE+	1.8954E-04	1.2000E-02	6.1274E-04
HE++	1.3009E-15	7.4176E-04	1.2057E-02

P1 = 2.00E+01 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2086E+03	2.9764E+04	5.6969E+04
T	6.5341E+01	1.8364E+02	3.0853E+02
RHO	1.3079E+01	4.1535E+01	4.6760E+01
H	5.1462E+02	9.1160E+02	1.2968E+03
A	1.5448E+01	2.7695E+01	3.7981E+01
S	3.0511E+00	3.1874E+00	3.3055E+00
Z	3.7545E+00	3.9226E+00	3.9488E+00
GAME	9.7282E-01	1.0671E+00	1.1841E+00
U	4.5896E+01	1.4437E+01	1.7791E+01

SPECIES	MOLE FRACTIONS		
E-	4.8062E-01	5.0288E-01	5.0617E-01
H	2.6774E-02	6.0052E-04	2.3142E-04
H+	4.7929E-01	4.8377E-01	4.8093E-01
H2	1.8461E-09	1.4490E-13	6.7576E-16
H-	1.7330E-07	2.8671E-09	1.3463E-09
H2+	3.0426E-07	4.3704E-09	5.8407E-10
HE	1.1984E-02	2.8791E-05	1.1598E-07
HE+	1.3331E-03	6.3243E-03	8.4430E-05
HE++	8.0982E-13	6.3935E-03	1.2578E-02

TABLE I. - Continued

$p_1 = 20\ N/m^2$

P1 = 2.00E+01 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3980E+03	2.9572E+04	5.7818E+04
T	7.1568E+01	1.9758E+02	3.3844E+02
RHO	1.2429E+01	3.8097E+01	4.3259E+01
H	5.4689E+02	9.6219E+02	1.3648E+03
A	1.6646E+01	2.9446E+01	3.9793E+01
S	3.1076E+00	3.2252E+00	3.3406E+00
Z	3.8202E+00	3.9358E+00	3.9491E+00
GAME	1.0135E+00	1.1173E+00	1.1848E+00
U	4.7132E+01	1.5358E+01	1.8932E+01

SPECIES	MOLE FRACTIONS		
E-	4.8955E-01	5.0455E-01	5.0622E-01
H	1.1922E-02	4.4669E-04	1.8266E-04
H+	4.8544E-01	4.8230E-01	4.8094E-01
H2	2.7353E-10	2.6258E-14	2.9527E-16
H-	6.1958E-08	1.9472E-09	9.6833E-10
H2+	1.1982E-07	2.1484E-09	3.8210E-10
HE	8.9730E-03	1.0876E-05	4.0909E-08
HE+	4.1154E-03	3.1401E-03	3.9945E-05
HE++	4.7895E-11	9.5529E-03	1.2621E-02

P1 = 2.00E+01 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7771E+03	2.8192E+04	5.7464E+04
T	8.8691E+01	2.2896E+02	3.9782E+02
RHO	1.0958E+01	3.1206E+01	3.6573E+01
H	6.1391E+02	1.0615E+03	1.5609E+03
A	1.9762E+01	3.2458E+01	4.3152E+01
S	3.2070E+00	3.2974E+00	3.4076E+00
Z	3.8862E+00	3.9457E+00	3.9495E+00
GAME	1.1331E+00	1.1662E+00	1.1851E+00
U	4.9398E+01	1.7324E+01	2.1130E+01

SPECIES	MOLE FRACTIONS		
E-	4.9823E-01	5.0579E-01	5.0626E-01
H	2.2345E-03	2.6561E-04	1.1778E-04
H+	4.8667E-01	4.8127E-01	4.8096E-01
H2	4.2766E-12	1.7800E-15	6.7990E-17
H-	6.2132E-09	9.9713E-10	5.0108E-10
H2+	1.5190E-08	7.0209E-10	1.7710E-10
HE	1.3093E-03	1.3824E-06	7.0439E-09
HE+	1.1957E-02	8.1958E-04	1.2636E-05
HE++	5.9226E-08	1.1851E-02	1.2647E-02

P1 = 2.00E+01 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5882E+03	2.9059E+04	5.8159E+04
T	7.9096E+01	2.1311E+02	3.6654E+02
RHO	1.1744E+01	3.4596E+01	3.9959E+01
H	5.8001E+02	1.0120E+03	1.4742E+03
A	1.7996E+01	3.1064E+01	4.1531E+01
S	3.1589E+00	3.2616E+00	3.3741E+00
Z	3.8629E+00	3.9416E+00	3.9493E+00
GAME	1.0600E+00	1.1488E+00	1.1850E+00
U	4.8308E+01	1.6380E+01	2.0096E+01

SPECIES	MOLE FRACTIONS		
E-	4.9519E-01	5.0528E-01	5.0625E-01
H	5.2184E-03	3.3977E-04	1.4614E-04
H+	4.8665E-01	4.8170E-01	4.8095E-01
H2	3.6940E-11	5.4251E-15	1.3841E-16
H-	2.0637E-08	1.3771E-09	6.9894E-10
H2+	4.4473E-08	1.1610E-09	2.5807E-10
HE	4.3967E-03	4.3919E-06	1.6177E-08
HE+	8.5471E-03	1.7842E-03	2.1337E-05
HE++	1.9617E-09	1.0897E-02	1.2639E-02

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6576E+01
T	2.8250E+00	3.5120E+00	4.9511E+00
RHO	3.9387E+00	6.6011E+00	1.1426E+01
H	2.8883E+00	3.6144E+00	5.1966E+00
A	1.6758E+00	1.8612E+00	2.1658E+00
S	1.0510E+00	1.0527E+00	1.0687E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6495E-01
U	2.3185E+00	1.3798E+00	1.2209E+00

SPECIES	MOLE FRACTIONS		
E-	9.1573E-63	3.9692E-44	1.8282E-28
H	2.7781E-10	3.9755E-08	8.5660E-05
H+	4.4142E-20	5.3551E-20	5.9581E-20
H2	9.5000E-01	9.5000E-01	9.4992E-01
H-	5.9624E-71	1.2177E-50	1.7177E-33
H2+	1.9319E-20	9.9091E-21	3.8767E-21
HE	5.0000E-02	5.0000E-02	4.5998E-02
HE+	5.5738E-74	4.5082E-63	7.7104E-54
HE++	0.	0.	0.

P1 = 5.00E+01 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5429E+01	8.2067E+01	1.5754E+02
T	5.0920E+00	6.8721E+00	8.0013E+00
RHO	4.9930E+00	1.1871E+01	1.9159E+01
H	5.3595E+00	7.7548E+00	1.0323E+01
A	2.2117E+00	2.4621E+00	2.6093E+00
S	1.1074E+00	1.1147E+00	1.1357E+00
Z	1.0001E+00	1.0059E+00	1.0278E+00
GAME	9.6055E-01	8.7688E-01	8.2798E-01
U	3.7284E+00	1.5647E+00	1.3184E+00

SPECIES	MOLE FRACTIONS		
E-	3.1861E-26	1.1557E-16	4.1103E-14
H	2.1506E-04	1.1723E-02	5.4034E-02
H+	6.1049E-20	1.1254E-16	4.0048E-14
H2	9.4979E-01	9.3857E-01	8.9732E-01
H-	2.3634E-31	1.5584E-20	1.6936E-17
H2+	2.4044E-21	3.1091E-18	1.0714E-15
HE	4.9995E-02	4.9707E-02	4.8649E-02
HE+	4.8892E-53	4.7113E-42	3.1389E-37
HE++	0.	0.	0.

P1 = 5.00E+01 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6685E+01	1.0142E+02
T	3.8703E+00	5.1600E+00	6.7997E+00
RHO	4.5267E+00	9.0446E+00	1.4843E+01
H	3.9997E+00	5.4366E+00	7.5582E+00
A	1.9490E+00	2.2259E+00	2.4611E+00
S	1.0796E+00	1.0837E+00	1.1023E+00
Z	1.0000E+00	1.0001E+00	1.0046E+00
GAME	9.8150E-01	9.6011E-01	8.8659E-01
U	3.0256E+00	1.5113E+00	1.3305E+00

SPECIES	MOLE FRACTIONS		
E-	1.2787E-40	4.0551E-25	6.9586E-17
H	1.0021E-06	2.0797E-04	9.1818E-03
H+	5.7697E-20	6.0387E-20	6.7558E-17
H2	9.5000E-01	9.4980E-01	9.4105E-01
H-	7.0226E-47	5.4993E-30	1.0158E-20
H2+	5.7634E-21	3.0673E-21	2.1008E-18
HE	5.0000E-02	4.9995E-02	4.9770E-02
HE+	1.5762E-61	3.2930E-52	2.4272E-42
HE++	0.	0.	0.

P1 = 5.00E+01 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5008E+01	1.3695E+02	2.3205E+02
T	6.3497E+00	8.0650E+00	8.8309E+00
RHO	5.4971E+00	1.6445E+01	2.4631E+01
H	6.9768E+00	1.0656E+01	1.3500E+01
A	2.3917E+00	2.6181E+00	2.7667E+00
S	1.1342E+00	1.1478E+00	1.1723E+00
Z	1.0030E+00	1.0324E+00	1.0669E+00
GAME	8.9817E-01	8.2312E-01	8.1247E-01
U	4.4489E+00	1.4846E+00	1.2805E+00

SPECIES	MOLE FRACTIONS		
E-	1.9255E-18	6.7756E-14	1.2928E-12
H	6.0667E-03	6.2793E-02	1.2544E-01
H+	1.9318E-18	6.6208E-14	1.2619E-12
H2	9.4408E-01	8.8878E-01	8.2770E-01
H-	2.9101E-24	2.8476E-17	1.0237E-15
H2+	5.6995E-20	1.5770E-15	3.1964E-14
HE	4.9848E-02	4.8430E-02	4.6864E-02
HE+	2.3427E-44	3.3804E-36	5.3249E-34
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6653E+01	2.2261E+02	3.4644E+02
T	7.2962E+00	8.9308E+00	9.5615E+00
RHO	6.2880E+00	2.3153E+01	3.2346E+01
H	8.8689E+00	1.4160E+01	1.7340E+01
A	2.4921E+00	2.7918E+00	2.9432E+00
S	1.1614E+00	1.1849E+00	1.2134E+00
Z	1.0170E+00	1.0767E+00	1.1200E+00
GAME	8.3702E-01	8.1058E-01	8.0886E-01
U	5.2257E+00	1.4178E+00	1.2621E+00

SPECIES	MOLE FRACTIONS		
E-	1.8854E-15	1.9971E-12	1.5641E-11
H	3.3374E-02	1.4244E-01	2.1428E-01
H+	1.8502E-15	1.9519E-12	1.5286E-11
H2	9.1746E-01	8.1112E-01	7.4108E-01
H-	2.1295E-19	1.6207E-15	2.0788E-14
H2+	3.5542E-17	4.6812E-14	3.7582E-13
HE	4.9166E-02	4.6439E-02	4.4643E-02
HE+	5.2229E-39	3.8857E-34	7.3476E-31
HE++	0.	0.	0.

P1 = 5.00E+01 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5635E+01	5.1179E+02	7.2456E+02
T	8.4602E+00	1.0339E+01	1.0895E+01
RHO	8.3227E+00	4.1222E+01	5.2719E+01
H	1.3432E+01	2.2803E+01	2.6857E+01
A	2.7063E+00	3.1720E+00	3.3436E+00
S	1.2223E+00	1.2727E+00	1.3091E+00
Z	1.0743E+00	1.2011E+00	1.2614E+00
GAME	8.0584E-01	8.1028E-01	8.1348E-01
U	6.8346E+00	1.3818E+00	1.2783E+00

SPECIES	MOLE FRACTIONS		
E-	6.1858E-13	1.3477E-10	5.0953E-10
H	1.3827E-01	3.3481E-01	4.1449E-01
H+	6.0932E-13	1.3181E-10	4.9869E-10
H2	8.1519E-01	6.2356E-01	5.4587E-01
H-	2.2874E-16	2.6762E-13	1.3538E-12
H2+	9.4859E-15	3.2219E-12	1.2200E-11
HE	4.6543E-02	4.1630E-02	3.9638E-02
HE+	5.6579E-35	2.8819E-29	2.4220E-27
HE++	0.	0.	0.

P1 = 5.00E+01 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0253E+01	3.4646E+02	5.0996E+02
T	7.9516E+00	9.6670E+00	1.0242E+01
RHO	7.2741E+00	3.1621E+01	4.1999E+01
H	1.1024E+01	1.8223E+01	2.1813E+01
A	2.5968E+00	2.9767E+00	3.1360E+00
S	1.1906E+00	1.2265E+00	1.2591E+00
Z	1.0418E+00	1.1336E+00	1.1854E+00
GAME	8.1410E-01	8.0855E-01	8.1005E-01
U	6.0289E+00	1.3879E+00	1.2634E+00

SPECIES	MOLE FRACTIONS		
E-	6.6302E-14	2.1142E-11	1.0538E-10
H	8.0192E-02	2.3575E-01	3.1279E-01
H+	6.5245E-14	2.0664E-11	1.0305E-10
H2	8.7181E-01	7.2015E-01	6.4503E-01
H-	1.6335E-17	2.8368E-14	2.0630E-13
H2+	1.0742E-15	5.0709E-13	2.5384E-12
HE	4.7995E-02	4.4106E-02	4.2180E-02
HE+	2.5122E-37	6.7307E-31	6.2395E-29
HE++	0.	0.	0.

P1 = 5.00E+01 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.2664E+01	7.1932E+02	9.9150E+02
T	8.8906E+00	1.0974E+01	1.1540E+01
RHO	9.3663E+00	5.1304E+01	6.3766E+01
H	1.6089E+01	2.7860E+01	3.2456E+01
A	2.8186E+00	3.3781E+00	3.5673E+00
S	1.2566E+00	1.3225E+00	1.3632E+00
Z	1.1129E+00	1.2776E+00	1.3473E+00
GAME	8.0292E-01	8.1390E-01	8.1845E-01
U	7.6308E+00	1.3959E+00	1.3122E+00

SPECIES	MOLE FRACTIONS		
E-	3.2129E-12	6.2511E-10	2.0072E-09
H	2.0288E-01	4.3455E-01	5.1559E-01
H+	3.1668E-12	6.1222E-10	1.9672E-09
H2	7.5219E-01	5.2632E-01	4.4730E-01
H-	1.5950E-15	1.6645E-12	6.7663E-12
H2+	4.7694E-14	1.4548E-11	4.6739E-11
HE	4.4928E-02	3.9136E-02	3.7110E-02
HE+	2.0050E-34	3.3705E-27	6.1293E-26
HE++	0.	0.	1.6508E-92

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1134E+02	9.7043E+02	1.3124E+03
T	9.2779E+00	1.1598E+01	1.2201E+01
RHO	1.0372E+01	6.1388E+01	7.4566E+01
H	1.8994E+01	3.3394E+01	3.8612E+01
A	2.9346E+00	3.5981E+00	3.8105E+00
S	1.2935E+00	1.3760E+00	1.4207E+00
Z	1.1569E+00	1.3630E+00	1.4426E+00
GAME	8.0228E-01	8.1895E-01	8.2501E-01
U	8.4201E+00	1.4250E+00	1.3596E+00

SPECIES	MOLE FRACTIONS		
E-	1.2722E-11	2.3086E-09	7.0059E-09
H	2.7127E-01	5.3261E-01	6.1360E-01
H+	1.2552E-11	2.2642E-09	6.8802E-09
H2	6.8551E-01	4.3010E-01	3.5174E-01
H-	8.1003E-15	7.6807E-12	2.8226E-11
H2+	1.7869E-13	5.2108E-11	1.5396E-10
HE	4.3218E-02	3.6685E-02	3.4660E-02
HE+	1.0737E-31	7.2237E-26	1.2387E-24
HE++	0.	5.3237E-92	1.3673E-87

P1 = 5.00E+01 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5360E+02	1.6034E+03	2.1243E+03
T	9.9731E+00	1.2911E+01	1.3725E+01
RHO	1.2224E+01	7.9778E+01	9.3335E+01
H	2.5557E+01	4.5904E+01	5.2675E+01
A	3.1798E+00	4.0945E+00	4.3910E+00
S	1.3744E+00	1.4911E+00	1.5447E+00
Z	1.2601E+00	1.5567E+00	1.6583E+00
GAME	8.0461E-01	8.3415E-01	8.4713E-01
U	9.9815E+00	1.5319E+00	1.5042E+00

SPECIES	MOLE FRACTIONS		
E-	1.0352E-10	2.3787E-08	7.8811E-08
H	4.1272E-01	7.1519E-01	7.9396E-01
H+	1.0226E-10	2.3433E-08	7.7839E-08
H2	5.4759E-01	2.5269E-01	1.7589E-01
H-	9.2591E-14	1.0419E-10	3.8089E-10
H2+	1.3554E-12	4.5871E-10	1.3535E-09
HE	3.9682E-02	3.2120E-02	3.0151E-02
HE+	8.1951E-30	2.0088E-23	4.1952E-22
HE++	0.	8.3804E-83	9.4114E-80

P1 = 5.00E+01 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3166E+02	1.2655E+03	1.6896E+03
T	9.6350E+00	1.2235E+01	1.2910E+01
RHO	1.1329E+01	7.1026E+01	8.4621E+01
H	2.2150E+01	3.9415E+01	4.5342E+01
A	3.0547E+00	3.8350E+00	4.0803E+00
S	1.3328E+00	1.4324E+00	1.4814E+00
Z	1.2061E+00	1.4562E+00	1.5466E+00
GAME	8.0302E-01	8.2547E-01	8.3387E-01
U	9.2035E+00	1.4704E+00	1.4222E+00

SPECIES	MOLE FRACTIONS		
E-	3.9513E-11	7.6663E-09	2.3316E-08
H	3.4172E-01	6.2662E-01	7.0685E-01
H+	3.9011E-11	7.5342E-09	2.2958E-08
H2	6.1683E-01	3.9905E-01	2.6083E-01
H-	3.0359E-14	3.0016E-11	1.0593E-10
H2+	5.3251E-13	1.6210E-10	4.6414E-10
HE	4.1457E-02	3.4335E-02	3.2329E-02
HE+	1.4999E-30	1.4099E-24	2.3494E-23
HE++	0.	4.0352E-88	8.0704E-83

P1 = 5.00E+01 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7715E+02	1.9789E+03	2.6157E+03
T	1.0305E+01	1.3679E+01	1.4791E+01
RHO	1.3036E+01	8.7005E+01	9.9629E+01
H	2.9213E+01	5.2855E+01	6.0676E+01
A	3.3109E+00	4.3890E+00	4.7853E+00
S	1.4182E+00	1.5516E+00	1.6099E+00
Z	1.3186E+00	1.6627E+00	1.7756E+00
GAME	8.0677E-01	8.4693E-01	8.7220E-01
U	1.0754E+01	1.6137E+00	1.6162E+00

SPECIES	MOLE FRACTIONS		
E-	2.5844E-10	7.6548E-08	3.2515E-07
H	4.8329E-01	7.9715E-01	8.7325E-01
H+	2.5557E-10	7.5638E-08	3.2239E-07
H2	4.7879E-01	1.7277E-01	9.8583E-02
H-	2.6213E-13	3.5119E-10	1.5148E-09
H2+	3.1756E-12	1.2620E-09	4.2780E-09
HE	3.7918E-02	3.0071E-02	2.8169E-02
HE+	1.0318E-28	3.6598E-22	1.3876E-20
HE++	0.	3.0320E-79	2.4505E-73

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0231E+02	2.3875E+03	3.1782E+03
T	1.0632E+01	1.4651E+01	1.6684E+01
RHO	1.3771E+01	9.1999E+01	1.0C93E+02
H	3.3120E+01	6.0260E+01	6.9642E+01
A	3.4486E+00	4.7511E+00	5.4686E+00
S	1.4640E+00	1.6128E+00	1.6769E+00
Z	1.3817E+00	1.7713E+00	1.8673E+00
GAME	8.0953E-01	8.6983E-01	9.4973E-01
U	1.1521E+01	1.7269E+00	1.8172E+00

SPECIES	MOLE FRACTIONS		
E-	5.9013E-10	2.8262E-07	2.6734E-06
H	5.5252E-01	8.7087E-01	9.4031E-01
H+	5.8397E-10	2.8024E-07	2.6630E-06
H2	4.1130E-01	1.0090E-01	3.3197E-02
H-	6.6193E-13	1.2522E-09	9.6413E-09
H2+	6.8262E-12	3.6389E-09	2.C050E-08
HE	3.6187E-02	2.8228E-02	2.6492E-02
HE+	7.0616E-28	8.8575E-21	2.6415E-18
HE++	0.	5.4842E-72	8.9078E-65

P1 = 5.00E+01 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5737E+02	3.2117E+03	4.6572E+03
T	1.1313E+01	1.9341E+01	2.9701E+01
RHO	1.4962E+01	8.5798E+01	8.0072E+01
H	4.1684E+01	7.6179E+01	9.3585E+01
A	3.7492E+00	6.3921E+00	7.7738E+00
S	1.5608E+00	1.7285E+00	1.8004E+00
Z	1.5204E+00	1.9354E+00	1.9583E+00
GAME	8.1722E-01	1.0915E+00	1.0390E+00
U	1.3042E+01	2.2761E+00	2.9918E+00

SPECIES	MOLE FRACTIONS		
E-	2.7931E-09	2.8202E-05	4.5908E-03
H	6.8461E-01	9.6653E-01	9.6492E-01
H+	2.7693E-09	2.8169E-05	4.5905E-03
H2	2.8251E-01	7.5800E-03	3.6156E-04
H-	3.5837E-12	5.7528E-08	2.7457E-06
H2+	2.7395E-11	9.0434E-08	3.0637E-06
HE	3.2885E-02	2.5835E-02	2.5533E-02
HE+	2.7371E-26	8.5835E-16	2.9757E-10
HE++	0.	9.7027E-57	1.2474E-35

P1 = 5.00E+01 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2905E+02	2.8133E+03	3.8741E+03
T	1.0965E+01	1.6167E+01	2.2255E+01
RHO	1.4418E+01	9.2923E+01	8.9487E+01
H	3.7277E+01	6.8079E+01	8.0921E+01
A	3.5939E+00	5.3022E+00	7.0365E+00
S	1.5116E+00	1.6730E+00	1.7462E+00
Z	1.4491E+00	1.8727E+00	1.9453E+00
GAME	8.1293E-01	9.2859E-01	1.1437E+00
U	1.2284E+01	1.9083E+00	2.3510E+00

SPECIES	MOLE FRACTIONS		
E-	1.2647E-09	1.6369E-06	1.8193E-04
H	6.1973E-01	9.3201E-01	9.7135E-01
H+	1.2525E-09	1.6295E-06	1.8185E-04
H2	3.4576E-01	4.1283E-02	2.5854E-03
H-	1.5429E-12	5.9367E-09	2.6013E-07
H2+	1.3793E-11	1.3293E-08	3.4113E-07
HE	3.4507E-02	2.6700E-02	2.5703E-02
HE+	2.8344E-27	6.9430E-19	9.8213E-14
HE++	0.	2.5233E-66	3.0151E-48

P1 = 5.00E+01 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8723E+02	3.5594E+03	5.4090E+03
T	1.1687E+01	2.4428E+01	3.4561E+01
RHO	1.5404E+01	7.4770E+01	7.8858E+01
H	4.6342E+01	8.4455E+01	1.0544E+02
A	3.9169E+00	7.3565E+00	8.0343E+00
S	1.6115E+00	1.7745E+00	1.8404E+00
Z	1.5955E+00	1.9490E+00	1.9843E+00
GAME	8.2280E-01	1.1367E+00	9.4107E-01
U	1.3795E+01	2.8438E+00	3.3442E+00

SPECIES	MOLE FRACTIONS		
E-	6.0331E-09	6.1044E-04	1.7643E-02
H	7.4649E-01	9.7201E-01	9.3935E-01
H+	5.9882E-09	6.1032E-04	1.7642E-02
H2	2.2217E-01	1.1178E-03	1.5958E-04
H-	8.0002E-12	5.6604E-07	7.1176E-06
H2+	5.2944E-11	6.8499E-07	7.5812E-06
HE	3.1338E-02	2.5654E-02	2.5193E-02
HE+	1.7126E-25	1.7948E-12	8.6590E-09
HE++	1.6044E-91	8.5970E-44	2.3228E-30

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1860E+02	3.9093E+03	6.1341E+03
T	1.2107E+01	2.9387E+01	3.7852E+01
RHO	1.5722E+01	6.7936E+01	8.0182E+01
H	5.1249E+01	9.3098E+01	1.1705E+02
A	4.1026E+00	7.7320E+00	8.3039E+00
S	1.6633E+00	1.8126E+00	1.8755E+00
Z	1.6737E+00	1.9582E+00	2.0211E+00
GAME	8.3060E-01	1.0389E+00	9.0134E-01
U	1.4542E+01	3.3733E+00	3.5471E+00

SPECIES	MOLE FRACTIONS		
E-	1.3436E-08	4.4980E-03	3.5299E-02
H	8.0505E-01	9.6514E-01	9.0454E-01
H+	1.3351E-08	4.4977E-03	3.5298E-02
H2	1.6507E-01	3.2533E-04	1.0305E-04
H-	1.7961E-11	2.3440E-06	1.1513E-05
H2+	1.0271E-10	2.6200E-06	1.3255E-05
HE	2.9874E-02	2.5534E-02	2.4739E-02
HE+	1.0544E-24	2.4995E-10	5.1485E-08
HE++	6.3301E-88	5.5979E-36	1.6009E-27

P1 = 5.00E+01 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8541E+02	4.6871E+03	7.4076E+03
T	1.3315E+01	3.6148E+01	4.2463E+01
RHO	1.5787E+01	6.5030E+01	8.2730E+01
H	6.1803E+01	1.1219E+02	1.4058E+02
A	4.6045E+00	8.1396E+00	8.8430E+00
S	1.7685E+00	1.8793E+00	1.9425E+00
Z	1.8335E+00	2.0086E+00	2.1086E+00
GAME	8.6840E-01	9.1753E-01	8.7335E-01
U	1.6001E+01	3.8899E+00	3.7691E+00

SPECIES	MOLE FRACTIONS		
E-	1.0611E-07	2.9417E-02	7.5319E-02
H	9.0921E-01	9.1612E-01	8.2555E-01
H+	1.0574E-07	2.9415E-02	7.5315E-02
H2	6.3525E-02	1.3839E-04	5.8855E-05
H-	1.2227E-10	8.4620E-06	1.8676E-05
H2+	4.8548E-10	9.5925E-06	2.2717E-05
HE	2.7270E-02	2.4891E-02	2.3711E-02
HE+	1.8495E-22	2.1809E-08	3.9061E-07
HE++	1.9545E-80	4.2220E-30	2.6260E-24

P1 = 5.00E+01 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5139E+02	4.2957E+03	6.8178E+03
T	1.2617E+01	3.3286E+01	4.0359E+01
RHO	1.5878E+01	6.5338E+01	8.1902E+01
H	5.6404E+01	1.0234E+02	1.2873E+02
A	4.3196E+00	7.9201E+00	8.5744E+00
S	1.7159E+00	1.8467E+00	1.9085E+00
Z	1.7540E+00	1.9780E+00	2.0625E+00
GAME	8.4315E-01	9.5373E-01	8.8319E-01
U	1.5279E+01	3.7173E+00	3.6759E+00

SPECIES	MOLE FRACTIONS		
E-	3.3462E-08	1.4331E-02	5.4662E-02
H	8.5972E-01	9.4588E-01	8.6633E-01
H+	3.3296E-08	1.4330E-02	5.4659E-02
H2	1.1178E-01	1.7083E-04	7.6086E-05
H-	4.3145E-11	5.2338E-06	1.5409E-05
H2+	2.0941E-10	5.8320E-06	1.8243E-05
HE	2.8507E-02	2.5278E-02	2.4242E-02
HE+	9.6715E-24	3.9997E-09	1.6388E-07
HE++	2.3718E-84	2.6318E-32	1.0954E-25

P1 = 5.00E+01 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.2010E+02	4.9387E+03	7.7529E+03
T	1.4491E+01	3.8492E+01	4.4177E+01
RHO	1.5228E+01	6.2996E+01	8.1374E+01
H	6.7436E+01	1.2226E+02	1.5245E+02
A	5.0880E+00	8.3696E+00	9.0921E+00
S	1.8194E+00	1.9134E+00	1.9775E+00
Z	1.9038E+00	2.0439E+00	2.1567E+00
GAME	9.3841E-01	8.9236E-01	8.6766E-01
U	1.6686E+01	4.0400E+00	3.8361E+00

SPECIES	MOLE FRACTIONS		
E-	5.6881E-07	4.6122E-02	9.5897E-02
H	9.4945E-01	8.8319E-01	7.8493E-01
H+	5.6778E-07	4.6120E-02	9.5891E-02
H2	2.4290E-02	8.2164E-05	4.6397E-05
H-	5.0725E-10	1.0984E-05	2.0863E-05
H2+	1.5325E-09	1.2769E-05	2.5991E-05
HE	2.6264E-02	2.4461E-02	2.3183E-02
HE+	1.1564E-20	7.9149E-08	7.5430E-07
HE++	3.6382E-74	1.2467E-27	2.8566E-23

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5370E+02	4.8223E+03	7.4726E+03
T	1.7085E+01	4.0311E+01	4.5393E+01
RHO	1.3671E+01	5.7443E+01	7.4676E+01
H	7.3264E+01	1.3212E+02	1.6359E+02
A	6.0779E+00	8.5669E+00	9.2971E+00
S	1.8674E+00	1.9520E+00	2.0166E+00
Z	1.9425E+00	2.0826E+00	2.2046E+00
GAME	1.1131E+00	8.7425E-01	8.6371E-01
U	1.7273E+01	4.1163E+00	3.8654E+00

SPECIES	MOLE FRACTIONS		
E-	1.0691E-05	6.3720E-02	1.1555E-01
H	9.7036E-01	8.4847E-01	7.4615E-01
H+	1.0686E-05	6.3718E-02	1.1554E-01
H2	3.8776E-03	5.1927E-05	3.5766E-05
H-	5.1413E-09	1.2492E-05	2.1136E-05
H2+	1.0183E-08	1.4781E-05	2.6803E-05
HE	2.5740E-02	2.4009E-02	2.2679E-02
HE+	1.7923E-17	1.9073E-07	1.2109E-06
HE++	1.5693E-62	1.4473E-25	1.5221E-22

P1 = 5.00E+01 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2097E+02	4.4577E+03	6.6723E+03
T	2.4790E+01	4.2823E+01	4.7244E+01
RHO	1.0758E+01	4.8035E+01	6.1345E+01
H	8.5530E+01	1.5215E+02	1.8547E+02
A	7.2408E+00	8.9413E+00	9.6669E+00
S	1.9402E+00	2.0275E+00	2.0949E+00
Z	1.9534E+00	2.1671E+00	2.3022E+00
GAME	1.0827E+00	8.6149E-01	8.5917E-01
U	1.8313E+01	4.1038E+00	3.8897E+00

SPECIES	MOLE FRACTIONS		
E-	1.9006E-03	1.0023E-01	1.5304E-01
H	9.7046E-01	7.7640E-01	6.7215E-01
H+	1.9005E-03	1.0023E-01	1.5303E-01
H2	1.4558E-04	3.0116E-05	2.1759E-05
H-	2.4390E-07	1.3693E-05	1.9854E-05
H2+	2.9225E-07	1.6737E-05	2.5895E-05
HE	2.5596E-02	2.3072E-02	2.1716E-02
HE+	7.2200E-12	5.8503E-07	2.4619E-06
HE++	3.4059E-42	7.5713E-24	1.7664E-21

P1 = 5.00E+01 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8661E+02	4.5721E+03	6.9552E+03
T	2.0909E+01	4.1607E+01	4.6313E+01
RHO	1.1939E+01	5.1754E+01	6.6677E+01
H	7.9281E+01	1.4193E+02	1.7428E+02
A	6.8676E+00	8.7489E+00	9.4763E+00
S	1.9068E+00	1.9905E+00	2.0567E+00
Z	1.9493E+00	2.1233E+00	2.2523E+00
GAME	1.1572E+00	8.6644E-01	8.6088E-01
U	1.7787E+01	4.1062E+00	3.8741E+00

SPECIES	MOLE FRACTIONS		
E-	2.2212E-04	8.1661E-02	1.3429E-01
H	9.7334E-01	8.1306E-01	7.0916E-01
H+	2.2210E-04	8.1658E-02	1.3428E-01
H2	5.6220E-04	3.8798E-05	2.7529E-05
H-	5.0819E-08	1.3137E-05	2.0399E-05
H2+	7.1595E-08	1.5800E-05	2.6228E-05
HE	2.5650E-02	2.3548E-02	2.2197E-02
HE+	3.4870E-14	3.4753E-07	1.7457E-06
HE++	1.0873E-50	1.1907E-24	5.3412E-22

P1 = 5.00E+01 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5827E+02	4.5476E+03	6.7203E+03
T	2.7982E+01	4.4078E+01	4.8321E+01
RHO	1.0159E+01	4.6588E+01	5.9029E+01
H	9.2058E+01	1.6321E+02	1.9778E+02
A	7.3546E+00	9.1546E+00	9.8862E+00
S	1.9695E+00	2.0620E+00	2.1310E+00
Z	1.9639E+00	2.2145E+00	2.3560E+00
GAME	9.8432E-01	8.5857E-01	8.5850E-01
U	1.8900E+01	4.1256E+00	3.9212E+00

SPECIES	MOLE FRACTIONS		
E-	7.1253E-03	1.1949E-01	1.7238E-01
H	9.6022E-01	7.3838E-01	6.3396E-01
H+	7.1252E-03	1.1949E-01	1.7237E-01
H2	6.3726E-05	2.4329E-05	1.7705E-05
H-	6.2664E-07	1.4447E-05	1.9797E-05
H2+	7.0867E-07	1.7973E-05	2.6258E-05
HE	2.5460E-02	2.2577E-02	2.1219E-02
HE+	1.9205E-10	9.5226E-07	3.5124E-06
HE++	4.6739E-37	4.4221E-23	6.3672E-21

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9388E+02	4.7969E+03	7.0170E+03
T	3.0457E+01	4.5388E+01	4.9536E+01
RHO	9.9203E+00	4.6641E+01	5.8663E+01
H	9.8886E+01	1.7523E+02	2.1137E+02
A	7.4624E+00	9.3884E+00	1.0135E+01
S	1.9972E+00	2.0953E+00	2.1664E+00
Z	1.9822E+00	2.2659E+00	2.4147E+00
GAME	9.2243E-01	8.5704E-01	8.5667E-01
U	1.9554E+01	4.1635E+00	3.9756E+00

SPECIES	MOLE FRACTIONS		
E-	1.6260E-02	1.3946E-01	1.9248E-01
H	9.4221E-01	6.9896E-01	5.9428E-01
H+	1.6260E-02	1.3946E-01	1.9247E-01
H2	3.7776E-05	2.0158E-05	1.4635E-05
H-	1.1193E-06	1.5346E-05	2.0021E-05
H2+	1.2454E-06	1.9459E-05	2.7072E-05
HE	2.5225E-02	2.2065E-02	2.0702E-02
HE+	1.5202E-09	1.5162E-06	5.0687E-06
HE++	8.5251E-34	2.4438E-22	2.4402E-20

P1 = 5.00E+01 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8764E+02	5.5856E+03	8.0484E+03
T	3.3946E+01	4.8050E+01	5.2169E+01
RHO	9.9612E+00	4.8889E+01	6.0689E+01
H	1.1338E+02	2.0143E+02	2.4132E+02
A	7.7579E+00	9.8933E+00	1.0684E+01
S	2.0496E+00	2.1605E+00	2.2361E+00
Z	2.0336E+00	2.3778E+00	2.5421E+00
GAME	8.7185E-01	8.5669E-01	8.6077E-01
U	2.0959E+01	4.2758E+00	4.1127E+00

SPECIES	MOLE FRACTIONS		
E-	4.1109E-02	1.7994E-01	2.3294E-01
H	8.9317E-01	6.1905E-01	5.1440E-01
H+	4.1109E-02	1.7993E-01	2.3293E-01
H2	2.0348E-05	1.4371E-05	1.0174E-05
H-	2.1289E-06	1.7070E-05	2.0471E-05
H2+	2.3795E-06	2.2545E-05	2.8892E-05
HE	2.4588E-02	2.1025E-02	1.9659E-02
HE+	1.6583E-08	3.5397E-06	1.0397E-05
HE++	5.0174E-30	5.7165E-21	3.4796E-19

P1 = 5.00E+01 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4215E+02	5.1554E+03	7.4796E+03
T	3.2371E+01	4.6719E+01	5.0831E+01
RHO	9.8895E+00	4.7554E+01	5.9408E+01
H	1.0600E+02	1.8801E+02	2.2594E+02
A	7.6018E+00	9.6362E+00	1.0402E+01
S	2.0237E+00	2.1280E+00	2.2013E+00
Z	2.0059E+00	2.3203E+00	2.4769E+00
GAME	8.8996E-01	8.5651E-01	8.5947E-01
U	2.0245E+01	4.2153E+00	4.0358E+00

SPECIES	MOLE FRACTIONS		
E-	2.7894E-02	1.5976E-01	2.1276E-01
H	9.1926E-01	6.5901E-01	5.5425E-01
H+	2.7893E-02	1.5969E-01	2.1274E-01
H2	2.6548E-05	1.6962E-05	1.2199E-05
H-	1.6300E-06	1.6257E-05	2.0299E-05
H2+	1.8124E-06	2.1033E-05	2.8029E-05
HE	2.4927E-02	2.1545E-02	2.0179E-02
HE+	6.0268E-09	2.3691E-06	7.2921E-06
HE++	1.2490E-31	1.2389E-21	9.3371E-20

P1 = 5.00E+01 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8448E+02	6.6020E+03	9.4109E+03
T	3.6503E+01	5.0694E+01	5.4936E+01
RHO	1.0248E+01	5.2109E+01	6.3922E+01
H	1.2893E+02	2.2999E+02	2.7419E+02
A	8.0865E+00	1.0429E+01	1.1282E+01
S	2.1011E+00	2.2259E+00	2.3066E+00
Z	2.0971E+00	2.4992E+00	2.6806E+00
GAME	8.5423E-01	8.5851E-01	8.6460E-01
U	2.2420E+01	4.4149E+00	4.2788E+00

SPECIES	MOLE FRACTIONS		
E-	7.0148E-02	2.1979E-01	2.7241E-01
H	8.3584E-01	5.4037E-01	4.3649E-01
H+	7.0147E-02	2.1978E-01	2.7238E-01
H2	1.3617E-05	1.0348E-05	6.9758E-06
H-	3.0458E-06	1.8198E-05	2.0228E-05
H2+	3.4635E-06	2.5072E-05	2.9891E-05
HE	2.3843E-02	1.9999E-02	1.8636E-02
HE+	7.0474E-08	7.4868E-06	2.0543E-05
HE++	1.0056E-27	9.3534E-20	4.3598E-18

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8895E+02	7.7935E+03	1.1023E+04
T	3.8611E+01	5.3347E+01	5.7847E+01
RHO	1.0616E+01	5.5566E+01	6.7402E+01
H	1.4552E+02	2.6076E+02	3.0986E+02
A	8.4214E+00	1.0994E+01	1.1928E+01
S	2.1529E+00	2.2924E+00	2.3785E+00
Z	2.1687E+00	2.6291E+00	2.8270E+00
GAME	8.4692E-01	8.6181E-01	8.7007E-01
U	2.3915E+01	4.3753E+00	4.4697E+00

SPECIES	MOLE FRACTIONS		
E-	1.0087E-01	2.5834E-01	3.1027E-01
H	7.7518E-01	4.6428E-01	3.6178E-01
H+	1.0087E-01	2.5831E-01	3.1022E-01
H2	9.9058E-06	7.3385E-06	4.5947E-06
H-	3.8295E-06	1.8511E-05	1.9047E-05
H2+	4.4442E-06	2.6639E-05	2.9556E-05
HE	2.3055E-02	1.9003E-02	1.7647E-02
HE+	1.9952E-07	1.4803E-05	3.9644E-05
HE++	4.6837E-26	1.1931E-18	4.5454E-17

P1 = 5.00E+01 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1178E+03	1.0571E+04	1.4834E+04
T	4.2159E+01	5.8806E+01	6.4372E+01
RHO	1.1377E+01	6.1824E+01	7.3379E+01
H	1.8173E+02	3.2809E+02	3.8899E+02
A	9.1010E+00	1.2213E+01	1.3399E+01
S	2.2590E+00	2.4283E+00	2.5263E+00
Z	2.3306E+00	2.9075E+00	3.1414E+00
GAME	8.4298E-01	8.7243E-01	8.8779E-01
U	2.6914E+01	4.9596E+00	4.9528E+00

SPECIES	MOLE FRACTIONS		
E-	1.6331E-01	3.2935E-01	3.7929E-01
H	6.5191E-01	3.2412E-01	2.2563E-01
H+	1.6331E-01	3.2929E-01	3.7913E-01
H2	5.7285E-06	3.3209E-06	1.6038E-06
H-	4.9374E-06	1.6503E-05	1.3974E-05
H2+	5.9815E-06	2.6025E-05	2.4197E-05
HE	2.1453E-02	1.7145E-02	1.5768E-02
HE+	9.0286E-07	5.1548E-05	1.4875E-04
HE++	1.2684E-23	1.1919E-16	5.8770E-15

P1 = 5.00E+01 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0001E+03	9.1206E+03	1.2833E+04
T	4.0464E+01	5.6031E+01	6.0946E+01
RHO	1.1000E+01	5.8861E+01	7.0633E+01
H	1.6312E+02	2.9347E+02	3.4803E+02
A	8.7591E+00	1.1587E+01	1.2626E+01
S	2.2055E+00	2.3599E+00	2.4517E+00
Z	2.2469E+00	2.7655E+00	2.9811E+00
GAME	8.4388E-01	8.6640E-01	8.7749E-01
U	2.5413E+01	4.7560E+00	4.6873E+00

SPECIES	MOLE FRACTIONS		
E-	1.3213E-01	2.9492E-01	3.4591E-01
H	7.1347E-01	3.9207E-01	2.9146E-01
H+	1.3213E-01	2.9488E-01	3.4582E-01
H2	7.4751E-06	5.0503E-06	2.8459E-06
H-	4.4624E-06	1.7930E-05	1.6920E-05
H2+	5.2901E-06	2.6986E-05	2.7661E-05
HE	2.2253E-02	1.8052E-02	1.6696E-02
HE+	4.5369E-07	2.7943E-05	7.5944E-05
HE++	9.8219E-25	1.2598E-17	5.2861E-16

P1 = 5.00E+01 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2421E+03	1.2129E+04	1.7010E+04
T	4.3756E+01	6.1750E+01	6.8287E+01
RHO	1.1733E+01	6.4319E+01	7.5403E+01
H	2.0135E+02	3.6456E+02	4.3227E+02
A	9.4488E+00	1.2884E+01	1.427CE+01
S	2.3137E+00	2.4975E+00	2.6011E+00
Z	2.4194E+00	3.0538E+00	3.3035E+00
GAME	8.4336E-01	8.8036E-01	9.0262E-01
U	2.8413E+01	5.1903E+00	5.2223E+00

SPECIES	MOLE FRACTIONS		
E-	1.9403E-01	3.6147E-01	4.0974E-01
H	5.9126E-01	2.6075E-01	1.6566E-01
H+	1.9403E-01	3.6137E-01	4.0943E-01
H2	4.4059E-06	2.0487E-06	7.9216E-07
H-	5.2515E-06	1.4347E-05	1.0514E-05
H2+	6.5034E-06	2.3775E-05	1.9423E-05
HE	2.0665E-02	1.6278E-02	1.4830E-02
HE+	1.6462E-06	9.4907E-05	3.0524E-04
HE++	1.1884E-22	1.0824E-15	7.3463E-14

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3728E+03	1.3780E+04	1.9387E+04
T	4.5291E+01	6.4973E+01	7.3161E+01
RHO	1.2062E+01	6.6226E+01	7.6447E+01
H	2.2197E+02	4.0285E+02	4.7915E+02
A	9.8043E+00	1.3617E+01	1.5323E+01
S	2.3694E+00	2.5670E+00	2.6771E+00
Z	2.5130E+00	3.2026E+00	3.4663E+00
GAME	8.4459E-01	8.9111E-01	9.2581E-01
U	2.9909E+01	5.4505E+00	5.6012E+00

SPECIES	MOLE FRACTIONS		
E-	2.2403E-01	3.9113E-01	4.3745E-01
H	5.3203E-01	2.0227E-01	1.1135E-01
H+	2.2403E-01	3.9095E-01	4.3675E-01
H2	3.3747E-06	1.1557E-06	3.1211E-07
H-	5.4064E-06	1.1648E-05	6.8548E-06
H2+	6.8458E-06	2.0371E-05	1.3692E-05
HE	1.9894E-02	1.5434E-02	1.3728E-02
HE+	2.8275E-06	1.7842E-04	6.9672E-04
HE++	8.8903E-22	1.0190E-14	1.2749E-12

P1 = 5.00E+01 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6531E+03	1.7259E+04	2.4773E+04
T	4.8286E+01	7.3063E+01	8.9189E+01
RHO	1.2619E+01	6.7597E+01	7.4162E+01
H	2.6622E+02	4.8454E+02	5.8501E+02
A	1.0546E+01	1.5399E+01	1.8395E+01
S	2.4840E+00	2.7049E+00	2.8273E+00
Z	2.7130E+00	3.4965E+00	3.7452E+00
GAME	8.4899E-01	9.2877E-01	1.0130E+00
U	3.2888E+01	6.1468E+00	6.7281E+00

SPECIES	MOLE FRACTIONS		
E-	2.8124E-01	4.4199E-01	4.7934E-01
H	4.1909E-01	1.0244E-01	3.2975E-02
H+	2.8123E-01	4.4124E-01	4.7433E-01
H2	1.9092E-06	2.3643E-07	1.4869E-08
H-	5.2639E-06	5.6981E-06	1.4170E-06
H2+	6.9781E-06	1.1363E-05	3.5312E-06
HE	1.8423E-02	1.3559E-02	8.3356E-03
HE+	7.4783E-06	7.4935E-04	5.0147E-03
HE++	3.2560E-20	1.4625E-12	1.8859E-09

P1 = 5.00E+01 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5098E+03	1.5498E+04	2.1962E+04
T	4.6793E+01	6.8646E+01	7.9735E+01
RHO	1.2358E+01	6.7371E+01	7.6104E+01
H	2.4359E+02	4.4287E+02	5.2567E+02
A	1.0169E+01	1.4439E+01	1.6666E+01
S	2.4262E+00	2.6363E+00	2.7531E+00
Z	2.6109E+00	3.3510E+00	3.6191E+00
GAME	8.4648E-01	9.0631E-01	9.6248E-01
U	3.1401E+01	5.7673E+00	6.0784E+00

SPECIES	MOLE FRACTIONS		
E-	2.5314E-01	4.1810E-01	4.6121E-01
H	4.7456E-01	1.4921E-01	6.5599E-02
H+	2.5314E-01	4.1774E-01	4.5937E-01
H2	2.5585E-06	5.7386E-07	8.6334E-08
H-	5.4075E-06	8.6556E-06	3.5948E-06
H2+	7.0041E-06	1.6082E-05	7.9264E-06
HE	1.9146E-02	1.4569E-02	1.1980E-02
HE+	4.6614E-06	3.5155E-04	1.8349E-03
HE++	5.6803E-21	1.0840E-13	3.7321E-11

P1 = 5.00E+01 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8026E+03	1.9024E+04	2.7910E+04
T	4.9795E+01	7.8695E+01	1.0381E+02
RHO	1.2843E+01	6.6684E+01	7.0132E+01
H	2.8985E+02	5.2775E+02	6.4750E+02
A	1.0936E+01	1.6562E+01	2.0862E+01
S	2.5428E+00	2.7717E+00	2.9021E+00
Z	2.8188E+00	3.6252E+00	3.8336E+00
GAME	8.5211E-01	9.6150E-01	1.0936E+00
U	3.4371E+01	6.6263E+00	7.6904E+00

SPECIES	MOLE FRACTIONS		
E-	3.0823E-01	4.6210E-01	4.9134E-01
H	3.6579E-01	6.3750E-02	1.4182E-02
H+	3.0822E-01	4.6034E-01	4.8143E-01
H2	1.3940E-06	7.4646E-08	1.4085E-09
H-	4.9879E-06	3.1738E-06	4.0351E-07
H2+	6.7728E-06	6.8918E-06	1.1385E-06
HE	1.7726E-02	1.2035E-02	3.1308E-03
HE+	1.1807E-05	1.7573E-03	9.9116E-03
HE++	1.7402E-19	2.8115E-11	1.3073E-07

TABLE I.- Continued

$p_1 = 50 N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9581E+03	2.0745E+04	3.1401E+04
T	5.1331E+01	8.6099E+01	1.2488E+02
RHO	1.3032E+01	6.4560E+01	6.4523E+01
H	3.1447E+02	5.7222E+02	7.1783E+02
A	1.1341E+01	1.7950E+01	2.3703E+01
S	2.6017E+00	2.8356E+00	2.9709E+00
Z	2.9272E+00	3.7322E+00	3.8731E+00
GAME	8.5593E-01	1.0027E+00	1.1617E+00
U	3.5844E+01	7.2416E+00	8.9799E+00

SPECIES	MOLE FRACTIONS		
E-	3.3383E-01	4.7753E-01	4.9652E-01
H	3.1526E-01	3.5730E-02	6.1748E-03
H+	3.3381E-01	4.7334E-01	4.8439E-01
H2	9.9264E-07	1.7245E-08	9.5986E-11
H-	4.6004E-06	1.4568E-06	1.1316E-07
H2+	6.4042E-06	3.4960E-06	3.1218E-07
HE	1.7063E-02	9.2155E-03	7.8283E-04
HE+	1.8463E-05	4.1813E-03	1.2120E-02
HE++	8.8456E-19	7.4037E-10	6.8117E-06

P1 = 5.00E+01 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2871E+03	2.3810E+04	3.8841E+04
T	5.4686E+01	1.0788E+02	1.7549E+02
RHO	1.3255E+01	5.7259E+01	5.6792E+01
H	3.6671E+02	6.6417E+02	8.7271E+02
A	1.2229E+01	2.1597E+01	2.7821E+01
S	2.7232E+00	2.9503E+00	3.0844E+00
Z	3.1551E+00	3.8546E+00	3.8972E+00
GAME	8.6675E-01	1.1217E+00	1.1317E+00
U	3.8767E+01	8.9824E+00	1.1819E+01

SPECIES	MOLE FRACTIONS		
E-	3.8195E-01	4.9412E-01	4.9965E-01
H	2.2029E-01	9.7807E-03	2.0763E-03
H+	3.8190E-01	4.8313E-01	4.8545E-01
H2	4.3956E-07	4.5913E-10	1.6405E-12
H-	3.5283E-06	2.0878E-07	3.0861E-08
H2+	5.1918E-06	5.9830E-07	4.2075E-08
HE	1.5801E-02	1.9878E-03	1.4775E-04
HE+	4.6692E-05	1.0983E-02	1.1164E-02
HE++	2.4215E-17	3.9904E-07	1.5181E-03

P1 = 5.00E+01 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1197E+03	2.2330E+04	3.5102E+04
T	5.2960E+01	9.5782E+01	1.5023E+02
RHO	1.3164E+01	6.1195E+01	6.0111E+01
H	3.4009E+02	6.1770E+02	7.9427E+02
A	1.1773E+01	1.9633E+01	2.6141E+01
S	2.6625E+00	2.8962E+00	3.0325E+00
Z	3.0404E+00	3.8097E+00	3.8870E+00
GAME	8.6072E-01	1.0564E+00	1.1702E+00
U	3.7310E+01	8.0471E+00	1.0445E+01

SPECIES	MOLE FRACTIONS		
E-	3.5865E-01	4.8815E-01	4.9833E-01
H	2.6628E-01	1.8635E-02	3.2317E-03
H+	3.5862E-01	4.8009E-01	4.8558E-01
H2	6.7592E-07	3.0022E-09	9.4057E-12
H-	4.1006E-06	5.6502E-07	4.8664E-08
H2+	5.8634E-06	1.5047E-06	9.8492E-08
HE	1.6416E-02	5.0633E-03	2.8487E-04
HE+	2.9188E-05	8.0611E-03	1.2409E-02
HE++	4.5769E-18	2.0019E-08	1.6939E-04

P1 = 5.00E+01 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4601E+03	2.5091E+04	4.2373E+04
T	5.6576E+01	1.2247E+02	1.9822E+02
RHO	1.3293E+01	5.2856E+01	5.4623E+01
H	3.9431E+02	7.1117E+02	9.4933E+02
A	1.2723E+01	2.3489E+01	2.9230E+01
S	2.7843E+00	3.0004E+00	3.1290E+00
Z	3.2712E+00	3.8762E+00	3.9135E+00
GAME	8.7463E-01	1.1622E+00	1.1014E+00
U	4.0212E+01	1.0103E+01	1.2889E+01

SPECIES	MOLE FRACTIONS		
E-	4.0390E-01	4.9693E-01	5.0173E-01
H	1.7699E-01	5.4116E-03	1.5355E-03
H+	4.0382E-01	4.8476E-01	4.8396E-01
H2	2.6736E-07	6.8901E-11	4.8068E-13
H-	2.9012E-06	8.3275E-08	2.3428E-08
H2+	4.4063E-06	2.3334E-07	2.3202E-08
HE	1.5208E-02	7.3219E-04	7.3340E-05
HE+	7.6901E-05	1.2161E-02	7.6352E-03
HE++	1.3792E-16	5.8442E-06	5.0676E-03

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6385E+03	2.6211E+04	4.5628E+04
T	5.8716E+01	1.3821E+02	2.2086E+02
RHO	1.3265E+01	4.8805E+01	5.2794E+01
H	4.2290E+02	7.5890E+02	1.0288E+03
A	1.3271E+01	2.5104E+01	3.1219E+01
S	2.8453E+00	3.0457E+00	3.1694E+00
Z	3.3875E+00	3.8859E+00	3.9302E+00
GAME	8.8543E-01	1.1734E+00	1.1228E+00
U	4.1641E+01	1.1293E+01	1.3961E+01

SPECIES	MOLE FRACTIONS		
E-	4.2437E-01	4.9819E-01	5.0385E-01
H	1.3664E-01	3.3420E-03	1.1976E-03
H+	4.2423E-01	4.8560E-01	4.8223E-01
H2	1.4818E-07	1.2772E-11	1.7512E-13
H-	2.2482E-06	4.1881E-08	1.8636E-08
H2+	3.5395E-06	1.0067E-07	1.4230E-08
HE	1.4627E-02	3.3709E-04	2.8290E-05
HE+	1.3289E-04	1.2475E-02	3.7744E-03
HE++	8.9973E-16	5.4774E-05	8.9191E-03

P1 = 5.00E+01 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0087E+03	2.7893E+04	5.2194E+04
T	6.4399E+01	1.7020E+02	2.7618E+02
RHO	1.2941E+01	4.2055E+01	4.7904E+01
H	4.8296E+02	8.5679E+02	1.2009E+03
A	1.4664E+01	2.7406E+01	3.5805E+01
S	2.9658E+00	3.1263E+00	3.2477E+00
Z	3.6103E+00	3.8983E+00	3.9451E+00
GAME	9.2489E-01	1.1320E+00	1.1766E+00
U	4.4423E+01	1.3639E+01	1.6422E+01

SPECIES	MOLE FRACTIONS		
E-	4.5938E-01	4.9978E-01	5.0572E-01
H	6.6912E-02	1.6643E-03	7.1910E-04
H+	4.5936E-01	4.8573E-01	4.8089E-01
H2	2.8556E-08	1.0954E-12	2.4113E-14
H-	1.0175E-06	1.8203E-08	1.0726E-08
H2+	1.7613E-06	2.7367E-08	5.3917E-09
HE	1.3334E-02	1.2269E-04	2.3060E-06
HE+	5.1539E-04	1.1358E-02	5.2023E-04
HE++	8.3980E-14	1.3458E-03	1.2151E-02

P1 = 5.00E+01 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8216E+03	2.7137E+04	4.9168E+04
T	6.1245E+01	1.5431E+02	2.4723E+02
RHO	1.3156E+01	4.5188E+01	5.0468E+01
H	4.5245E+02	8.0728E+02	1.1128E+03
A	1.3901E+01	2.6438E+01	3.3602E+01
S	2.9060E+00	3.0873E+00	3.2096E+00
Z	3.5018E+00	3.8917E+00	3.9407E+00
GAME	9.0107E-01	1.1639E+00	1.1589E+00
U	4.3048E+01	1.2518E+01	1.5146E+01

SPECIES	MOLE FRACTIONS		
E-	4.4315E-01	4.9894E-01	5.0516E-01
H	9.9665E-02	2.2672E-03	9.2587E-04
H+	4.4290E-01	4.8595E-01	4.8122E-01
H2	7.1828E-08	3.0239E-12	6.3314E-14
H-	1.6049E-06	2.5742E-08	1.4306E-08
H2+	2.6363E-06	4.8895E-08	8.6626E-09
HE	1.4031E-02	1.9259E-04	8.2189E-06
HE+	2.4748E-04	1.2319E-02	1.4199E-03
HE++	7.3189E-15	3.3613E-04	1.1260E-02

P1 = 5.00E+01 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1983E+03	2.8377E+04	5.4586E+04
T	6.8562E+01	1.8510E+02	3.0643E+02
RHO	1.2586E+01	3.9266E+01	4.5133E+01
H	5.1438E+02	9.0723E+02	1.2912E+03
A	1.5620E+01	2.8172E+01	3.7815E+01
S	3.0240E+00	3.1640E+00	3.2844E+00
Z	3.7064E+00	3.9089E+00	3.9469E+00
GAME	9.6017E-01	1.0973E+00	1.1824E+00
U	4.5748E+01	1.4650E+01	1.7721E+01

SPECIES	MOLE FRACTIONS		
E-	4.7389E-01	5.0114E-01	5.0594E-01
H	3.9970E-02	1.3003E-03	5.6443E-04
H+	4.7265E-01	4.8477E-01	4.8082E-01
H2	8.5382E-09	5.5601E-13	9.9060E-15
H-	5.4451E-07	1.3923E-08	7.9214E-09
H2+	1.0085E-06	1.7413E-08	3.4648E-09
HE	1.2251E-02	7.5499E-05	7.1442E-07
HE+	1.2387E-03	9.0592E-03	2.1251E-04
HE++	1.5665E-12	3.6565E-03	1.2455E-02

TABLE I. - Continued

$p_1 = 50\ N/m^2$

P1 = 5.00E+01 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3889E+03	2.8518E+04	5.6018E+04
T	7.4162E+01	1.9932E+02	3.3651E+02
RHO	1.2080E+01	3.6507E+01	4.2167E+01
H	5.4667E+02	9.5834E+02	1.3805E+03
A	1.6749E+01	2.9310E+01	3.9663E+01
S	3.0800E+00	3.2012E+00	3.3196E+00
Z	3.7828E+00	3.9224E+00	3.9478E+00
GAME	9.9998E-01	1.0997E+00	1.1841E+00
U	4.7006E+01	1.5535E+01	1.8905E+01

SPECIES	MOLE FRACTIONS		
E-	4.8451E-01	5.0285E-01	5.0606E-01
H	2.0980E-02	1.0283E-03	4.4907E-04
H+	4.8129E-01	4.8337E-01	4.8083E-01
H2	1.8351E-09	1.9531E-13	4.4191E-15
H-	2.3892E-07	1.0606E-08	5.8048E-09
H2+	4.8241E-07	1.0751E-08	2.3026E-09
HE	9.9903E-03	3.9249E-05	2.5473E-07
HE+	3.2273E-03	5.9319E-03	1.0071E-04
HE++	4.6520E-11	6.7762E-03	1.2564E-02

P1 = 5.00E+01 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7737E+03	2.7891E+04	5.6882E+04
T	8.9729E+01	2.2963E+02	3.9711E+02
RHO	1.0866E+01	3.0825E+01	3.6275E+01
H	6.1382E+02	1.0602E+03	1.5583E+03
A	1.9550E+01	3.2246E+01	4.3106E+01
S	3.1798E+00	3.2731E+00	3.3867E+00
Z	3.8705E+00	3.9404E+00	3.9487E+00
GAME	1.1006E+00	1.1491E+00	1.1850E+00
U	4.9354E+01	1.7374E+01	2.1069E+01

SPECIES	MOLE FRACTIONS		
E-	4.9619E-01	5.0512E-01	5.0617E-01
H	5.0966E-03	6.5070E-04	2.9278E-04
H+	4.8579E-01	4.8154E-01	4.8088E-01
H2	5.2565E-11	2.5802E-14	1.0460E-15
H-	3.3779E-08	6.0213E-09	3.0897E-09
H2+	8.3833E-08	4.2176E-09	1.0930E-09
HE	2.5214E-03	7.2945E-06	4.3879E-08
HE+	1.0397E-02	1.7836E-03	3.1586E-05
HE++	2.9011E-08	1.0898E-02	1.2631E-02

P1 = 5.00E+01 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5812E+03	2.8352E+04	5.6773E+04
T	8.1147E+01	2.1412E+02	3.6676E+02
RHO	1.1503E+01	3.3669E+01	3.9205E+01
H	5.7983E+02	1.0094E+03	1.4692E+03
A	1.7988E+01	3.0760E+01	4.1420E+01
S	3.1319E+00	3.2376E+00	3.3536E+00
Z	3.8366E+00	3.9331E+00	3.9484E+00
GAME	1.0393E+00	1.1237E+00	1.1848E+00
U	4.8213E+01	1.6451E+01	1.9593E+01

SPECIES	MOLE FRACTIONS		
E-	4.9174E-01	5.0421E-01	5.0612E-01
H	1.0405E-02	8.1490E-04	3.6114E-04
H+	4.8482E-01	4.8226E-01	4.8085E-01
H2	3.2861E-10	6.4336E-14	2.0989E-15
H-	9.3213E-08	8.0082E-09	4.2411E-09
H2+	2.0771E-07	6.6104E-09	1.5711E-09
HE	6.1159E-03	1.8024E-05	1.0122E-07
HE+	6.9164E-03	3.4443E-03	5.3744E-05
HE++	1.3376E-09	9.2503E-03	1.2610E-02

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6578E+01
T	2.8250E+00	3.5120E+00	4.9519E+00
RHO	3.9387E+00	6.6011E+00	1.1425E+01
H	2.8883E+00	3.6144E+00	5.1968E+00
A	1.6758E+00	1.8612E+00	2.1866E+00
S	1.0526E+00	1.0543E+00	1.0708E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6554E-01
U	2.3185E+00	1.3798E+00	1.2210E+00

SPECIES	MOLE FRACTIONS		
E-	3.5165E-63	1.4624E-44	8.2633E-29
H	1.9644E-10	2.8110E-08	6.0747E-05
H+	3.9194E-20	5.0307E-20	5.8114E-20
H2	9.5000E-01	9.5000E-01	9.4994E-01
H-	3.2380E-71	6.3447E-51	1.1506E-33
H2+	2.4267E-20	1.3154E-20	5.3448E-21
HE	5.0000E-02	5.0000E-02	4.9998E-02
HE+	7.2569E-74	6.1193E-63	1.0966E-53
HE++	0.	0.	0.

P1 = 1.00E+02 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6672E+01	1.0160E+02
T	3.8703E+00	5.1611E+00	6.8540E+00
RHO	4.5267E+00	9.0406E+00	1.4767E+01
H	3.9997E+00	5.4362E+00	7.6131E+00
A	1.9490E+00	2.2275E+00	2.4832E+00
S	1.0820E+00	1.0862E+00	1.1055E+00
Z	1.0000E+00	1.0001E+00	1.0036E+00
GAME	9.8152E-01	9.6133E-01	8.9638E-01
U	3.0256E+00	1.5120E+00	1.3398E+00

SPECIES	MOLE FRACTIONS		
E-	4.6554E-41	1.4730E-25	5.5996E-17
H	7.0866E-07	1.4766E-04	7.2301E-03
H+	5.5605E-20	5.9205E-20	5.3725E-17
H2	9.5000E-01	9.4986E-01	9.4295E-01
H-	3.6158E-47	2.8248E-30	1.1819E-20
H2+	7.8557E-21	4.2508E-21	2.3463E-18
HE	5.0000E-02	4.9996E-02	4.9819E-02
HE+	2.1646E-61	4.6113E-52	2.9404E-42
HE++	0.	0.	0.

P1 = 1.00E+02 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5427E+01	8.1568E+01	1.5811E+02
T	5.0934E+00	6.9206E+00	8.1667E+00
RHO	4.9915E+00	1.1732E+01	1.8894E+01
H	5.3596E+00	7.7425E+00	1.0360E+01
A	2.2135E+00	2.4845E+00	2.6423E+00
S	1.1106E+00	1.1180E+00	1.1395E+00
Z	1.0001E+00	1.0046E+00	1.0247E+00
GAME	9.6187E-01	8.8782E-01	8.3433E-01
U	3.7281E+00	1.5826E+00	1.3424E+00

SPECIES	MOLE FRACTIONS		
E-	1.1556E-26	9.4844E-17	5.7735E-14
H	1.5278E-04	9.1433E-03	4.8153E-02
H+	6.0110E-20	9.1413E-17	5.5777E-14
H2	9.4985E-01	9.4109E-01	9.0305E-01
H-	1.2122E-31	1.8711E-20	3.8993E-17
H2+	3.3452E-21	3.5129E-18	1.9967E-15
HE	4.9996E-02	4.9771E-02	4.8796E-02
HE+	6.8784E-53	6.4527E-42	5.8053E-36
HE++	0.	0.	0.

P1 = 1.00E+02 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4967E+01	1.3492E+02	2.3153E+02
T	6.3813E+00	8.2120E+00	9.0680E+00
RHO	5.4673E+00	1.5976E+01	2.4041E+01
H	6.9746E+00	1.0623E+01	1.3540E+01
A	2.4103E+00	2.6474E+00	2.8050E+00
S	1.1382E+00	1.1514E+00	1.1764E+00
Z	1.0023E+00	1.0285E+00	1.0621E+00
GAME	9.0832E-01	8.2991E-01	8.1694E-01
U	4.4435E+00	1.5177E+00	1.3104E+00

SPECIES	MOLE FRACTIONS		
E-	2.1126E-18	7.4242E-14	2.0328E-12
H	4.6059E-03	5.5337E-02	1.1702E-01
H+	2.1006E-18	7.1882E-14	1.9688E-12
H2	9.4551E-01	8.9605E-01	8.3590E-01
H-	8.5286E-23	4.4410E-17	2.6039E-15
H2+	7.5396E-20	2.4046E-15	6.6650E-14
HE	4.9885E-02	4.8617E-02	4.7074E-02
HE+	1.5856E-44	2.6762E-35	7.0706E-33
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6523E+01	2.1697E+02	3.4177E+02
T	7.4048E+00	9.1531E+00	9.8512E+00
RHO	6.1940E+00	2.2145E+01	3.1151E+01
H	8.8627E+00	1.4099E+01	1.7363E+01
A	2.5198E+00	2.8255E+00	2.9861E+00
S	1.1658E+00	1.1885E+00	1.2174E+00
Z	1.0144E+00	1.0704E+00	1.1136E+00
GAME	8.4530E-01	8.1485E-01	8.1282E-01
U	5.2108E+00	1.4554E+00	1.2944E+00

SPECIES	MOLE FRACTIONS		
E-	2.3387E-15	3.0246E-12	2.5279E-11
H	2.8425E-02	1.3150E-01	2.0401E-01
H+	2.2814E-15	2.9357E-12	2.4522E-11
H2	9.2229E-01	8.2178E-01	7.5109E-01
H-	4.6149E-19	3.9306E-15	5.3402E-14
H2+	5.7816E-17	9.2757E-14	8.1013E-13
HE	4.9289E-02	4.6712E-02	4.4900E-02
HE+	3.5893E-39	3.1263E-32	4.2867E-30
HE++	0.	0.	0.

P1 = 1.00E+02 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5389E+01	4.9469E+02	7.0789E+02
T	8.6803E+00	1.0671E+01	1.1290E+01
RHO	8.1235E+00	3.8914E+01	5.0067E+01
H	1.3423E+01	2.2705E+01	2.6879E+01
A	2.7412E+00	3.2170E+00	3.3996E+00
S	1.2269E+00	1.2754E+00	1.3123E+00
Z	1.0690E+00	1.1913E+00	1.2522E+00
GAME	8.0975E-01	8.1402E-01	8.1752E-01
U	6.8121E+00	1.4238E+00	1.3161E+00

SPECIES	MOLE FRACTIONS		
E-	1.0037E-12	2.2300E-10	8.7859E-10
H	1.2910E-01	3.2118E-01	4.0289E-01
H+	9.8405E-13	2.1672E-10	8.5438E-10
H2	8.2413E-01	6.3685E-01	5.5718E-01
H-	6.0952E-16	6.9675E-13	3.6959E-12
H2+	2.0293E-14	6.9843E-12	2.7898E-11
HE	4.6773E-02	4.1970E-02	3.9928E-02
HE+	9.4877E-34	4.6395E-28	1.7219E-26
HE++	0.	0.	0.

P1 = 1.00E+02 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.0053E+01	3.3554E+02	4.9975E+02
T	8.1249E+00	9.9463E+00	1.0585E+01
RHO	7.1221E+00	2.9977E+01	4.0092E+01
H	1.1016E+01	1.8139E+01	2.1830E+01
A	2.6280E+00	3.0155E+00	3.1850E+00
S	1.1952E+00	1.2298E+00	1.2628E+00
Z	1.0377E+00	1.1255E+00	1.1775E+00
GAME	8.1915E-01	8.1233E-01	8.1391E-01
U	6.0084E+00	1.4305E+00	1.2984E+00

SPECIES	MOLE FRACTIONS		
E-	9.9352E-14	3.3792E-11	1.7743E-10
H	7.2580E-02	2.2298E-01	3.0149E-01
H+	9.7270E-14	3.2805E-11	1.7231E-10
H2	8.7923E-01	7.3260E-01	6.5605E-01
H-	4.0428E-17	7.1746E-14	5.5157E-13
H2+	2.1225E-15	1.0587E-12	5.6725E-12
HE	4.8186E-02	4.4426E-02	4.2463E-02
HE+	6.7757E-36	2.9580E-30	4.1311E-28
HE++	0.	0.	0.

P1 = 1.00E+02 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.2375E+01	6.9419E+02	9.6680E+02
T	9.1483E+00	1.1357E+01	1.1987E+01
RHO	9.1231E+00	4.8270E+01	6.0322E+01
H	1.6079E+01	2.7748E+01	3.2489E+01
A	2.8574E+00	3.4296E+00	3.6313E+00
S	1.2611E+00	1.3247E+00	1.3657E+00
Z	1.1067E+00	1.2664E+00	1.3369E+00
GAME	8.0644E-01	8.1784E-01	8.2282E-01
U	7.6068E+00	1.4399E+00	1.3536E+00

SPECIES	MOLE FRACTIONS		
E-	5.5393E-12	1.0342E-09	3.5077E-09
H	1.9281E-01	4.2068E-01	5.0407E-01
H+	5.4363E-12	1.0065E-09	3.4179E-09
H2	7.6201E-01	5.3983E-01	4.5853E-01
H-	4.5267E-15	4.3213E-12	1.8658E-11
H2+	1.0759E-13	3.2018E-11	1.0847E-10
HE	4.5180E-02	3.9483E-02	3.7398E-02
HE+	4.0606E-32	1.9371E-26	4.4940E-25
HE++	0.	0.	3.2669E-89

TABLE I. -Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1101E+02	9.3565E+02	1.2786E+03
T	9.5650E+00	1.2030E+01	1.2702E+01
RHO	1.0092E+01	5.7613E+01	7.0339E+01
H	1.8985E+01	3.3271E+01	3.8659E+01
A	2.9771E+00	3.6563E+00	3.8835E+00
S	1.2978E+00	1.3772E+00	1.4225E+00
Z	1.1499E+00	1.3500E+00	1.4309E+00
GAME	8.0581E-01	8.2315E-01	8.2979E-01
U	8.3947E+00	1.4729E+00	1.4053E+00

SPECIES	MOLE FRACTIONS		
E-	2.1465E-11	3.8942E-09	1.2312E-08
H	2.6079E-01	5.1857E-01	6.0237E-01
H+	2.1083E-11	3.7978E-09	1.2030E-08
H2	6.9573E-01	4.4439E-01	3.6269E-01
H-	2.2058E-14	2.0285E-11	7.8043E-11
H2+	4.0414E-13	1.1673E-10	3.6071E-10
HE	4.3480E-02	3.7036E-02	3.4941E-02
HE+	7.2185E-31	4.9463E-25	9.0673E-24
HE++	0.	3.5997E-90	2.5665E-84

P1 = 1.00E+02 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5319E+02	1.5423E+03	2.0648E+03
T	1.0319E+01	1.3440E+01	1.4342E+01
RHO	1.1861E+01	7.4494E+01	8.7558E+01
H	2.5546E+01	4.5744E+01	5.2765E+01
A	3.2307E+00	4.1679E+00	4.4846E+00
S	1.3781E+00	1.4902E+00	1.5445E+00
Z	1.2515E+00	1.5405E+00	1.6443E+00
GAME	8.0817E-01	8.3903E-01	8.5283E-01
U	9.9543E+00	1.5874E+00	1.5596E+00

SPECIES	MOLE FRACTIONS		
E-	1.8634E-10	4.0032E-08	1.3579E-07
H	4.0193E-01	7.0171E-01	7.8367E-01
H+	1.8338E-10	3.9268E-08	1.3365E-07
H2	5.5812E-01	2.6584E-01	1.8593E-01
H-	2.6981E-13	2.7367E-10	1.0292E-09
H2+	3.2318E-12	1.0374E-09	3.1634E-09
HE	3.9952E-02	3.2457E-02	3.0408E-02
HE+	9.7772E-29	1.3343E-22	2.8378E-21
HE++	0.	2.5194E-81	1.2085E-75

P1 = 1.00E+02 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3129E+02	1.2194E+03	1.6449E+03
T	9.9508E+00	1.2715E+01	1.3467E+01
RHO	1.1012E+01	6.6516E+01	7.9636E+01
H	2.2141E+01	3.9275E+01	4.5411E+01
A	3.1012E+00	3.9007E+00	4.1632E+00
S	1.3368E+00	1.4326E+00	1.4822E+00
Z	1.1983E+00	1.4418E+00	1.5338E+00
GAME	8.0656E-01	8.3002E-01	8.3912E-01
U	9.1780E+00	1.5219E+00	1.4722E+00

SPECIES	MOLE FRACTIONS		
E-	6.6783E-11	1.2914E-08	4.0217E-08
H	3.3098E-01	6.1281E-01	6.9605E-01
H+	6.5644E-11	1.2628E-08	3.9420E-08
H2	6.2729E-01	3.5251E-01	2.7136E-01
H-	8.2708E-14	7.9160E-11	2.8827E-10
H2+	1.2220E-12	3.6570E-10	1.0848E-09
HE	4.1725E-02	3.4680E-02	3.2599E-02
HE+	5.7830E-30	8.8841E-24	1.4238E-22
HE++	0.	3.1746E-85	3.1266E-80

P1 = 1.00E+02 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7669E+02	1.9022E+03	2.5408E+03
T	1.0677E+01	1.4255E+01	1.5466E+01
RHO	1.2638E+01	8.1123E+01	9.3350E+01
H	2.9202E+01	5.2677E+01	6.0786E+01
A	3.3660E+00	4.4694E+00	4.8869E+00
S	1.4214E+00	1.5495E+00	1.6085E+00
Z	1.3094E+00	1.6449E+00	1.7599E+00
GAME	8.1048E-01	8.5193E-01	8.7744E-01
U	1.0726E+01	1.6735E+00	1.6766E+00

SPECIES	MOLE FRACTIONS		
E-	4.6193E-10	1.2494E-07	5.3235E-07
H	4.7256E-01	7.8411E-01	8.6355E-01
H+	4.5508E-10	1.2302E-07	5.2652E-07
H2	4.8925E-01	1.8549E-01	1.0804E-01
H-	7.5772E-13	8.9912E-10	3.9156E-09
H2+	7.6056E-12	2.8210E-09	9.7492E-09
HE	3.8186E-02	3.0397E-02	2.8411E-02
HE+	8.2465E-28	2.0357E-21	7.8658E-20
HE++	0.	4.5227E-75	1.0597E-69

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0180E+02	2.2931E+03	3.0832E+03
T	1.1030E+01	1.5264E+01	1.7337E+01
RHO	1.3338E+01	8.5747E+01	9.4980E+01
H	3.3108E+01	6.0061E+01	6.9746E+01
A	3.5081E+00	4.8340E+00	5.5368E+00
S	1.4666E+00	1.6094E+00	1.6741E+00
Z	1.3717E+00	1.7520E+00	1.8724E+00
GAME	8.1342E-01	8.7379E-01	9.4438E-01
U	1.1492E+01	1.7902E+00	1.8751E+00

SPECIES	MOLE FRACTIONS		
E-	1.0456E-09	4.3818E-07	3.6321E-06
H	5.4192E-01	8.5846E-01	9.3183E-01
H+	1.0311E-09	4.3334E-07	3.6125E-06
H2	4.2163E-01	1.1300E-01	4.1461E-02
H-	1.9008E-12	3.0658E-09	2.1429E-08
H2+	1.6396E-11	7.9106E-09	4.0943E-08
HE	3.6452E-02	2.8539E-02	2.6704E-02
HE+	4.3645E-27	4.4512E-20	9.4868E-18
HE++	0.	2.4748E-70	1.5209E-62

P1 = 1.00E+02 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5673E+02	3.0914E+03	4.4945E+03
T	1.1764E+01	1.9585E+01	2.9880E+01
RHO	1.4463E+01	8.1978E+01	7.6919E+01
H	4.1672E+01	7.5970E+01	9.3432E+01
A	3.8187E+00	6.3169E+00	7.8806E+00
S	1.5622E+00	1.7240E+00	1.7979E+00
Z	1.5089E+00	1.9254E+00	1.9555E+00
GAME	8.2154E-01	1.0582E+00	1.0628E+00
U	1.3010E+01	2.2972E+00	3.0057E+00

SPECIES	MOLE FRACTIONS		
E-	5.0322E-09	2.4393E-05	3.5144E-03
H	6.7455E-01	9.6119E-01	9.6672E-01
H+	4.9759E-09	2.4344E-05	3.5139E-03
H2	2.9231E-01	1.2789E-02	6.7393E-04
H-	1.0429E-11	9.0620E-08	3.9803E-06
H2+	6.6750E-11	1.3959E-07	4.4374E-06
HE	3.3136E-02	2.5968E-02	2.5568E-02
HE+	2.1437E-25	9.8387E-16	2.4797E-10
HE++	3.2598E-91	4.2929E-56	1.0733E-35

P1 = 1.00E+02 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2848E+02	2.7013E+03	3.7370E+03
T	1.1390E+01	1.6748E+01	2.2238E+01
RHO	1.3948E+01	8.7002E+01	8.6596E+01
H	3.7265E+01	6.7863E+01	8.0689E+01
A	3.6584E+00	5.3549E+00	6.9731E+00
S	1.5137E+00	1.6686E+00	1.7413E+00
Z	1.4383E+00	1.8539E+00	1.9406E+00
GAME	8.1703E-01	9.2358E-01	1.1267E+00
U	1.2254E+01	1.9647E+00	2.3448E+00

SPECIES	MOLE FRACTIONS		
E-	2.3135E-09	2.1636E-06	1.2961E-04
H	6.0944E-01	9.2116E-01	9.6898E-01
H+	2.2844E-09	2.1501E-06	1.2950E-04
H2	3.5579E-01	5.1867E-02	4.9944E-03
H-	4.5457E-12	1.2800E-08	3.5764E-07
H2+	3.3686E-11	2.6338E-08	4.6915E-07
HE	3.4764E-02	2.6971E-02	2.5766E-02
HE+	3.0270E-26	2.3803E-18	6.9323E-14
HE++	2.1868E-92	1.2071E-64	1.4634E-48

P1 = 1.00E+02 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8653E+02	3.4320E+03	5.2277E+03
T	1.2164E+01	2.4411E+01	3.5206E+01
RHO	1.4879E+01	7.2223E+01	7.5031E+01
H	4.6328E+01	8.4255E+01	1.0551E+02
A	3.9915E+00	7.3576E+00	8.1783E+00
S	1.6122E+00	1.7711E+00	1.8389E+00
Z	1.5832E+00	1.9466E+00	1.9790E+00
GAME	8.2732E-01	1.1392E+00	9.5996E-01
U	1.3761E+01	2.8366E+00	3.3998E+00

SPECIES	MOLE FRACTIONS		
E-	1.0756E-08	4.3588E-04	1.4971E-02
H	7.3672E-01	9.7128E-01	9.4449E-01
H+	1.0650E-08	4.3571E-04	1.4969E-02
H2	2.3170E-01	2.1635E-03	2.8203E-04
H-	2.3077E-11	7.8069E-07	1.1036E-05
H2+	1.2872E-10	9.4503E-07	1.2425E-05
HE	3.1582E-02	2.5685E-02	2.5265E-02
HE+	1.2411E-24	1.2705E-12	9.1828E-09
HE++	1.6541E-88	4.8399E-44	5.0458E-30

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1782E+02	3.7606E+03	5.9335E+03
T	1.2612E+01	2.9507E+01	3.8906E+01
RHO	1.5175E+01	6.5176E+01	7.5737E+01
H	5.1234E+01	9.2851E+01	1.1730E+02
A	4.1826E+00	7.8351E+00	8.4623E+00
S	1.6632E+00	1.8103E+00	1.8751E+00
Z	1.6606E+00	1.9554E+00	2.0137E+00
GAME	8.3530E-01	1.0639E+00	9.1405E-01
U	1.4506E+01	3.3846E+00	3.6350E+00

SPECIES	MOLE FRACTIONS		
E-	2.3764E-08	3.3845E-03	3.1821E-02
H	7.9560E-01	9.6704E-01	9.1131E-01
H+	2.3567E-08	3.3841E-03	3.1818E-02
H2	1.7429E-01	6.1185E-04	1.7586E-04
H-	5.1376E-11	3.3516E-06	1.8496E-05
H2+	2.4892E-10	3.7435E-06	2.1531E-05
HE	3.0110E-02	2.5570E-02	2.4830E-02
HE+	7.7396E-24	1.9948E-10	6.2667E-08
HE++	1.4641E-84	4.2821E-36	5.3758E-27

P1 = 1.00E+02 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8449E+02	4.4829E+03	7.1805E+03
T	1.3859E+01	3.6974E+01	4.4001E+01
RHO	1.5251E+01	6.0822E+01	7.7790E+01
H	6.1786E+01	1.1175E+02	1.4105E+02
A	4.6861E+00	8.2754E+00	9.0224E+00
S	1.7667E+00	1.8780E+00	1.9421E+00
Z	1.8192E+00	1.9994E+00	2.0978E+00
GAME	8.7101E-01	9.2836E-01	8.8189E-01
U	1.5963E+01	3.9906E+00	3.8892E+00

SPECIES	MOLE FRACTIONS		
E-	1.7038E-07	2.4945E-02	7.0602E-02
H	9.0059E-01	9.2488E-01	8.3480E-01
H+	1.6958E-07	2.4943E-02	7.0594E-02
H2	7.1921E-02	1.9995E-04	9.8989E-05
H-	3.2247E-10	1.3001E-05	3.0646E-05
H2+	1.1165E-09	1.4862E-05	3.8080E-05
HE	2.7485E-02	2.5007E-02	2.3834E-02
HE+	1.0423E-21	2.5284E-08	5.1649E-07
HE++	1.4699E-77	2.7415E-29	1.1783E-23

P1 = 1.00E+02 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5053E+02	4.1141E+03	6.5983E+03
T	1.3148E+01	3.3727E+01	4.1702E+01
RHO	1.5322E+01	6.1860E+01	7.7040E+01
H	5.6388E+01	1.0199E+02	1.2910E+02
A	4.4037E+00	8.0560E+00	8.7458E+00
S	1.7149E+00	1.8450E+00	1.9087E+00
Z	1.7401E+00	1.9723E+00	2.0538E+00
GAME	8.4769E-01	9.7577E-01	8.9305E-01
U	1.5242E+01	3.7816E+00	3.7828E+00

SPECIES	MOLE FRACTIONS		
E-	5.7691E-08	1.1588E-02	5.0705E-02
H	8.5060E-01	9.5117E-01	8.7407E-01
H+	5.7311E-08	1.1587E-02	5.0700E-02
H2	1.2066E-01	2.8879E-04	1.2802E-04
H-	1.2060E-10	7.8124E-06	2.5127E-05
H2+	5.0075E-10	8.7226E-06	3.0255E-05
HE	2.8735E-02	2.5352E-02	2.4345E-02
HE+	6.8171E-23	4.0926E-09	2.1239E-07
HE++	1.7827E-81	1.3481E-31	4.5911E-25

P1 = 1.00E+02 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1923E+02	4.7362E+03	7.5462E+03
T	1.5010E+01	3.9538E+01	4.5906E+01
RHO	1.4762E+01	5.9047E+01	7.6657E+01
H	6.7419E+01	1.2179E+02	1.5304E+02
A	5.1403E+00	8.5091E+00	9.2826E+00
S	1.8182E+00	1.9117E+00	1.9768E+00
Z	1.8920E+00	2.0327E+00	2.1444E+00
GAME	9.3043E-01	9.0203E-01	8.7532E-01
U	1.6651E+01	4.1629E+00	3.9665E+00

SPECIES	MOLE FRACTIONS		
E-	7.8552E-07	4.0854E-02	9.0784E-02
H	9.4291E-01	8.9353E-01	7.9497E-01
H+	7.8348E-07	4.0851E-02	9.0774E-02
H2	3.0658E-02	1.3284E-04	7.8031E-05
H-	1.1864E-09	1.7452E-05	3.4492E-05
H2+	3.2318E-09	2.0501E-05	4.4073E-05
HE	2.6427E-02	2.4597E-02	2.3315E-02
HE+	4.4555E-20	9.4015E-08	1.0192E-06
HE++	8.3935E-72	5.6736E-27	1.3915E-22

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5340E+02	4.7285E+03	7.4513E+03
T	1.7273E+01	4.1563E+01	4.7355E+01
RHO	1.3553E+01	5.4968E+01	7.1795E+01
H	7.3257E+01	1.3177E+02	1.6454E+02
A	6.0085E+00	8.7223E+00	9.5076E+00
S	1.8648E+00	1.9485E+00	2.0143E+00
Z	1.9368E+00	2.0697E+00	2.1916E+00
GAME	1.0792E+00	8.8440E-01	8.7097E-01
U	1.7261E+01	4.2660E+00	4.0110E+00

SPECIES	MOLE FRACTIONS		
E-	9.0443E-06	5.7932E-02	1.1037E-01
H	9.6733E-01	8.5985E-01	7.5632E-01
H+	9.0365E-06	5.7927E-02	1.1035E-01
H2	6.8380E-03	9.0198E-05	6.0916E-05
H-	8.2811E-09	2.0455E-05	3.5723E-05
H2+	1.6022E-08	2.4586E-05	4.6669E-05
HE	2.5816E-02	2.4158E-02	2.2812E-02
HE+	1.9760E-17	2.3662E-07	1.6927E-06
HE++	1.3213E-63	5.2409E-25	8.4457E-22

P1 = 1.00E+02 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2080E+02	4.3947E+03	6.6942E+03
T	2.4868E+01	4.4399E+01	4.9439E+01
RHO	1.0728E+01	4.6012E+01	5.9203E+01
H	8.5525E+01	1.5179E+02	1.8661E+02
A	7.3209E+00	9.1126E+00	9.8945E+00
S	1.9394E+00	2.0236E+00	2.0920E+00
Z	1.9522E+00	2.1512E+00	2.2871E+00
GAME	1.1040E+00	8.6940E-01	8.6583E-01
U	1.8307E+01	4.2802E+00	4.0462E+00

SPECIES	MOLE FRACTIONS		
E-	1.3958E-03	9.3629E-02	1.4748E-01
H	9.7131E-01	7.8940E-01	6.8307E-01
H+	1.3957E-03	9.3622E-02	1.4747E-01
H2	2.8469E-04	5.2007E-05	3.7196E-05
H-	3.5434E-07	2.2859E-05	3.3850E-05
H2+	4.2369E-07	2.8568E-05	4.5699E-05
HE	2.5613E-02	2.3242E-02	2.1858E-02
HE+	5.5893E-12	7.7033E-07	3.5072E-06
HE++	2.2670E-42	3.3929E-23	1.0556E-20

P1 = 1.00E+02 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8651E+02	4.5125E+03	6.9845E+03
T	2.0962E+01	4.3070E+01	4.8410E+01
RHO	1.1913E+01	4.9664E+01	6.4453E+01
H	7.9278E+01	1.4161E+02	1.7538E+02
A	6.8709E+00	8.9172E+00	9.6975E+00
S	1.9055E+00	1.9873E+00	2.0540E+00
Z	1.9482E+00	2.1096E+00	2.2385E+00
GAME	1.1561E+00	8.7514E-01	8.6782E-01
U	1.7784E+01	4.2704E+00	4.0269E+00

SPECIES	MOLE FRACTIONS		
E-	1.6263E-04	7.5750E-02	1.2897E-01
H	9.7291E-01	8.2469E-01	7.1961E-01
H+	1.6260E-04	7.5744E-02	1.2896E-01
H2	1.0980E-03	6.6976E-05	4.7050E-05
H-	7.3636E-08	2.1849E-05	3.4746E-05
H2+	1.0340E-07	2.6797E-05	4.6148E-05
HE	2.5665E-02	2.3701E-02	2.2334E-02
HE+	2.6948E-14	4.5266E-07	2.4766E-06
HE++	8.9720E-51	5.1570E-24	3.1417E-21

P1 = 1.00E+02 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5759E+02	4.4435E+03	6.6721E+03
T	2.8338E+01	4.5751E+01	5.0574E+01
RHO	1.0034E+01	4.4212E+01	5.6400E+01
H	9.2038E+01	1.6273E+02	1.9879E+02
A	7.4848E+00	9.3283E+00	1.0115E+01
S	1.9700E+00	2.0583E+00	2.1282E+00
Z	1.9611E+00	2.1968E+00	2.3391E+00
GAME	1.0081E+00	8.6581E-01	8.6486E-01
U	1.8877E+01	4.2874E+00	4.0802E+00

SPECIES	MOLE FRACTIONS		
E-	5.7712E-03	1.1241E-01	1.6643E-01
H	9.6284E-01	7.5233E-01	6.4566E-01
H+	5.7711E-03	1.1240E-01	1.6642E-01
H2	1.1748E-04	4.1771E-05	3.0152E-05
H-	9.7225E-07	2.4053E-05	3.3527E-05
H2+	1.0955E-06	3.0665E-05	4.6100E-05
HE	2.5496E-02	2.2759E-02	2.1370E-02
HE+	1.8805E-10	1.2615E-06	4.9694E-06
HE++	7.6689E-37	1.9930E-22	3.6542E-20

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9777E+02	4.6598E+03	6.9222E+03
T	3.1027E+01	4.7164E+01	5.1871E+01
RHO	9.7438E+00	4.3988E+01	5.5706E+01
H	9.8852E+01	1.7461E+02	2.1227E+02
A	7.5986E+00	9.5659E+00	1.0366E+01
S	1.9978E+00	2.0913E+00	2.1632E+00
Z	1.9772E+00	2.2461E+00	2.3956E+00
GAME	9.4115E-01	8.6380E-01	8.6480E-01
U	1.9517E+01	4.3271E+00	4.1331E+00

SPECIES	MOLE FRACTIONS		
E-	1.3842E-02	1.3190E-01	1.8609E-01
H	9.4696E-01	7.1386E-01	6.0685E-01
H+	1.3841E-02	1.3189E-01	1.8607E-01
H2	6.7836E-05	3.4536E-05	2.4927E-05
H-	1.7931E-06	2.5522E-05	3.3785E-05
H2+	1.9929E-06	3.3245E-05	4.7447E-05
HE	2.5288E-02	2.2259E-02	2.0864E-02
HE+	1.6685E-09	2.0164E-06	7.1286E-06
HE++	2.0472E-33	1.1068E-21	1.3578E-19

P1 = 1.00E+02 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8579E+02	5.3810E+03	7.8691E+03
T	3.4886E+01	5.0036E+01	5.4701E+01
RHO	9.7058E+00	4.5691E+01	5.7114E+01
H	1.1332E+02	2.0058E+02	2.4210E+02
A	7.8986E+00	1.0080E+01	1.0927E+01
S	2.0502E+00	2.1556E+00	2.2318E+00
Z	2.0254E+00	2.3537E+00	2.5187E+00
GAME	8.8296E-01	8.6279E-01	8.6655E-01
U	2.0903E+01	4.4450E+00	4.2762E+00

SPECIES	MOLE FRACTIONS		
E-	3.7265E-02	1.7158E-01	2.2587E-01
H	9.0074E-01	6.3551E-01	5.2833E-01
H+	3.7265E-02	1.7157E-01	2.2584E-01
H2	3.5395E-05	2.4622E-05	1.7380E-05
H-	3.5429E-06	2.8369E-05	3.4407E-05
H2+	3.9808E-06	3.8669E-05	5.0641E-05
HE	2.4687E-02	2.1238E-02	1.9837E-02
HE+	2.0968E-08	4.7239E-06	1.4485E-05
HE++	1.9781E-29	2.6027E-20	1.8719E-18

P1 = 1.00E+02 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.4036E+02	4.9775E+03	7.3328E+03
T	3.3142E+01	4.8587E+01	5.3249E+01
RHO	9.6647E+00	4.4575E+01	5.6083E+01
H	1.0594E+02	1.8718E+02	2.2668E+02
A	7.7391E+00	9.8161E+00	1.0637E+01
S	2.0243E+00	2.1235E+00	2.1974E+00
Z	1.9992E+00	2.2983E+00	2.4554E+00
GAME	9.0396E-01	8.6290E-01	8.6540E-01
U	2.0189E+01	4.3816E+00	4.2023E+00

SPECIES	MOLE FRACTIONS		
E-	2.4658E-02	1.5159E-01	2.0591E-01
H	9.2562E-01	6.7498E-01	5.6774E-01
H+	2.4658E-02	1.5158E-01	2.0588E-01
H2	4.6732E-05	2.9048E-05	2.0801E-05
H-	2.6720E-06	2.6991E-05	3.4146E-05
H2+	2.9768E-06	3.5949E-05	4.9058E-05
HE	2.5010E-02	2.1753E-02	2.0353E-02
HE+	7.2054E-09	3.1213E-06	1.0183E-05
HE++	4.1015E-31	5.5940E-21	5.0729E-19

P1 = 1.00E+02 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.8209E+02	6.3319E+03	9.1576E+03
T	3.7703E+01	5.2896E+01	5.7693E+01
RHO	9.9419E+00	4.8449E+01	5.9849E+01
H	1.2886E+02	2.2894E+02	2.7497E+02
A	8.2371E+00	1.0627E+01	1.1539E+01
S	2.1014E+00	2.2196E+00	2.3009E+00
Z	2.0864E+00	2.4708E+00	2.6521E+00
GAME	8.6251E-01	8.6418E-01	8.7015E-01
U	2.2352E+01	4.5922E+00	4.4505E+00

SPECIES	MOLE FRACTIONS		
E-	6.5420E-02	2.1083E-01	2.6481E-01
H	8.4516E-01	5.5804E-01	4.5147E-01
H+	6.5419E-02	2.1081E-01	2.6476E-01
H2	2.3412E-05	1.7821E-05	1.2012E-05
H-	5.1495E-06	3.0295E-05	3.3990E-05
H2+	5.9204E-06	4.3270E-05	5.2605E-05
HE	2.3964E-02	2.0227E-02	1.8824E-02
HE+	9.4640E-08	9.9897E-06	2.8354E-05
HE++	4.9632E-27	4.2422E-19	2.2486E-17

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8563E+02	7.4433E+03	1.0681E+04
T	4.0014E+01	5.5749E+01	6.0828E+01
RHO	1.0266E+01	5.1443E+01	6.2848E+01
H	1.4542E+02	2.5941E+02	3.1051E+02
A	8.5831E+00	1.1201E+01	1.2197E+01
S	2.1526E+00	2.2843E+00	2.3709E+00
Z	2.1559E+00	2.5954E+00	2.7938E+00
GAME	8.5399E-01	8.6716E-01	8.7542E-01
U	2.3826E+01	4.7609E+00	4.6505E+00

SPECIES	MOLE FRACTIONS		
E-	9.5523E-02	2.4874E-01	3.0208E-01
H	7.8573E-01	4.8320E-01	3.7792E-01
H+	9.5521E-02	2.4870E-01	3.0201E-01
H2	1.6961E-05	1.2768E-05	8.0231E-06
H-	6.5233E-06	3.0902E-05	3.2086E-05
H2+	7.6913E-06	4.6287E-05	5.2352E-05
HE	2.3192E-02	1.9245E-02	1.7843E-02
HE+	2.7586E-07	1.9610E-05	5.3914E-05
HE++	2.5253E-25	5.2428E-18	2.4021E-16

P1 = 1.00E+02 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1138E+03	1.0070E+04	1.4338E+04
T	4.3898E+01	6.1638E+01	6.7871E+01
RHO	1.0967E+01	5.7045E+01	6.8188E+01
H	1.8162E+02	3.2647E+02	3.8989E+02
A	9.2865E+00	1.2445E+01	1.3701E+01
S	2.2571E+00	2.4166E+00	2.5150E+00
Z	2.3136E+00	2.8639E+00	3.0980E+00
GAME	8.4913E-01	8.7731E-01	8.9282E-01
U	2.6817E+01	5.1625E+00	5.1570E+00

SPECIES	MOLE FRACTIONS		
E-	1.5718E-01	3.1916E-01	3.7062E-01
H	6.6400E-01	3.4423E-01	2.4277E-01
H+	1.5718E-01	3.1907E-01	3.7040E-01
H2	9.8186E-06	5.9696E-06	2.9356E-06
H-	8.4809E-06	2.7928E-05	2.3964E-05
H2+	1.0524E-05	4.6193E-05	4.3974E-05
HE	2.1610E-02	1.7392E-02	1.5945E-02
HE+	1.2815E-06	6.6956E-05	1.9465E-04
HE++	7.5217E-23	4.8765E-16	2.5052E-14

P1 = 1.00E+02 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.9652E+02	8.7004E+03	1.2417E+04
T	4.2044E+01	5.8652E+01	6.4185E+01
RHO	1.0619E+01	5.4395E+01	6.5736E+01
H	1.6302E+02	2.9202E+02	3.4882E+02
A	8.9328E+00	1.1807E+01	1.2913E+01
S	2.2044E+00	2.3501E+00	2.4423E+00
Z	2.2319E+00	2.7271E+00	2.9430E+00
GAME	8.5034E-01	8.7152E-01	8.8271E-01
U	2.5323E+01	4.9502E+00	4.8784E+00

SPECIES	MOLE FRACTIONS		
E-	1.2635E-01	2.8501E-01	3.3746E-01
H	7.2488E-01	4.1161E-01	3.0814E-01
H+	1.2634E-01	2.8496E-01	3.3733E-01
H2	1.2792E-05	8.9052E-06	5.0616E-06
H-	7.6395E-06	3.0101E-05	2.8681E-05
H2+	9.2408E-06	4.7345E-05	4.9509E-05
HE	2.2401E-02	1.8298E-02	1.6888E-02
HE+	6.3803E-07	3.6770E-05	1.0176E-04
HE++	5.6269E-24	5.3967E-17	2.4373E-15

P1 = 1.00E+02 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2377E+03	1.1543E+04	1.6418E+04
T	4.5641E+01	6.4789E+01	7.2030E+01
RHO	1.1298E+01	5.9294E+01	7.0030E+01
H	2.0123E+02	3.6279E+02	4.3326E+02
A	9.6461E+00	1.3126E+01	1.4583E+01
S	2.3108E+00	2.4838E+00	2.5876E+00
Z	2.4003E+00	3.0048E+00	3.2547E+00
GAME	8.4933E-01	8.8496E-01	9.0708E-01
U	2.8313E+01	5.4018E+00	5.4342E+00

SPECIES	MOLE FRACTIONS		
E-	1.8763E-01	3.5109E-01	4.0090E-01
H	6.0388E-01	2.8124E-01	1.8318E-01
H+	1.8763E-01	3.5095E-01	4.0050E-01
H2	7.5762E-06	3.7835E-06	1.5210E-06
H-	9.0452E-06	2.4576E-05	1.8435E-05
H2+	1.1513E-05	4.2854E-05	3.6184E-05
HE	2.0828E-02	1.6519E-02	1.4978E-02
HE+	2.3478E-06	1.2094E-04	3.8424E-04
HE++	7.1245E-22	4.1618E-15	2.7745E-13

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3679E+03	1.3100E+04	1.8688E+04
T	4.7315E+01	6.8200E+01	7.7098E+01
RHO	1.1603E+01	6.1013E+01	7.1024E+01
H	2.2185E+02	4.0088E+02	4.8014E+02
A	1.0013E+01	1.3864E+01	1.5630E+01
S	2.3654E+00	2.5511E+00	2.6614E+00
Z	2.4917E+00	3.1482E+00	3.4129E+00
GAME	8.5047E-01	8.9519E-01	9.2850E-01
U	2.9802E+01	5.6746E+00	5.8176E+00

SPECIES	MOLE FRACTIONS		
E-	2.1742E-01	3.8064E-01	4.2866E-01
H	5.4508E-01	2.2302E-01	1.2883E-01
H+	2.1741E-01	3.8040E-01	4.2782E-01
H2	5.8296E-06	2.2221E-06	6.5211E-07
H-	9.3351E-06	2.0337E-05	1.2546E-05
H2+	1.2189E-05	3.7520E-05	2.6641E-05
HE	2.0063E-02	1.5661E-02	1.3830E-02
HE+	4.0387E-06	2.2063E-04	8.2060E-04
HE++	5.3429E-21	3.5580E-14	3.9335E-12

P1 = 1.00E+02 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5044E+03	1.4726E+04	2.1144E+04
T	4.8952E+01	7.2030E+01	8.3668E+01
RHO	1.1878E+01	6.2106E+01	7.0912E+01
H	2.4346E+02	4.4073E+02	5.3054E+02
A	1.0390E+01	1.4683E+01	1.6924E+01
S	2.4210E+00	2.6184E+00	2.7351E+00
Z	2.5874E+00	3.2919E+00	3.5637E+00
GAME	8.5233E-01	9.0929E-01	9.6066E-01
U	3.1290E+01	5.9916E+00	6.2880E+00

SPECIES	MOLE FRACTIONS		
E-	2.4635E-01	4.0766E-01	4.5283E-01
H	4.8795E-01	1.6987E-01	8.2214E-02
H+	2.4634E-01	4.0723E-01	4.5090E-01
H2	4.4463E-06	1.1734E-06	2.1184E-07
H-	9.3623E-06	1.5593E-05	7.1836E-06
H2+	1.2543E-05	3.0605E-05	1.6756E-05
HE	1.9318E-02	1.4773E-02	1.2103E-02
HE+	6.6524E-06	4.1552E-04	1.9273E-03
HE++	3.4029E-20	3.2879E-13	8.0826E-11

P1 = 1.00E+02 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6472E+03	1.6395E+04	2.3811E+04
T	5.0577E+01	7.6517E+01	9.2777E+01
RHO	1.2121E+01	6.2431E+01	6.9453E+01
H	2.6608E+02	4.8223E+02	5.8539E+02
A	1.0778E+01	1.5621E+01	1.8568E+01
S	2.4775E+00	2.6851E+00	2.8080E+00
Z	2.6870E+00	3.4320E+00	3.6952E+00
GAME	8.5483E-01	9.2925E-01	1.0057E+00
U	3.2772E+01	6.3697E+00	6.9065E+00

SPECIES	MOLE FRACTIONS		
E-	2.7431E-01	4.3184E-01	4.7230E-01
H	4.3276E-01	1.2255E-01	4.6502E-02
H+	2.7430E-01	4.3101E-01	4.6765E-01
H2	3.3435E-06	5.3398E-07	4.6882E-08
H-	9.1425E-06	1.0825E-05	3.2731E-06
H2+	1.2572E-05	2.2782E-05	8.5084E-06
HE	1.8597E-02	1.3744E-02	8.8830E-03
HE+	1.0639E-05	8.2486E-04	4.6479E-03
HE++	1.9282E-19	3.5697E-12	2.5357E-09

P1 = 1.00E+02 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7962E+03	1.8073E+04	2.6756E+04
T	5.2214E+01	8.2026E+01	1.0619E+02
RHO	1.2328E+01	6.1845E+01	6.6393E+01
H	2.8970E+02	5.2526E+02	6.4665E+02
A	1.1181E+01	1.6725E+01	2.0809E+01
S	2.5348E+00	2.7502E+00	2.8806E+00
Z	2.7904E+00	3.5627E+00	3.7952E+00
GAME	8.5798E-01	9.5720E-01	1.0745E+00
U	3.4248E+01	6.8339E+00	7.7911E+00

SPECIES	MOLE FRACTIONS		
E-	3.0119E-01	4.5267E-01	4.8620E-01
H	3.7970E-01	8.2350E-02	2.3373E-02
H+	3.0117E-01	4.5092E-01	4.7725E-01
H2	2.4654E-06	1.9825E-07	6.4536E-09
H-	8.6972E-06	6.5981E-06	1.1651E-06
H2+	1.2284E-05	1.5044E-05	3.3314E-06
HE	1.7902E-02	1.2294E-02	4.2195E-03
HE+	1.6705E-05	1.7409E-03	8.9548E-03
HE++	1.0099E-18	4.9154E-11	1.0366E-07

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9513E+03	1.9719E+04	3.0023E+04
T	5.3890E+01	8.9024E+01	1.2547E+02
RHO	1.2498E+01	6.0265E+01	6.2141E+01
H	3.1431E+02	5.6966E+02	7.1563E+02
A	1.1600E+01	1.8027E+01	2.3541E+01
S	2.5929E+00	2.8131E+00	2.9487E+00
Z	2.8971E+00	3.6755E+00	3.8507E+00
GAME	8.6185E-01	9.9322E-01	1.1470E+00
U	3.5718E+01	7.4136E+00	9.0004E+00

SPECIES	MOLE FRACTIONS		
E-	3.2693E-01	4.6947E-01	4.9360E-01
H	3.2890E-01	5.1171E-02	1.1429E-02
H+	3.2690E-01	4.6574E-01	4.8198E-01
H2	1.7714E-06	5.7507E-08	6.3208E-10
H-	8.0523E-06	3.4520E-06	3.9368E-07
H2+	1.1693E-05	8.6067E-06	1.0824E-06
HE	1.7233E-02	9.8810E-03	1.3745E-03
HE+	2.6003E-05	3.7225E-03	1.1606E-02
HE++	5.0483E-18	8.5565E-10	3.7592E-06

P1 = 1.00E+02 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2791E+03	2.2715E+04	3.7094E+04
T	5.7485E+01	1.0936E+02	1.7565E+02
RHO	1.2713E+01	5.4329E+01	5.4331E+01
H	3.6653E+02	6.6158E+02	8.6899E+02
A	1.2507E+01	2.1440E+01	2.8017E+01
S	2.7107E+00	2.9287E+00	3.0653E+00
Z	3.1186E+00	3.8233E+00	3.8868E+00
GAME	8.7258E-01	1.0994E+00	1.1497E+00
U	3.8632E+01	9.0429E+00	1.1776E+01

SPECIES	MOLE FRACTIONS		
E-	3.7472E-01	4.8998E-01	4.9831E-01
H	2.3457E-01	1.7040E-02	3.9383E-03
H+	3.7466E-01	4.7990E-01	4.8489E-01
H2	8.1824E-07	2.4564E-09	1.1210E-11
H-	6.2899E-06	6.5720E-07	1.1145E-07
H2+	9.7005E-06	1.8941E-06	1.5180E-07
HE	1.5969E-02	3.0058E-03	2.9449E-04
HE+	6.3763E-05	1.0071E-02	1.1721E-02
HE++	1.2481E-16	2.6053E-07	8.4821E-04

P1 = 1.00E+02 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1123E+03	2.1269E+04	3.3500E+04
T	5.5635E+01	9.8012E+01	1.4967E+02
RHO	1.2628E+01	5.7653E+01	5.7776E+01
H	3.3992E+02	6.1511E+02	7.9023E+02
A	1.2040E+01	1.9582E+01	2.6052E+01
S	2.6515E+00	2.8732E+00	3.0107E+00
Z	3.0067E+00	3.7640E+00	3.8741E+00
GAME	8.6662E-01	1.0394E+00	1.1705E+00
U	3.7180E+01	8.1629E+00	1.0363E+01

SPECIES	MOLE FRACTIONS		
E-	3.5146E-01	4.8194E-01	4.9666E-01
H	2.8048E-01	2.9831E-02	6.2177E-03
H+	3.5141E-01	4.7494E-01	4.8422E-01
H2	1.2307E-06	1.2992E-08	6.8056E-11
H-	7.2382E-06	1.5627E-06	1.7882E-07
H2+	1.0822E-05	4.2558E-06	3.6524E-07
HE	1.6589E-02	6.2933E-03	5.4623E-04
HE+	4.0501E-05	6.9905E-03	1.2277E-02
HE++	2.4842E-17	1.6114E-08	8.2792E-05

P1 = 1.00E+02 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4516E+03	2.4006E+04	4.0547E+04
T	5.9494E+01	1.2294E+02	1.9949E+02
RHO	1.2750E+01	5.0637E+01	5.2095E+01
H	3.9412E+02	7.0877E+02	9.4708E+02
A	1.3010E+01	2.3324E+01	2.9434E+01
S	2.7700E+00	2.9788E+00	3.1113E+00
Z	3.2320E+00	3.8562E+00	3.9017E+00
GAME	8.8025E-01	1.1476E+00	1.1131E+00
U	4.0073E+01	1.0073E+01	1.2950E+01

SPECIES	MOLE FRACTIONS		
E-	3.9666E-01	4.9432E-01	5.0022E-01
H	1.9129E-01	1.0072E-02	2.8734E-03
H+	3.9656E-01	4.8264E-01	4.8410E-01
H2	5.1329E-07	4.4584E-10	3.1077E-12
H-	5.2472E-06	2.9210E-07	8.3362E-08
H2+	8.3706E-06	8.1692E-07	8.1543E-08
HE	1.5368E-02	1.2965E-03	1.6489E-04
HE+	1.0265E-04	1.1667E-02	9.1799E-03
HE++	6.6166E-16	3.1766E-06	3.4702E-03

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6295E+03	2.5110E+04	4.3934E+04
T	6.1709E+01	1.3836E+02	2.2225E+02
RHO	1.2743E+01	4.6855E+01	5.0439E+01
H	4.2269E+02	7.5636E+02	1.0267E+03
A	1.3554E+01	2.5027E+01	3.1158E+01
S	2.8285E+00	3.0257E+00	3.1524E+00
Z	3.3441E+00	3.8731E+00	3.9193E+00
GAME	8.9030E-01	1.1688E+00	1.1146E+00
U	4.1501E+01	1.1271E+01	1.4043E+01

SPECIES	MOLE FRACTIONS		
E-	4.1688E-01	4.9653E-01	5.0246E-01
H	1.5144E-01	6.3347E-03	2.2495E-03
H+	4.1671E-01	4.8422E-01	4.8254E-01
H2	3.0041E-07	8.7293E-11	1.1462E-12
H-	4.1758E-06	1.5132E-07	6.6663E-08
H2+	6.9141E-06	3.6317E-07	5.0384E-08
HE	1.4782E-02	6.2797E-04	7.6524E-05
HE+	1.7031E-04	1.2253E-02	5.4396E-03
HE++	3.7932E-15	2.8737E-05	7.2413E-03

P1 = 1.00E+02 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9994E+03	2.6813E+04	5.0084E+04
T	6.7483E+01	1.7028E+02	2.7561E+02
RHO	1.2465E+01	4.0482E+01	4.6115E+01
H	4.8274E+02	8.5420E+02	1.1962E+03
A	1.4920E+01	2.7615E+01	3.5644E+01
S	2.9469E+00	3.1076E+00	3.2317E+00
Z	3.5656E+00	3.8897E+00	3.9406E+00
GAME	9.2516E-01	1.1514E+00	1.1698E+00
U	4.4285E+01	1.3608E+01	1.6371E+01

SPECIES	MOLE FRACTIONS		
E-	4.5312E-01	4.9867E-01	5.0515E-01
H	8.0320E-02	3.1639E-03	1.3861E-03
H+	4.5253E-01	4.8531E-01	4.8077E-01
H2	6.8708E-08	6.3177E-12	1.7356E-13
H-	2.0657E-06	6.5956E-08	3.9713E-08
H2+	3.7637E-06	9.7484E-08	2.0042E-08
HE	1.3439E-02	2.4207E-04	8.3780E-06
HE+	5.8341E-04	1.1860E-02	9.7983E-04
HE++	2.4206E-13	7.5244E-04	1.1700E-02

P1 = 1.00E+02 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8123E+03	2.6062E+04	4.7115E+04
T	6.4303E+01	1.5398E+02	2.4732E+02
RHO	1.2653E+01	4.3599E+01	4.8434E+01
H	4.5224E+02	8.0485E+02	1.1087E+03
A	1.4178E+01	2.6442E+01	3.3381E+01
S	2.8876E+00	3.0670E+00	3.1926E+00
Z	3.4564E+00	3.8822E+00	3.9332E+00
GAME	9.0445E-01	1.1697E+00	1.1455E+00
U	4.2906E+01	1.2451E+01	1.5125E+01

SPECIES	MOLE FRACTIONS		
E-	4.3584E-01	4.9771E-01	5.0422E-01
H	1.1415E-01	4.3704E-03	1.7694E-03
H+	4.3553E-01	4.8504E-01	4.8130E-01
H2	1.5624E-07	2.1865E-11	4.4227E-13
H-	3.0899E-06	9.5267E-08	5.2279E-08
H2+	5.3427E-06	1.8199E-07	3.1698E-08
HE	1.4165E-02	3.7325E-04	2.7170E-05
HE+	3.0122E-04	1.2336E-02	2.4568E-03
HE++	2.6313E-14	1.6971E-04	1.0228E-02

P1 = 1.00E+02 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1891E+03	2.7339E+04	5.2547E+04
T	7.1469E+01	1.8577E+02	3.0449E+02
RHO	1.2179E+01	3.7752E+01	4.3756E+01
H	5.1416E+02	9.0416E+02	1.2845E+03
A	1.5808E+01	2.8495E+01	3.7636E+01
S	3.0039E+00	3.1456E+00	3.2676E+00
Z	3.6638E+00	3.8987E+00	3.9439E+00
GAME	9.5435E-01	1.1212E+00	1.1795E+00
U	4.5616E+01	1.4704E+01	1.7562E+01

SPECIES	MOLE FRACTIONS		
E-	4.6777E-01	4.9983E-01	5.0557E-01
H	5.2049E-02	2.4304E-03	1.1045E-03
H+	4.6653E-01	4.8491E-01	4.8065E-01
H2	2.4595E-08	2.3654E-12	7.4991E-14
H-	1.2184E-06	4.9376E-08	3.0029E-08
H2+	2.3660E-06	5.8266E-08	1.3239E-08
HE	1.2405E-02	1.5937E-04	2.8066E-06
HE+	1.2416E-03	1.0414E-02	4.2526E-04
HE++	3.0847E-12	2.2515E-03	1.2250E-02

TABLE I. - Continued

$p_1 = 100\ N/m^2$

P1 = 1.00E+02 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3811E+03	2.7650E+04	5.4435E+04
T	7.6650E+01	2.0060E+02	3.3538E+02
RHO	1.1775E+01	3.5252E+01	4.1135E+01
H	5.4647E+02	9.5530E+02	1.3762E+03
A	1.6859E+01	2.9428E+01	3.9568E+01
S	3.0588E+00	3.1827E+00	3.3037E+00
Z	3.7461E+00	3.9107E+00	3.9457E+00
GAME	9.8982E-01	1.1040E+00	1.1831E+00
U	4.6898E+01	1.5647E+01	1.8845E+01

SPECIES	MOLE FRACTIONS		
E-	4.7946E-01	5.0137E-01	5.0580E-01
H	3.0562E-02	1.9346E-03	8.7994E-04
H+	4.7663E-01	4.8391E-01	4.8065E-01
H2	6.8003E-09	9.9923E-13	3.3408E-14
H-	6.1446E-07	3.8284E-08	2.2185E-08
H2+	1.2907E-06	3.7167E-08	8.8286E-09
HE	1.0518E-02	9.5980E-05	9.9119E-07
HE+	2.8290E-03	7.9136E-03	1.9943E-04
HE++	5.6318E-11	4.7758E-03	1.2471E-02

P1 = 1.00E+02 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7685E+03	2.7437E+04	5.6017E+04
T	9.1285E+01	2.3044E+02	3.9661E+02
RHO	1.0718E+01	3.0272E+01	3.5780E+01
H	6.1368E+02	1.0582E+03	1.5557E+03
A	1.9474E+01	3.2060E+01	4.3069E+01
S	3.1597E+00	3.2546E+00	3.3716E+00
Z	3.8517E+00	3.9331E+00	3.9475E+00
GAME	1.0786E+00	1.1341E+00	1.1848E+00
U	4.9286E+01	1.7424E+01	2.1049E+01

SPECIES	MOLE FRACTIONS		
E-	4.9372E-01	5.0421E-01	5.0601E-01
H	8.9275E-03	1.2655E-03	5.7823E-04
H+	4.8437E-01	4.8182E-01	4.8074E-01
H2	2.9631E-10	1.8776E-13	8.0700E-15
H-	1.1037E-07	2.2941E-08	1.2036E-08
H2+	2.7956E-07	1.5983E-08	4.2604E-09
HE	3.6237E-03	2.3685E-05	1.7196E-07
HE+	9.3578E-03	2.9892E-03	6.2555E-05
HE++	2.0458E-08	9.6998E-03	1.2604E-02

P1 = 1.00E+02 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5745E+03	2.7687E+04	5.5519E+04
T	8.3197E+01	2.1528E+02	3.6611E+02
RHO	1.1281E+01	3.2783E+01	3.8422E+01
H	5.7966E+02	1.0068E+03	1.4650E+03
A	1.8036E+01	3.0645E+01	4.1367E+01
S	3.1109E+00	3.2190E+00	3.3384E+00
Z	3.8086E+00	3.9231E+00	3.9468E+00
GAME	1.0267E+00	1.1120E+00	1.1843E+00
U	4.8123E+01	1.6537E+01	1.9920E+01

SPECIES	MOLE FRACTIONS		
E-	4.8800E-01	5.0295E-01	5.0593E-01
H	1.6751E-02	1.5615E-03	7.0917E-04
H+	4.8212E-01	4.8274E-01	4.8070E-01
H2	1.5245E-09	4.2067E-13	1.5933E-14
H-	2.7209E-07	2.9784E-08	1.6321E-08
H2+	6.2558E-07	2.4202E-08	6.0537E-09
HE	7.2585E-03	5.0791E-05	3.9292E-07
HE+	5.8698E-03	5.1836E-03	1.0601E-04
HE++	1.1551E-09	7.5105E-03	1.2562E-02

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 4.00E+03 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6580E+01
T	2.8250E+00	3.5120E+00	4.9524E+00
RHO	3.9387E+00	6.6011E+00	1.1425E+01
H	2.8883E+00	3.6144E+00	5.1969E+00
A	1.6758E+00	1.8612E+00	2.1872E+00
S	1.0542E+00	1.0560E+00	1.0730E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6596E-01
U	2.3185E+00	1.3798E+00	1.2212E+00

SPECIES	MOLE FRACTIONS		
E-	1.3827E-63	5.4656E-45	3.4452E-29
H	1.3890E-10	1.9876E-08	4.3043E-05
H+	3.3831E-20	4.6340E-20	5.6158E-20
H2	9.5000E-01	9.5000E-01	9.4996E-01
H-	1.8006E-71	3.3535E-51	6.9383E-34
H2+	2.9629E-20	1.7120E-20	7.3016E-21
HE	5.0000E-02	5.0000E-02	4.9999E-02
HE+	9.2271E-74	8.1884E-63	1.5315E-53
HE++	0.	0.	0.

P1 = 2.00E+02 N/SQ-M, US1 = 6.00E+03 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5425E+01	8.1154E+01	1.5868E+02
T	5.0943E+00	6.9606E+00	8.3285E+00
RHO	4.9904E+00	1.1618E+01	1.8648E+01
H	5.3593E+00	7.7321E+00	1.0396E+01
A	2.2148E+00	2.5048E+00	2.6755E+00
S	1.1141E+00	1.1216E+00	1.1437E+00
Z	1.0001E+00	1.0035E+00	1.0216E+00
GAME	9.6283E-01	8.9824E-01	8.4129E-01
U	3.7278E+00	1.5976E+00	1.3659E+00

SPECIES	MOLE FRACTIONS		
E-	4.2028E-27	7.1846E-17	7.5544E-14
H	1.0840E-04	7.0016E-03	4.2348E-02
H+	5.8830E-20	6.8260E-17	7.2127E-14
H2	9.4989E-01	9.4317E-01	9.0871E-01
H-	6.2352E-32	2.0453E-20	8.1107E-17
H2+	4.6274E-21	3.6703E-18	3.4977E-15
HE	4.9997E-02	4.9825E-02	4.8941E-02
HE+	9.5929E-53	7.5106E-42	2.8515E-35
HE++	0.	0.	0.

P1 = 2.00E+02 N/SQ-M, US1 = 5.00E+03 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6662E+01	1.0175E+02
T	3.8703E+00	5.1618E+00	6.8996E+00
RHO	4.5267E+00	9.0377E+00	1.4705E+01
H	3.9997E+00	5.4359E+00	7.6199E+00
A	1.9491E+00	2.2287E+00	2.5031E+00
S	1.0846E+00	1.0889E+00	1.1088E+00
Z	1.0000E+00	1.0001E+00	1.0028E+00
GAME	9.8153E-01	9.6221E-01	9.0554E-01
U	3.0256E+00	1.5125E+00	1.3476E+00

SPECIES	MOLE FRACTIONS		
E-	1.7127E-41	5.3735E-26	4.1748E-17
H	5.0112E-07	1.0471E-04	5.5809E-03
H+	5.2892E-20	5.7609E-20	3.9399E-17
H2	9.5000E-01	9.4990E-01	9.4456E-01
H-	1.8812E-47	1.4573E-30	1.2634E-20
H2+	1.0569E-20	5.8484E-21	2.4242E-18
HE	5.0000E-02	4.9997E-02	4.9860E-02
HE+	2.9402E-61	6.3973E-52	3.1873E-42
HE++	0.	0.	0.

P1 = 2.00E+02 N/SQ-M, US1 = 7.00E+03 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4934E+01	1.3308E+02	2.3136E+02
T	6.4064E+00	8.3561E+00	9.3119E+00
RHO	5.4438E+00	1.5546E+01	2.3499E+01
H	6.9728E+00	1.0591E+01	1.3585E+01
A	2.4263E+00	2.6771E+00	2.8444E+00
S	1.1425E+00	1.1554E+00	1.1809E+00
Z	1.0017E+00	1.0246E+00	1.0573E+00
GAME	9.1736E-01	8.3712E-01	8.2175E-01
U	4.4392E+00	1.5511E+00	1.3409E+00

SPECIES	MOLE FRACTIONS		
E-	1.8966E-18	8.5069E-14	3.1422E-12
H	3.4461E-03	4.7996E-02	1.0836E-01
H+	1.8719E-18	8.1421E-14	3.0122E-12
H2	9.4664E-01	9.0320E-01	8.4435E-01
H-	1.5883E-22	7.6887E-17	6.4962E-15
H2+	8.8273E-20	3.7252E-15	1.3654E-13
HE	4.9914E-02	4.8800E-02	4.7291E-02
HE+	8.5594E-45	6.8902E-35	8.0777E-32
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6400E+01	2.1169E+02	3.3762E+02
T	7.5062E+00	9.3783E+00	1.0153E+01
RHO	6.1080E+00	2.1211E+01	3.0040E+01
H	8.8568E+00	1.4039E+01	1.7391E+01
A	2.5474E+00	2.8597E+00	3.0304E+00
S	1.1706E+00	1.1925E+00	1.2218E+00
Z	1.0120E+00	1.0640E+00	1.1070E+00
GAME	8.5424E-01	8.1951E-01	8.1709E-01
U	5.1967E+00	1.4936E+00	1.3276E+00

SPECIES	MOLE FRACTIONS		
E-	2.8552E-15	4.3776E-12	3.9867E-11
H	2.3766E-02	1.2034E-01	1.9326E-01
H+	2.7635E-15	4.2094E-12	3.8291E-11
H2	9.2683E-01	8.3267E-01	7.6157E-01
H-	9.5487E-19	8.9733E-15	1.3307E-13
H2+	9.2706E-17	1.7718E-13	1.7091E-12
HE	4.9406E-02	4.6991E-02	4.5168E-02
HE+	7.6672E-39	1.8925E-31	1.8431E-29
HE++	0.	0.	0.

P1 = 2.00E+02 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5150E+01	4.7859E+02	6.9259E+02
T	8.9002E+00	1.1020E+01	1.1709E+01
RHO	7.9383E+00	3.6769E+01	4.7595E+01
H	1.3414E+01	2.2607E+01	2.6908E+01
A	2.7767E+00	3.2631E+00	3.4580E+00
S	1.2319E+00	1.2787E+00	1.3160E+00
Z	1.0637E+00	1.1812E+00	1.2426E+00
GAME	8.1441E-01	8.1801E-01	8.2183E-01
U	6.7901E+00	1.4676E+00	1.3557E+00

SPECIES	MOLE FRACTIONS		
E-	1.4219E-12	3.5923E-10	1.4991E-09
H	1.1986E-01	3.0677E-01	3.9047E-01
H+	1.3839E-12	3.4613E-10	1.4458E-09
H2	8.3314E-01	6.5090E-01	5.6929E-01
H-	1.3362E-15	1.7583E-12	9.9562E-12
H2+	3.9318E-14	1.4851E-11	6.3216E-11
HE	4.7004E-02	4.2331E-02	4.0238E-02
HE+	2.3428E-35	3.1811E-27	1.1676E-25
HE++	0.	0.	1.2710E-91

P1 = 2.00E+02 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9862E+01	3.2564E+02	4.9061E+02
T	8.2932E+00	1.0237E+01	1.0946E+01
RHO	6.9834E+00	2.8476E+01	3.8327E+01
H	1.1008E+01	1.8058E+01	2.1854E+01
A	2.6597E+00	3.0555E+00	3.2357E+00
S	1.2002E+00	1.2336E+00	1.2669E+00
Z	1.0337E+00	1.1171E+00	1.1693E+00
GAME	8.2520E-01	8.1636E-01	8.1803E-01
U	5.9890E+00	1.4699E+00	1.3349E+00

SPECIES	MOLE FRACTIONS		
E-	1.2320E-13	5.3087E-11	2.9479E-10
H	6.5131E-02	2.0969E-01	2.8954E-01
H+	1.1965E-13	5.1086E-11	2.8372E-10
H2	8.8650E-01	7.4555E-01	6.6770E-01
H-	7.5286E-17	1.7788E-13	1.4507E-12
H2+	3.6210E-15	2.1783E-12	1.2525E-11
HE	4.8372E-02	4.4758E-02	4.2762E-02
HE+	1.2814E-35	4.0942E-29	2.6019E-27
HE++	0.	0.	0.

P1 = 2.00E+02 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.2088E+01	6.7024E+02	9.4372E+02
T	9.4107E+00	1.1760E+01	1.2465E+01
RHO	8.8936E+00	4.5431E+01	5.7092E+01
H	1.6070E+01	2.7634E+01	3.2528E+01
A	2.8970E+00	3.4824E+00	3.6982E+00
S	1.2660E+00	1.3272E+00	1.3688E+00
Z	1.1004E+00	1.2545E+00	1.3259E+00
GAME	8.1047E-01	8.2201E-01	8.2748E-01
U	7.5829E+00	1.4866E+00	1.3972E+00

SPECIES	MOLE FRACTIONS		
E-	8.5378E-12	1.6993E-09	6.0726E-09
H	1.8242E-01	4.0573E-01	4.9163E-01
H+	8.3232E-12	1.6407E-09	5.8736E-09
H2	7.7214E-01	5.5441E-01	4.7066E-01
H-	1.1020E-14	1.1098E-11	5.0815E-11
H2+	2.2559E-13	6.9743E-11	2.4983E-10
HE	4.5439E-02	3.9857E-02	3.7709E-02
HE+	7.0796E-32	1.2436E-25	3.1446E-24
HE++	0.	5.4912E-91	4.1095E-86

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1070E+02	9.0245E+02	1.2465E+03
T	9.8657E+00	1.2489E+01	1.3241E+01
RHO	9.8206E+00	5.4065E+01	6.6349E+01
H	1.8976E+01	3.3149E+01	3.8723E+01
A	3.0210E+00	3.7168E+00	3.9604E+00
S	1.3025E+00	1.3790E+00	1.4248E+00
Z	1.1427E+00	1.3365E+00	1.4187E+00
GAME	8.0957E-01	8.2763E-01	8.3492E-01
U	8.3715E+00	1.5230E+00	1.4533E+00

SPECIES	MOLE FRACTIONS		
E-	3.5385E-11	6.5049E-09	2.1476E-08
H	2.4968E-01	5.0361E-01	5.9032E-01
H+	3.4546E-11	6.2985E-09	2.0849E-08
H2	7.0656E-01	4.5898E-01	3.7444E-01
H-	5.8333E-14	5.2876E-11	2.1350E-10
H2+	8.9774E-13	2.5923E-10	8.4050E-10
HE	4.3758E-02	3.7410E-02	3.5242E-02
HE+	2.8351E-30	3.2120E-24	6.3698E-23
HE++	0.	1.4443E-86	3.3095E-81

P1 = 2.00E+02 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5275E+02	1.4825E+03	2.0068E+03
T	1.0685E+01	1.4006E+01	1.5010E+01
RHO	1.1505E+01	6.9488E+01	8.2067E+01
H	2.5535E+01	4.5576E+01	5.2863E+01
A	3.2832E+00	4.2440E+00	4.5829E+00
S	1.3822E+00	1.4898E+00	1.5447E+00
Z	1.2425E+00	1.5233E+00	1.6291E+00
GAME	8.1198E-01	8.4423E-01	8.5893E-01
U	9.9262E+00	1.6461E+00	1.6184E+00

SPECIES	MOLE FRACTIONS		
E-	3.2668E-10	6.6694E-08	2.3216E-07
H	3.9032E-01	6.8703E-01	7.7235E-01
H+	3.1987E-10	6.5077E-08	2.2755E-07
H2	5.6944E-01	2.8015E-01	1.9696E-01
H-	7.6274E-13	7.0868E-10	2.7480E-09
H2+	7.5774E-12	2.3260E-09	7.3531E-09
HE	4.0242E-02	3.2824E-02	3.0691E-02
HE+	7.6244E-28	8.4458E-22	1.8621E-20
HE++	0.	2.0032E-77	1.9670E-72

P1 = 2.00E+02 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3091E+02	1.1732E+03	1.5998E+03
T	1.0287E+01	1.3226E+01	1.4067E+01
RHO	1.0693E+01	6.2190E+01	7.4819E+01
H	2.2130E+01	3.9125E+01	4.5483E+01
A	3.1495E+00	3.9684E+00	4.2501E+00
S	1.3413E+00	1.4333E+00	1.4836E+00
Z	1.1901E+00	1.4263E+00	1.5200E+00
GAME	8.1025E-01	8.3484E-01	8.4475E-01
U	9.1508E+00	1.5758E+00	1.5253E+00

SPECIES	MOLE FRACTIONS		
E-	1.1735E-10	2.1448E-08	6.9822E-08
H	3.1947E-01	5.9780E-01	6.8423E-01
H+	1.1474E-10	2.0838E-08	6.8074E-08
H2	6.3852E-01	3.6714E-01	2.8288E-01
H-	2.3504E-13	2.0498E-10	7.8209E-10
H2+	2.8391E-12	8.1496E-10	2.5308E-09
HE	4.2013E-02	3.5055E-02	3.2894E-02
HE+	7.3292E-29	5.1756E-23	9.9234E-22
HE++	0.	7.8121E-81	1.1736E-77

P1 = 2.00E+02 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7621E+02	1.8268E+03	2.4675E+03
T	1.1071E+01	1.4874E+01	1.6199E+01
RHO	1.2248E+01	7.5535E+01	8.7372E+01
H	2.9191E+01	5.2489E+01	6.0910E+01
A	3.4231E+00	4.5533E+00	4.9942E+00
S	1.4251E+00	1.5478E+00	1.6075E+00
Z	1.2995E+00	1.6258E+00	1.7434E+00
GAME	8.1445E-01	8.5730E-01	8.8318E-01
U	1.0696E+01	1.7369E+00	1.7409E+00

SPECIES	MOLE FRACTIONS		
E-	8.0771E-10	2.0386E-07	8.6993E-07
H	4.6096E-01	7.6985E-01	8.5280E-01
H+	7.9188E-10	1.9986E-07	8.5781E-07
H2	5.0057E-01	1.9939E-01	1.1852E-01
H-	2.1372E-12	2.2834E-09	1.0039E-08
H2+	1.7964E-11	6.2782E-09	2.2159E-08
HE	3.8476E-02	3.0754E-02	2.8680E-02
HE+	5.2937E-27	1.2121E-20	4.5605E-19
HE++	0.	9.7136E-73	4.9221E-67

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0126E+02	2.1995E+03	2.9893E+03
T	1.1455E+01	1.5926E+01	1.8070E+01
RHO	1.2910E+01	7.9770E+01	8.9149E+01
H	3.3096E+01	5.9850E+01	6.9866E+01
A	3.5702E+00	4.9212E+00	5.6198E+00
S	1.4698E+00	1.6065E+00	1.6718E+00
Z	1.3610E+00	1.7313E+00	1.8557E+00
GAME	8.1757E-01	8.7832E-01	9.4186E-01
U	1.1461E+01	1.8575E+00	1.9386E+00

SPECIES	MOLE FRACTIONS		
E-	1.8621E-09	6.7969E-07	5.0588E-06
H	5.3049E-01	8.4481E-01	9.2222E-01
H+	1.8282E-09	6.6999E-07	5.0222E-06
H2	4.3278E-01	1.2631E-01	5.0823E-02
H-	5.4556E-12	7.4532E-09	4.8261E-08
H2+	3.9293E-11	1.7148E-08	8.4803E-08
HE	3.6738E-02	2.8880E-02	2.6944E-02
HE+	3.1614E-26	2.3046E-19	3.6237E-17
HE++	6.5901E-92	3.6796E-68	3.1035E-60

P1 = 2.00E+02 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5606E+02	2.9695E+03	4.3322E+03
T	1.2247E+01	1.9966E+01	3.0002E+01
RHO	1.3970E+01	7.7806E+01	7.3949E+01
H	4.1658E+01	7.5738E+01	9.3234E+01
A	3.8913E+00	6.2657E+00	7.9693E+00
S	1.5641E+00	1.7196E+00	1.7952E+00
Z	1.4965E+00	1.9115E+00	1.9527E+00
GAME	8.2615E-01	1.0287E+00	1.0841E+00
U	1.2976E+01	2.3320E+00	3.0137E+00

SPECIES	MOLE FRACTIONS		
E-	8.9795E-09	2.3217E-05	2.6382E-03
H	6.6359E-01	9.5365E-01	9.6784E-01
H+	8.8480E-09	2.3141E-05	2.6375E-03
H2	3.0300E-01	2.0146E-02	1.2687E-03
H-	2.9969E-11	1.5226E-07	5.6860E-06
H2+	1.6152E-10	2.2764E-07	6.3349E-06
HE	3.3410E-02	2.6157E-02	2.5606E-02
HE+	1.5999E-24	1.4472E-15	1.9734E-10
HE++	9.1103E-88	1.4221E-54	8.0879E-36

P1 = 2.00E+02 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2788E+02	2.5888E+03	3.6069E+03
T	1.1844E+01	1.7396E+01	2.2444E+01
RHO	1.3484E+01	8.1185E+01	8.3135E+01
H	3.7252E+01	6.7626E+01	8.0557E+01
A	3.7257E+00	5.4201E+00	6.9175E+00
S	1.5162E+00	1.6646E+00	1.7374E+00
Z	1.4268E+00	1.8330E+00	1.9331E+00
GAME	8.2141E-01	9.2129E-01	1.1030E+00
U	1.2221E+01	2.0331E+00	2.3603E+00

SPECIES	MOLE FRACTIONS		
E-	4.1730E-09	2.9286E-06	1.0495E-04
H	5.9825E-01	9.0887E-01	9.6507E-01
H+	4.1046E-09	2.9037E-06	1.0479E-04
H2	3.6671E-01	6.3841E-02	8.8500E-03
H-	1.3178E-11	2.7917E-08	5.3771E-07
H2+	8.1552E-11	5.2808E-08	6.9838E-07
HE	3.5044E-02	2.7278E-02	2.5865E-02
HE+	2.6131E-25	8.5946E-18	6.7136E-14
HE++	4.4088E-91	1.1373E-62	1.7666E-48

P1 = 2.00E+02 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8578E+02	3.3045E+03	5.0496E+03
T	1.2678E+01	2.4438E+01	3.5900E+01
RHO	1.4359E+01	6.9606E+01	7.1247E+01
H	4.6313E+01	8.4037E+01	1.0560E+02
A	4.0697E+00	7.3331E+00	8.3285E+00
S	1.6133E+00	1.7676E+00	1.8386E+00
Z	1.5699E+00	1.9426E+00	1.9742E+00
GAME	8.3217E-01	1.1327E+00	9.7869E-01
U	1.3726E+01	2.8331E+00	3.4634E+00

SPECIES	MOLE FRACTIONS		
E-	1.9134E-08	3.1812E-04	1.2779E-02
H	7.2607E-01	9.6951E-01	9.4859E-01
H+	1.8888E-08	3.1750E-04	1.2776E-02
H2	2.4208E-01	4.1151E-03	4.9392E-04
H-	6.6077E-11	1.0906E-06	1.7132E-05
H2+	3.1184E-10	1.3187E-06	1.9383E-05
HE	3.1848E-02	2.5738E-02	2.5327E-02
HE+	9.2181E-24	9.5084E-13	9.8808E-09
HE++	2.6914E-85	3.1151E-44	1.1187E-29

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1700E+02	3.6157E+03	5.7327E+03
T	1.3156E+01	2.9587E+01	3.9945E+01
RHO	1.4635E+01	6.2585E+01	7.1539E+01
H	5.1217E+01	9.2598E+01	1.1752E+02
A	4.2664E+00	7.9203E+00	8.6233E+00
S	1.6635E+00	1.8080E+00	1.8748E+00
Z	1.6465E+00	1.9526E+00	2.0061E+00
GAME	8.4034E-01	1.0858E+00	9.2795E-01
U	1.4468E+01	3.3896E+00	3.7205E+00

SPECIES	MOLE FRACTIONS		
E-	4.1925E-08	2.5100E-03	2.8312E-02
H	7.8527E-01	9.6821E-01	9.1809E-01
H+	4.1470E-08	2.5095E-03	2.8307E-02
H2	1.8436E-01	1.1590E-03	3.0236E-04
H-	1.4581E-10	4.7408E-06	2.9412E-05
H2+	6.0126E-10	5.2922E-06	3.4644E-05
HE	3.0368E-02	2.5607E-02	2.4924E-02
HE+	5.8481E-23	1.5384E-10	7.3810E-08
HE++	7.8794E-82	2.8563E-36	1.6039E-26

P1 = 2.00E+02 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8352E+02	4.2790E+03	6.9527E+03
T	1.4449E+01	3.7688E+01	4.5587E+01
RHO	1.4717E+01	5.7076E+01	7.3096E+01
H	6.1766E+01	1.1127E+02	1.4153E+02
A	4.7731E+00	8.4144E+00	9.2052E+00
S	1.7654E+00	1.8767E+00	1.9421E+00
Z	1.8036E+00	1.9908E+00	2.0865E+00
GAME	8.7426E-01	9.4417E-01	8.9084E-01
U	1.5922E+01	4.0998E+00	4.0143E+00

SPECIES	MOLE FRACTIONS		
E-	2.7371E-07	2.0852E-02	6.5657E-02
H	8.9111E-01	9.3282E-01	8.4446E-01
H+	2.7199E-07	2.0849E-02	6.5643E-02
H2	8.1166E-02	3.2153E-04	1.6731E-04
H-	8.4683E-10	1.9794E-05	4.9911E-05
H2+	2.5681E-09	2.2761E-05	6.3467E-05
HE	2.7722E-02	2.5115E-02	2.3963E-02
HE+	5.8177E-21	2.7546E-08	6.6839E-07
HE++	8.8059E-75	1.4726E-28	4.8860E-23

P1 = 2.00E+02 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4963E+02	3.9456E+03	6.3788E+03
T	1.3720E+01	3.4101E+01	4.3026E+01
RHO	1.4772E+01	5.8817E+01	7.2530E+01
H	5.6370E+01	1.0166E+02	1.2945E+02
A	4.4922E+00	8.1884E+00	8.9161E+00
S	1.7144E+00	1.8434E+00	1.9084E+00
Z	1.7251E+00	1.9671E+00	2.0440E+00
GAME	8.5262E-01	9.9952E-01	9.0391E-01
U	1.5202E+01	3.8149E+00	3.8901E+00

SPECIES	MOLE FRACTIONS		
E-	9.9227E-08	9.2469E-03	4.6267E-02
H	8.4062E-01	9.5554E-01	8.8270E-01
H+	9.8367E-08	9.2455E-03	4.6258E-02
H2	1.3039E-01	5.2082E-04	2.1795E-04
H-	3.3460E-10	1.1580E-05	4.0512E-05
H2+	1.1963E-09	1.2951E-05	4.9651E-05
HE	2.8984E-02	2.5418E-02	2.4461E-02
HE+	4.8314E-22	3.8158E-09	.6392E-07
HE++	8.9001E-79	3.0417E-31	1.6533E-24

P1 = 2.00E+02 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1832E+02	4.5507E+03	7.3587E+03
T	1.5546E+01	4.0544E+01	4.7713E+01
RHO	1.4339E+01	5.5573E+01	7.2362E+01
H	6.7401E+01	1.2131E+02	1.5364E+02
A	5.1891E+00	8.6534E+00	9.4772E+00
S	1.8154E+00	1.9101E+00	1.9761E+00
Z	1.8766E+00	2.0216E+00	2.1314E+00
GAME	9.2299E-01	9.1412E-01	8.8322E-01
U	1.6615E+01	4.2808E+00	4.1008E+00

SPECIES	MOLE FRACTIONS		
E-	1.0574E-06	3.5709E-02	8.5295E-02
H	9.3422E-01	9.0357E-01	8.0571E-01
H+	1.0534E-06	3.5704E-02	8.5275E-02
H2	3.9130E-02	2.2255E-04	1.3220E-04
H-	2.7076E-09	2.7484E-05	5.6735E-05
H2+	6.6968E-09	3.2643E-05	7.4525E-05
HE	2.6644E-02	2.4732E-02	2.3458E-02
HE+	1.5874E-19	1.0769E-07	1.3508E-06
HE++	6.4000E-69	2.2376E-26	6.2870E-22

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5280E+02	4.6066E+03	7.3698E+03
T	1.7604E+01	4.2801E+01	4.9383E+01
RHO	1.3336E+01	5.2333E+01	6.8542E+01
H	7.3244E+01	1.3137E+02	1.6539E+02
A	5.9626E+00	8.8784E+00	9.7175E+00
S	1.8630E+00	1.9457E+00	2.0127E+00
Z	1.9287E+00	2.0566E+00	2.1773E+00
GAME	1.0471E+00	8.9549E-01	8.7824E-01
U	1.7238E+01	4.3890E+00	4.1586E+00

SPECIES	MOLE FRACTIONS		
E-	8.7154E-06	5.2040E-02	1.0459E-01
H	9.6302E-01	8.7139E-01	7.6763E-01
H+	8.7028E-06	5.2032E-02	1.0457E-01
H2	1.1041E-02	1.5717E-04	1.0392E-04
H-	1.4654E-08	3.3033E-05	5.9610E-05
H2+	2.7251E-08	4.0362E-05	8.0395E-05
HE	2.5924E-02	2.4311E-02	2.2962E-02
HE+	3.0831E-17	2.8374E-07	2.3022E-06
HE++	3.3680E-61	1.6730E-24	4.2091E-21

P1 = 2.00E+02 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2052E+02	4.3237E+03	6.6974E+03
T	2.5011E+01	4.6020E+01	5.1759E+01
RHO	1.0667E+01	4.4009E+01	5.6992E+01
H	8.5517E+01	1.5142E+02	1.8775E+02
A	7.3903E+00	9.2865E+00	1.0125E+01
S	1.9395E+00	2.0202E+00	2.0895E+00
Z	1.9510E+00	2.1349E+00	2.2704E+00
GAME	1.1192E+00	8.7778E-01	8.7237E-01
U	1.8298E+01	4.4407E+00	4.2077E+00

SPECIES	MOLE FRACTIONS		
E-	1.0565E-03	8.6727E-02	1.4127E-01
H	9.7171E-01	8.0296E-01	6.9527E-01
H+	1.0564E-03	8.6716E-02	1.4124E-01
H2	5.4532E-04	9.0228E-05	6.3864E-05
H-	5.2520E-07	3.7839E-05	5.7241E-05
H2+	6.2565E-07	4.8434E-05	8.0234E-05
HE	2.5628E-02	2.3420E-02	2.2018E-02
HE+	4.6594E-12	9.9092E-07	4.8962E-06
HE++	1.8504E-42	1.3933E-22	5.8135E-20

P1 = 2.00E+02 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8636E+02	4.4497E+03	7.0069E+03
T	2.1046E+01	4.4524E+01	5.0630E+01
RHO	1.1875E+01	4.7715E+01	6.2247E+01
H	7.9274E+01	1.4128E+02	1.7651E+02
A	6.8578E+00	9.0831E+00	9.9228E+00
S	1.9042E+00	1.9834E+00	2.0515E+00
Z	1.9461E+00	2.0945E+00	2.2233E+00
GAME	1.1483E+00	8.8469E-01	8.7471E-01
U	1.7778E+01	4.4284E+00	4.1854E+00

SPECIES	MOLE FRACTIONS		
E-	1.2149E-04	6.9157E-02	1.2308E-01
H	9.7195E-01	8.3763E-01	7.3115E-01
H+	1.2145E-04	6.9147E-02	1.2306E-01
H2	2.1136E-03	1.1708E-04	8.0844E-05
H-	1.0818E-07	3.5958E-05	5.8770E-05
H2+	1.5112E-07	4.5017E-05	8.0872E-05
HE	2.5692E-02	2.3871E-02	2.2486E-02
HE+	2.1934E-14	5.6575E-07	3.4463E-06
HE++	8.5131E-51	1.9179E-23	1.7113E-20

P1 = 2.00E+02 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5702E+02	4.3484E+03	6.6434E+03
T	2.8628E+01	4.7493E+01	5.2987E+01
RHO	9.9350E+00	4.2032E+01	5.4029E+01
H	9.2021E+01	1.6223E+02	1.9988E+02
A	7.6104E+00	9.5056E+00	1.0349E+01
S	1.9703E+00	2.0548E+00	2.1255E+00
Z	1.9585E+00	2.1783E+00	2.3206E+00
GAME	1.0330E+00	8.7340E-01	8.7109E-01
U	1.8858E+01	4.4673E+00	4.2439E+00

SPECIES	MOLE FRACTIONS		
E-	4.5484E-03	1.0493E-01	1.5982E-01
H	9.6515E-01	7.6704E-01	6.5865E-01
H+	4.5482E-03	1.0491E-01	1.5979E-01
H2	2.2032E-04	7.2221E-05	5.1739E-05
H-	1.4806E-06	3.9836E-05	5.6575E-05
H2+	1.6640E-06	5.2153E-05	8.0923E-05
HE	2.5530E-02	2.2952E-02	2.1539E-02
HE+	1.7220E-10	1.6388E-06	6.9279E-06
HE++	9.1088E-37	8.4131E-22	1.9854E-19

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9668E+02	4.5304E+03	6.8398E+03
T	3.1562E+01	4.9018E+01	5.4368E+01
RHO	9.5838E+00	4.1531E+01	5.2977E+01
H	9.8819E+01	1.7397E+02	2.1322E+02
A	7.7386E+00	9.7462E+00	1.0603E+01
S	1.9985E+00	2.0876E+00	2.1602E+00
Z	1.9726E+00	2.2254E+00	2.3747E+00
GAME	9.6188E-01	8.7077E-01	8.7070E-01
U	1.9481E+01	4.4985E+00	4.2980E+00

SPECIES	MOLE FRACTIONS		
E-	1.1580E-02	1.2386E-01	1.7898E-01
H	9.5136E-01	7.2966E-01	6.2084E-01
H+	1.1579E-02	1.2385E-01	1.7894E-01
H2	1.2308E-04	5.9538E-05	4.2735E-05
H-	2.8375E-06	4.2215E-05	5.6762E-05
H2+	3.1525E-06	5.6609E-05	8.3075E-05
HE	2.5347E-02	2.2465E-02	2.1045E-02
HE+	1.7561E-09	2.6318E-06	9.8753E-06
HE++	4.2342E-33	4.7385E-21	7.2040E-19

P1 = 2.00E+02 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8358E+02	5.1770E+03	7.6900E+03
T	3.5825E+01	5.2106E+01	5.7395E+01
RHO	9.4591E+00	4.2680E+01	5.3755E+01
H	1.1325E+02	1.9958E+02	2.4280E+02
A	8.0443E+00	1.0266E+01	1.1168E+01
S	2.0511E+00	2.1509E+00	2.2278E+00
Z	2.0172E+00	2.3279E+00	2.4925E+00
GAME	8.9544E-01	8.6887E-01	8.7192E-01
U	2.0835E+01	4.6217E+00	4.4458E+00

SPECIES	MOLE FRACTIONS		
E-	3.3386E-02	1.6246E-01	2.1777E-01
H	9.0837E-01	6.5348E-01	5.4428E-01
H+	3.3386E-02	1.6243E-01	2.1771E-01
H2	6.2013E-05	4.2449E-05	2.9909E-05
H-	5.8421E-06	4.6841E-05	5.7515E-05
H2+	6.6071E-06	6.6035E-05	8.8563E-05
HE	2.4787E-02	2.1472E-02	2.0041E-02
HE+	2.5740E-08	6.1730E-06	1.9805E-05
HE++	7.0635E-29	1.0977E-19	9.2926E-18

P1 = 2.00E+02 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3882E+02	4.8133E+03	7.2029E+03
T	3.3898E+01	5.0553E+01	5.5842E+01
RHO	9.4574E+00	4.1848E+01	5.3038E+01
H	1.0589E+02	1.8639E+02	2.2752E+02
A	7.8819E+00	9.9998E+00	1.0876E+01
S	2.0252E+00	2.1194E+00	2.1940E+00
Z	1.9927E+00	2.2752E+00	2.4320E+00
GAME	9.1972E-01	8.6938E-01	8.7102E-01
U	2.0140E+01	4.5551E+00	4.3666E+00

SPECIES	MOLE FRACTIONS		
E-	2.1503E-02	1.4305E-01	1.9831E-01
H	9.3181E-01	6.9180E-01	5.8269E-01
H+	2.1503E-02	1.4302E-01	1.9827E-01
H2	8.2972E-05	5.0028E-05	3.5702E-05
H-	4.3378E-06	4.4604E-05	5.7199E-05
H2+	4.8474E-06	6.1306E-05	8.5806E-05
HE	2.5092E-02	2.1972E-02	2.0545E-02
HE+	3.3341E-09	4.0839E-06	1.4020E-05
HE++	1.1767E-30	2.3805E-20	2.5958E-18

P1 = 2.00E+02 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7937E+02	6.0651E+03	8.9057E+03
T	3.8937E+01	5.5206E+01	6.0637E+01
RHO	9.6440E+00	4.5023E+01	5.6041E+01
H	1.2877E+02	2.2777E+02	2.7566E+02
A	8.3929E+00	1.0824E+01	1.1793E+01
S	2.1020E+00	2.2137E+00	2.2954E+00
Z	2.0755E+00	2.4402E+00	2.6207E+00
GAME	8.7164E-01	8.6965E-01	8.7511E-01
U	2.2274E+01	4.7760E+00	4.6275E+00

SPECIES	MOLE FRACTIONS		
E-	6.0518E-02	2.0097E-01	2.5605E-01
H	8.5482E-01	5.7744E-01	4.6873E-01
H+	6.0516E-02	2.0094E-01	2.5598E-01
H2	4.0483E-05	3.0872E-05	2.0829E-05
H-	8.6451E-06	5.0125E-05	5.6810E-05
H2+	1.0068E-05	7.4399E-05	9.2390E-05
HE	2.4090E-02	2.0477E-02	1.9040E-02
HE+	1.2437E-07	1.3078E-05	3.8439E-05
HE++	2.2273E-26	1.7890E-18	1.0780E-16

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.8273E+02	7.1189E+03	1.0367E+04
T	4.1473E+01	5.8308E+01	6.4050E+01
RHO	9.9357E+00	4.7693E+01	5.8705E+01
H	1.4534E+02	2.5816E+02	3.1134E+02
A	8.7495E+00	1.1410E+01	1.2467E+01
S	2.1524E+00	2.2765E+00	2.3640E+00
Z	2.1422E+00	2.5599E+00	2.7571E+00
GAME	8.6167E-01	8.7217E-01	8.8008E-01
U	2.3748E+01	4.9528E+00	4.8367E+00

SPECIES	MOLE FRACTIONS		
E-	8.9778E-02	2.3836E-01	2.9285E-01
H	7.9705E-01	5.0365E-01	3.9611E-01
H+	8.9775E-02	2.3830E-01	2.9274E-01
H2	2.9242E-05	2.2315E-05	1.4078E-05
H-	1.1048E-05	5.1340E-05	5.3784E-05
H2+	1.3265E-05	8.0281E-05	9.2632E-05
HE	2.3340E-02	1.9506E-02	1.8062E-02
HE+	3.7373E-07	2.5651E-05	7.2423E-05
HE++	1.2736E-24	2.1940E-17	1.1111E-15

P1 = 2.00E+02 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1096E+03	9.5844E+03	1.3839E+04
T	4.5739E+01	6.4652E+01	7.1621E+01
RHO	1.0568E+01	5.2635E+01	6.3394E+01
H	1.8151E+02	3.2476E+02	3.9052E+02
A	9.4784E+00	1.2670E+01	1.3992E+01
S	2.2556E+00	2.4056E+00	2.5038E+00
Z	2.2957E+00	2.8165E+00	3.0479E+00
GAME	8.5560E-01	8.8154E-01	8.9685E-01
U	2.6716E+01	5.3704E+00	5.3445E+00

SPECIES	MOLE FRACTIONS		
E-	1.5061E-01	3.0774E-01	3.6030E-01
H	6.7696E-01	3.6676E-01	2.6316E-01
H+	1.5060E-01	3.0761E-01	3.6001E-01
H2	1.6911E-05	1.0771E-05	5.4116E-06
H-	1.4495E-05	4.6963E-05	4.0890E-05
H2+	1.8477E-05	8.1703E-05	7.9749E-05
HE	2.1778E-02	1.7667E-02	1.6155E-02
HE+	1.7932E-06	8.5695E-05	2.5012E-04
HE++	4.1903E-22	1.8803E-15	9.9430E-14

P1 = 2.00E+02 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.9258E+02	8.2880E+03	1.2004E+04
T	4.3706E+01	6.1426E+01	6.7659E+01
RHO	1.0247E+01	5.0245E+01	6.1186E+01
H	1.6291E+02	2.9042E+02	3.4950E+02
A	9.1124E+00	1.2021E+01	1.3192E+01
S	2.2038E+00	2.3408E+00	2.4333E+00
Z	2.2163E+00	2.6854E+00	2.8996E+00
GAME	8.5723E-01	8.7609E-01	8.8707E-01
U	2.5223E+01	5.1500E+00	5.0732E+00

SPECIES	MOLE FRACTIONS		
E-	1.2018E-01	2.7395E-01	3.2758E-01
H	7.3703E-01	4.3342E-01	3.2762E-01
H+	1.2018E-01	2.7387E-01	3.2741E-01
H2	2.1996E-05	1.5783E-05	9.0588E-06
H-	1.3007E-05	5.0225E-05	4.8347E-05
H2+	1.6096E-05	8.2775E-05	8.8411E-05
HE	2.2560E-02	1.8572E-02	1.7110E-02
HE+	8.8327E-07	4.7566E-05	1.3404E-04
HE++	3.0399E-23	2.1610E-16	1.0498E-14

P1 = 2.00E+02 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2330E+03	1.0973E+04	1.5832E+04
T	4.7647E+01	6.8029E+01	7.6076E+01
RHO	1.0873E+01	5.4655E+01	6.5054E+01
H	2.0111E+02	3.6089E+02	4.3414E+02
A	9.8499E+00	1.3358E+01	1.4887E+01
S	2.3083E+00	2.4707E+00	2.5746E+00
Z	2.3800E+00	2.9512E+00	3.1990E+00
GAME	8.5555E-01	8.8879E-01	9.1061E-01
U	2.8204E+01	5.6177E+00	5.6494E+00

SPECIES	MOLE FRACTIONS		
E-	1.8071E-01	3.3935E-01	3.9050E-01
H	6.1753E-01	3.0443E-01	2.0377E-01
H+	1.8070E-01	3.3916E-01	3.8999E-01
H2	1.3090E-05	7.0030E-06	2.9194E-06
H-	1.5504E-05	4.1800E-05	3.2061E-05
H2+	2.0348E-05	7.6904E-05	6.7060E-05
HE	2.1005E-02	1.6790E-02	1.5152E-02
HE+	3.3030E-06	1.5198E-04	4.7771E-04
HE++	4.0547E-21	1.5091E-14	9.9472E-13

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3627E+03	1.2444E+04	1.8003E+04
T	4.9477E+01	7.1660E+01	8.1385E+01
RHO	1.1156E+01	5.6226E+01	6.6002E+01
H	2.2171E+02	3.9881E+02	4.8107E+02
A	1.0229E+01	1.4102E+01	1.5932E+01
S	2.3618E+00	2.5361E+00	2.6463E+00
Z	2.4689E+00	3.0886E+00	3.3516E+00
GAME	8.5654E-01	8.9850E-01	9.3060E-01
U	2.9690E+01	5.8978E+00	6.0374E+00

SPECIES	MOLE FRACTIONS		
E-	2.1022E-01	3.6872E-01	4.1824E-01
H	5.5928E-01	2.4657E-01	1.4952E-01
H+	2.1020E-01	3.6841E-01	4.1725E-01
H2	1.0120E-05	4.2631E-06	1.3473E-06
H-	1.6044E-05	3.5194E-05	2.2673E-05
H2+	2.1675E-05	6.8682E-05	5.1298E-05
HE	2.0246E-02	1.5918E-02	1.3957E-02
HE+	5.6938E-06	2.7012E-04	9.6178E-04
HE++	3.0550E-20	1.1871E-13	1.1821E-11

P1 = 2.00E+02 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6411E+03	1.5560E+04	2.2878E+04
T	5.3037E+01	8.0288E+01	9.6886E+01
RHO	1.1637E+01	5.7639E+01	6.5005E+01
H	2.6593E+02	4.7978E+02	5.8584E+02
A	1.1018E+01	1.5842E+01	1.8754E+01
S	2.4713E+00	2.6660E+00	2.7886E+00
Z	2.6590E+00	3.3623E+00	3.6325E+00
GAME	8.6077E-01	9.2968E-01	9.9933E-01
U	3.2650E+01	6.5987E+00	7.0984E+00

SPECIES	MOLE FRACTIONS		
E-	2.6668E-01	4.2008E-01	4.6320E-01
H	4.4782E-01	1.4584E-01	6.4216E-02
H+	2.6666E-01	4.1914E-01	4.5879E-01
H2	5.8861E-06	1.1742E-06	1.3765E-07
H-	1.5809E-05	2.0136E-05	7.2578E-06
H2+	2.2633E-05	4.4841E-05	1.9668E-05
HE	1.8789E-02	1.3957E-02	9.3691E-03
HE+	1.4945E-05	9.1415E-04	4.3955E-03
HE++	1.0826E-18	8.7891E-12	3.7095E-09

P1 = 2.00E+02 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4988E+03	1.3980E+04	2.0346E+04
T	5.1265E+01	7.5685E+01	8.8037E+01
RHO	1.1411E+01	5.7253E+01	6.6050E+01
H	2.4332E+02	4.3847E+02	5.3137E+02
A	1.0618E+01	1.4920E+01	1.7190E+01
S	2.4162E+00	2.6014E+00	2.7177E+00
Z	2.5620E+00	3.2266E+00	3.4989E+00
GAME	8.5832E-01	9.1166E-01	9.5934E-01
U	3.1172E+01	6.2202E+00	6.5042E+00

SPECIES	MOLE FRACTIONS		
E-	2.3892E-01	3.9571E-01	4.4272E-01
H	5.0262E-01	1.9352E-01	1.0229E-01
H+	2.3890E-01	3.9519E-01	4.4065E-01
H2	7.7660E-06	2.3750E-06	4.9992E-07
H-	1.6136E-05	2.7735E-05	1.3987E-05
H2+	2.2439E-05	5.7656E-05	3.4561E-05
HE	1.9506E-02	1.5007E-02	1.2240E-02
HE+	9.3728E-06	4.8855E-04	2.0497E-03
HE++	1.9382E-19	9.7181E-13	1.8064E-10

P1 = 2.00E+02 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7895E+03	1.7153E+04	2.5654E+04
T	5.4819E+01	8.5774E+01	1.0931E+02
RHO	1.1830E+01	5.7282E+01	6.2723E+01
H	2.8953E+02	5.2264E+02	6.4614E+02
A	1.1432E+01	1.6903E+01	2.0805E+01
S	2.5273E+00	2.7295E+00	2.8587E+00
Z	2.7596E+00	3.4912E+00	3.7416E+00
GAME	8.6389E-01	9.5407E-01	1.0583E+00
U	3.4121E+01	7.0537E+00	7.9237E+00

SPECIES	MOLE FRACTIONS		
E-	2.9340E-01	4.4148E-01	4.7885E-01
H	3.9508E-01	1.0447E-01	3.6982E-02
H+	2.9337E-01	4.3969E-01	4.7080E-01
H2	4.3830E-06	4.9607E-07	2.6195E-08
H-	1.5099E-05	1.3203E-05	3.1528E-06
H2+	2.2628E-05	3.1698E-05	9.1205E-06
HE	1.8095E-02	1.2551E-02	5.3199E-03
HE+	2.3345E-05	1.7706E-03	8.0431E-03
HE++	5.5685E-18	9.2566E-11	9.3447E-08

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9440E+03	1.8728E+04	2.8699E+04
T	5.6639E+01	9.2480E+01	1.2701E+02
RHO	1.1987E+01	5.6154E+01	5.9244E+01
H	3.1414E+02	5.6691E+02	7.1321E+02
A	1.1863E+01	1.8128E+01	2.3387E+01
S	2.5839E+00	2.7906E+00	2.9262E+00
Z	2.8633E+00	3.6064E+00	3.8141E+00
GAME	8.6774E-01	9.8534E-01	1.1291E+00
U	3.5586E+01	7.6056E+00	9.0151E+00

SPECIES	MOLE FRACTIONS		
E-	3.1900E-01	4.5932E-01	4.8874E-01
H	3.4454E-01	7.0912E-02	2.0294E-02
H+	3.1896E-01	4.5588E-01	4.7785E-01
H2	3.1890E-06	1.7425E-07	3.5285E-09
H-	1.4051E-05	7.7268E-06	1.2862E-06
H2+	2.1365E-05	2.0068E-05	3.4980E-06
HE	1.7426E-02	1.0434E-02	2.2258E-03
HE+	3.6053E-05	3.4256E-03	1.0881E-02
HE++	2.7058E-17	1.1282E-09	2.3519E-06

P1 = 2.00E+02 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2708E+03	2.1643E+04	3.5404E+04
T	6.0515E+01	1.1132E+02	1.7561E+02
RHO	1.2188E+01	5.1499E+01	5.2087E+01
H	3.6633E+02	6.5878E+02	8.6513E+02
A	1.2792E+01	2.1278E+01	2.8092E+01
S	2.6985E+00	2.9050E+00	3.0446E+00
Z	3.0787E+00	3.7754E+00	3.8706E+00
GAME	8.7837E-01	1.0773E+00	1.1610E+00
U	3.8491E+01	9.1252E+00	1.1734E+01

SPECIES	MOLE FRACTIONS		
E-	3.6663E-01	4.8350E-01	4.9621E-01
H	2.5056E-01	2.8759E-02	7.4694E-03
H+	3.6654E-01	4.7449E-01	4.8341E-01
H2	1.5293E-06	1.2008E-08	7.7092E-11
H-	1.1158E-05	1.9668E-06	4.0185E-07
H2+	1.8109E-05	5.6977E-06	5.4836E-07
HE	1.6155E-02	4.2416E-03	5.6874E-04
HE+	8.6111E-05	9.0020E-03	1.1898E-02
HE++	6.1403E-16	1.8173E-07	4.5130E-04

P1 = 2.00E+02 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.1045E+03	2.0244E+04	3.1975E+04
T	5.8525E+01	1.0089E+02	1.4965E+02
RHO	1.2108E+01	5.4182E+01	5.5484E+01
H	3.3974E+02	6.1239E+02	7.8661E+02
A	1.2315E+01	1.9573E+01	2.5911E+01
S	2.6410E+00	2.8497E+00	2.9879E+00
Z	2.9699E+00	3.7032E+00	3.8511E+00
GAME	8.7248E-01	1.0254E+00	1.1650E+00
U	3.7043E+01	8.2826E+00	1.0317E+01

SPECIES	MOLE FRACTIONS		
E-	3.4343E-01	4.7344E-01	4.9365E-01
H	2.9633E-01	4.5727E-02	1.1741E-02
H+	3.4337E-01	4.6732E-01	4.8163E-01
H2	2.2515E-06	4.9728E-08	4.6369E-10
H-	1.2718E-05	4.0295E-06	6.4079E-07
H2+	1.9962E-05	1.1243E-05	1.3102E-06
HE	1.6780E-02	7.3885E-03	1.0081E-03
HE+	5.5542E-05	6.1133E-03	1.1933E-02
HE++	1.2868E-16	1.4957E-08	4.2304E-05

P1 = 2.00E+02 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4427E+03	2.2922E+04	3.8749E+04
T	6.2658E+01	1.2408E+02	2.0032E+02
RHO	1.2224E+01	4.8328E+01	4.9776E+01
H	3.9391E+02	7.0604E+02	9.4397E+02
A	1.3304E+01	2.3136E+01	2.9655E+01
S	2.7562E+00	2.9564E+00	3.0921E+00
Z	3.1890E+00	3.8225E+00	3.8861E+00
GAME	8.8582E-01	1.1286E+00	1.1297E+00
U	3.9927E+01	1.0089E+01	1.2971E+01

SPECIES	MOLE FRACTIONS		
E-	3.8854E-01	4.8987E-01	4.9821E-01
H	2.0736E-01	1.8117E-02	5.3939E-03
H+	3.8840E-01	4.7893E-01	4.8353E-01
H2	9.8763E-07	2.6006E-09	2.0447E-11
H-	9.4352E-06	9.7161E-07	2.9722E-07
H2+	1.5875E-05	2.7011E-06	2.8861E-07
HE	1.5543E-02	2.1392E-03	3.4925E-04
HE+	1.3570E-04	1.0939E-02	1.0348E-02
HE++	3.0405E-15	1.8844E-06	2.1688E-03

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6199E+03	2.4032E+04	4.1985E+04
T	6.5024E+01	1.3867E+02	2.2387E+02
RHO	1.2210E+01	4.5015E+01	4.8035E+01
H	4.2247E+02	7.5387E+02	1.0239E+03
A	1.3862E+01	2.4875E+01	3.1215E+01
S	2.8140E+00	3.0036E+00	3.1350E+00
Z	3.2998E+00	3.8499E+00	3.9042E+00
GAME	8.9552E-01	1.1591E+00	1.1148E+00
U	4.1349E+01	1.1190E+01	1.4097E+01

SPECIES	MOLE FRACTIONS		
E-	4.0907E-01	4.9350E-01	5.0054E-01
H	1.6691E-01	1.1880E-02	4.1909E-03
H+	4.0885E-01	4.8163E-01	4.8246E-01
H2	5.9669E-07	5.7944E-10	7.3181E-12
H-	7.6256E-06	5.3801E-07	2.3535E-07
H2+	1.3347E-05	1.2871E-06	1.7574E-07
HE	1.4932E-02	1.1386E-03	1.8768E-04
HE+	2.1992E-04	1.1833E-02	7.1604E-03
HE++	1.6225E-14	1.5169E-05	5.4586E-03

P1 = 2.00E+02 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9888E+03	2.5716E+04	4.7982E+04
T	7.0886E+01	1.7057E+02	2.7467E+02
RHO	1.1993E+01	3.8892E+01	4.4425E+01
H	4.8248E+02	8.5116E+02	1.1912E+03
A	1.5195E+01	2.7720E+01	3.5385E+01
S	2.9283E+00	3.0886E+00	3.2136E+00
Z	3.5158E+00	3.8765E+00	3.9322E+00
GAME	9.2644E-01	1.1621E+00	1.1593E+00
U	4.4129E+01	1.3590E+01	1.6329E+01

SPECIES	MOLE FRACTIONS		
E-	4.4537E-01	4.9697E-01	5.0409E-01
H	9.5695E-02	5.9990E-03	2.6742E-03
H+	4.4470E-01	4.8413E-01	4.8052E-01
H2	1.6088E-07	4.3085E-11	1.2568E-12
H-	4.1071E-06	2.3881E-07	1.4696E-07
H2+	7.9101E-06	3.5173E-07	7.4663E-08
HE	1.3554E-02	4.6605E-04	2.9759E-05
HE+	6.6760E-04	1.2023E-02	1.8018E-03
HE++	7.1460E-13	4.0922E-04	1.0884E-02

P1 = 2.00E+02 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8021E+03	2.4969E+04	4.5050E+04
T	6.7714E+01	1.5421E+02	2.4833E+02
RHO	1.2137E+01	4.1885E+01	4.6265E+01
H	4.5200E+02	8.0225E+02	1.1052E+03
A	1.4483E+01	2.6399E+01	3.3221E+01
S	2.8714E+00	3.0469E+00	3.1757E+00
Z	3.4096E+00	3.8657E+00	3.9212E+00
GAME	9.0853E-01	1.1690E+00	1.1334E+00
U	4.2752E+01	1.2372E+01	1.5150E+01

SPECIES	MOLE FRACTIONS		
E-	4.2809E-01	4.9557E-01	5.0270E-01
H	1.2951E-01	8.2612E-03	3.3339E-03
H+	4.2771E-01	4.8324E-01	4.8122E-01
H2	3.2947E-07	1.4829E-10	2.9441E-12
H-	5.8154E-06	3.4308E-07	1.8721E-07
H2+	1.0640E-05	6.5343E-07	1.1299E-07
HE	1.4293E-02	6.9634E-04	8.0456E-05
HE+	3.7198E-04	1.2148E-02	3.8613E-03
HE++	9.8152E-14	8.9752E-05	8.8096E-03

P1 = 2.00E+02 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1790E+03	2.6324E+04	5.0528E+04
T	7.4769E+01	1.8605E+02	3.0342E+02
RHO	1.1762E+01	3.6413E+01	4.2285E+01
H	5.1391E+02	9.0119E+02	1.2789E+03
A	1.6032E+01	2.8722E+01	3.7464E+01
S	2.9840E+00	3.1258E+00	3.2507E+00
Z	3.6148E+00	3.8858E+00	3.9383E+00
GAME	9.5094E-01	1.1411E+00	1.1746E+00
U	4.5472E+01	1.4697E+01	1.7484E+01

SPECIES	MOLE FRACTIONS		
E-	4.6056E-01	4.9817E-01	5.0486E-01
H	6.6330E-02	4.6250E-03	2.1404E-03
H+	4.5927E-01	4.8434E-01	4.8030E-01
H2	6.6617E-08	1.5628E-11	5.4966E-13
H-	2.6212E-06	1.8019E-07	1.1218E-07
H2+	5.3640E-06	2.1111E-07	4.9703E-08
HE	1.2545E-02	3.2786E-04	1.0467E-05
HE+	1.2865E-03	1.1248E-02	8.1657E-04
HE++	6.6792E-12	1.2918E-03	1.1869E-02

TABLE I. - Continued

$p_1 = 200\ N/m^2$

P1 = 2.00E+02 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3718E+03	2.6735E+04	5.2627E+04
T	7.9653E+01	2.0169E+02	3.3388E+02
RHO	1.1436E+01	3.4014E+01	3.9989E+01
H	5.4624E+02	9.5214E+02	1.3699E+03
A	1.7012E+01	2.9639E+01	3.9423E+01
S	3.0379E+00	3.1636E+00	3.2870E+00
Z	3.7015E+00	3.8971E+00	3.9416E+00
GAME	9.8154E-01	1.1177E+00	1.1810E+00
U	4.6769E+01	1.5707E+01	1.8718E+01

SPECIES	MOLE FRACTIONS		
E-	4.7319E-01	4.9963E-01	5.0528E-01
H	4.2712E-02	3.6576E-03	1.7192E-03
H+	4.7058E-01	4.8388E-01	4.8031E-01
H2	2.2576E-08	6.2523E-12	2.5092E-13
H-	1.4801E-06	1.3854E-07	8.4182E-08
H2+	3.2546E-06	1.3244E-07	3.3650E-08
HE	1.0898E-02	2.1667E-04	3.8346E-06
HE+	2.6100E-03	9.4777E-03	3.9332E-04
HE++	8.1761E-11	3.1356E-03	1.2288E-02

P1 = 2.00E+02 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7610E+03	2.6858E+04	5.4888E+04
T	9.3361E+01	2.3176E+02	3.9508E+02
RHO	1.0534E+01	2.9548E+01	3.5217E+01
H	6.1346E+02	1.0555E+03	1.5512E+03
A	1.9451E+01	3.1944E+01	4.2964E+01
S	3.1391E+00	3.2359E+00	3.3552E+00
Z	3.8241E+00	3.9220E+00	3.9450E+00
GAME	1.0597E+00	1.1226E+00	1.1843E+00
U	4.9188E+01	1.7489E+01	2.0978E+01

SPECIES	MOLE FRACTIONS		
E-	4.9008E-01	5.0280E-01	5.0570E-01
H	1.5039E-02	2.4308E-03	1.1435E-03
H+	4.8180E-01	4.8202E-01	4.8048E-01
H2	1.5011E-09	1.3168E-12	6.2672E-14
H-	3.3904E-07	8.5694E-08	4.6873E-08
H2+	8.8058E-07	5.9194E-08	1.6624E-08
HE	4.7984E-03	6.9501E-05	6.8361E-07
HE+	8.2765E-03	4.5695E-03	1.2504E-04
HE++	1.6124E-08	8.1096E-03	1.2549E-02

P1 = 2.00E+02 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5665E+03	2.6936E+04	5.4080E+04
T	8.5761E+01	2.1664E+02	3.6397E+02
RHO	1.1026E+01	3.1801E+01	3.7677E+01
H	5.7944E+02	1.0038E+03	1.4600E+03
A	1.8124E+01	3.0673E+01	4.1213E+01
S	3.0896E+00	3.1999E+00	3.3210E+00
Z	3.7716E+00	3.9099E+00	3.9436E+00
GAME	1.0155E+00	1.1108E+00	1.1833E+00
U	4.8015E+01	1.6625E+01	1.9834E+01

SPECIES	MOLE FRACTIONS		
E-	4.8298E-01	5.0126E-01	5.0553E-01
H	2.5857E-02	2.9716E-03	1.4014E-03
H+	4.7791E-01	4.8298E-01	4.8039E-01
H2	6.3236E-09	2.8099E-12	1.2382E-13
H-	7.4376E-07	1.0947E-07	6.3269E-08
H2+	1.7738E-06	8.7827E-08	2.3567E-08
HE	8.1888E-03	1.3054E-04	1.5741E-06
HE+	5.0682E-03	7.0285E-03	2.1348E-04
HE++	1.1603E-09	5.6291E-03	1.2464E-02

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6581E+01
T	2.8250E+00	3.5120E+00	4.9528E+00
RHO	3.9387E+00	6.6011E+00	1.1424E+01
H	2.8883E+00	3.6144E+00	5.1970E+00
A	1.6758E+00	1.8612E+00	2.1877E+00
S	1.0566E+00	1.0584E+00	1.0762E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6633E-01
U	2.3185E+00	1.3798E+00	1.2213E+00

SPECIES	MOLE FRACTIONS		
E-	4.1920E-64	1.5309E-45	1.0282E-29
H	8.7851E-11	1.2571E-08	2.7273E-05
H+	2.6608E-20	4.0078E-20	5.2641E-20
H2	9.5030E-01	9.5030E-01	9.4997E-01
H-	8.6433E-72	1.4852E-51	3.3238E-34
H2+	3.6853E-20	2.3383E-20	1.0818E-20
HE	5.0000E-02	5.0000E-02	4.9999E-02
HE+	1.2155E-73	1.1698E-62	2.3149E-53
HE++	0.	0.	0.

P1 = 5.00E+02 N/SQ-M. US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5424E+01	8.0600E+01	1.5939E+02
T	5.0952E+00	6.9991E+00	8.5322E+00
RHO	4.9894E+00	1.1488E+01	1.8356E+01
H	5.3593E+00	7.7180E+00	1.0440E+01
A	2.2159E+00	2.5277E+00	2.7192E+00
S	1.1190E+00	1.1267E+00	1.1497E+00
Z	1.0000E+00	1.0024E+00	1.0178E+00
GAME	9.6369E-01	9.1067E-01	8.5148E-01
U	3.7277E+00	1.6180E+00	1.3947E+00

SPECIES	MOLE FRACTIONS		
E-	1.1141E-27	4.5056E-17	8.9937E-14
H	6.8760E-05	4.7794E-03	3.4953E-02
H+	5.6442E-20	4.1633E-17	8.3855E-14
H2	9.4993E-01	9.4534E-01	9.1592E-01
H-	2.6134E-32	2.0561E-20	1.6631E-16
H2+	7.0165E-21	3.5068E-18	6.2489E-15
HE	4.9998E-02	4.9881E-02	4.9126E-02
HE+	1.4660E-52	7.7517E-42	7.6266E-36
HE++	0.	0.	0.

P1 = 5.00E+02 N/SQ-M. US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6654E+01	1.0192E+02
T	3.8703E+00	5.1625E+00	6.9478E+00
RHO	4.5267E+00	9.0351E+00	1.4641E+01
H	3.9997E+00	5.4356E+00	7.6312E+00
A	1.9491E+00	2.2297E+00	2.5254E+00
S	1.0882E+00	1.0928E+00	1.1136E+00
Z	1.0000E+00	1.0000E+00	1.0019E+00
GAME	9.8153E-01	9.6300E-01	9.1620E-01
U	3.0256E+00	1.5129E+00	1.3565E+00

SPECIES	MOLE FRACTIONS		
E-	4.6665E-42	1.4339E-26	1.7776E-17
H	3.1695E-07	6.6394E-05	3.8605E-03
H+	4.8223E-20	5.4681E-20	1.6065E-17
H2	9.5000E-01	9.4994E-01	9.4624E-01
H-	8.1042E-48	6.1481E-31	4.0302E-21
H2+	1.5238E-20	8.7778E-21	1.7781E-18
HE	5.0000E-02	4.9998E-02	4.9903E-02
HE+	4.3100E-61	9.6925E-52	1.4289E-40
HE++	0.	0.	0.

P1 = 5.00E+02 N/SQ-M. US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4902E+01	1.3094E+02	2.3155E+02
T	6.4310E+00	8.5372E+00	9.6418E+00
RHO	5.4213E+00	1.5040E+01	2.2854E+01
H	6.9710E+00	1.0553E+01	1.3648E+01
A	2.4433E+00	2.7163E+00	2.8976E+00
S	1.1486E+00	1.1612E+00	1.1874E+00
Z	1.0012F+00	1.0197E+00	1.0507E+00
GAME	9.2720F-01	8.4749E-01	8.2872E-01
U	4.4350E+00	1.5944E+00	1.3816E+00

SPECIES	MOLE FRACTIONS		
E-	1.3615E-18	1.0998E-13	5.2825E-12
H	2.3045F-03	3.8710E-02	9.6583E-02
H+	1.3306F-18	1.0328E-13	4.9681E-12
H2	9.4775E-01	9.1226E-01	8.5583E-01
H-	2.1670F-22	1.8919E-16	2.0235E-14
H2+	9.4484E-20	6.8845E-15	3.3461E-13
HE	4.9942E-02	4.9032E-02	4.7585E-02
HE+	1.4332E-45	1.2173E-34	8.3785E-31
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6256E+01	2.0544E+02	3.3317E+02
T	7.6254E+00	9.6769E+00	1.0573E+01
RHO	6.0102E+00	2.0107E+01	2.8705E+01
H	8.8497E+00	1.3964E+01	1.7438E+01
A	2.5832E+00	2.9058E+00	3.0911E+00
S	1.1775E+00	1.1985E+00	1.2284E+00
Z	1.0092E+00	1.0557E+00	1.0979E+00
GAME	8.6709E-01	8.2647E-01	8.2315E-01
U	5.1803E+00	1.5444E+00	1.3731E+00

SPECIES	MOLE FRACTIONS		
E-	2.9656E-15	6.5330E-12	7.1241E-11
H	1.8251E-02	1.0548E-01	1.7830E-01
H+	2.8241E-15	6.1707E-12	6.7200E-11
H2	9.3221E-01	8.4716E-01	7.7615E-01
H-	1.7532E-18	2.3855E-14	4.3359E-13
H2+	1.4334E-14	3.8615E-13	4.4751E-12
HE	4.9544E-02	4.7363E-02	4.5542E-02
HE+	2.8852E-38	1.1270E-30	9.0746E-29
HE++	0.	0.	0.

P1 = 5.00E+02 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4784E+01	4.5696E+02	6.7170E+02
T	9.2010E+00	1.1500E+01	1.2300E+01
RHO	7.6925E+00	3.4051E+01	4.4439E+01
H	1.3403E+01	2.2461E+01	2.6935E+01
A	2.8246E+00	3.3248E+00	3.5373E+00
S	1.2394E+00	1.2837E+00	1.3217E+00
Z	1.0565E+00	1.1670E+00	1.2287E+00
GAME	8.2074E-01	8.2368E-01	8.2794E-01
U	6.7566E+00	1.5276E+00	1.4104E+00

SPECIES	MOLE FRACTIONS		
E-	2.4672E-12	6.4669E-10	2.9563E-09
H	1.0695E-01	2.8616E-01	3.7231E-01
H+	2.3731E-12	6.1367E-10	2.8104E-09
H2	8.4572E-01	6.7099E-01	5.8700E-01
H-	4.3902E-15	5.6746E-12	3.5629E-11
H2+	9.8549E-14	3.8699E-11	1.8152E-10
HE	4.7326E-02	4.2846E-02	4.0692E-02
HE+	4.2811E-32	3.1330E-26	1.3339E-24
HE++	0.	0.	8.0158E-88

P1 = 5.00E+02 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9609E+01	3.1309E+02	4.7913E+02
T	8.5140E+00	1.0634E+01	1.1452E+01
RHO	6.8080E+00	2.6624E+01	3.6135E+01
H	1.0997E+01	1.7949E+01	2.1890E+01
A	2.7019E+00	3.1092E+00	3.3051E+00
S	1.2075E+00	1.2393E+00	1.2732E+00
Z	1.0284E+00	1.1057E+00	1.1578E+00
GAME	8.3377E-01	8.2214E-01	8.2391E-01
U	5.9634E+00	1.5234E+00	1.3850E+00

SPECIES	MOLE FRACTIONS		
E-	1.7631E-13	9.1804E-11	5.6109E-10
H	5.5227E-02	1.9124E-01	2.7255E-01
H+	1.6893E-13	8.6943E-11	5.3138E-10
H2	8.9615E-01	7.6354E-01	6.8427E-01
H-	1.9997E-16	5.5590E-13	5.0327E-12
H2+	7.5773E-15	5.4178E-12	3.4738E-11
HE	4.8619E-02	4.5219E-02	4.3186E-02
HE+	1.1717E-34	4.5665E-28	2.7078E-26
HE++	0.	0.	0.

P1 = 5.00E+02 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.1689E+01	6.3888E+02	9.1337E+02
T	9.7755E+00	1.2326E+01	1.3147E+01
RHO	8.5924E+00	4.1872E+01	5.3021E+01
H	1.6056E+01	2.7474E+01	3.2582E+01
A	2.9538E+00	3.5541E+00	3.7903E+00
S	1.2734E+00	1.3315E+00	1.3737E+00
Z	1.0915E+00	1.2378E+00	1.3101E+00
GAME	8.1601E-01	8.2790E-01	8.3410E-01
U	7.5497E+00	1.5512E+00	1.4578E+00

SPECIES	MOLE FRACTIONS		
E-	1.5975E-11	3.2050E-09	1.2292E-08
H	1.6773E-01	3.8429E-01	4.7348E-01
H+	1.5402E-11	3.0519E-09	1.1739E-08
H2	7.8647E-01	5.7531E-01	4.8836E-01
H-	3.8799E-14	3.7502E-11	1.8598E-10
H2+	6.1185E-13	1.9059E-10	7.3877E-10
HE	4.5807E-02	4.0393E-02	3.8163E-02
HE+	2.3700E-30	1.3865E-24	3.8054E-23
HE++	0.	6.5501E-88	3.4911E-82

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1022E+02	8.5788E+02	1.2031E+03
T	1.0285E+01	1.3135E+01	1.4012E+01
RHO	9.4626E+00	4.9583E+01	6.1297E+01
H	1.8961E+01	3.2959E+01	3.8790E+01
A	3.0807E+00	3.7985E+00	4.0658E+00
S	1.3097E+00	1.3821E+00	1.4286E+00
Z	1.1324E+00	1.3172E+00	1.4008E+00
GAME	8.1485E-01	8.3393E-01	8.4219E-01
U	8.3345E+00	1.5929E+00	1.5202E+00

SPECIES	MOLE FRACTIONS		
E-	6.9393E-11	1.2452E-08	4.3395E-08
H	2.3386E-01	4.8168E-01	5.7225E-01
H+	6.7047E-11	1.1909E-08	4.1662E-08
H2	7.2198E-01	4.8036E-01	3.9205E-01
H-	2.1447E-13	1.8091E-10	7.7807E-10
H2+	2.5609E-12	7.2448E-10	2.5103E-09
HE	4.4153E-02	3.7958E-02	3.5694E-02
HE+	6.1208E-29	3.3950E-23	7.0578E-22
HE++	0.	7.9462E-83	9.1907E-78

P1 = 5.00E+02 N/SQ-M. US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5216E+02	1.4052E+03	1.9320E+03
T	1.1201E+01	1.4816E+01	1.5980E+01
RHO	1.1046E+01	6.3279E+01	7.5225E+01
H	2.5519E+01	4.5341E+01	5.3003E+01
A	3.3554E+00	4.3486E+00	4.7206E+00
S	1.3885E+00	1.4902E+00	1.5459E+00
Z	1.2297E+00	1.4987E+00	1.6072E+00
GAME	8.1743E-01	8.5159E-01	8.6766E-01
U	9.8871E+00	1.7286E+00	1.7016E+00

SPECIES	MOLE FRACTIONS		
E-	6.6966E-10	1.2832E-07	4.6503E-07
H	3.7360E-01	6.6555E-01	7.5557E-01
H+	6.4969E-10	1.2409E-07	4.5270E-07
H2	5.8574E-01	3.0109E-01	2.1331E-01
H-	2.9219E-12	2.4276E-09	9.8554E-09
H2+	2.2893F-11	6.6511E-09	2.2188E-08
HE	4.0660F-02	3.3361E-02	3.1111F-02
HE+	1.0023E-26	8.8430E-21	2.1247E-19
HE++	0.	1.2933E-73	1.9945E-68

P1 = 5.00F+02 N/SQ-M. US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3035E+02	1.1131E+03	1.5415E+03
T	1.0755E+01	1.3953E+01	1.4935E+01
RHO	1.0282E+01	5.6806F+01	6.8810E+01
H	2.2114E+01	3.8907E+01	4.5576F+01
A	3.2152E+00	4.0610E+00	4.3708E+00
S	1.3481E+00	1.4351E+00	1.4861F+00
Z	1.1786F+00	1.4044F+00	1.5300F+00
GAME	8.1555E-01	8.4166E-01	8.5279F-01
U	9.1112F+00	1.6517F+00	1.6001E+00

SPECIES	MOLE FRACTIONS		
E-	2.3463E-10	4.1452E-08	1.4253E-07
H	3.0374E-01	5.7587E-01	6.6668E-01
H+	2.2716E-10	3.9844F-08	1.3774F-07
H2	6.5454E-01	3.8853E-01	2.9999E-01
H-	8.7782E-13	7.0594E-10	2.8605E-09
H2+	8.3405E-12	2.3137F-09	7.6553F-09
HE	4.2424E-02	3.5603E-02	3.3333F-02
HE+	9.4860F-28	5.6883F-22	1.2254F-20
HE++	0.	1.3503F-77	5.3004E-73

P1 = 5.00F+02 N/SQ-M. US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7554E+02	1.7283E+03	2.3718E+03
T	1.1633F+01	1.5765E+01	1.7269E+01
RHO	1.1738E+01	6.8580F+01	7.9882E+01
H	2.9174E+01	5.2222E+01	6.1086F+01
A	3.5020E+00	4.6689F+00	5.1451E+00
S	1.4308E+00	1.5465F+00	1.6071F+00
Z	1.2855E+00	1.5984F+00	1.7193E+00
GAME	8.2008F-01	8.6498F-01	8.9159E-01
U	1.0655F+01	1.8264F+00	1.8322F+00

SPECIES	MOLE FRACTIONS		
E-	1.6961F-09	3.8450E-07	1.6534E-06
H	4.4420E-01	7.4888E-01	8.3676E-01
H+	1.6489F-09	3.7432E-07	1.6225E-06
H2	5.1690E-01	2.1984E-01	1.3416E-01
H-	8.3820E-12	7.6618E-09	3.4279E-08
H2+	5.5546F-11	1.7849E-08	6.5169E-08
HE	3.8895E-02	3.1278E-02	2.9081E-02
HE+	7.8753F-26	1.2423E-19	4.6188E-18
HE++	2.9661E-93	3.3235F-69	1.1479E-63

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0050E+02	2.0778E+03	2.8681E+03
T	1.2061E+01	1.6885E+01	1.9170E+01
RHO	1.2353E+01	7.2319E+01	8.1718E+01
H	3.3079E+01	5.9549E+01	7.0050E+01
A	3.6560E+00	5.0429E+00	5.7498E+00
S	1.4749E+00	1.6035E+00	1.6696E+00
Z	1.3458E+00	1.7016E+00	1.8308E+00
GAME	8.2348E-01	8.8514E-01	9.4195E-01
U	1.1418E+01	1.9531E+00	2.0315E+00

SPECIES	MOLE FRACTIONS		
E-	3.9599E-09	1.2078E-06	8.0569E-06
H	5.1386E-01	8.2460E-01	9.0759E-01
H+	3.8592E-09	1.1842E-06	7.9741E-06
H2	4.4898E-01	1.4601E-01	6.5087E-02
H-	2.1639E-11	2.3749E-08	1.4271E-07
H2+	1.2334E-10	4.7336E-08	2.2545E-07
HE	3.7153E-02	2.9385E-02	2.7310E-02
HE+	5.1022E-25	1.9939E-18	2.2841E-16
HE++	2.3037E-88	9.2223E-65	4.6193E-57

P1 = 5.00E+02 N/SQ-M. US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5512E+02	2.8069E+03	4.1203E+03
T	1.2942E+01	2.0683E+01	3.0131E+01
RHO	1.3330E+01	7.1918E+01	7.0208E+01
H	4.1637E+01	7.5391E+01	9.2933E+01
A	3.9921E+00	6.2489E+00	8.0499E+00
S	1.5675E+00	1.7141E+00	1.7916E+00
Z	1.4788E+00	1.8871E+00	1.9477E+00
GAME	8.3273E-01	1.0005E+00	1.1042E+00
U	1.2928E+01	2.3986E+00	3.0211E+00

SPECIES	MOLE FRACTIONS		
E-	1.9013E-08	2.4796E-05	1.7861E-03
H	6.4754E-01	9.4007E-01	9.6780E-01
H+	1.8618E-08	2.4658E-05	1.7851E-03
H2	3.1865E-01	3.3379E-02	2.9354E-03
H-	1.1848E-10	3.2958E-07	9.0179E-06
H2+	5.1337E-10	4.6823E-07	1.0039E-05
HE	3.3812E-02	2.6496E-02	2.5671E-02
HE+	2.0996E-23	3.3477E-15	1.4215E-10
HE++	1.4037E-82	8.0705E-53	4.7168E-36

P1 = 5.00E+02 N/SQ-M. US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2704E+02	2.4443E+03	3.4435E+03
T	1.2494E+01	1.8365E+01	2.2999E+01
RHO	1.2885E+01	7.3846E+01	7.8076E+01
H	3.7233E+01	6.7295E+01	8.0480E+01
A	3.8188E+00	5.5229E+00	6.8667E+00
S	1.5205E+00	1.6603E+00	1.7329E+00
Z	1.4103E+00	1.8023E+00	1.9177E+00
GAME	8.2764E-01	9.2154E-01	1.0691E+00
U	1.2176E+01	2.1258E+00	2.4033E+00

SPECIES	MOLE FRACTIONS		
E-	8.7880E-09	4.4884E-06	9.2580E-05
H	5.8184E-01	8.9030E-01	9.5679E-01
H+	8.5828E-09	4.4332E-06	9.2307E-05
H2	3.8270E-01	8.1949E-02	1.6948E-02
H-	5.1899E-11	7.9127E-08	1.0236E-06
H2+	2.5712E-10	1.3428E-07	1.2969E-06
HE	3.5454E-02	2.7742E-02	2.6073E-02
HE+	3.1535E-24	4.9137E-17	9.4749E-14
HE++	6.4172E-85	2.3600E-60	8.5654E-48

P1 = 5.00E+02 N/SQ-M. US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8473E+02	3.1351E+03	4.8101E+03
T	1.3418E+01	2.4619E+01	3.6640E+01
RHO	1.3682E+01	6.5887E+01	6.6733E+01
H	4.6291E+01	8.3714E+01	1.0557E+02
A	4.1788E+00	7.2670E+00	8.5172E+00
S	1.6156E+00	1.7630E+00	1.8372E+00
Z	1.5509E+00	1.9328E+00	1.9673E+00
GAME	8.3912E-01	1.1098E+00	1.0064E+00
U	1.3675E+01	2.8415E+00	3.5248E+00

SPECIES	MOLE FRACTIONS		
E-	4.0623E-08	2.2507E-04	9.8778E-03
H	7.1043E-01	9.6455E-01	9.5370E-01
H+	3.9888E-08	2.2472E-04	9.8737E-03
H2	2.5733E-01	9.1287E-03	1.0656E-03
H-	2.6128E-10	1.7721E-06	2.9639E-05
H2+	9.9611E-10	2.1300E-06	3.3729E-05
HE	3.2239E-02	2.5869E-02	2.5416E-02
HE+	1.2976E-22	7.7143E-13	9.6775E-09
HE++	8.2560E-81	2.8989E-44	1.9792E-29

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1583E+02	3.4294E+03	5.4668E+03
T	1.3942E+01	2.9627E+01	4.1269E+01
RHO	1.3931E+01	5.9425E+01	6.6369E+01
H	5.1193E+01	9.2251E+01	1.1773E+02
A	4.3835E+00	7.9922E+00	8.8373E+00
S	1.6647E+00	1.8044E+00	1.8747E+00
Z	1.6261E+00	1.9479E+00	1.9959E+00
GAME	8.4757E-01	1.106RE+00	9.4813E-01
U	1.4415E+01	3.3887E+00	3.8265E+00

SPECIES	MOLE FRACTIONS		
E-	8.7870E-08	1.6528E-03	2.3705E-02
H	7.7006F-01	9.6829E-01	9.2680F-01
H+	8.6526E-08	1.6519E-03	2.3695E-02
H2	1.9919E-01	2.7248E-03	6.2674E-04
H-	5.6915E-10	7.3680E-06	5.3356E-05
H2+	1.9134F-39	8.2209E-06	6.3865E-05
HE	3.0748E-02	2.5669E-02	2.5051E-02
HE+	8.1195E-22	1.0345F-10	8.6562E-08
HE++	8.0860F-78	1.3245E-36	5.5508F-26

P1 = 5.00E+02 N/SQ-M. US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8212E+02	4.0301E+03	6.6470E+03
T	1.5308E+01	3.8502E+01	4.7721E+01
RHO	1.4016E+01	5.2851E+01	6.7273E+01
H	6.1737E+01	1.1069E+02	1.4207E+02
A	4.8971E+00	8.6005E+00	9.4464E+00
S	1.7642E+00	1.8753E+00	1.9424E+00
Z	1.7810E+00	1.9806E+00	2.0705E+00
GAME	8.7961E-01	9.7003E-01	9.0314E-01
U	1.5864E+01	4.1964E+00	4.1732F+00

SPECIES	MOLE FRACTIONS		
E-	5.1421E-07	1.6143E-02	5.8651E-02
H	8.7703E-01	9.4173E-01	8.5802E-01
H+	5.0950E-07	1.6138E-02	5.8621E-02
H2	9.4893E-02	6.7263F-04	3.3832E-04
H-	3.0162E-09	3.4066E-05	9.3768E-05
H2+	7.7270F-09	3.9474E-05	1.2315E-04
HE	2.8074E-02	2.5245E-02	2.4148E-02
HE+	5.8156E-20	2.7863E-08	8.9899E-07
HE++	9.5117E-71	7.2988E-28	2.7146E-22

P1 = 5.00E+02 N/SQ-M. US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4834E+02	3.7274F+03	6.0889E+03
T	1.4549E+01	3.4480E+01	4.4819E+01
RHO	1.4056E+01	5.5134E+01	6.6886F+01
H	5.6343E+01	1.0121F+02	1.2986E+02
A	4.6157F+00	8.3517F+00	9.1467E+00
S	1.7144E+00	1.8414E+00	1.9091F+00
Z	1.7034E+00	1.9607E+00	2.0312E+00
GAME	8.5967E-01	1.0317E+00	9.1933F-01
U	1.5146E+01	3.8586E+00	4.0299E+00

SPECIES	MOLE FRACTIONS		
E-	1.9919E-07	6.6563F-03	4.0493E-02
H	8.2599F-01	9.5998E-01	8.9380E-01
H+	1.9672E-07	6.6540F-03	4.0474E-02
H2	1.4476E-01	1.1665E-03	4.4270E-04
H-	1.2639F-09	1.9059E-05	7.5247E-05
H2+	3.7279E-09	2.1356E-05	9.4603E-05
HE	2.9353E-02	2.5531E-02	2.4616E-02
HE+	5.4470F-21	3.1434F-09	3.4079E-07
HE++	1.8691E-73	2.8532F-31	7.9787E-24

P1 = 5.00E+02 N/SQ-M. US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1688E+02	4.2904E+03	7.0760E+03
T	1.6380E+01	4.1762E+01	5.0169E+01
RHO	1.3724E+01	5.1183E+01	6.6761E+01
H	6.7370E+01	1.2060E+02	1.5436E+02
A	5.2838E+00	8.8453F+00	9.7321E+00
S	1.8133E+00	1.9085E+00	1.9761E+00
Z	1.8545E+00	2.0075E+00	2.1126E+00
GAME	9.1910F-01	9.3332E-01	8.9361E-01
U	1.6558E+01	4.4362E+00	4.2807E+00

SPECIES	MOLE FRACTIONS		
E-	1.6871E-06	2.9143E-02	7.7400E-02
H	9.2154E-01	9.1625E-01	8.2105E-01
H+	1.6772F-06	2.9133E-02	7.7359E-02
H2	5.1492F-02	4.5571E-04	2.6726E-04
H-	8.4587E-09	4.8960E-05	1.0781E-04
H2+	1.8318F-08	5.8992E-05	1.4720E-04
HE	2.6961E-02	2.4907E-02	2.3665E-02
HE+	1.0774E-18	1.2038E-07	1.8791E-06
HE++	4.4850F-66	1.1803E-25	3.9189E-21

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5195E+02	4.4263E+03	7.2307E+03
T	1.8173E+01	4.4412E+01	5.2181F+01
RHO	1.2998E+01	4.8863E+01	6.4258E+01
H	7.3223E+01	1.3076E+02	1.6647E+02
A	5.9251E+00	9.0866E+00	9.9930E+00
S	1.8631E+00	1.9429E+00	2.0114E+00
Z	1.9129E+00	2.0396E+00	2.1565E+00
GAME	1.0099E+00	9.1153E-01	8.8745E-01
U	1.7202E+01	4.5633E+00	4.3568E+00

SPECIES	MOLE FRACTIONS		
E-	9.1208E-06	4.4313E-02	9.6114E-02
H	9.5445E-01	8.8641E-01	7.8414E-01
H+	9.0959E-06	4.4298E-02	9.6064E-02
H2	1.9395E-02	3.2976E-04	2.1218E-04
H-	3.3276E-09	6.1117E-05	1.1560E-04
H2+	5.8130E-08	7.6374E-05	1.6310E-04
HE	2.6138E-02	2.4515E-02	2.3183E-02
HE+	6.8902E-17	3.4335E-07	3.3238E-06
HE++	9.6155E-60	6.4423E-24	3.0466E-20

P1 = 5.00E+02 N/SQ-M. US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2026E+02	4.2411E+03	6.7230E+03
T	2.5146E+01	4.8232E+01	5.5048E+01
RHO	1.0616E+01	4.1626E+01	5.4385E+01
H	8.5510E+01	1.5092E+02	1.8936E+02
A	7.4501E+00	9.5196E+00	1.0432E+01
S	1.9390E+00	2.0160E+00	2.0866E+00
Z	1.9488E+00	2.1124E+00	2.2456E+00
GAME	1.1326E+00	8.8944E-01	8.8029E-01
U	1.8289E+01	4.6602E+00	4.4301E+00

SPECIES	MOLE FRACTIONS		
E-	7.1195E-04	7.7174E-02	1.3194E-01
H	9.7161E-01	8.2165E-01	7.1350E-01
H+	7.1179E-04	7.7149E-02	1.3188E-01
H2	1.3079E-03	1.8917E-04	1.3209E-04
H-	8.6702E-07	7.2913E-05	1.1369E-04
H2+	1.0293E-06	9.6547E-05	1.6825E-04
HE	2.5656E-02	2.3668E-02	2.2258E-02
HE+	3.4484E-12	1.3311E-06	7.3842E-06
HE++	1.4557E-42	7.8144E-22	4.9474E-19

P1 = 5.00E+02 N/SQ-M. US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8604E+02	4.3566E+03	7.0170E+03
T	2.1236E+01	4.6488E+01	5.3730E+01
RHO	1.1793E+01	4.5169E+01	5.9344E+01
H	7.9266F+01	1.4080E+02	1.7799E+02
A	6.8096E+00	9.3076F+00	1.0219E+01
S	1.9023E+00	1.9795E+00	2.0490E+00
Z	1.9408E+00	2.0748E+00	2.2007E+00
GAME	1.1251E+00	8.9814E-01	8.8321E-01
U	1.7766E+01	4.6294E+00	4.4003E+00

SPECIES	MOLE FRACTIONS		
E-	8.6847E-05	6.0472E-02	1.1424E-01
H	9.6922E-01	8.5457E-01	7.4841E-01
H+	8.6776E-05	6.0451E-02	1.1418E-01
H2	4.8463E-03	2.4629E-04	1.6688E-04
H-	1.8605E-07	6.8516E-05	1.1619E-04
H2+	2.5695E-07	8.8305E-05	1.6820E-04
HE	2.5743E-02	2.4098E-02	2.2715E-02
HE+	1.8846E-14	7.3308E-07	5.1382E-06
HE++	9.2445E-51	9.5296E-23	1.4031E-19

P1 = 5.00E+02 N/SQ-M. US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5639E+02	4.2344E+03	6.6238E+03
T	2.8952E+01	4.9887E+01	5.6396E+01
RHO	9.8285E+00	3.9427E+01	5.1236E+01
H	9.2003E+01	1.6158E+02	2.0143E+02
A	7.7631E+00	9.7422F+00	1.0657E+01
S	1.9709E+00	2.0506E+00	2.1221E+00
Z	1.9953E+00	2.1528E+00	2.2923E+00
GAME	1.0646E+00	8.8373E-01	8.7847E-01
U	1.8837E+01	4.7092E+00	4.4687E+00

SPECIES	MOLE FRACTIONS		
E-	3.2392E-03	9.4466E-02	1.4962E-01
H	9.6743E-01	7.8754E-01	6.7863E-01
H+	3.2389E-03	9.4436E-02	1.4955E-01
H2	5.1295E-04	1.5061E-04	1.0715E-04
H-	2.5370E-06	7.6862E-05	1.1206E-04
H2+	2.8438E-06	1.0449E-04	1.6963E-04
HE	2.5571E-02	2.3223E-02	2.1801E-02
HE+	1.4490E-10	2.2368E-06	1.0392E-05
HE++	1.0695E-36	4.9888E-21	1.6478E-18

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9514E+02	4.3673E+03	6.7459E+03
T	3.2199E+01	5.1566E+01	5.7906E+01
RHO	9.3971E+00	3.8561E+01	4.9715E+01
H	9.8771E+01	1.7304E+02	2.1451E+02
A	7.9259E+00	9.9835E+00	1.0912E+01
S	1.9997E+00	2.0832E+00	2.1568E+00
Z	1.9669E+00	2.1964E+00	2.3433E+00
GAME	9.9192E-01	8.8004E-01	8.7752E-01
U	1.9431E+01	4.7401E+00	4.5237E+00

SPECIES	MOLE FRACTIONS		
E-	8.8893E-03	1.1240E-01	1.6810E-01
H	9.5652E-01	7.5215E-01	6.4216E-01
H+	8.8888E-03	1.1237E-01	1.6803E-01
H2	2.7502E-04	1.2370E-04	8.8249E-05
H-	5.1013E-06	8.1261E-05	1.1175E-04
H2+	5.6700E-06	1.1353E-04	1.7353E-04
HE	2.5420E-02	2.2761E-02	2.1323E-02
HE+	1.7543E-09	3.6091E-06	1.4729E-05
HE++	8.4511E-33	2.8116E-20	5.7664E-18

P1 = 5.00E+02 N/SQ-M. US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.8095E+02	4.9253E+03	7.4784E+03
T	3.7056E+01	5.4989E+01	6.1237E+01
RHO	9.1582E+00	3.9080E+01	4.9776E+01
H	1.1317E+02	1.9830E+02	2.4386E+02
A	8.2449E+00	1.0510E+01	1.1483E+01
S	2.0528E+00	2.1456E+00	2.2233E+00
Z	2.0065E+00	2.2919E+00	2.4534E+00
GAME	9.1426E-01	8.7650E-01	8.7770E-01
U	2.0755E+01	4.8759E+00	4.6756E+00

SPECIES	MOLE FRACTIONS		
E-	2.8316E-02	1.4941E-01	2.0544E-01
H	9.1829E-01	6.7911E-01	5.6848E-01
H+	2.8315E-02	1.4936E-01	2.0534E-01
H2	1.3173E-04	8.8036E-05	6.1965E-05
H-	1.1159E-05	9.0069E-05	1.1252E-04
H2+	1.2751E-05	1.3318E-04	1.8482E-04
HE	2.4919E-02	2.1807E-02	2.0351E-02
HE+	3.2196E-08	8.5364E-06	2.9152E-05
HE++	3.2242E-28	6.5862E-19	6.9912E-17

P1 = 5.00E+02 N/SQ-M. US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3679E+02	4.6069E+03	7.0493E+03
T	3.4853E+01	5.3271E+01	5.9528E+01
RHO	9.2072E+00	3.8558E+01	4.9404E+01
H	1.0583E+02	1.8531E+02	2.2871E+02
A	8.0776E+00	1.0241E+01	1.1188E+01
S	2.0269E+00	2.1147E+00	2.1902E+00
Z	1.9844E+00	2.2428E+00	2.3970E+00
GAME	9.4342E-01	8.7776E-01	8.7731E-01
U	2.0076E+01	4.8025E+00	4.5939E+00

SPECIES	MOLE FRACTIONS		
E-	1.7517E-02	1.3079E-01	1.8672E-01
H	9.3957E-01	7.1585E-01	6.0541E-01
H+	1.7516E-02	1.3075E-01	1.8664E-01
H2	1.7976E-04	1.0371E-04	7.3757E-05
H-	8.0908E-06	8.5800E-05	1.1219E-04
H2+	9.0884E-06	1.2329E-04	1.7904E-04
HE	2.5197E-02	2.2288E-02	2.0839E-02
HE+	9.5317E-09	5.6346E-06	2.0786E-05
HE++	3.8721E-30	1.4295E-19	2.0213E-17

P1 = 5.00E+02 N/SQ-M. US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7577E+02	5.7307E+03	8.5892E+03
T	4.0612E+01	5.8435E+01	6.4829E+01
RHO	9.2697E+00	4.0920E+01	5.1490E+01
H	1.2866E+02	2.2619E+02	2.7659E+02
A	8.6066E+00	1.1076E+01	1.2116E+01
S	2.1035E+00	2.2069E+00	2.2892E+00
Z	2.0607E+00	2.3966E+00	2.5731E+00
GAME	8.8511E-01	8.7605E-01	8.8000E-01
U	2.2171E+01	5.0261E+00	4.8648E+00

SPECIES	MOLE FRACTIONS		
E-	5.3829E-02	1.8657E-01	2.4241E-01
H	8.6796E-01	6.0576E-01	4.9554E-01
H+	5.3826E-02	1.8650E-01	2.4227E-01
H2	8.4300E-05	6.4428E-05	4.3601E-05
H-	1.6955E-05	9.6614E-05	1.1102E-04
H2+	2.0135E-05	1.5137E-04	1.9368E-04
HE	2.4263E-02	2.0845E-02	1.9376E-02
HE+	1.7212E-07	1.8125E-05	5.5807E-05
HE++	1.4377E-25	1.0695E-17	7.6345E-16

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7821E+02	6.6922E+03	9.9419E+03
T	4.3509E+01	6.1863E+01	6.8617E+01
RHO	9.5027E+00	4.3140E+01	5.3659E+01
H	1.4520E+02	2.5627E+02	3.1218E+02
A	8.9804E+00	1.1668E+01	1.2799E+01
S	2.1535E+00	2.2678E+00	2.3556E+00
Z	2.1241E+00	2.5076E+00	2.7002E+00
GAME	8.7265E-01	8.7755E-01	8.8422E-01
U	2.3626E+01	5.2104E+00	5.0827E+00

SPECIES	MOLE FRACTIONS		
E-	8.2066E-02	2.2258E-01	2.7806E-01
H	8.1222E-01	5.3470E-01	4.2523E-01
H+	8.2060E-02	2.2247E-01	2.7786E-01
H2	6.0334E-05	4.7206E-05	2.9949E-05
H-	2.1966E-05	9.9383E-05	1.0539E-04
H2+	2.7106E-05	1.6498E-04	1.9575E-04
HE	2.3538E-02	1.9904E-02	1.8414E-02
HE+	5.4621E-07	3.5292E-05	1.0341E-04
HE++	9.9099E-24	1.2671E-16	7.3644E-15

P1 = 5.00E+02 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1038E+03	8.9707E+03	1.3203E+04
T	4.8333E+01	6.8912E+01	7.7320E+01
RHO	1.0059E+01	4.7390E+01	5.7696E+01
H	1.8134E+02	3.2238E+02	3.9143E+02
A	9.7398E+00	1.2946E+01	1.4349E+01
S	2.2544E+00	2.3923E+00	2.4905E+00
Z	2.2703E+00	2.7470E+00	2.9711E+00
GAME	8.6454E-01	8.8532E-01	8.9981E-01
U	2.6575E+01	5.6465E+00	5.6114E+00

SPECIES	MOLE FRACTIONS		
E-	1.4114E-01	2.9032E-01	3.4386E-01
H	6.9561E-01	4.0107E-01	2.9562E-01
H+	1.4113E-01	2.9012E-01	3.4343E-01
H2	3.4975E-05	2.3647E-05	1.2180E-05
H-	2.9188E-05	9.2347E-05	8.1861E-05
H2+	3.8720E-05	1.7237E-04	1.7374E-04
HE	2.2021E-02	1.8086E-02	1.6489E-02
HE+	2.7259E-06	1.1562E-04	3.4016E-04
HE++	3.7054E-21	1.0072E-14	5.5838E-13

P1 = 5.00E+02 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8788E+02	7.7835E+03	1.1494E+04
T	4.6035E+01	6.5359E+01	7.2656E+01
RHO	9.7791E+00	4.5359E+01	5.5830E+01
H	1.6277E+02	2.8843E+02	3.5054E+02
A	9.3584E+00	1.2293E+01	1.3541E+01
S	2.2037E+00	2.3301E+00	2.4228E+00
Z	2.1944E+00	2.6255E+00	2.8335E+00
GAME	8.6695E-01	8.8065E-01	8.9063E-01
U	2.5103E+01	5.4173E+00	5.3299E+00

SPECIES	MOLE FRACTIONS		
E-	1.1146E-01	2.5749E-01	3.1201E-01
H	7.5420E-01	4.6581E-01	3.5831E-01
H+	1.1145E-01	2.5735E-01	3.1173E-01
H2	4.5406E-05	3.3852E-05	1.9692E-05
H-	2.6064E-05	9.7877E-05	9.5454E-05
H2+	3.3371E-05	1.7227E-04	1.8927E-04
HE	2.2784E-02	1.8979E-02	1.7458E-02
HE+	1.3230E-06	6.5275E-05	1.8817E-04
HE++	2.5723E-22	1.2322E-15	6.5535E-14

P1 = 5.00E+02 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2262E+03	1.0249E+04	1.4070E+04
T	5.0488E+01	7.2621E+01	8.1893E+01
RHO	1.0333E+01	4.9143E+01	5.9133F+01
H	2.0091E+02	3.5817E+02	4.3502F+02
A	1.0127F+01	1.3639F+01	1.5252E+01
S	2.3058E+00	2.4549E+00	2.5586F+00
Z	2.3510E+00	2.8720E+00	3.1119E+00
GAME	8.6399F-01	8.9185E-01	9.1281E-01
U	2.8048E+01	5.9023F+00	5.9295E+00

SPECIES	MOLE FRACTIONS		
E-	1.7063F-01	3.2122E-01	3.7353E-01
H	6.3739E-01	3.4018E-01	2.3735E-01
H+	1.7061F-01	3.2093F-01	3.7283E-01
H2	2.7191F-05	1.5857E-05	6.9148E-06
H-	3.1345F-05	8.3328E-05	6.5801E-05
H2+	4.3039E-05	1.6513E-04	1.5004E-04
HE	2.1263F-02	1.7209E-02	1.5446E-02
HE+	5.0613E-06	2.0054E-04	6.2150E-04
HE++	3.6637F-20	7.4914E-14	4.8726E-12

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3556E+03	1.1621E+04	1.7123E+04
T	5.2556E+01	7.6576E+01	8.7611E+01
RHO	1.0588E+01	5.0599E+01	6.0035E+01
H	2.2152E+02	3.9594E+02	4.8207E+02
A	1.0522E+01	1.4383E+01	1.6298E+01
S	2.3579E+00	2.5172F+00	2.6275E+00
Z	2.4362F+00	2.9992E+00	3.2554F+00
GAME	8.6462E-01	9.0073E-01	9.3131E-01
U	2.9534E+01	6.1893E+00	6.3225E+00

SPECIES	MOLE FRACTIONS		
E-	1.9963F-01	3.4998E-01	4.0112E-01
H	5.8014F-01	2.8355E-01	1.8346E-01
H+	1.9961E-01	3.4956E-01	3.9988E-01
H2	2.1156E-05	1.0100E-05	3.4615E-06
H-	3.2568E-05	7.1751E-05	4.8678E-05
H2+	4.6257F-05	1.5125E-04	1.1982E-04
HE	2.0515E-02	1.6326E-02	1.4189E-02
HE+	8.7584E-06	3.4507E-04	1.1697E-03
HE++	2.7922E-19	5.3193E-13	4.7568E-11

P1 = 5.00E+02 N/SQ-M. US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6326E+03	1.4514E+04	2.1694E+04
T	5.6564E+01	8.5784E+01	1.0331E+02
RHO	1.1024E+01	5.1946E+01	5.9507E+01
H	2.6570F+02	4.7640E+02	5.8640E+02
A	1.1341E+01	1.6111E+01	1.9018E+01
S	2.4641E+00	2.6425E+00	2.7644E+00
Z	2.6182E+00	3.2571E+00	3.5288E+00
GAME	8.6841E-01	9.2895E-01	9.9215E-01
U	3.2480E+01	6.8952E+00	7.3640E+00

SPECIES	MOLE FRACTIONS		
E-	2.5527F-01	4.0142E-01	4.4745E-01
H	4.7032E-01	1.8277E-01	9.5108E-02
H+	2.5523E-01	4.0031E-01	4.4319E-01
H2	1.2539E-05	3.2104E-06	5.0581E-07
H-	3.2355E-05	4.4411E-05	1.9487E-05
H2+	4.9132E-05	1.0678E-04	5.5421E-05
HE	1.9074E-02	1.4301E-02	9.9472E-03
HE+	2.2905E-05	1.0505E-03	4.2221E-03
HE++	9.7181E-18	2.8647E-11	7.0469E-09

P1 = 5.00E+02 N/SQ-M. US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4910E+03	1.3045E+04	1.9323E+04
T	5.4571E+01	8.0929E+01	9.4519E+01
RHO	1.0819E+01	5.1513F+01	6.0198E+01
H	2.4311F+02	4.3534E+02	5.3228E+02
A	1.0925E+01	1.5204E+01	1.7526E+01
S	2.4106E+00	2.5804E+00	2.6961F+00
Z	2.5253F+00	3.1291E+00	3.3960E+00
GAME	8.6615E-01	9.1285E-01	9.5692F-01
U	3.1009F+01	6.5186E+00	6.7883E+00

SPECIES	MOLE FRACTIONS		
E-	2.2789E-01	3.7696E-01	4.2589E-01
H	5.2436E-01	2.3057E-01	1.3568E-01
H+	2.2786E-01	3.7629E-01	4.2359E-01
H2	1.6372E-05	5.9461E-06	1.4742E-06
H-	3.2881E-05	5.8228E-05	3.2618E-05
H2+	4.8291E-05	1.3095E-04	8.6753E-05
HE	1.9785E-02	1.5379E-02	1.2480E-02
HE+	1.4413F-05	5.9957E-04	2.2427E-03
HE++	1.7616E-18	3.8452E-12	5.3215F-10

P1 = 5.00E+02 N/SQ-M. US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7803E+03	1.5999E+04	2.4274E+04
T	5.8566E+01	9.1377E+01	1.1498E+02
RHO	1.1199E+01	5.1785E+01	5.7912E+01
H	2.8929E+02	4.1900E+02	6.4579E+02
A	1.1770F+01	1.7132E+01	2.0900E+01
S	2.5182E+00	2.7036E+00	2.8317E+00
Z	2.7144F+00	3.3810E+00	3.6453E+00
GAME	8.7139E-01	9.5006E-01	1.0421E+00
U	3.3945E+01	7.3467E+00	8.1341E+00

SPECIES	MOLE FRACTIONS		
E-	2.8166E-01	4.2332E-01	4.6510E-01
H	4.1822E-01	1.4036E-01	6.3149E-02
H+	2.8161F-01	4.2142E-01	4.5800E-01
H2	9.4592E-06	1.5470E-06	1.3372E-07
H-	3.1066E-05	3.1465E-05	1.0515E-05
H2+	4.8791E-05	8.0957E-05	3.0552E-05
HE	1.8385E-02	1.2931E-02	6.6344E-03
HE+	3.5544E-05	1.8582E-03	7.0817E-03
HE++	4.8749F-17	2.2905E-10	1.0498E-07

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9340E+03	1.7477E+04	2.7069E+04
T	6.0601E+01	9.7989E+01	1.3087E+02
RHO	1.1343E+01	5.1009E+01	5.5365E+01
H	3.1388E+02	5.6305E+02	7.1093E+02
A	1.2215E+01	1.8296E+01	2.3239E+01
S	2.5728E+00	2.7632E+00	2.8969E+00
Z	2.8136E+00	3.4966E+00	3.7359E+00
GAME	8.7513E-01	9.7696E-01	1.1046E+00
U	3.5403E+01	7.8775E+00	9.1089E+00

SPECIES	MOLE FRACTIONS		
E-	3.0699E-01	4.4237E-01	4.7806E-01
H	3.6823E-01	1.0417E-01	4.0186E-02
H+	3.0692E-01	4.3909E-01	4.6835E-01
H2	6.9948E-06	6.5167E-07	2.6993E-08
H-	2.9135E-05	2.0597E-05	5.5072E-06
H2+	4.7308E-05	5.6484E-05	1.4484E-05
HE	1.7716E-02	1.1053E-02	3.6911E-03
HE+	5.4360E-05	3.2446E-03	9.6909E-03
HE++	2.2925E-16	1.9733E-09	1.5955E-06

P1 = 5.00E+02 N/SQ-M. US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2592E+03	2.0271E+04	3.3289E+04
T	6.4905E+01	1.1555E+02	1.7612E+02
RHO	1.1528E+01	4.7617E+01	4.9343E+01
H	3.6604E+02	6.5475E+02	8.6005E+02
A	1.3173E+01	2.1186E+01	2.8022E+01
S	2.6833E+00	2.8752E+00	3.0154E+00
Z	3.0195E+00	3.6843E+00	3.8305E+00
GAME	8.8549E-01	1.0543E+00	1.1639E+00
U	3.8294E+01	9.2777E+00	1.1692E+01

SPECIES	MOLE FRACTIONS		
E-	3.5424E-01	4.7075E-01	4.9094E-01
H	2.7503E-01	5.2628E-02	1.7046E-02
H+	3.5410E-01	4.6302E-01	4.7896E-01
H2	3.5170E-06	7.5295E-08	9.2744E-10
H-	2.3595E-05	7.2980E-06	2.1293E-06
H2+	4.1222E-05	2.1161E-05	2.8877E-06
HE	1.6433E-02	5.8487E-03	1.2740E-03
HE+	1.2564E-04	7.7221E-03	1.1582E-02
HE++	4.6573E-15	1.4990E-07	1.9701E-04

P1 = 5.00E+02 N/SQ-M. US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0937E+03	1.8903E+04	3.0094E+04
T	6.2702E+01	1.0591E+02	1.5188E+02
RHO	1.1453E+01	4.9590E+01	5.2199E+01
H	3.3946E+02	6.0830E+02	7.8265E+02
A	1.2682E+01	1.9631E+01	2.5758E+01
S	2.6279E+00	2.8205E+00	2.9594E+00
Z	2.9155E+00	3.5991E+00	3.7959E+00
GAME	8.7976E-01	1.0110E+00	1.1508E+00
U	3.6853E+01	8.5322E+00	1.0322E+01

SPECIES	MOLE FRACTIONS		
E-	3.3121E-01	4.5823E-01	4.8629E-01
H	3.2046E-01	7.4938E-02	2.5401E-02
H+	3.3111E-01	4.5289E-01	4.7512E-01
H2	5.0415E-06	2.3778E-07	4.6499E-09
H-	2.6577E-05	1.2548E-05	3.1648E-06
H2+	4.4752E-05	3.6083E-05	6.2618E-06
HE	1.7067E-02	8.5723E-03	2.0261E-03
HE+	8.2595E-05	5.3201E-03	1.1124E-02
HE++	1.0391E-15	1.7473E-08	2.1709E-05

P1 = 5.00E+02 N/SQ-M. US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4303E+03	2.1525E+04	3.6485E+04
T	6.7254E+01	1.2715E+02	2.0163E+02
RHO	1.1563E+01	4.5153E+01	4.6956E+01
H	3.9359E+02	7.0204E+02	9.3963E+02
A	1.3697E+01	2.2920E+01	2.9875E+01
S	2.7389E+00	2.9265E+00	3.0657E+00
Z	3.1251E+00	3.7492E+00	3.8536E+00
GAME	8.9266E-01	1.1020E+00	1.1487E+00
U	3.9724E+01	1.0162E+01	1.2998E+01

SPECIES	MOLE FRACTIONS		
E-	3.7635E-01	4.7989E-01	4.9398E-01
H	2.3205E-01	3.6578E-02	1.2268E-02
H+	3.7584E-01	4.7018E-01	4.8078E-01
H2	2.3535E-06	2.1340E-08	2.4006E-10
H-	2.0287E-05	4.2570E-06	1.5722E-06
H2+	3.6849E-05	1.1588E-05	1.5068E-06
HE	1.5807E-02	3.6261E-03	8.5228E-04
HE+	1.9289E-04	9.7091E-03	1.1044E-02
HE++	2.1241E-14	1.1647E-06	1.0790E-03

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.6067E+03	2.2636E+04	3.9564E+04
T	6.9811E+01	1.4066E+02	2.2651E+02
RHO	1.1556E+01	4.2416E+01	4.5082E+01
H	4.2213E+02	7.5000E+02	1.0195E+03
A	1.4262E+01	2.4662E+01	3.1435E+01
S	2.7944E+00	2.9745E+00	3.1110E+00
Z	3.2313E+00	3.7941E+00	3.8744E+00
GAME	9.0176E-01	1.1397E+00	1.1260E+00
U	4.1140E+01	1.1180E+01	1.4142E+01

SPECIES	MOLE FRACTIONS		
E-	3.9656E-01	4.8605E-01	4.9670E-01
H	1.9167E-01	2.5661E-02	9.4360E-03
H+	3.9624E-01	4.7510E-01	4.8096E-01
H2	1.4930E-06	5.8133E-09	8.2228E-11
H-	1.6792E-05	2.6378E-06	1.2292E-06
H2+	3.1803E-05	6.1555E-06	8.9945E-07
HE	1.5172E-02	2.2427E-03	5.3294E-04
HE+	3.0144E-04	1.0928E-02	9.0034E-03
HE++	1.0128E-13	7.7574E-06	3.3688E-03

P1 = 5.00E+02 N/SQ-M. US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9744E+03	2.4381E+04	4.5324E+04
T	7.5924E+01	1.7113E+02	2.7557E+02
RHO	1.1387E+01	3.7070E+01	4.2052E+01
H	4.8212E+02	8.4753E+02	1.1850E+03
A	1.5577E+01	2.7686E+01	3.5116E+01
S	2.9045E+00	3.0606E+00	3.1900E+00
Z	3.4403E+00	3.8434E+00	3.9111E+00
GAME	9.2890E-01	1.1654E+00	1.1441E+00
U	4.3916E+01	1.3476E+01	1.6304E+01

SPECIES	MOLE FRACTIONS		
E-	4.3321E-01	4.9264E-01	5.0142E-01
H	1.1983E-01	1.3837E-02	6.2126E-03
H+	4.3240E-01	4.8051E-01	4.7958E-01
H2	4.7831F-07	5.3264E-10	1.5784E-11
H-	9.8907E-06	1.2917E-06	7.9951E-07
H2+	2.0627E-05	1.8886E-06	4.0557E-07
HE	1.3727E-02	1.0589E-03	1.3297E-04
HE+	8.0609E-04	1.1771E-02	3.4612E-03
HE++	3.0320F-12	1.7895E-04	9.1899E-03

P1 = 5.00E+02 N/SQ-M. US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7882E+03	2.3569E+04	4.2552E+04
T	7.2660E+01	1.5525E+02	2.5065F+02
RHO	1.1500E+01	3.9707E+01	4.3590E+01
H	4.5165E+02	7.9833E+02	1.1018F+03
A	1.4883E+01	2.6239E+01	3.3148F+01
S	2.8497E+00	3.0183F+00	3.1519F+00
Z	3.3370E+00	3.8232F+00	3.8946F+00
GAME	9.1351E-01	1.1599E+00	1.1256F+00
U	4.2539F+01	1.2330F+01	1.5265E+01

SPECIES	MOLE FRACTIONS		
E-	4.1567E-01	4.8996E-01	4.9931E-01
H	1.5414E-01	1.8615F-02	7.5992F-03
H+	4.1517E-01	4.7834E-01	4.8025E-01
H2	8.8381F-07	1.7026E-09	3.4525E-11
H-	1.3248E-05	1.7927E-06	9.9342E-07
H2+	2.6302E-05	3.3628E-06	5.9238E-07
HE	1.4500E-02	1.4961E-03	2.8764E-04
HE+	4.8404E-04	1.1541E-02	6.0483E-03
HE++	5.2247E-13	4.0747E-05	6.5023E-03

P1 = 5.00E+02 N/SQ-M. US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1645E+03	2.5046E+04	4.7922E+04
T	7.9769F+01	1.8727E+02	3.0388E+02
RHO	1.1211E+01	3.4664E+01	4.0200E+01
H	5.1353E+02	8.9748E+02	1.2726E+03
A	1.6366F+01	2.8915E+01	3.7254F+01
S	2.9583E+00	3.1031E+00	3.2287E+00
Z	3.5387E+00	3.8583E+00	3.9230E+00
GAME	9.4891E-01	1.1571E+00	1.1642E+00
U	4.5265E+01	1.4600E+01	1.7458E+01

SPECIES	MOLE FRACTIONS		
E-	4.4896E-01	4.9459E-01	5.0293E-01
H	8.9328E-02	1.0649E-02	5.0241E-03
H+	4.4756E-01	4.8180E-01	4.7930E-01
H2	2.3026E-07	1.8933E-10	7.1355E-12
H-	6.8559E-06	9.7551E-07	6.2096E-07
H2+	1.5138E-05	1.1260E-06	2.7510E-07
HE	1.2731E-02	7.7873E-04	5.2846E-05
HE+	1.3987E-03	1.1565E-02	1.7539E-03
HE++	2.0533F-11	6.1550E-04	1.0939E-02

TABLE I. - Continued

$p_1 = 500\ N/m^2$

P1 = 5.00E+02 N/SQ-M. US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3579E+03	2.5528E+04	5.0164E+04
T	8.4408E+01	2.0311E+02	3.3291E+02
RHO	1.0964E+01	3.2465E+01	3.8342E+01
H	5.4587E+02	9.4803E+02	1.3621E+03
A	1.7271E+01	2.9929E+01	3.9216E+01
S	3.0108E+00	3.1377E+00	3.2644E+00
Z	3.6286E+00	3.8714E+00	3.9301E+00
GAME	9.7384E-01	1.1392E+00	1.1754E+00
U	4.6577E+01	1.5703E+01	1.8606E+01

SPECIES	MOLE FRACTIONS		
E-	4.6261E-01	4.9630E-01	5.0383E-01
H	6.3492E-02	8.4601E-03	4.1093E-03
H+	4.6010E-01	4.8232E-01	4.7934E-01
H2	9.6450E-08	7.6683E-11	3.4554E-12
H-	4.3604E-06	7.5906E-07	4.7980E-07
H2+	1.0263E-05	7.1370E-07	1.9248E-07
HE	1.1281E-02	5.6804E-04	2.1468E-05
HE+	2.4981E-03	1.0712E-02	9.1746E-04
HE++	1.6458E-10	1.6353E-03	1.1783E-02

P1 = 5.00E+02 N/SQ-M. US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7510E+03	2.6019E+04	5.3252E+04
T	9.6993E+01	2.3396E+02	3.9403E+02
RHO	1.0259E+01	2.8523E+01	3.4321E+01
H	6.1319E+02	1.0518E+03	1.5452E+03
A	1.9495E+01	3.1950E+01	4.2842E+01
S	3.1105E+00	3.2098E+00	3.3332E+00
Z	3.7698E+00	3.8990E+00	3.9378E+00
GAME	1.0394E+00	1.1191E+00	1.1829E+00
U	4.9057E+01	1.7592E+01	2.0890E+01

SPECIES	MOLE FRACTIONS		
E-	4.8274E-01	4.9987E-01	5.0480E-01
H	2.8243E-02	5.6893E-03	2.7839E-03
H+	4.7575E-01	4.8162E-01	4.7972E-01
H2	1.0851E-08	1.6651E-11	9.0920E-13
H-	1.3581E-06	4.7971E-07	2.7733E-07
H2+	3.6655E-06	3.2673E-07	9.8509E-08
HE	6.2782E-03	2.4605E-04	4.0679E-06
HE+	6.9850E-03	6.9075E-03	3.0408E-04
HE++	1.4173E-08	5.67C4E-03	1.2389E-02

P1 = 5.00E+02 N/SQ-M. US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5539E+03	2.5861E+04	5.1982E+04
T	9.0056E+01	2.1881E+02	3.6313E+02
RHO	1.0648E+01	3.0421E+01	3.6382E+01
H	5.7910E+02	9.9951E+02	1.4532E+03
A	1.8293E+01	3.0893E+01	4.1071E+01
S	3.0615E+00	3.1746E+00	3.2991E+00
Z	3.7062E+00	3.8851E+00	3.9346E+00
GAME	1.0031E+00	1.1227E+00	1.1806E+00
U	4.7844E+01	1.6709E+01	1.9753E+01

SPECIES	MOLE FRACTIONS		
E-	4.7387E-01	4.9808E-01	5.0440E-01
H	4.3146E-02	6.8682E-03	3.3749E-03
H+	4.6949E-01	4.8218E-01	4.7951E-01
H2	3.4860E-08	3.4148E-11	1.7402E-12
H-	2.5377E-06	5.9973E-07	3.6644E-07
H2+	6.3985E-06	4.7278E-07	1.3677E-07
HE	9.1130E-03	3.8918E-04	9.0763E-06
HE+	4.3778E-03	9.0524E-03	5.0899E-04
HE++	1.4928E-09	3.4281E-03	1.2190E-02

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6582E+01
T	2.8253E+00	3.5120E+00	4.9531E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1971E+00
A	1.6758E+00	1.8612E+00	2.1880E+00
S	1.0585E+00	1.0604E+00	1.0787E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6652E-01
U	2.3185E+00	1.3798E+00	1.2213E+00

SPECIES	MOLE FRACTIONS		
E-	1.7621E-64	6.0030E-46	4.0674E-30
H	6.2120E-11	8.8886E-09	1.9303E-05
H+	2.1448E-20	3.4784E-20	4.9171E-20
H2	9.5000E-01	9.5000E-01	9.4998E-01
H-	5.1337E-72	8.2360E-52	1.8709E-34
H2+	4.2012E-20	2.8676E-20	1.4289E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	1.4470E-73	1.4921E-62	3.0899E-53
HE++	0.	0.	0.

P1 = 1.00E+03 N/SQ-M. US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6650E+01	1.0199E+02
T	3.8703E+00	5.1628E+00	6.9744E+00
RHO	4.5267E+00	9.0338E+00	1.4604E+01
H	3.9997E+00	5.4355E+00	7.6361E+00
A	1.9491E+00	2.2303E+00	2.5390E+00
S	1.0912E+00	1.0959E+00	1.1175E+00
Z	1.0000E+00	1.0000E+00	1.0014E+00
GAME	9.8154E-01	9.6360E-01	9.2301E-01
U	3.0256E+00	1.5131E+00	1.3604E+00

SPECIES	MOLE FRACTIONS		
E-	1.7826E-42	5.3506E-27	8.3822E-19
H	2.2412E-07	4.7009E-05	2.8655E-03
H+	4.3859E-20	5.1715E-20	2.5580E-19
H2	9.5000E-01	9.4995E-01	9.4721E-01
H-	4.3790E-48	3.2445E-31	1.2427E-20
H2+	1.9602E-20	1.1744E-20	6.3336E-19
HE	5.0000E-02	4.9999E-02	4.9928E-02
HE+	5.6323E-41	1.3056E-51	4.0381E-40
HE++	0.	0.	0.

P1 = 1.00E+03 N/SQ-M. US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5424E+01	8.0482E+01	1.5991E+02
T	5.0957E+00	7.3245E+00	8.6775E+00
RHO	4.9889E+00	1.1437E+01	1.8156E+01
H	5.3592E+00	7.7151E+00	1.0472E+01
A	2.2165E+00	2.5423E+00	2.7517E+00
S	1.1230E+00	1.1309E+00	1.1546E+00
Z	1.0003E+00	1.0018E+00	1.0150E+00
GAME	9.6413E-01	9.1848E-01	8.5969E-01
U	3.7276E+00	1.6221E+00	1.4152E+00

SPECIES	MOLE FRACTIONS		
E-	4.1272E-28	2.6851E-17	1.0234E-13
H	4.8694E-05	3.5452E-03	2.9619E-02
H+	5.3972E-20	2.3971E-17	9.3151E-14
H2	9.4995E-01	9.4654E-01	9.2112E-01
H-	1.3691E-32	1.4997E-20	2.9441E-16
H2+	9.4870E-21	2.9584E-18	9.4856E-15
HE	4.9999E-02	4.9911E-02	4.9260E-02
HE+	1.9913E-52	5.3103E-41	1.7818E-34
HE++	0.	0.	0.

P1 = 1.00E+03 N/SQ-M. US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4884E+01	1.2954E+02	2.3194E+02
T	6.4444E+00	8.6629E+00	9.8938E+00
RHO	5.4086E+00	1.4711E+01	2.2416E+01
H	6.9701E+00	1.0527E+01	1.3698E+01
A	2.4532E+00	2.7456E+00	2.9386E+00
S	1.1535E+00	1.1661E+00	1.1929E+00
Z	1.0008E+00	1.0164E+00	1.0458E+00
GAME	9.3304E-01	8.5612E-01	8.3457E-01
U	4.4327E+00	1.6251E+00	1.4122E+00

SPECIES	MOLE FRACTIONS		
E-	9.6677E-19	1.2045E-13	7.3657E-12
H	1.6801E-03	3.2230E-02	8.7524E-02
H+	9.3808E-19	1.1076E-13	6.7874E-12
H2	9.4836E-01	9.1858E-01	8.6466E-01
H-	2.3239E-22	3.2096E-16	4.4267E-14
H2+	9.2335E-20	1.0011E-14	6.2259E-13
HE	4.9958E-02	4.9194E-02	4.7812E-02
HE+	1.8443E-45	4.8043E-34	3.5189E-30
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6163E+01	2.0107E+02	3.3063E+02
T	7.7034E+00	9.8992E+00	1.0906E+01
RHO	5.9484E+00	1.9355E+01	2.7796E+01
H	8.8451E+00	1.3938E+01	1.7481E+01
A	2.6090E+00	2.9408E+00	3.1385E+00
S	1.1833E+00	1.2036E+00	1.2340E+00
Z	1.0074E+00	1.0495E+00	1.0908E+00
GAME	8.7711E-01	8.3246E-01	8.2809E-01
U	5.1696E+00	1.5873E+00	1.4088E+00

SPECIES	MOLE FRACTIONS		
E-	2.6325E-15	8.0231E-12	1.1025E-10
H	1.4623E-02	9.4258E-02	1.6643E-01
H+	2.4611E-15	7.4279E-12	1.0216E-10
H2	9.3574E-01	8.5810E-01	7.9773E-01
H-	2.2927E-18	4.3963E-14	1.0608E-12
H2+	1.7381E-14	5.3925E-13	9.1523E-12
HE	4.9634E-02	4.7644E-02	4.5839E-02
HE+	4.3549E-38	4.5978E-31	8.9682E-28
HE++	0.	0.	0.

P1 = 1.00E+03 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4535E+01	4.4172E+02	6.5775E+02
T	9.4278E+00	1.1882E+01	1.2780E+01
RHO	7.5224E+00	3.2163E+01	4.2263E+01
H	1.3391E+01	2.2353E+01	2.6970E+01
A	2.8614E+00	3.3727E+00	3.6003E+00
S	1.2456E+00	1.2883E+00	1.3267E+00
Z	1.0510E+00	1.1558E+00	1.2177E+00
GAME	8.2628E-01	8.2828E-01	8.3292E-01
U	6.7338E+00	1.5791E+00	1.4537E+00

SPECIES	MOLE FRACTIONS		
E-	3.3001E-12	9.9134E-10	4.8669E-09
H	9.7128E-02	2.6966E-01	3.5755E-01
H+	3.1335E-12	9.2655E-10	4.5611E-09
H2	8.5530E-01	6.8708E-01	6.0139E-01
H-	9.0488E-15	1.3675E-11	9.1708E-11
H2+	1.7870E-13	7.8262E-11	3.9742E-10
HE	4.7572E-02	4.3258E-02	4.1061E-02
HE+	6.3047E-32	1.7683E-25	7.9800E-24
HE++	0.	2.1408E-91	4.8267E-85

P1 = 1.00E+03 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9425E+01	3.0421E+02	4.7123E+02
T	8.6754E+00	1.0942E+01	1.1856E+01
RHO	6.6853E+00	2.5341E+01	3.4603E+01
H	1.0989E+01	1.7868E+01	2.1921E+01
A	2.7343E+00	3.1505E+00	3.3594E+00
S	1.2136E+00	1.2443E+00	1.2787E+00
Z	1.0245E+00	1.0969E+00	1.1486E+00
GAME	8.4093E-01	8.2692E-01	8.2872E-01
U	5.9446E+00	1.5644E+00	1.4242E+00

SPECIES	MOLE FRACTIONS		
E-	2.2016E-13	1.3301E-10	8.8960E-10
H	4.7903E-02	1.7673E-01	2.5879E-01
H+	2.0793E-13	1.2388E-10	8.2875E-10
H2	9.0329E-01	7.7769E-01	6.9768E-01
H-	3.9351E-16	1.2481E-12	1.2496E-11
H2+	1.2623E-14	1.0375E-11	7.3350E-11
HE	4.8802E-02	4.5582E-02	4.3530E-02
HE+	5.5983E-34	2.1199E-27	1.2320E-25
HE++	0.	0.	2.1134E-88

P1 = 1.00E+03 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.1385E+01	6.1623E+02	8.9171E+02
T	1.0059E+01	1.2780E+01	1.3703E+01
RHO	8.3761E+00	3.9375E+01	5.0161E+01
H	1.6046E+01	2.7350E+01	3.2627E+01
A	2.9923E+00	3.6099E+00	3.8631E+00
S	1.2797E+00	1.3355E+00	1.3782E+00
Z	1.0847E+00	1.2246E+00	1.2973E+00
GAME	8.2070E-01	8.3266E-01	8.3950E-01
U	7.5244E+00	1.6024E+00	1.5058E+00

SPECIES	MOLE FRACTIONS		
E-	2.4056E-11	5.0734E-09	2.0503E-08
H	1.5614E-01	3.6677E-01	4.5836E-01
H+	2.2913E-11	4.7657E-09	1.9337E-08
H2	7.9776E-01	5.9240E-01	5.0309E-01
H-	9.2417E-14	9.1831E-11	4.8362E-10
H2+	1.2351E-12	3.9952E-10	1.6488E-09
HE	4.6097E-02	4.0831E-02	3.8541E-02
HE+	1.1584E-29	7.9024E-24	2.2446E-22
HE++	0.	5.2858E-85	1.5694E-79

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0986E+02	8.2575E+02	1.1722E+03
T	1.0617E+01	1.3658E+01	1.4648E+01
RHO	9.2035E+00	4.6442E+01	5.7729E+01
H	1.8949E+01	3.2814E+01	3.8853E+01
A	3.1271E+00	3.8624E+00	4.1499E+00
S	1.3159E+00	1.3853E+00	1.4324E+00
Z	1.1243E+00	1.3018E+00	1.3862E+00
GAME	8.1923E-01	8.3903E-01	8.4814E-01
U	8.3071E+00	1.6485E+00	1.5742E+00

SPECIES	MOLE FRACTIONS		
E-	1.1067E-10	1.9977E-08	7.3713E-08
H	2.2116E-01	4.6364E-01	5.5722E-01
H+	1.0575E-10	1.8875E-08	7.0055E-08
H2	7.3437E-01	4.9795E-01	4.0671E-01
H-	5.4443E-13	4.4824E-10	2.0505E-09
H2+	5.4665E-12	1.5498E-09	5.7084E-09
HE	4.4471E-02	3.8409E-02	3.6070E-02
HE+	3.6074E-28	1.8520E-22	4.6299E-21
HE++	0.	1.0458E-78	1.5289E-74

P1 = 1.00E+03 N/SQ-M. US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5168E+02	1.3481E+03	1.8770E+03
T	1.1617E+01	1.5480E+01	1.6788E+01
RHO	1.0708E+01	5.8890E+01	7.0365E+01
H	2.5507E+01	4.5151E+01	5.3118E+01
A	3.4120E+00	4.4307E+00	4.8307E+00
S	1.3941E+00	1.4912E+00	1.5476E+00
Z	1.2194E+00	1.4788E+00	1.5889E+00
GAME	8.2182E-01	8.5755E-01	8.7481E-01
U	9.8562E+00	1.7948E+00	1.7690E+00

SPECIES	MOLE FRACTIONS		
E-	1.1293E-09	2.0689E-07	7.7697E-07
H	3.5984E-01	6.4752E-01	7.4129E-01
H+	1.0853E-09	1.9841E-07	7.5171E-07
H2	5.9916E-01	3.1867E-01	2.2725E-01
H-	7.8666E-12	6.0267E-09	2.5443E-08
H2+	5.1874E-11	1.4513E-08	5.0702E-08
HE	4.1034E-02	3.3812E-02	3.1468E-02
HE+	6.3212E-26	4.8374E-20	1.2797E-18
HE++	9.8708E-93	6.6492E-70	3.8821E-65

P1 = 1.00E+03 N/SQ-M. US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2999E+02	1.0708E+03	1.5012E+03
T	1.1133E+01	1.4553E+01	1.5658E+01
RHO	9.9869E+00	5.3067E+01	6.4613E+01
H	2.2104E+01	3.8757E+01	4.5681E+01
A	3.2667E+00	4.1347E+00	4.4685E+00
S	1.3540E+00	1.4374E+00	1.4890E+00
Z	1.1694E+00	1.3869E+00	1.4839E+00
GAME	8.1989E-01	8.4722E-01	8.5941E-01
U	9.0859E+00	1.7124E+00	1.6605E+00

SPECIES	MOLE FRACTIONS		
E-	3.8698E-10	6.7683E-08	2.4266E-07
H	2.8948E-01	5.5794E-01	6.5218E-01
H+	3.7075E-10	6.4408E-08	2.3260E-07
H2	6.6756E-01	4.0600E-01	3.1412E-01
H-	2.3089E-12	1.7754E-09	7.5359E-09
H2+	1.8446E-11	5.0534E-09	1.7592E-08
HE	4.2758E-02	3.6051E-02	3.3695E-02
HE+	5.8313E-27	3.4730E-21	7.9456E-20
HE++	0.	5.1212E-75	6.5473E-70

P1 = 1.00E+03 N/SQ-M. US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7500E+02	1.6556E+03	2.3013E+03
T	1.2089E+01	1.4499E+01	1.8165E+01
RHO	1.1362E+01	6.3659E+01	7.4556E+01
H	2.9165E+01	5.2007E+01	6.1231E+01
A	3.5640E+00	4.7600E+00	5.2666E+00
S	1.4360E+00	1.5463E+00	1.6075E+00
Z	1.2741E+00	1.5763E+00	1.6993E+00
GAME	8.2467E-01	8.7123E-01	8.9860E-01
U	1.0622E+01	1.8986E+00	1.9062E+00

SPECIES	MOLE FRACTIONS		
E-	2.9141E-09	6.1271E-07	2.6667E-06
H	4.3030E-01	7.3119E-01	8.2301E-01
H+	2.8088E-09	5.9261E-07	2.6057E-06
H2	5.3046E-01	2.3709E-01	1.4756E-01
H-	2.2999E-11	1.8772E-08	8.5537E-08
H2+	1.2836E-10	3.8880E-08	1.4649E-07
HE	3.9242E-02	3.1720E-02	2.9425E-02
HE+	5.2603E-25	6.8166E-19	2.5976E-17
HE++	1.2731E-88	2.4879E-66	1.9979E-60

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9990E+02	1.9876E+03	2.7788E+03
T	1.2556E+01	1.7681E+01	2.0112E+01
RHO	1.1941E+01	6.7031E+01	7.6347E+01
H	3.3063E+01	5.9304E+01	7.0208E+01
A	3.7239E+00	5.1398E+00	5.8620E+00
S	1.4795E+00	1.6020E+00	1.6686E+00
Z	1.3334E+00	1.6771E+00	1.8097E+00
GAME	8.2830E-01	8.9091E-01	9.4412E-01
U	1.1383E+01	2.0305E+00	2.1087E+00

SPECIES	MOLE FRACTIONS		
E-	6.9008E-09	1.8508E-06	1.1614E-05
H	5.0030E-01	8.0746E-01	8.9483E-01
H+	6.6717E-09	1.8058E-06	1.1463E-05
H2	4.6250E-01	1.6273E-01	7.7516E-02
H-	6.0165E-11	5.6215E-08	3.2474E-07
H2+	2.8928E-10	1.0124E-07	4.7569E-07
HE	3.7500E-02	2.9813E-02	2.7628E-02
HE+	3.6967E-24	9.8634E-18	9.5107E-16
HE++	4.8630E-85	5.8084E-62	1.2998E-54

P1 = 1.00E+03 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5436E+02	2.6837E+03	3.9636E+03
T	1.3514E+01	2.1381E+01	3.0276E+01
RHO	1.2855E+01	6.7333E+01	6.7413E+01
H	4.1620E+01	7.5099E+01	9.2704E+01
A	4.0723E+00	6.2725E+00	8.0797E+00
S	1.5707E+00	1.7105E+00	1.7888E+00
Z	1.4642E+00	1.8641E+00	1.9420E+00
GAME	8.3811E-01	9.8713E-01	1.1103E+00
U	1.2889E+01	2.4632E+00	3.0298E+00

SPECIES	MOLE FRACTIONS		
E-	3.3245E-08	2.8126E-05	1.3499E-03
H	6.3496E-01	9.2702E-01	9.6607E-01
H+	3.2354E-08	2.7903E-05	1.3485E-03
H2	3.3180E-01	4.6102E-02	5.4583E-03
H-	3.3044E-10	6.2004E-07	1.2874E-05
H2+	1.2207E-09	8.4340E-07	1.4317E-05
HE	3.4149E-02	2.6822E-02	2.5747E-02
HE+	1.4408E-22	7.5274E-15	1.1535E-10
HE++	5.2466E-79	1.5999E-51	3.4400E-36

P1 = 1.00E+03 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2636E+02	2.3357E+03	3.3250E+03
T	1.3027E+01	1.9185E+01	2.3649E+01
RHO	1.2440E+01	6.8527E+01	7.3944E+01
H	3.7217E+01	6.7320E+01	8.0494E+01
A	3.8927E+00	5.6107E+00	6.8640E+00
S	1.5244E+00	1.6572E+00	1.7303E+00
Z	1.3968E+00	1.7766E+00	1.9014E+00
GAME	8.3273E-01	9.2362E-01	1.0477E+00
U	1.2139E+01	2.2061E+00	2.4531E+00

SPECIES	MOLE FRACTIONS		
E-	1.5420E-08	6.2730E-06	9.4154E-05
H	5.6814E-01	8.7423E-01	9.4788E-01
H+	1.4956E-08	6.1739E-06	9.3732E-05
H2	3.9607E-01	9.7613E-02	2.5628E-02
H-	1.4514E-10	1.7396E-07	1.7934E-06
H2+	6.0889E-10	2.7301E-07	2.2149E-06
HE	3.5797E-02	2.8144E-02	2.6296E-02
HE+	2.3654E-23	1.8853E-16	1.6397E-13
HE++	7.2057E-82	2.8615E-57	1.9039E-46

P1 = 1.00E+03 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8388E+02	3.0056E+03	4.6297E+03
T	1.4029E+01	2.4928E+01	3.7119E+01
RHO	1.3181E+01	6.2788E+01	6.3578E+01
H	4.6272E+01	8.3435E+01	1.0547E+02
A	4.2655E+00	7.2091E+00	8.6502E+00
S	1.6181E+00	1.7595E+00	1.8361E+00
Z	1.5352E+00	1.9202E+00	1.9617E+00
GAME	8.4479E-01	1.0857E+00	1.0276E+00
U	1.3634E+01	2.8640E+00	3.5626E+00

SPECIES	MOLE FRACTIONS		
E-	7.0545E-08	1.8799E-04	7.9527E-03
H	6.9723E-01	9.5789E-01	9.5659E-01
H+	6.8898E-08	1.8748E-04	7.9464E-03
H2	2.7020F-01	1.5688E-02	1.9264E-03
H-	7.2428E-10	2.6921E-06	4.4144E-05
H2+	2.3708E-09	3.2054E-06	5.0433E-05
HE	3.2569E-02	2.6039E-02	2.5488E-02
HE+	8.8295E-22	8.0739E-13	9.0461E-09
HE++	2.8649E-76	5.4925E-44	2.5985E-29

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1488E+02	3.2904E+03	5.2660E+03
T	1.4592E+01	2.9761E+01	4.2210E+01
RHO	1.3409E+01	5.6915E+01	6.2754E+01
H	5.1172E+01	9.1966E+01	1.1781E+02
A	4.4768E+00	8.0204E+00	8.9967E+00
S	1.6664E+00	1.8024E+00	1.8747E+00
Z	1.6093E+00	1.9426E+00	1.9880E+00
GAME	8.5346E-01	1.1127E+00	9.6456E-01
U	1.4371E+01	3.3913E+00	3.8991E+00

SPECIES	MOLE FRACTIONS		
E-	1.5090E-07	1.2479E-03	2.0318E-02
H	7.5719E-01	9.6668E-01	9.3295E-01
H+	1.4792E-07	1.2467E-03	2.0301E-02
H2	2.1174E-01	5.0623E-03	1.0991E-03
H-	1.5616E-09	1.0492E-05	8.2509E-05
H2+	4.5420E-09	1.1694E-05	9.9940E-05
HE	3.1070E-02	2.5739E-02	2.5151E-02
HE+	5.1898E-21	8.3552E-11	9.3071E-08
HE++	1.4025E-73	9.2916E-37	1.1919E-25

P1 = 1.00E+03 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.8098E+02	3.8463E+03	6.4148E+03
T	1.6027E+01	3.9012E+01	4.9349E+01
RHO	1.3490E+01	4.9966E+01	6.3173E+01
H	6.1713E+01	1.1023E+02	1.4244E+02
A	4.9977E+00	8.7370E+00	9.6257E+00
S	1.7640E+00	1.8744E+00	1.9431E+00
Z	1.7622E+00	1.9732E+00	2.0577E+00
GAME	8.8441E-01	9.9166E-01	9.1245E-01
U	1.5816E+01	4.2669E+00	4.2937E+00

SPECIES	MOLE FRACTIONS		
E-	8.2793E-07	1.3026E-02	5.3110E-02
H	8.6503E-01	9.4729E-01	8.6860E-01
H+	8.1801E-07	1.3018E-02	5.3057E-02
H2	1.0659E-01	1.2150E-03	5.8078E-04
H-	7.8239E-09	5.0569E-05	1.4938E-04
H2+	1.7750E-08	5.8904E-05	2.0120E-04
HE	2.8374E-02	2.5340E-02	2.4298E-02
HE+	3.2990E-19	2.5930E-08	1.0858E-06
HE++	6.1070E-68	9.8412E-28	8.6961E-22

P1 = 1.00E+03 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4729E+02	3.5693E+03	5.8701E+03
T	1.5238E+01	3.4706E+01	4.6146E+01
RHO	1.3522E+01	5.2587E+01	6.2947E+01
H	5.6320E+01	1.0086E+02	1.3012E+02
A	4.7149E+00	8.6597E+00	9.3182E+00
S	1.7151E+00	1.8399E+00	1.9097E+00
Z	1.6955E+00	1.9557E+00	2.0209E+00
GAME	8.6556E-01	1.0544E+00	9.3109E-01
U	1.5100E+01	3.8791E+00	4.1339E+00

SPECIES	MOLE FRACTIONS		
E-	3.3763E-07	5.1020E-03	3.5976E-02
H	8.1339E-01	9.6201E-01	9.0230E-01
H+	3.3225E-07	5.0987E-03	3.5942E-02
H2	1.5694E-01	2.1629E-03	7.6424E-04
H-	3.4136E-09	2.7433E-05	1.1871E-04
H2+	8.7922E-09	3.0769E-05	1.5211E-04
HE	2.9665E-02	2.5566E-02	2.4742E-02
HE+	3.7163E-20	2.6107E-09	3.9598E-07
HE++	1.7982E-72	2.4344E-31	2.2456E-23

P1 = 1.00E+03 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1572E+02	4.1027E+03	6.8579E+03
T	1.7085E+01	4.2601E+01	5.2065E+01
RHO	1.3258E+01	4.8219E+01	6.2802E+01
H	6.7344E+01	1.2007E+02	1.5487E+02
A	5.3663E+00	8.9910E+00	9.9194E+00
S	1.8118E+00	1.9076E+00	1.9765E+00
Z	1.8353E+00	1.9972E+00	2.0974E+00
GAME	9.1839E-01	9.5011E-01	9.0105E-01
U	1.6512E+01	4.5349E+00	4.4154E+00

SPECIES	MOLE FRACTIONS		
E-	2.4280E-06	2.4544E-02	7.0965E-02
H	9.1022E-01	9.2492E-01	8.3343E-01
H+	2.4086E-06	2.4528E-02	7.0892E-02
H2	6.2526E-02	8.0600E-04	4.5878E-04
H-	2.0071E-08	7.4752E-05	1.7327E-04
H2+	3.9454E-08	9.1039E-05	2.4389E-04
HE	2.7244E-02	2.5035E-02	2.3837E-02
HE+	4.5581E-18	1.2383E-07	2.3300E-06
HE++	9.5901E-64	2.7387E-25	1.3847E-20

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5088E+02	4.2615E+03	7.0788E+03
T	1.8753E+01	4.5564E+01	5.4341E+01
RHO	1.2673E+01	4.6148E+01	6.0902E+01
H	7.3203E+01	1.3023E+02	1.6718E+02
A	5.9373E+00	9.2406E+00	1.0191E+01
S	1.8586E+00	1.9417E+00	2.0112E+00
Z	1.8975E+00	2.0267E+00	2.1389E+00
GAME	9.9062E-01	9.2468E-01	8.9361E-01
U	1.7165E+01	4.7058E+00	4.5061E+00

SPECIES	MOLE FRACTIONS		
E-	1.0467E-05	3.8538E-02	8.8973E-02
H	9.4599E-01	8.9748E-01	7.9794E-01
H+	1.0424E-05	3.8512E-02	8.8882E-02
H2	2.7635E-02	5.8047E-04	3.6601E-04
H-	6.6462E-08	9.5569E-05	1.8795E-04
H2+	1.0962E-07	1.2143E-04	2.7473E-04
HE	2.6349E-02	2.4670E-02	2.3372E-02
HE+	1.6549E-16	3.7807E-07	4.2221E-06
HE++	1.4256E-68	1.4956E-23	1.1731E-19

P1 = 1.00E+03 N/SQ-M. US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.2003E+02	4.1761E+03	6.7379E+03
T	2.5276E+01	4.9923E+01	5.7669E+01
RHO	1.0572E+01	3.9931E+01	5.2530E+01
H	8.5504E+01	1.5053E+02	1.9057E+02
A	7.4714E+00	9.6935E+00	1.0655E+01
S	1.9387E+00	2.0133E+00	2.0849E+00
Z	1.9462E+00	2.0949E+00	2.2242E+00
GAME	1.1348E+00	8.9846E-01	8.8505E-01
U	1.8281E+01	4.8271E+00	4.5998E+00

SPECIES	MOLE FRACTIONS		
E-	5.3462E-04	6.9649E-02	1.2382E-01
H	9.7073E-01	8.3627E-01	7.2929E-01
H+	5.3438E-04	6.9605E-02	1.2370E-01
H2	2.5107E-03	3.3397E-04	2.3099E-04
H-	1.2761E-06	1.1843E-04	1.8914E-04
H2+	1.5098E-06	1.6105E-04	2.9239E-04
HE	2.5692E-02	2.3866E-02	2.2470E-02
HE+	2.8327E-12	1.6055E-06	9.7581E-06
HE++	1.2825E-42	2.5404E-21	2.2130E-18

P1 = 1.00E+03 N/SQ-M. US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8556E+02	4.2566E+03	6.9815E+03
T	2.1526E+01	4.7933E+01	5.6154E+01
RHO	1.1665E+01	4.3121E+01	5.6998E+01
H	7.9254E+01	1.4033E+02	1.7901E+02
A	6.7663E+00	9.4720E+00	1.0432E+01
S	1.9013E+00	1.9772E+00	2.0477E+00
Z	1.9337E+00	2.0594E+00	2.1812E+00
GAME	1.0999E+00	9.0888E-01	8.8855E-01
U	1.7749E+01	4.7971E+00	4.5615E+00

SPECIES	MOLE FRACTIONS		
E-	7.3715E-05	5.3701E-02	1.0659E-01
H	9.6547E-01	8.6767E-01	7.6323E-01
H+	7.3608E-05	5.3666E-02	1.0648E-01
H2	8.5269E-03	4.3479E-04	2.9049E-04
H-	2.9827E-07	1.0966E-04	1.9180E-04
H2+	4.0516E-07	1.4448E-04	2.8902E-04
HE	2.5858E-02	2.4278E-02	2.2916E-02
HE+	2.1111E-14	8.5123E-07	6.6925E-06
HE++	2.5294E-50	2.6875E-22	5.9540E-19

P1 = 1.00E+03 N/SQ-M. US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5599E+02	4.1624E+03	6.6191E+03
T	2.9164E+01	5.1761E+01	5.9166E+01
RHO	9.7620E+00	3.7702E+01	4.9302E+01
H	9.1990E+01	1.6114E+02	2.0264E+02
A	7.8621E+00	9.9206E+00	1.0886E+01
S	1.9715E+00	2.0478E+00	2.1207E+00
Z	1.9529E+00	2.1329E+00	2.2691E+00
GAME	1.0853E+00	8.9146E-01	8.8269E-01
U	1.8823E+01	4.8663E+00	4.6413E+00

SPECIES	MOLE FRACTIONS		
E-	2.4719E-03	8.6196E-02	1.4112E-01
H	9.6847E-01	8.0365E-01	6.9518E-01
H+	2.4714E-03	8.6143E-02	1.4100E-01
H2	9.7920E-04	2.6512E-04	1.8692E-04
H-	3.7756E-06	1.2544E-04	1.8636E-04
H2+	4.2256E-06	1.7575E-04	2.9547E-04
HE	2.5603E-02	2.3439E-02	2.2021E-02
HE+	1.2288E-10	2.7512E-06	1.3822E-05
HE++	9.7699E-37	1.7207E-20	7.5140E-18

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9419E+02	4.2604E+03	6.6880E+03
T	3.2652E+01	5.3574E+01	6.0757E+01
RHO	9.2701E+00	3.6586E+01	4.7521E+01
H	9.8741E+01	1.7243E+02	2.1557E+02
A	8.0667E+00	1.0162E+01	1.1137E+01
S	2.0012E+00	2.0805E+00	2.1549E+00
Z	1.9631E+00	2.1736E+00	2.3164E+00
GAME	1.0152E+00	8.8673E-01	8.8122E-01
U	1.9400E+01	4.9031E+00	4.6961E+00

SPECIES	MOLE FRACTIONS		
E-	7.1818E-03	1.0329E-01	1.5864E-01
H	9.5964E-01	7.6994E-01	6.6064E-01
H+	7.1810E-03	1.0322E-01	1.5850E-01
H2	5.0869E-04	2.1698E-04	1.5420E-04
H-	7.8739E-06	1.3244E-04	1.8512E-04
H2+	8.7588E-06	1.9121E-04	3.0150E-04
HE	2.5470E-02	2.2999E-02	2.1566E-02
HE+	1.7002E-09	4.4661E-06	1.9401E-05
HE++	1.3251E-32	9.8115E-20	2.5178E-17

P1 = 1.00E+03 N/SQ-M. US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7902E+02	4.7528E+03	7.3325E+03
T	3.7963E+01	5.7267E+01	6.4332E+01
RHO	8.9494E+00	3.6673E+01	4.7108E+01
H	1.1311E+02	1.9735E+02	2.4468E+02
A	8.4018E+00	1.0689E+01	1.1706E+01
S	2.0545E+00	2.1424E+00	2.2205E+00
Z	1.9986E+00	2.2631E+00	2.4196E+00
GAME	9.3036E-01	8.8153E-01	8.8033E-01
U	2.0696E+01	5.0554E+00	4.8493E+00

SPECIES	MOLE FRACTIONS		
E-	2.4582E-02	1.3871E-01	1.9450E-01
H	9.2555E-01	7.0304E-01	5.8990E-01
H+	2.4579E-02	1.3862E-01	1.9432E-01
H2	2.3527E-04	1.5422E-04	1.0860E-04
H-	1.7989E-05	1.4663E-04	1.8553E-04
H2+	2.0733E-05	2.2520E-04	3.2088E-04
HE	2.5017E-02	2.2083E-02	2.0627E-02
HE+	3.6615E-08	1.0624E-05	3.7988E-05
HE++	8.6833E-28	2.3198E-18	2.8962E-16

P1 = 1.00E+03 N/SQ-M. US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3535E+02	4.4658E+03	6.9492E+03
T	3.5533E+01	5.5410E+01	6.2500E+01
RHO	9.0386E+00	3.6353E+01	4.6978E+01
H	1.0578E+02	1.8450E+02	2.2966E+02
A	8.2294E+00	1.0418E+01	1.1412E+01
S	2.0283E+00	2.1118E+00	2.1880E+00
Z	1.9784E+00	2.2171E+00	2.3668E+00
GAME	9.6344E-01	8.8357E-01	8.8047E-01
U	2.0031E+01	4.9854E+00	4.7688E+00

SPECIES	MOLE FRACTIONS		
E-	1.4709E-02	1.2084E-01	1.7654E-01
H	9.4496E-01	7.3530E-01	6.2533E-01
H+	1.4707E-02	1.2077E-01	1.7638E-01
H2	3.2626E-04	1.8166E-04	1.2900E-04
H-	1.2789E-05	1.3969E-04	1.8537E-04
H2+	1.4431E-05	2.0796E-04	3.1091E-04
HE	2.5273E-02	2.2545E-02	2.1098E-02
HE+	1.0071E-08	6.9934E-06	2.7251E-05
HE++	8.1938E-30	5.0232E-19	8.6195E-17

P1 = 1.00E+03 N/SQ-M. US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7301E+02	5.4897E+03	8.3618E+03
T	4.1899E+01	6.0984E+01	6.8205E+01
RHO	9.0027E+00	3.8126E+01	4.8430E+01
H	1.2857E+02	2.2494E+02	2.7724E+02
A	8.7734E+00	1.1255E+01	1.2338E+01
S	2.1051E+00	2.2026E+00	2.2852E+00
Z	2.0493E+00	2.3610E+00	2.5315E+00
GAME	8.9645E-01	8.7974E-01	8.8163E-01
U	2.2092E+01	5.2280E+00	5.0412E+00

SPECIES	MOLE FRACTIONS		
E-	4.8651E-02	1.7446E-01	2.3011E-01
H	8.7810E-01	6.2950E-01	5.1966E-01
H+	4.8645E-02	1.7434E-01	2.2988E-01
H2	1.4801E-04	1.1330E-04	7.6986E-05
H-	2.7950E-05	1.5737E-04	1.8281E-04
H2+	3.3740E-05	2.5733E-04	3.3718E-04
HE	2.4398E-02	2.1155E-02	1.9679E-02
HE+	2.1327E-07	2.2564E-05	7.1938E-05
HE++	5.2757E-25	3.7283E-17	3.0136E-15

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7478E+02	6.3851E+03	9.6352E+03
T	4.5105E+01	6.4709E+01	7.2305E+01
RHO	9.1927E+00	4.0023E+01	5.0284E+01
H	1.4509E+02	2.5478E+02	3.1274E+02
A	9.1595E+00	1.1849E+01	1.3022E+01
S	2.1549E+00	2.2627E+00	2.3502E+00
Z	2.1098E+00	2.4654E+00	2.6501E+00
GAME	8.8162E-01	8.8012E-01	8.8499E-01
U	2.3534E+01	5.4208E+00	5.2627E+00

SPECIES	MOLE FRACTIONS		
E-	7.5884E-02	2.0943E-01	2.6457E-01
H	8.2436E-01	5.6049E-01	4.5172E-01
H+	7.5873E-02	2.0927E-01	2.6427E-01
H2	1.0516E-04	8.3514E-05	5.3481E-05
H-	3.6635E-05	1.6225E-04	1.7386E-04
H2+	4.6257E-05	2.8242E-04	3.4272E-04
HE	2.3698E-02	2.0236E-02	1.8736E-02
HE+	7.0828E-07	4.3955E-05	1.3173E-04
HE++	4.2234E-23	4.3871E-16	2.7703E-14

P1 = 1.00E+03 N/SQ-M. US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0996E+03	8.5432E+03	1.2748E+04
T	5.0417E+01	7.2347E+01	8.1428E+01
RHO	9.6947E+00	4.3916E+01	5.3929E+01
H	1.8121E+02	3.2064E+02	3.9205E+02
A	9.9417E+00	1.3129E+01	1.4580E+01
S	2.2542E+00	2.3837E+00	2.4817E+00
Z	2.2497E+00	2.6889E+00	2.9331E+00
GAME	8.7141E-01	8.8609E-01	8.9929E-01
U	2.6474E+01	5.8491E+00	5.8020E+00

SPECIES	MOLE FRACTIONS		
E-	1.3334E-01	2.7515E-01	3.2863E-01
H	7.1094E-01	4.3090E-01	3.2563E-01
H+	1.3332E-01	2.7486E-01	3.2804E-01
H2	6.1026E-05	4.3052E-05	2.2573E-05
H-	4.9219E-05	1.5264E-04	1.3712E-04
H2+	6.7498E-05	3.0111E-04	3.1059E-04
HE	2.2222E-02	1.8453E-02	1.6804E-02
HE+	3.6616E-06	1.4197E-04	4.1932E-04
HE++	1.7756E-20	3.2971E-14	1.8798E-12

P1 = 1.00E+03 N/SQ-M. US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.8365E+02	7.4117E+03	1.1104E+04
T	4.7883E+01	6.8479E+01	7.6674E+01
RHO	9.4368E+00	4.2032E+01	5.2202E+01
H	1.6264E+02	2.8671E+02	3.5097E+02
A	9.5482E+00	1.2473E+01	1.3764E+01
S	2.2043E+00	2.3230E+00	2.4156E+00
Z	2.1769E+00	2.5750E+00	2.7741E+00
GAME	8.7465E-01	8.8224E-01	8.9067E-01
U	2.4995E+01	5.6162E+00	5.5146E+00

SPECIES	MOLE FRACTIONS		
E-	1.0435E-01	2.4308E-01	2.9745E-01
H	7.6817E-01	4.9412E-01	3.8696E-01
H+	1.0433E-01	2.4286E-01	2.9704E-01
H2	7.9104E-05	6.0758E-05	3.5757E-05
H-	4.3737E-05	1.6066E-04	1.5834E-04
H2+	5.7608E-05	2.9769E-04	3.3423E-04
HE	2.2967E-02	1.9337E-02	1.7788E-02
HE+	1.7520E-06	8.0618E-05	2.3592E-04
HE++	1.1735E-21	4.1220E-15	2.3270E-13

P1 = 1.00E+03 N/SQ-M. US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2215E+03	9.7501E+03	1.4532E+04
T	5.2785E+01	7.6350E+01	8.6684E+01
RHO	9.9433E+00	4.5516E+01	5.5240E+01
H	2.0078E+02	3.5625E+02	4.3572E+02
A	1.0340E+01	1.3822E+01	1.5487E+01
S	2.3047E+00	2.4446E+00	2.5480E+00
Z	2.3272E+00	2.8056E+00	3.0349E+00
GAME	8.7028E-01	8.9190E-01	9.1168E-01
U	2.7940E+01	6.1097E+00	6.1311E+00

SPECIES	MOLE FRACTIONS		
E-	1.6221E-01	3.0529E-01	3.5776E-01
H	6.5394E-01	3.7153E-01	2.6852E-01
H+	1.6218E-01	3.0490E-01	3.5685E-01
H2	4.7605E-05	2.9449E-05	1.3226E-05
H-	5.3035E-05	1.3901E-04	1.1212E-04
H2+	7.5608E-05	2.9199E-04	2.7285E-04
HE	2.1478E-02	1.7578E-02	1.5731E-02
HE+	6.8475E-06	2.4292E-04	7.4426E-04
HE++	1.7954E-19	2.3410E-13	1.5060E-11

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3497E+03	1.1032E+04	1.6471E+04
T	5.5053E+01	8.0599E+01	9.2730E+01
RHO	1.0177E+01	4.6797E+01	5.6052F+01
H	2.2135E+02	3.9365E+02	4.8245E+02
A	1.0745E+01	1.4567E+01	1.6523E+01
S	2.3557E+00	2.5055E+00	2.6145E+00
Z	2.4090E+00	2.9248E+00	3.1688E+00
GAME	8.704RE-01	9.0010E-01	9.2910E-01
U	2.9407E+01	6.4010E+00	6.5227E+00

SPECIES	MOLE FRACTIONS		
E-	1.9065E-01	3.3358E-01	3.8487E-01
H	5.9780F-01	3.1589F-01	2.1564E-01
H+	1.9062E-01	3.3302E-01	3.8339E-01
H2	3.7220F-05	1.9210E-05	6.9914E-06
H-	5.5252E-05	1.2112E-04	8.5716E-05
H2+	8.1796E-05	2.7112E-04	2.2406E-04
HE	2.0744F-02	1.6685E-02	1.4446E-02
HE+	1.1879E-05	4.1016E-04	1.3326E-03
HE++	1.3733E-18	1.5647E-12	1.2736E-10

P1 = 1.00E+03 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6258E+03	1.3773E+04	2.0838E+04
T	5.9449E+01	9.0330E+01	1.0878E+02
RHO	1.0585E+01	4.8157E+01	5.5846E+01
H	2.6552E+02	4.7376E+02	5.8662E+02
A	1.1584E+01	1.6277F+01	1.9176E+01
S	2.4595E+00	2.6266E+00	2.7464E+00
Z	2.5838E+00	3.1663E+00	3.4300E+00
GAME	8.7365E-01	9.2630E-01	9.8551E-01
U	3.2346E+01	7.1151E+00	7.5584E+00

SPECIES	MOLE FRACTIONS		
E-	2.4540E-01	3.8434E-01	4.3161E-01
H	4.8974E-01	2.1652E-01	1.2624E-01
H+	2.4534E-01	3.8306E-01	4.2741E-01
H2	2.2377E-05	6.7055E-06	1.2753E-06
H-	5.5248E-05	7.9172E-05	4.0046E-05
H2+	8.8069E-05	2.0147E-04	1.1653E-04
HE	1.9320E-02	1.4629E-02	1.0461E-02
HE+	3.1013E-05	1.1621E-03	4.1157E-03
HE++	4.7311E-17	6.8170E-11	1.1753E-08

P1 = 1.00E+03 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4848E+03	1.2384E+04	1.8578E+04
T	5.7264E+01	8.5222F+01	9.9957E+01
RHO	1.0394E+01	4.7711E+01	5.6277E+01
H	2.4294E+02	4.3291F+02	5.3269E+02
A	1.1159E+01	1.5380F+01	1.7738E+01
S	2.4073E+00	2.5663E+00	2.6811E+00
Z	2.4947F+00	3.0457F+00	3.3026E+00
GAME	8.7166F-01	9.1135F-01	9.5312E-01
U	3.0881E+01	6.7331E+00	6.9898E+00

SPECIES	MOLE FRACTIONS		
E-	2.1844E-01	3.6001E-01	4.0972E-01
H	5.4295F-01	2.6404E-01	1.6768E-01
H+	2.1839E-01	3.5918E-01	4.0722E-01
H2	2.8988E-05	1.1781E-05	3.2279E-06
H-	5.5960E-05	1.0055E-04	6.0703F-05
H2+	8.5978E-05	2.4006E-04	1.6937E-04
HE	2.0023F-02	1.5726E-02	1.2749E-02
HE+	1.9559E-05	6.9086E-04	2.3906E-03
HE++	8.6602E-18	1.0302E-11	1.1832E-09

P1 = 1.00E+03 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7730E+03	1.5185E+04	2.3289E+04
T	6.1638E+01	9.6114E+01	1.2048E+02
RHO	1.0749E+01	4.8102E+01	5.4427E+01
H	2.8910F+02	5.1618E+02	6.4551E+02
A	1.2023E+01	1.7278E+01	2.1014E+01
S	2.5122E+00	2.6859E+00	2.8135E+00
Z	2.6761E+00	3.2844F+00	3.5515E+00
GAME	8.7640F-01	9.4569E-01	1.0320E+00
U	3.3806F+01	7.5594E+00	8.3008E+00

SPECIES	MOLE FRACTIONS		
E-	2.7143F-01	4.0644E-01	4.5101E-01
H	4.3838E-01	1.7372E-01	9.0376E-02
H+	2.7135E-01	4.0439E-01	4.4444E-01
H2	1.7046E-05	3.4852E-06	3.9488E-07
H-	5.3258F-05	5.8886E-05	2.4468E-05
H2+	8.8086E-05	1.5915E-04	6.9984E-05
HE	1.8636E-02	1.3278E-02	7.5593E-03
HE+	4.7912E-05	1.9456E-03	6.5191E-03
HE++	2.3311E-16	4.6434E-10	1.3447E-07

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9262E+03	1.6581E+04	2.5931E+04
T	6.3861E+01	1.0278E+02	1.3558E+02
RHO	1.0884E+01	4.7494E+01	5.2380E+01
H	3.1367E+02	5.5997E+02	7.0972E+02
A	1.2479E+01	1.8405E+01	2.3211E+01
S	2.5654E+00	2.7438E+00	2.8769E+00
Z	2.7713E+00	3.3969E+00	3.6514E+00
GAME	8.7995E-01	9.7023E-01	1.0883E+00
U	3.5259E+01	8.1024E+00	9.2226E+00

SPECIES	MOLE FRACTIONS		
E-	2.9645E-01	4.2607E-01	4.6600E-01
H	3.8902E-01	1.3624E-01	6.3040E-02
H+	2.9634E-01	4.2281E-01	4.5721E-01
H2	1.2757E-05	1.6329E-06	1.0164E-07
H-	5.0143E-05	4.1391E-05	1.5096E-05
H2+	8.4088E-05	1.1757E-04	3.7739E-05
HE	1.7970E-02	1.1539E-02	4.9328E-03
HE+	7.2771E-05	3.1830E-03	8.7590E-03
HE++	1.0688E-15	3.2384E-09	1.4738E-06

P1 = 1.00E+03 N/SQ-M. US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0853E+03	1.7963E+04	2.8795E+04
T	6.6148E+01	1.1061E+02	1.5498E+02
RHO	1.0988E+01	4.6392E+01	4.9861E+01
H	3.3924E+02	6.0516E+02	7.8055E+02
A	1.2955E+01	1.9693E+01	2.5607E+01
S	2.6190E+00	2.7999E+00	2.9372E+00
Z	2.8689E+00	3.5006E+00	3.7262E+00
GAME	8.8441E-01	1.0012E+00	1.1355E+00
U	3.6705E+01	8.7085E+00	1.0390E+01

SPECIES	MOLE FRACTIONS		
E-	3.2040E-01	4.4304E-01	4.7670E-01
H	3.4178E-01	1.0450E-01	4.3425E-02
H+	3.2025E-01	4.3807E-01	4.6643E-01
H2	9.3314E-06	6.8325E-07	2.2891E-08
H-	4.6079E-05	2.7749E-05	9.9575E-06
H2+	8.2184E-05	8.0924E-05	1.8800E-05
HE	1.7319E-02	9.3690E-03	3.1769E-03
HE+	1.0951E-04	4.9141E-03	1.0227E-02
HE++	4.6902E-15	2.2749E-08	1.4769E-05

P1 = 1.30E+03 N/SQ-M. US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2501E+03	1.9273E+04	3.1759E+04
T	6.8535E+01	1.1994E+02	1.7789E+02
RHO	1.1059E+01	4.4733E+01	4.7274E+01
H	3.6580E+02	6.5141E+02	8.5528E+02
A	1.3456E+01	2.1170E+01	2.7889E+01
S	2.6728E+00	2.8541E+00	2.9931E+00
Z	2.9687E+00	3.5923E+00	3.7765E+00
GAME	8.8996E-01	1.0402E+00	1.1578E+00
U	3.8140E+01	9.4411E+00	1.1609E+01

SPECIES	MOLE FRACTIONS		
E-	3.4323E-01	4.5722E-01	4.8367E-01
H	2.9678E-01	7.8519E-02	3.0587E-02
H+	3.4303E-01	4.5027E-01	4.7249E-01
H2	6.6332E-06	2.5367E-07	5.3664E-09
H-	4.1255E-05	1.8057E-05	7.1426E-06
H2+	7.6535E-05	5.1739E-05	9.4488E-06
HE	1.6678E-02	6.9952E-03	2.1827E-03
HE+	1.6440E-04	6.9233E-03	1.0943E-02
HE++	2.0140E-14	1.5548E-07	1.1431E-04

P1 = 1.00E+03 N/SQ-M. US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4207E+03	2.0520E+04	3.4832E+04
T	7.1049E+01	1.3100E+02	2.0289E+02
RHO	1.1101E+01	4.2710E+01	4.5053E+01
H	3.9334E+02	6.9878E+02	9.3443E+02
A	1.3984E+01	2.2820E+01	2.9888E+01
S	2.7262E+00	2.9051E+00	3.0440E+00
Z	3.0691E+00	3.6677E+00	3.8106E+00
GAME	8.9684E-01	1.0839E+00	1.1554E+00
U	3.9567E+01	1.0263E+01	1.2908E+01

SPECIES	MOLE FRACTIONS		
E-	3.6472E-01	4.6837E-01	4.8827E-01
H	2.5444E-01	5.8334E-02	2.2494E-02
H+	3.6444E-01	4.5962E-01	4.7610E-01
H2	4.5651E-06	8.5703E-08	1.4883E-09
H-	3.5941E-05	1.1851E-05	5.4218E-06
H2+	6.9455E-05	3.1180E-05	5.1281E-06
HE	1.6044E-02	4.9044E-03	1.5633E-03
HE+	2.4716E-04	8.7269E-03	1.0944E-02
HE++	8.5881E-14	9.8490E-07	6.1384E-04

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M. US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5965E+03	2.1621E+04	3.7834E+04
T	7.3795E+01	1.4341E+02	2.2859E+02
RHO	1.1092E+01	4.0481E+01	4.3127E+01
H	4.2186E+02	7.4678E+02	1.0157E+03
A	1.4560E+01	2.4475E+01	3.1584E+01
S	2.7806E+00	2.9517E+00	3.0912E+00
Z	3.1721E+00	3.7243E+00	3.8378E+00
GAME	9.0559E-01	1.1215E+00	1.1371E+00
U	4.0978E+01	1.1213E+01	1.4153E+01

SPECIES	MOLE FRACTIONS		
E-	3.8532E-01	4.7643E-01	4.9190E-01
H	2.1391E-01	4.3688E-02	1.7285E-02
H+	3.8491E-01	4.6643E-01	4.7778E-01
H2	2.9816E-06	2.8450E-08	5.0335E-10
H-	3.0185E-05	8.1857E-06	4.2388E-06
H2+	6.0935E-05	1.8614E-05	3.0521E-06
HE	1.5385E-02	3.4385E-03	1.0700E-03
HE+	3.7800E-04	9.9815E-03	9.8042E-03
HE++	3.8348E-13	5.2917E-06	2.1542E-03

P1 = 1.00E+03 N/SQ-M. US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9631E+03	2.3389E+04	4.3434E+04
T	8.0178E+01	1.7273E+02	2.7815E+02
RHO	1.0953E+01	3.5654E+01	4.0210E+01
H	4.8182E+02	8.4438E+02	1.1807E+03
A	1.5867E+01	2.7588E+01	3.5032E+01
S	2.8874E+00	3.0392E+00	3.1726E+00
Z	3.3742E+00	3.7979E+00	3.8834E+00
GAME	9.3058E-01	1.1602E+00	1.1362E+00
U	4.3749E+01	1.3436E+01	1.6312E+01

SPECIES	MOLE FRACTIONS		
E-	4.2212E-01	4.8656E-01	4.9787E-01
H	1.4183E-01	2.5127E-02	1.1476E-02
H+	4.2117E-01	4.7514E-01	4.7778E-01
H2	1.0636E-06	3.1847E-09	9.8998E-11
H-	1.8827E-05	4.4203E-06	2.7858E-06
H2+	4.1857E-05	8.3146E-06	1.3984E-06
HE	1.3886E-02	1.8460E-03	3.5216E-04
HE+	9.3212E-04	1.1216E-02	4.9539E-03
HE++	9.0023E-12	1.0321E-04	7.5692E-03

P1 = 1.00E+03 N/SQ-M. US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7776E+03	2.2574E+04	4.0725E+04
T	7.6803E+01	1.5780E+02	2.5282E+02
RHO	1.1047E+01	3.7969E+01	4.1715E+01
H	4.5137E+02	7.9531E+02	1.0976E+03
A	1.5181E+01	2.6125E+01	3.3175E+01
S	2.8343E+00	2.9977E+00	3.1323E+00
Z	3.2739E+00	3.7677E+00	3.8515E+00
GAME	9.1660E-01	1.1479E+00	1.1273E+00
U	4.2377E+01	1.2305E+01	1.5267E+01

SPECIES	MOLE FRACTIONS		
E-	4.0444E-01	4.8246E-01	4.9501E-01
H	1.7638E-01	3.2643E-02	1.4006E-02
H+	4.0393E-01	4.7161E-01	4.7803E-01
H2	1.8459E-06	9.0572E-09	2.1535E-10
H-	2.4410E-05	5.8479E-06	3.4503E-06
H2+	5.1620E-05	1.0553E-05	2.0342E-06
HE	1.4695E-02	2.4526E-03	6.6672E-04
HE+	5.8678E-04	1.0792E-02	7.5767E-03
HE++	1.7849E-12	2.6175E-05	4.7050E-03

P1 = 1.00E+03 N/SQ-M. US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1532E+03	2.4080E+04	4.6045E+04
T	8.4021E+01	1.8839E+02	3.0492E+02
RHO	1.0816E+01	3.3456E+01	3.8716E+01
H	5.1321E+02	8.9413E+02	1.2674E+03
A	1.6624E+01	2.8905E+01	3.7044E+01
S	2.9390E+00	3.0788E+00	3.2104E+00
Z	3.4696E+00	3.8205E+00	3.9004E+00
GAME	9.4800E-01	1.1608E+00	1.1538E+00
U	4.5102E+01	1.4598E+01	1.7421E+01

SPECIES	MOLE FRACTIONS		
E-	4.3801E-01	4.8960E-01	5.0005E-01
H	1.1105E-01	1.9714E-02	9.4768E-03
H+	4.3648E-01	4.7759E-01	4.7765E-01
H2	5.6566E-07	1.2053E-09	4.8093E-11
H-	1.3787E-05	3.4269E-06	2.2297E-06
H2+	3.2342E-05	3.9009E-06	9.8598E-07
HE	1.2902E-02	1.4225E-03	1.6509E-04
HE+	1.5389E-03	1.1321E-02	2.8990E-03
HE++	4.9257E-11	3.4344E-04	9.7550E-03

TABLE I. - Continued

$p_1 = 1\ kN/m^2$

P1 = 1.00E+03 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3461E+03	2.4592E+04	4.8232E+04
T	8.8691E+01	2.0458E+02	3.3280E+02
RHO	1.0590E+01	3.1311E+01	3.7045E+01
H	5.4554E+02	9.4470E+02	1.3558E+03
A	1.7509E+01	3.0064E+01	3.8996E+01
S	2.9919E+00	3.1177E+00	3.2464E+00
Z	3.5625E+00	3.8392E+00	3.9122E+00
GAME	9.7023E-01	1.1508E+00	1.1680E+00
U	4.6412E+01	1.5474E+01	1.8527E+01

SPECIES	MOLE FRACTIONS		
E-	4.5265E-01	4.9208E-01	5.0156E-01
H	8.3169E-02	1.5706E-02	7.8482E-03
H+	4.5011E-01	4.7918E-01	4.7780E-01
H2	2.6243E-07	4.8921E-10	2.4267E-11
H-	9.3065E-06	2.6812E-06	1.7549E-06
H2+	2.3163E-05	2.4827E-06	7.0513E-07
HE	1.1511E-02	1.0872E-03	7.4077E-05
HE+	2.5247E-03	1.0975E-02	1.6519E-03
HE++	3.2151E-10	9.6170E-04	1.1054E-02

P1 = 1.00E+03 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7408E+03	2.5262E+04	5.1791E+04
T	1.0362E+02	2.3564E+02	3.9397E+02
RHO	1.0013E+01	2.7691E+01	3.3481E+01
H	6.1288E+02	1.0481E+03	1.5397E+03
A	1.9594E+01	3.2044E+01	4.2732E+01
S	3.0894E+00	3.1892E+00	3.3165E+00
Z	3.7128E+00	3.8714E+00	3.9264E+00
GAME	1.0276E+00	1.1256E+00	1.1804E+00
U	4.8924E+01	1.7683E+01	2.0827E+01

SPECIES	MOLE FRACTIONS		
E-	4.7479E-01	4.9631E-01	5.0337E-01
H	4.3188E-02	1.0708E-02	5.3883E-03
H+	4.6854E-01	4.8006E-01	4.7851E-01
H2	4.1586E-08	1.1044E-10	6.6284E-12
H-	3.5607E-06	1.7318E-06	1.0413E-06
H2+	9.9135E-06	1.1673E-06	3.7003E-07
HE	7.2149E-03	5.6796E-04	1.5020E-05
HE+	6.2521E-03	8.4461E-03	5.7852E-04
HE++	1.5508E-08	3.9011E-03	1.2141E-02

P1 = 1.00E+03 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5427E+03	2.5007E+04	5.0306E+04
T	9.4049E+01	2.2024E+02	3.6280E+02
RHO	1.0342E+01	2.9449E+01	3.5368E+01
H	5.7878E+02	9.9589E+02	1.4481E+03
A	1.8469E+01	3.1059E+01	4.0904E+01
S	3.0407E+00	3.1539E+00	3.2815E+00
Z	3.6423E+00	3.8555E+00	3.9205E+00
GAME	9.9572E-01	1.1360E+00	1.1763E+00
U	4.7694E+01	1.6749E+01	1.9726E+01

SPECIES	MOLE FRACTIONS		
E-	4.6465E-01	4.9423E-01	5.0261E-01
H	6.1045E-02	1.2866E-02	6.5060E-03
H+	4.6056E-01	4.7993E-01	4.7813E-01
H2	1.1224E-07	2.2387E-10	1.2558E-11
H-	5.9804E-06	2.1471E-06	1.3640E-06
H2+	1.5775E-05	1.6736E-06	5.0977E-07
HE	9.6488E-03	8.1064E-04	3.2912E-05
HE+	4.0786E-03	1.0019E-02	9.5380E-04
HE++	2.1375E-09	2.1387E-03	1.1767E-02

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6582E+01
T	2.8250E+00	3.5120E+00	4.9532E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1971E+00
A	1.6758E+00	1.8612E+00	2.1882E+00
S	1.0605E+00	1.0625E+00	1.0815E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6666E-01
U	2.3185E+00	1.3798E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	7.6262E-65	2.4176E-46	1.6151E-30
H	4.3926E-11	6.2852E-09	1.3658E-05
H+	1.6833E-20	2.9311E-20	4.4978E-20
H2	9.5000E-01	9.5000E-01	9.4999E-01
H-	3.1410E-72	4.6908E-52	1.0544E-34
H2+	4.6628E-20	3.4149E-20	1.8482E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	1.6722E-73	1.8531E-62	4.0290E-53
HE++	0.	0.	0.

P1 = 2.00E+03 N/SQ-M. US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6647E+01	1.0206E+02
T	3.8703E+00	5.1631E+00	6.9953E+00
RHO	4.5267E+00	9.0329E+00	1.4576E+01
H	3.9997E+00	5.4354E+00	7.6407E+00
A	1.9491E+00	2.2306E+00	2.5500E+00
S	1.0944E+00	1.0993E+00	1.1216E+00
Z	1.0000E+00	1.0000E+00	1.0011E+00
GAME	9.8154E-01	9.6369E-01	9.2859E-01
U	3.0256E+00	1.5133E+00	1.3640E+00

SPECIES	MOLE FRACTIONS		
E-	6.9653E-43	2.0291E-27	3.5802E-18
H	1.5848E-07	3.3271E-05	2.1036E-03
H+	3.8892E-20	4.8029E-20	3.5804E-18
H2	9.5000E-01	9.4997E-01	9.4795E-01
H-	2.4193E-48	1.7400E-31	2.0307E-20
H2+	2.4578E-20	1.5430E-20	4.3331E-20
HE	5.0000E-02	4.9999E-02	4.9947E-02
HE+	7.1927E-61	1.7277E-51	5.3689E-40
HE++	0.	0.	0.

P1 = 2.00E+03 N/SQ-M. US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5423E+01	8.0295E+01	1.6039E+02
T	5.0960E+00	7.0420E+00	8.8123E+00
RHO	4.9885E+00	1.1388E+01	1.7976E+01
H	5.3592E+00	7.7102E+00	1.0501E+01
A	2.2170E+00	2.5539E+00	2.7833E+00
S	1.1274E+00	1.1354E+00	1.1600E+00
Z	1.0000E+00	1.0013E+00	1.0125E+00
GAME	9.6444E-01	9.2504E-01	8.6826E-01
U	3.7275E+00	1.6290E+00	1.4361E+00

SPECIES	MOLE FRACTIONS		
E-	1.5504E-28	1.6069E-17	1.1314E-13
H	3.4468E-05	2.5917E-03	2.4634E-02
H+	5.0826E-20	1.3686E-17	9.9790E-14
H2	9.4997E-01	9.4747E-01	9.2598E-01
H-	7.2735E-33	1.1008E-20	5.0833E-16
H2+	1.2634E-20	2.4580E-18	1.3854E-14
HE	4.9999E-02	4.9935E-02	4.9384E-02
HE+	2.6622E-52	8.5957E-41	1.0440E-33
HE++	0.	0.	0.

P1 = 2.00E+03 N/SQ-M. US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4871E+01	1.2816E+02	2.3246E+02
T	6.4544E+00	8.7745E+00	1.0145E+01
RHO	5.3994E+00	1.4413E+01	2.2016E+01
H	6.9693E+00	1.0501E+01	1.3749E+01
A	2.4608E+00	2.7738E+00	2.9798E+00
S	1.1589E+00	1.1715E+00	1.1988E+00
Z	1.0006E+00	1.0133E+00	1.0408E+00
GAME	9.3761E-01	8.6532E-01	8.4089E-01
U	4.4310E+00	1.6582E+00	1.4421E+00

SPECIES	MOLE FRACTIONS		
E-	6.5125E-19	1.1731E-13	9.6308E-12
H	1.2153E-03	2.6306E-02	7.8394E-02
H+	6.2851E-19	1.0475E-13	8.6305E-12
H2	9.4882E-01	9.2435E-01	8.7357E-01
H-	2.3030E-22	4.6691E-16	8.9079E-14
H2+	8.6401E-20	1.3332E-14	1.0895E-12
HE	4.9970E-02	4.9342E-02	4.8040E-02
HE+	3.6610E-45	9.3589E-34	4.9514E-30
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.6083E+01	1.9729E+02	3.2874E+02
T	7.7704E+00	1.0121E+01	1.1251E+01
RHO	5.8965E+00	1.8685E+01	2.6969E+01
H	8.8411E+00	1.3857E+01	1.7531E+01
A	2.6329E+00	2.9762E+00	3.1872E+00
S	1.1894E+00	1.2093E+00	1.2403E+00
Z	1.0058E+00	1.0433E+00	1.0835E+00
GAME	8.8702E-01	8.3884E-01	8.3335E-01
U	5.1604E+00	1.6267E+00	1.4453E+00

SPECIES	MOLE FRACTIONS		
E-	1.9795E-15	9.7363E-12	1.6771E-10
H	1.1490E-02	8.3102E-02	1.5408E-01
H+	1.7998E-15	8.7830E-12	1.5193E-10
H2	9.3880E-01	8.6898E-01	7.9977E-01
H-	2.3209E-18	8.0595E-14	2.5461E-12
H2+	1.8200E-16	1.0338E-12	1.8331E-11
HE	4.9713E-02	4.7922E-02	4.6148E-02
HE+	1.6934E-37	6.2987E-30	6.8564E-27
HE++	0.	0.	0.

P1 = 2.00E+03 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.4283E+01	4.2732E+02	6.4421E+02
T	9.6570E+00	1.2278E+01	1.3287E+01
RHO	7.3570E+00	3.0412E+01	4.0201E+01
H	1.3381E+01	2.2247E+01	2.7006E+01
A	2.8985E+00	3.4215E+00	3.6650E+00
S	1.2526E+00	1.2936E+00	1.3325E+00
Z	1.0455E+00	1.1444E+00	1.2060E+00
GAME	8.3207E-01	8.3317E-01	8.3822E-01
U	6.7107E+00	1.6256E+00	1.4985E+00

SPECIES	MOLE FRACTIONS		
E-	4.6305E-12	1.4834E-09	7.8496E-09
H	8.7056E-02	2.5234E-01	3.4166E-01
H+	4.3200E-12	1.3601E-09	7.2268E-09
H2	8.6512E-01	7.0397E-01	6.1688E-01
H-	2.0296E-14	3.1092E-11	2.3016E-10
H2+	3.3085E-13	1.5442E-10	8.5291E-10
HE	4.7824E-02	4.3692E-02	4.1459E-02
HE+	8.4456E-31	9.0230E-25	4.2777E-23
HE++	0.	1.6117E-88	1.1602E-79

P1 = 2.00E+03 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9254E+01	2.9574E+02	4.6436E+02
T	8.8275E+00	1.1253E+01	1.2282E+01
RHO	6.5752E+00	2.4151E+01	3.3193E+01
H	1.0981E+01	1.7785E+01	2.1961E+01
A	2.7658E+00	3.1920E+00	3.4155E+00
S	1.2203E+00	1.2499E+00	1.2848E+00
Z	1.0209E+00	1.0880E+00	1.1391E+00
GAME	8.4887E-01	8.3213E-01	8.3382E-01
U	5.9272E+00	1.6120E+00	1.4648E+00

SPECIES	MOLE FRACTIONS		
E-	2.3400E-13	1.8401E-10	1.3922E-09
H	4.0944E-02	1.6180E-01	2.4423E-01
H+	2.1632E-13	1.6765E-10	1.2704E-09
H2	9.1038E-01	7.9224E-01	7.1187E-01
H-	6.1666E-16	2.6496E-12	3.0539E-11
H2+	1.8299E-14	1.9306E-11	1.5234E-10
HE	4.8976E-02	4.5955E-02	4.3894E-02
HE+	3.3205E-34	8.1951E-27	5.5901E-25
HE++	0.	0.	1.1225E-85

P1 = 2.00E+03 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.1076E+01	5.9427E+02	8.7083E+02
T	1.0349E+01	1.3256E+01	1.4298E+01
RHO	8.1666E+00	3.7029E+01	4.7448E+01
H	1.6034E+01	2.7222E+01	3.2677E+01
A	3.0345E+00	3.6666E+00	3.9386E+00
S	1.2867E+00	1.3402E+00	1.3834E+00
Z	1.0776E+00	1.2107E+00	1.2836E+00
GAME	8.2569E-01	8.3771E-01	8.4524E-01
U	7.4986E+00	1.6553E+00	1.5563E+00

SPECIES	MOLE FRACTIONS		
E-	3.5604E-11	7.8499E-09	3.4008E-08
H	1.4407E-01	3.4805E-01	4.4194E-01
H+	3.3382E-11	7.2497E-09	3.1607E-08
H2	8.0953E-01	6.1065E-01	5.1910E-01
H-	2.1604E-13	2.1872E-10	1.2436E-09
H2+	2.4379E-12	8.1896E-10	3.6439E-09
HE	4.6398E-02	4.1299E-02	3.8951E-02
HE+	5.8138E-29	4.1275E-23	1.3893E-21
HE++	0.	1.8314E-82	1.4352E-76

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0949E+02	7.9451E+02	1.1423E+03
T	1.0961E+01	1.4213E+01	1.5333E+01
RHO	8.9523E+00	4.3486E+01	5.4358E+01
H	1.8937E+01	3.2664E+01	3.8921E+01
A	3.1745E+00	3.9279E+00	4.2375E+00
S	1.3227E+00	1.3892E+00	1.4369E+00
Z	1.1159E+00	1.2855E+00	1.3705E+00
GAME	8.2391E-01	8.4443E-01	8.5448E-01
U	8.2790E+00	1.7064E+00	1.6308E+00

SPECIES	MOLE FRACTIONS		
E-	1.7155E-10	3.1650E-08	1.2349E-07
H	2.0775E-01	4.4417E-01	5.4071E-01
H+	1.6152E-10	2.9476E-08	1.1597E-07
H2	7.4744E-01	5.1693E-01	4.2280E-01
H-	1.3341E-12	1.0936E-09	5.3043E-09
H2+	1.1357E-11	3.2650E-09	1.2824E-08
HE	4.4806E-02	3.8896E-02	3.6482E-02
HE+	1.6029E-27	1.0448E-21	2.9006E-20
HE++	0.	1.8112E-76	1.4992E-71

P1 = 2.00E+03 N/SQ-M. US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5119E+02	1.2922E+03	1.8233E+03
T	1.2057E+01	1.6193E+01	1.7668E+01
RHO	1.0377E+01	5.4754E+01	6.5767E+01
H	2.5493E+01	4.4951E+01	5.3241E+01
A	3.4703E+00	4.5153E+00	4.9462E+00
S	1.4004E+00	1.4931E+00	1.5501E+00
Z	1.2085E+00	1.4575E+00	1.5691E+00
GAME	8.2652E-01	8.6388E-01	8.8246E-01
U	9.8240E+00	1.8643E+00	1.8403E+00

SPECIES	MOLE FRACTIONS		
E-	1.8804E-09	3.3028E-07	1.2871E-06
H	3.4503E-01	6.2778E-01	7.2540E-01
H+	1.7854E-09	3.1369E-07	1.2368E-06
H2	6.1359E-01	3.3792E-01	2.4273E-01
H-	2.0821E-11	1.4712E-08	6.4691E-08
H2+	1.1582E-10	3.1305E-08	1.1496E-07
HE	4.1374E-02	3.4306E-02	3.1865E-02
HE+	3.9065E-25	2.6975E-19	7.7110E-18
HE++	1.1624E-88	1.2967E-67	6.5354E-63

P1 = 2.00E+03 N/SQ-M. US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2958E+02	1.0287E+03	1.4610E+03
T	1.1524E+01	1.5184E+01	1.6439E+01
RHO	9.6961E+00	4.9516E+01	6.0613E+01
H	2.2091E+01	3.8589E+01	4.5781E+01
A	3.3195E+00	4.2099E+00	4.5699E+00
S	1.3607E+00	1.4404E+00	1.4927E+00
Z	1.1597E+00	1.3682E+00	1.4663E+00
GAME	8.2450E-01	8.5308E-01	8.6645E-01
U	9.0571E+00	1.7759E+00	1.7241E+00

SPECIES	MOLE FRACTIONS		
E-	6.2564E-10	1.0841E-07	4.0671E-07
H	2.7540E-01	5.3826E-01	6.3598E-01
H+	5.9158E-10	1.0194E-07	3.8625E-07
H2	6.8148E-01	4.2519E-01	3.2992E-01
H-	5.9264E-12	4.3573E-09	1.9445E-08
H2+	3.9981E-11	1.0829E-08	3.9905E-08
HE	4.3115E-02	3.6543E-02	3.4101E-02
HE+	3.1708E-26	1.9756E-20	4.8877E-19
HE++	2.4295E-92	4.6976E-72	5.3990E-67

P1 = 2.00E+03 N/SQ-M. US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7444E+02	1.5842E+03	2.2324E+03
T	1.2574E+01	1.7289E+01	1.9145E+01
RHO	1.0993E+01	5.9021E+01	6.9516E+01
H	2.9145E+01	5.1778E+01	6.1384E+01
A	3.6282E+00	4.8541E+00	5.3945E+00
S	1.4419E+00	1.5469E+00	1.6087E+00
Z	1.2620E+00	1.5525E+00	1.6774E+00
GAME	8.2955E-01	8.7786E-01	9.0618E-01
U	1.0588E+01	1.9756E+00	1.9846E+00

SPECIES	MOLE FRACTIONS		
E-	4.9534E-09	9.6199E-07	4.2609E-06
H	4.1525E-01	7.1171E-01	8.0764E-01
H+	4.7227E-09	9.2344E-07	4.1442E-06
H2	5.4513E-01	2.5608E-01	1.6255E-01
H-	6.2133E-11	4.5092E-08	2.1020E-07
H2+	2.9289E-10	8.3444E-08	3.2700E-07
HE	3.9619E-02	3.2207E-02	2.9809E-02
HE+	3.5571E-24	3.5419E-18	1.4153E-16
HE++	3.1831E-85	1.0847E-63	1.4809E-57

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9926E+02	1.8992E+03	2.6916E+03
T	1.3385E+01	1.8542E+01	2.1157E+01
RHO	1.1537E+01	6.2046E+01	7.1215E+01
H	3.3047E+01	5.9044E+01	7.0382E+01
A	3.7942E+00	5.2405E+00	5.9852E+00
S	1.4848E+00	1.6012E+00	1.6685E+00
Z	1.3201E+00	1.6509E+00	1.7864E+00
GAME	8.3344E-01	8.9721E-01	9.4781E-01
U	1.1347E+01	2.1126E+00	2.1919E+00

SPECIES	MOLE FRACTIONS		
E-	1.1890E-08	2.8089E-06	1.6849E-05
H	4.8491E-01	7.8847E-01	8.8040E-01
H+	1.1384E-08	2.7253E-06	1.6579E-05
H2	4.7721E-01	1.8124E-01	9.1580E-02
H-	1.6460E-10	1.3099E-07	7.3661E-07
H2+	6.7054E-10	2.1460E-07	1.0063E-06
HE	3.7877E-02	3.0288E-02	2.7989E-02
HE+	2.6486E-23	4.7062E-17	4.0178E-15
HE++	4.8766E-82	2.1711E-59	3.6651E-52

P1 = 2.00E+03 N/SQ-M. US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5356E+02	2.5612E+03	3.8134E+03
T	1.4130E+01	2.2210E+01	3.0573E+01
RHO	1.2388E+01	6.2758E+01	6.4524E+01
H	4.1601E+01	7.4781E+01	9.2553E+01
A	4.1560E+00	6.3217E+00	8.0900E+00
S	1.5748E+00	1.7075E+00	1.7865E+00
Z	1.4485E+00	1.8375E+00	1.9331E+00
GAME	8.4387E-01	9.7923E-01	1.1074E+00
U	1.2849E+01	2.5387E+00	3.0557E+00

SPECIES	MOLE FRACTIONS		
E-	5.7794E-08	3.3528E-05	1.0702E-03
H	6.1926E-01	9.1148E-01	9.6216E-01
H+	5.5824E-08	3.3167E-05	1.0681E-03
H2	3.4622E-01	6.1236E-02	9.7959E-03
H-	9.1052E-10	1.1993E-06	1.8909E-05
H2+	2.8802E-09	1.5599E-06	2.0993E-05
HE	3.4518E-02	2.7210E-02	2.5865E-02
HE+	1.0437E-21	1.9264E-14	1.0573E-10
HE++	2.1455E-76	1.2339E-50	4.5786E-36

P1 = 2.00E+03 N/SQ-M. US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2564E+02	2.2291E+03	3.2111E+03
T	1.3600E+01	2.0087E+01	2.4497E+01
RHO	1.2003E+01	6.3465E+01	6.9677E+01
H	3.7199E+01	6.6727E+01	8.0565E+01
A	3.9695E+00	5.7063E+00	6.8971E+00
S	1.5292E+00	1.6552E+00	1.7284E+00
Z	1.3823E+00	1.7486E+00	1.8813E+00
GAME	8.3816E-01	9.2706E-01	1.0322E+00
U	1.2101E+01	2.2912E+00	2.5168E+00

SPECIES	MOLE FRACTIONS		
E-	2.6762E-08	8.8229E-06	1.0349E-04
H	5.5314E-01	8.5622E-01	9.3658E-01
H+	2.5734E-08	8.6485E-06	1.0283E-04
H2	4.1068E-01	1.1517E-01	3.6632E-02
H-	3.9955E-10	3.8100E-07	3.3022E-06
H2+	1.4269E-09	5.5541E-07	3.9636E-06
HE	3.6171E-02	2.8594E-02	2.6578E-02
HE+	1.7284E-22	7.3955E-16	3.4049E-13
HE++	4.2826E-79	4.6177E-55	2.5309E-45

P1 = 2.00E+03 N/SQ-M. US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8298E+02	2.8744E+03	4.4500E+03
T	1.4690E+01	2.5430E+01	3.7509E+01
RHO	1.2688E+01	5.9422E+01	6.0677E+01
H	4.6251E+01	8.3119E+01	1.0531E+02
A	4.3563E+00	7.1668E+00	8.7655E+00
S	1.6213E+00	1.7564E+00	1.8347E+00
Z	1.5183E+00	1.9022E+00	1.9552E+00
GAME	8.5088E-01	1.0618E+00	1.0477E+00
U	1.3591E+01	2.9038E+00	3.5938E+00

SPECIES	MOLE FRACTIONS		
E-	1.2235E-07	1.7085E-04	6.2625E-03
H	6.8271E-01	9.4806E-01	9.5825E-01
H+	1.1872E-07	1.7010E-04	6.2530E-03
H2	2.8436E-01	2.5302E-02	3.5184E-03
H-	1.9895E-09	4.3064E-06	6.4687E-05
H2+	5.6133E-09	5.0569E-06	7.4121E-05
HE	3.2932E-02	2.6286E-02	2.5573E-02
HE+	6.1477E-21	1.0461E-12	8.0309E-09
HE++	3.9394E-74	2.3046E-43	2.8465E-29

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1388E+02	3.1524E+03	5.0649E+03
T	1.5298E+01	2.9943E+01	4.3085E+01
RHO	1.2895E+01	5.4439E+01	5.9380E+01
H	5.1150E+01	9.1657E+01	1.1782E+02
A	4.5747E+00	8.0159E+00	9.1500E+00
S	1.6687E+00	1.8001E+00	1.8748E+00
Z	1.5911E+00	1.9339E+00	1.9797E+00
GAME	8.5981E-01	1.1096E+00	9.8154E-01
U	1.4325E+01	3.3984E+00	3.9634E+00

SPECIES	MOLE FRACTIONS		
E-	2.5979E-07	9.5733E-04	1.7111E-02
H	7.4298E-01	9.6295E-01	9.3833E-01
H+	2.5329E-07	9.5564E-04	1.7083E-02
H2	2.2559E-01	9.2544E-03	1.9432E-03
H-	4.2554E-09	1.5040E-05	1.2592E-04
H2+	1.0748E-08	1.6735E-05	1.5422E-04
HE	3.1425E-02	2.5854E-02	2.5256E-02
HE+	3.7302E-20	7.0504E-11	9.5947E-08
HE++	3.0058E-71	8.9408E-37	2.1989E-25

P1 = 2.00E+03 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7977E+02	3.6725E+03	6.1839E+03
T	1.6811E+01	3.9458E+01	5.0972E+01
RHO	1.2971E+01	4.7346E+01	5.9344E+01
H	6.1685E+01	1.0978E+02	1.4281E+02
A	5.1043E+00	8.8664E+00	9.7983E+00
S	1.7644E+00	1.8737E+00	1.9444E+00
Z	1.7417E+00	1.9658E+00	2.0443E+00
GAME	8.8985E-01	1.0135E+00	9.2134E-01
U	1.5766E+01	4.3153E+00	4.4181E+00

SPECIES	MOLE FRACTIONS		
E-	1.3286E-06	1.0344E-02	4.7472E-02
H	8.5169E-01	9.5152E-01	8.7912E-01
H+	1.3080E-06	1.0332E-02	4.7381E-02
H2	1.1960E-01	2.2111E-03	1.0034E-03
H-	2.0106E-08	7.4240E-05	2.3555E-04
H2+	4.0643E-08	8.6861E-05	3.2538E-04
HE	2.8708E-02	2.5435E-02	2.4457E-02
HE+	1.8512E-18	2.3265E-08	1.2702E-06
HE++	4.0633E-65	1.1087E-27	2.4966E-21

P1 = 2.00E+03 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4617E+02	3.4158E+03	5.6499E+03
T	1.5986E+01	3.4910E+01	4.7423E+01
RHO	1.2997E+01	5.0187E+01	5.9272E+01
H	5.6295E+01	1.0051E+02	1.3030E+02
A	4.8190E+00	8.5465E+00	9.4830E+00
S	1.7165E+00	1.8386E+00	1.9105E+00
Z	1.6660E+00	1.9497E+00	2.0100E+00
GAME	8.7191E-01	1.0732E+00	9.4340E-01
U	1.5052E+01	3.8934E+00	4.2273E+00

SPECIES	MOLE FRACTIONS		
E-	5.6752E-07	3.8849E-03	3.1429E-02
H	7.9955E-01	9.6250E-01	9.1057E-01
H+	5.5602E-07	3.8801E-03	3.1372E-02
H2	1.7043E-01	4.0109E-03	1.3307E-03
H-	9.1044E-09	3.9228E-05	1.8489E-04
H2+	2.0607E-08	4.4029E-05	2.4139E-04
HE	3.0011E-02	2.5645E-02	2.4875E-02
HE+	2.4152E-19	2.1393E-09	4.4153E-07
HE++	2.9968E-68	1.9676E-31	5.4604E-23

P1 = 2.00E+03 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1444E+02	3.9139E+03	6.6228E+03
T	1.7884E+01	4.3355E+01	5.3952E+01
RHO	1.2768E+01	4.5428E+01	5.8986E+01
H	6.7315E+01	1.1952E+02	1.5528E+02
A	5.4648E+00	9.1327E+00	1.0095E+01
S	1.8117E+00	1.9073E+00	1.9776E+00
Z	1.8149E+00	1.9872E+00	2.0810E+00
GAME	9.2009E-01	9.6809E-01	9.0768E-01
U	1.6461E+01	4.6203E+00	4.5451E+00

SPECIES	MOLE FRACTIONS		
E-	3.6013E-06	2.0311E-02	6.4160E-02
H	8.9803E-01	9.3255E-01	8.4631E-01
H+	3.5632E-06	2.0285E-02	6.4033E-02
H2	7.4414E-02	1.4410E-03	7.9258E-04
H-	4.8414E-08	1.1253E-04	2.7505E-04
H2+	8.6481E-08	1.3839E-04	3.9906E-04
HE	2.7549E-02	2.5161E-02	2.4024E-02
HE+	2.1037E-17	1.2145E-07	2.7849E-06
HE++	4.6318E-61	4.1747E-25	4.2578E-20

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4974E+02	4.0922E+03	6.8985E+03
T	1.9450E+01	4.6628E+01	5.6504E+01
RHO	1.2304E+01	4.3583E+01	5.7595E+01
H	7.3173E+01	1.2962E+02	1.6777E+02
A	5.9780E+00	9.3883E+00	1.0374E+01
S	1.8576E+00	1.9408E+00	2.0116E+00
Z	1.8792E+00	2.0137E+00	2.1198E+00
GAME	9.7772E-01	9.3873E-01	8.9857E-01
U	1.7122E+01	4.8263E+00	4.6468E+00

SPECIES	MOLE FRACTIONS		
E-	1.2782E-05	3.2847E-02	8.1185E-02
H	9.3569E-01	9.0815E-01	8.1281E-01
H+	1.2706E-05	3.2804E-02	8.1025E-02
H2	3.7682E-02	1.0315E-03	6.3562E-04
H-	1.3818E-07	1.4720E-04	3.0159E-04
H2+	2.1426E-07	1.8994E-04	4.5668E-04
HE	2.6637E-02	2.4830E-02	2.3582E-02
HE+	4.7125E-16	3.9640E-07	5.1593E-06
HE++	4.2375E-56	2.9106E-23	3.9055E-19

P1 = 2.00E+03 N/SQ-M. US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1961E+02	4.0969E+03	6.7362E+03
T	2.5467E+01	5.1579E+01	6.0351E+01
RHO	1.0509E+01	3.8248E+01	5.0732E+01
H	8.5492E+01	1.5002E+02	1.9169E+02
A	7.4706E+00	9.8586E+00	1.0859E+01
S	1.9386E+00	2.0111E+00	2.0836E+00
Z	1.9416E+00	2.0767E+00	2.2001E+00
GAME	1.1287E+00	9.0738E-01	8.8807E-01
U	1.8266E+01	5.0127E+00	4.7654E+00

SPECIES	MOLE FRACTIONS		
E-	4.1225E-04	6.1856E-02	1.1460E-01
H	9.6870E-01	8.5124E-01	7.4707E-01
H+	4.1191E-04	6.1779E-02	1.1439E-01
H2	4.7241E-03	5.9394E-04	4.0746E-04
H-	1.9095E-06	1.8976E-04	3.1109E-04
H2+	2.2484E-06	2.6492E-04	5.0274E-04
HE	2.5752E-02	2.4075E-02	2.2714E-02
HE+	2.4812E-12	1.8583E-06	1.2428E-05
HE++	1.1758E-42	7.0811E-21	8.6367E-18

P1 = 2.00E+03 N/SQ-M. US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8488E+02	4.1443E+03	6.9131E+03
T	2.1943E+01	4.9331E+01	5.8609E+01
RHO	1.1493E+01	4.1103E+01	5.4618E+01
H	7.9237E+01	1.3982E+02	1.7992E+02
A	6.7253E+00	9.6306E+00	1.0628E+01
S	1.9003E+00	1.9756E+00	2.0472E+00
Z	1.9227E+00	2.0439E+00	2.1596E+00
GAME	1.0721E+00	9.1987E-01	8.9235E-01
U	1.7724E+01	4.9488E+00	4.7175E+00

SPECIES	MOLE FRACTIONS		
E-	6.7187E-05	4.6941E-02	9.8066E-02
H	9.5961E-01	8.8054E-01	7.7959E-01
H+	6.7023E-05	4.6881E-02	9.7880E-02
H2	1.4249E-02	7.7231E-04	5.0910E-04
H-	5.0147E-07	1.7313E-04	3.1245E-04
H2+	6.6613E-07	2.3306E-04	4.9025E-04
HE	2.6005E-02	2.4462E-02	2.3144E-02
HE+	2.8190E-14	9.4994E-07	8.3885E-06
HE++	9.8325E-50	6.5648E-22	2.1880E-18

P1 = 2.00E+03 N/SQ-M. US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5563E+02	4.0857E+03	6.6178E+03
T	2.9369E+01	5.3633E+01	6.2019E+01
RHO	9.7021E+00	3.6067E+01	4.7588E+01
H	9.1979E+01	1.6064E+02	2.0384E+02
A	7.9420E+00	1.0090E+01	1.1094E+01
S	1.9722E+00	2.0456E+00	2.1193E+00
Z	1.9500E+00	2.1121E+00	2.2423E+00
GAME	1.1014E+00	8.9875E-01	8.8503E-01
U	1.8811E+01	5.0559E+00	4.8107E+00

SPECIES	MOLE FRACTIONS		
E-	1.8786E-03	7.7529E-02	1.3121E-01
H	9.6872E-01	8.2040E-01	7.1436E-01
H+	1.8780E-03	7.7436E-02	1.3099E-01
H2	1.8706E-03	4.7042E-04	3.3013E-04
H-	5.5981E-06	2.0246E-04	3.0716E-04
H2+	6.2561E-06	2.9242E-04	5.1060E-04
HE	2.5641E-02	2.3669E-02	2.2281E-02
HE+	1.0355E-10	3.2646E-06	1.7722E-05
HE++	9.6103E-37	5.2162E-20	2.9906E-17

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9344E+02	4.1643E+03	6.6542E+03
T	3.3011E+01	5.5612E+01	6.3738E+01
RHO	9.1760E+00	3.4831E+01	4.5664E+01
H	9.8716E+01	1.7181E+02	2.1668E+02
A	8.1981E+00	1.0331E+01	1.1343E+01
S	2.0323E+00	2.0782E+00	2.1533E+00
Z	1.9591E+00	2.1499E+00	2.2862E+00
GAME	1.0392E+00	8.9274E-01	8.8291E-01
U	1.9376E+01	5.0926E+00	4.8663E+00

SPECIES	MOLE FRACTIONS		
E-	5.6318E-03	9.3677E-02	1.4787E-01
H	9.6223E-01	7.8858E-01	6.8154E-01
H+	5.6305E-03	9.3566E-02	1.4763E-01
H2	9.5789E-04	3.8417E-04	2.7249E-04
H-	1.1917E-05	2.1414E-04	3.0460E-04
H2+	1.3267E-05	3.1969E-04	5.2122E-04
HE	2.5522E-02	2.3252E-02	2.1845E-02
HE+	1.5353E-09	5.3597E-06	2.4825E-05
HE++	1.5989E-32	3.0750E-19	9.8857E-17

P1 = 2.00E+03 N/SQ-M. US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7710E+02	4.5955E+03	7.1972E+03
T	3.8835E+01	5.9604E+01	6.7550E+01
RHO	8.7575E+00	3.4533E+01	4.4743E+01
H	1.1304E+02	1.9642E+02	2.4543E+02
A	8.5617E+00	1.0855E+01	1.1902E+01
S	2.0566E+00	2.1398E+00	2.2184E+00
Z	1.9909E+00	2.2327E+00	2.3813E+00
GAME	9.4808E-01	8.8540E-01	8.8068E-01
U	2.0638E+01	5.2196E+00	5.0171E+00

SPECIES	MOLE FRACTIONS		
E-	2.1000E-02	1.2726E-01	1.8186E-01
H	9.3241E-01	7.2236E-01	6.1453E-01
H+	2.0995E-02	1.2710E-01	1.8156E-01
H2	4.2402E-04	2.7249E-04	1.9229E-04
H-	2.8671E-05	2.3695E-04	3.0344E-04
H2+	3.3346E-05	3.7834E-04	5.5329E-04
HE	2.5114E-02	2.2382E-02	2.0949E-02
HE+	4.0076E-08	1.2861E-05	4.8006E-05
HE++	2.0662E-27	7.3866E-18	1.0699E-15

P1 = 2.00E+03 N/SQ-M. US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3403E+02	4.3395E+03	6.8612E+03
T	3.6159E+01	5.7600E+01	6.5588E+01
RHO	8.8883E+00	3.4399E+01	4.4848E+01
H	1.0574E+02	1.8375E+02	2.3058E+02
A	8.3819E+00	1.0587E+01	1.1613E+01
S	2.0302E+00	2.1095E+00	2.1862E+00
Z	1.9727E+00	2.1901E+00	2.3326E+00
GAME	9.8492E-01	8.8845E-01	8.8149E-01
U	1.9989E+01	5.1577E+00	4.9357E+00

SPECIES	MOLE FRACTIONS		
E-	1.2137E-02	1.1032E-01	1.6478E-01
H	9.4974E-01	7.5577E-01	6.4820E-01
H+	1.2135E-02	1.1019E-01	1.6452E-01
H2	5.9795E-04	3.2099E-04	2.2810E-04
H-	1.9973E-05	2.2579E-04	3.0392E-04
H2+	2.2643E-05	3.4854E-04	5.3641E-04
HE	2.5346E-02	2.2821E-02	2.1401E-02
HE+	1.0211E-08	8.4430E-06	3.4619E-05
HE++	1.4837E-29	1.5930E-18	3.2682E-16

P1 = 2.00E+03 N/SQ-M. US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.7028E+02	5.2694E+03	8.1455E+03
T	4.3189E+01	6.3618E+01	7.1722E+01
RHO	8.7519E+00	3.5652E+01	4.5717E+01
H	1.2848E+02	2.2372E+02	2.7780E+02
A	8.9434E+00	1.1417E+01	1.2527E+01
S	2.1073E+00	2.1992E+00	2.2821E+00
Z	2.0378E+00	2.3232E+00	2.4842E+00
GAME	9.0878E-01	8.8187E-01	8.8069E-01
U	2.2014E+01	5.4079E+00	5.2081E+00

SPECIES	MOLE FRACTIONS		
E-	4.3426E-02	1.6128E-01	2.1577E-01
H	8.8826E-01	6.5523E-01	5.4770E-01
H+	4.3415E-02	1.6108E-01	2.1539E-01
H2	2.6189E-04	2.0088E-04	1.3721E-04
H-	4.5653E-05	2.5446E-04	2.9858E-04
H2+	5.6075E-05	4.3468E-04	5.8274E-04
HE	2.4535E-02	2.1494E-02	2.0037E-02
HE+	2.5627E-07	2.7363E-05	8.9981E-05
HE++	1.7157E-24	1.1792E-16	1.3616E-14

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.7132E+02	6.1049E+03	9.3428E+03
T	4.6728E+01	6.7644E+01	7.6155E+01
RHO	8.9023E+00	3.7300E+01	4.7313E+01
H	1.4498E+02	2.5333E+02	3.1314E+02
A	9.3393E+00	1.2006E+01	1.3204E+01
S	2.1566E+00	2.2582E+00	2.3457E+00
Z	2.0947E+00	2.4195E+00	2.5930E+00
GAME	8.9114E-01	8.8076E-01	8.8291E-01
U	2.3440E+01	5.6047E+00	5.4299E+00

SPECIES	MOLE FRACTIONS		
E-	6.9323E-02	1.9469E-01	2.4866E-01
H	8.3718E-01	5.8933E-01	4.8289E-01
H+	6.9304E-02	1.9442E-01	2.4819E-01
H2	1.8491E-04	1.4921E-04	9.6341E-05
H-	6.0570E-05	2.6307E-04	2.8450E-04
H2+	7.8356E-05	4.8053E-04	5.9544E-04
HE	2.3869E-02	2.0612E-02	1.9120E-02
HE+	8.9057E-07	5.3225E-05	1.5291E-04
HE++	1.6079E-22	1.3686E-15	9.3113E-14

P1 = 2.00E+03 N/SQ-M. US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0946E+03	8.1281E+03	1.2286E+04
T	5.2589E+01	7.5895E+01	8.6019E+01
RHO	9.3429E+00	4.0801E+01	5.0571E+01
H	1.8105E+02	3.1868E+02	3.9214E+02
A	1.0143E+01	1.3273E+01	1.4749E+01
S	2.2548E+00	2.3764E+00	2.4739E+00
Z	2.2277E+00	2.6249E+00	2.8244E+00
GAME	8.7812E-01	8.8430E-01	8.9534E-01
U	2.6353E+01	6.0385E+00	5.9718E+00

SPECIES	MOLE FRACTIONS		
E-	1.2489E-01	2.5770E-01	3.1019E-01
H	7.2750E-01	4.6514E-01	3.6192E-01
H+	1.2485E-01	2.5726E-01	3.0937E-01
H2	1.0718E-04	7.8853E-05	4.2095E-05
H-	8.2361E-05	2.4997E-04	2.2784E-04
H2+	1.1702E-04	5.2118E-04	5.4956E-04
HE	2.2440E-02	1.8879E-02	1.7202E-02
HE+	4.8032E-06	1.6952E-04	5.0093E-04
HE++	7.7870E-23	9.6965E-14	5.6204E-12

P1 = 2.00E+03 N/SQ-M. US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7954E+02	7.3626E+03	1.0731E+04
T	4.9801E+01	7.1715E+01	8.0886E+01
RHO	9.1127E+00	3.9075E+01	4.9019E+01
H	1.6251E+02	2.8501E+02	3.5126E+02
A	9.7395E+00	1.2623E+01	1.3940E+01
S	2.2056E+00	2.3172E+00	2.4096E+00
Z	2.1585E+00	2.5203E+00	2.7066E+00
GAME	8.8247E-01	8.8158E-01	8.8760E-01
U	2.4891E+01	5.8199E+00	5.6827E+00

SPECIES	MOLE FRACTIONS		
E-	9.6812E-02	2.2691E-01	2.8019E-01
H	7.8293E-01	5.2580E-01	4.2084E-01
H+	9.6784E-02	2.2657E-01	2.7958E-01
H2	1.3874E-04	1.0969E-04	6.5330E-05
H-	7.2856E-05	2.6146E-04	2.6043E-04
H2+	9.8913E-05	5.1033E-04	5.8508E-04
HE	2.3162E-02	1.9742E-02	1.8186E-02
HE+	2.2658E-06	9.7080E-05	2.8770E-04
HE++	4.9191E-21	1.2523E-14	7.4335E-13

P1 = 2.00E+03 N/SQ-M. US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2162E+03	9.2752E+03	1.3996E+04
T	5.5198E+01	8.0236E+01	9.1718E+01
RHO	9.5729E+00	4.2309E+01	5.1802E+01
H	2.0061E+02	3.5418E+02	4.3588E+02
A	1.0550E+01	1.3961E+01	1.5654E+01
S	2.3043E+00	2.4357E+00	2.5385E+00
Z	2.3016E+00	2.7323E+00	2.9458E+00
GAME	8.7616E-01	8.8913E-01	9.0693E-01
U	2.7819E+01	6.2989E+00	6.3075E+00

SPECIES	MOLE FRACTIONS		
E-	1.5298E-01	2.8688E-01	3.3857E-01
H	6.7206E-01	4.0772E-01	3.0635E-01
H+	1.5293E-01	2.8631E-01	3.3740E-01
H2	8.3904E-05	5.4862E-05	2.5323E-05
H-	8.9088E-05	2.2969E-04	1.8959E-04
H2+	1.3219E-04	5.1124E-04	4.9021E-04
HE	2.1715E-02	1.8013E-02	1.6106E-02
HE+	9.0582E-06	2.8715E-04	8.6661E-04
HE++	8.0630E-19	6.6565E-13	4.1960E-11

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M. US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3445E+03	1.0501E+04	1.5863E+04
T	5.7693E+01	8.4843E+01	9.8230E+01
RHO	9.7933E+00	4.3548E+01	5.2602E+01
H	2.2119E+02	3.9156E+02	4.8273E+02
A	1.0965E+01	1.4703E+01	1.6687E+01
S	2.3543E+00	2.4951E+00	2.6033E+00
Z	2.3795E+00	2.8422E+00	3.0699E+00
GAME	8.7572E-01	8.9649E-01	9.2343E-01
U	2.9291E+01	6.5913E+00	6.6998E+00

SPECIES	MOLE FRACTIONS		
E-	1.8072E-01	3.1443E-01	3.6523E-01
H	6.1731E-01	3.5358E-01	2.5442E-01
H+	1.8066E-01	3.1368E-01	3.6348E-01
H2	6.5937E-05	3.6561E-05	1.3932E-05
H-	9.3130E-05	2.0268E-04	1.4944E-04
H2+	1.4411E-04	4.8135E-04	4.1175E-04
HE	2.0997E-02	1.7114E-02	1.4795E-02
HE+	1.5782E-05	4.7790E-04	1.4918E-03
HE++	6.2451E-18	4.2601E-12	3.2078E-10

P1 = 2.00E+03 N/SQ-M. US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6188E+03	1.3087E+04	2.0016E+04
T	6.2515E+01	9.5201E+01	1.1505E+02
RHO	1.0171E+01	4.4854E+01	5.2450E+01
H	2.6531E+02	4.7108E+02	5.8643E+02
A	1.1823E+01	1.6390E+01	1.9310E+01
S	2.4558E+00	2.6126E+00	2.7317E+00
Z	2.5458E+00	3.0649E+00	3.3170E+00
GAME	8.7790E-01	9.2067E-01	9.7709E-01
U	3.2205E+01	7.3081E+00	7.7331E+00

SPECIES	MOLE FRACTIONS		
E-	2.3423E-01	3.6415E-01	4.1236E-01
H	5.1172E-01	2.5637E-01	1.6409E-01
H+	2.3412E-01	3.6264E-01	4.0816E-01
H2	4.0208E-05	1.3745E-05	2.9678E-06
H-	9.3696E-05	1.3903E-04	7.9765E-05
H2+	1.5725E-04	3.7278E-04	2.3293E-04
HE	1.9599E-02	1.5041E-02	1.1027E-02
HE+	4.1132E-05	1.2727E-03	4.0463E-03
HE++	2.1233E-16	1.5567E-10	2.0756E-08

P1 = 2.00E+03 N/SQ-M. US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4786E+03	1.1776E+04	1.7866E+04
T	6.0120E+01	8.9786E+01	1.0592E+02
RHO	9.9936E+00	4.4407E+01	5.2780E+01
H	2.4275E+02	4.3052E+02	5.3276E+02
A	1.1387E+01	1.5507E+01	1.7898E+01
S	2.4048E+00	2.5542E+00	2.6686E+00
Z	2.4610E+00	2.9534E+00	3.1959E+00
GAME	8.7636E-01	9.0681E-01	9.4638E-01
U	3.0752E+01	6.9259E+00	7.1679E+00

SPECIES	MOLE FRACTIONS		
E-	2.0786E-01	3.4020E-01	3.9017E-01
H	5.6376E-01	3.0309E-01	2.0631E-01
H+	2.0777E-01	3.3915E-01	3.8743E-01
H2	5.1681E-05	2.3133E-05	6.8119E-06
H-	9.4599E-05	1.7151E-04	1.1119E-04
H2+	1.5249E-04	4.3372E-04	3.2124E-04
HE	2.0291E-02	1.6145E-02	1.3115E-02
HE+	2.5993E-05	7.8432E-04	2.5298E-03
HE++	3.9298E-17	2.5997E-11	2.5835E-09

P1 = 2.00E+03 N/SQ-M. US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7652E+03	1.4415E+04	2.2347E+04
T	6.4913E+01	1.0124E+02	1.2662E+02
RHO	1.0326E+01	4.4839E+01	5.1382E+01
H	2.8887E+02	5.1316E+02	6.4491E+02
A	1.2267E+01	1.7371E+01	2.1057E+01
S	2.5072E+00	2.6701E+00	2.7952E+00
Z	2.6335E+00	3.1753E+00	3.4347E+00
GAME	8.8027E-01	9.3865E-01	1.0195E+00
U	3.3656E+01	7.7715E+00	8.4607E+00

SPECIES	MOLE FRACTIONS		
E-	2.5973E-01	3.8620E-01	4.3242E-01
H	4.6140E-01	2.1366E-01	1.2646E-01
H+	2.5960E-01	3.8397E-01	4.2636E-01
H2	3.0919E-05	7.5871E-06	1.0874E-06
H-	9.0667E-05	1.0801E-04	5.5599E-05
H2+	1.5841E-04	3.0429E-04	1.5297E-04
HE	1.8923E-02	1.3716E-02	8.5942E-03
HE+	6.3283E-05	2.0305E-03	5.9630E-03
HE++	1.0286E-15	9.2654E-10	1.7660E-07

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9183E+03	1.5772E+04	2.4877E+04
T	6.7349E+01	1.0815E+02	1.4134E+02
RHO	1.0456E+01	4.4418E+01	4.5716E+01
H	3.1345E+02	5.5699E+02	7.0871E+02
A	1.2731E+01	1.8479E+01	2.3143E+01
S	2.5590E+00	2.7266E+00	2.8569E+00
Z	2.7243E+00	3.2831E+00	3.5402E+00
GAME	8.8350E-01	9.6165E-01	1.0704E+00
U	3.5114E+01	8.2827E+00	9.3523E+00

SPECIES	MOLE FRACTIONS		
E-	2.8431E-01	4.0628E-01	4.4928E-01
H	4.1292E-01	1.7519E-01	9.5032E-02
H+	2.8415E-01	4.0298E-01	4.4143E-01
H2	2.3404E-05	3.8452E-06	3.3986E-07
H-	8.5783E-05	8.0759E-05	3.9420E-05
H2+	1.5606E-04	2.3497E-04	9.1609E-05
HE	1.8260E-02	1.2084E-02	6.3245E-03
HE+	9.5553E-05	3.1459E-03	7.7974E-03
HE++	4.6216E-15	5.5517E-09	1.4817E-06

P1 = 2.00E+03 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2411E+03	1.8378E+04	3.0411E+04
T	7.2441E+01	1.2526E+02	1.8220E+02
RHO	1.0626E+01	4.2180E+01	4.5163E+01
H	3.6555E+02	6.4826E+02	8.5239E+02
A	1.3724E+01	2.1143E+01	2.7762E+01
S	2.6634E+00	2.8339E+00	2.9733E+00
Z	2.9115E+00	3.4782E+00	3.6959E+00
GAME	8.9299E-01	1.0260E+00	1.1446E+00
U	3.7987E+01	9.5570E+00	1.1644E+01

SPECIES	MOLE FRACTIONS		
E-	3.3039E-01	4.3948E-01	4.7241E-01
H	3.2211E-01	1.1280E-01	5.1771E-02
H+	3.3011E-01	4.3318E-01	4.6224E-01
H2	1.2556E-05	7.6153E-07	2.5539E-08
H-	7.1568E-05	4.2518E-05	2.2323E-05
H2+	1.4143E-04	1.1817E-04	2.7787E-05
HE	1.6962E-02	8.1439E-03	3.4352E-03
HE+	2.1140E-04	6.2312E-03	1.0015E-02
HE++	8.1220E-14	1.7944E-07	7.8489E-05

P1 = 2.00E+03 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0768E+03	1.7096E+04	2.7564E+04
T	6.9845E+01	1.1607E+02	1.5978E+02
RHO	1.0556E+01	4.3515E+01	4.7554E+01
H	3.3901E+02	6.0201E+02	7.7775E+02
A	1.3215E+01	1.9727E+01	2.5436E+01
S	2.6111E+00	2.7813E+00	2.9161E+00
Z	2.8167E+00	3.3848E+00	3.6278E+00
GAME	8.8769E-01	9.9054E-01	1.1162E+00
U	3.6555E+01	8.8768E+00	1.0415E+01

SPECIES	MOLE FRACTIONS		
E-	3.0788E-01	4.2407E-01	4.6254E-01
H	3.6647E-01	1.4156E-01	7.0267E-02
H+	3.0766E-01	4.1936E-01	4.5333E-01
H2	1.7360E-05	1.7881E-06	9.4811E-08
H-	7.9307E-05	5.8852E-05	2.9180E-05
H2+	1.5030E-04	1.7141E-04	5.1176E-05
HE	1.7609E-02	1.0170E-02	4.6140E-03
HE+	1.4252E-04	4.6019E-03	9.1569E-03
HE++	1.9667E-14	3.2271E-08	1.1543E-05

P1 = 2.00E+03 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4107E+03	1.9536E+04	3.3302E+04
T	7.5200E+01	1.3584E+02	2.0649E+02
RHO	1.0655E+01	4.0395E+01	4.3075E+01
H	3.9307E+02	6.9521E+02	9.3076E+02
A	1.4267E+01	2.2700E+01	2.9842E+01
S	2.7164E+00	2.8841E+00	3.0246E+00
Z	3.0386E+00	3.5632E+00	3.7441E+00
GAME	8.9971E-01	1.0655E+00	1.1519E+00
U	3.9405E+01	1.0400E+01	1.2917E+01

SPECIES	MOLE FRACTIONS		
E-	3.5201E-01	4.5235E-01	4.7920E-01
H	2.7955E-01	8.8930E-02	3.9331E-02
H+	3.5163E-01	4.4456E-01	4.6808E-01
H2	8.7679E-06	3.0102E-07	7.8919E-09
H-	6.2795E-05	3.1044E-05	1.7616E-05
H2+	1.2960E-04	7.7489E-05	1.6003E-05
HE	1.6304E-02	6.3002E-03	2.6255E-03
HE+	3.1467E-04	7.7430E-03	1.0342E-02
HE++	3.3601E-13	9.2255E-07	3.8674E-04

TABLE I. - Continued

$p_1 = .2$ kN/m^2

P1 = 2.00E+03 N/SQ-M. US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5862E+03	2.0637E+04	3.6235E+04
T	7.8111E+01	1.4814E+02	2.3187E+02
RHO	1.0663E+01	3.8382E+01	4.1333E+01
H	4.2158E+02	7.4320E+02	1.0118E+03
A	1.4839E+01	2.4353E+01	3.1652E+01
S	2.7681E+00	2.9322E+00	3.0715E+00
Z	3.1049E+00	3.6296E+00	3.7809E+00
GAME	9.0797E-01	1.1031E+00	1.1428E+00
U	4.0816E+01	1.1323E+01	1.4163E+01

SPECIES	MOLE FRACTIONS		
E-	3.7208E-01	4.6279E-01	4.8426E-01
H	2.4009E-01	6.9551E-02	3.0862E-02
H+	3.7155E-01	4.5381E-01	4.7163E-01
H2	5.9391E-06	1.1200E-07	2.8570E-09
H-	5.3703E-05	2.3225E-05	1.4132E-05
H2+	1.1587E-04	4.8830E-05	9.9083E-06
HE	1.5636E-02	4.8170E-03	1.9555E-03
HE+	4.6784E-04	8.9543E-03	9.9084E-03
HE++	1.3741E-12	4.4323E-06	1.3605E-03

P1 = 2.00E+03 N/SQ-M. US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9517E+03	2.2427E+04	4.1730E+04
T	8.4840E+01	1.7581E+02	2.8168E+02
RHO	1.0548E+01	3.4234E+01	3.8592E+01
H	4.8150E+02	8.4090E+02	1.1779E+03
A	1.6144E+01	2.7429E+01	3.4979E+01
S	2.8717E+00	3.0182E+00	3.1536E+00
Z	3.2984E+00	3.7261E+00	3.8388E+00
GAME	9.3131E-01	1.1485E+00	1.1315E+00
U	4.3581E+01	1.3454E+01	1.6408E+01

SPECIES	MOLE FRACTIONS		
E-	4.0890E-01	4.7668E-01	4.9204E-01
H	1.6805E-01	4.3668E-02	2.0878E-02
H+	4.0777E-01	4.6619E-01	4.7404E-01
H2	2.3217E-06	1.6576E-08	5.9526E-10
H-	3.5215E-05	1.4287E-05	9.5081E-06
H2+	8.3601E-05	1.9513E-05	4.7050E-06
HE	1.4083E-02	2.9992E-03	8.3027E-04
HE+	1.0755E-03	1.0354E-02	6.3893E-03
HE++	2.6212E-11	6.5621E-05	5.8052E-03

P1 = 2.00E+03 N/SQ-M. US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7665E+03	2.1597E+04	3.9043E+04
T	8.1303E+01	1.6134E+02	2.5650E+02
RHO	1.0626E+01	3.6344E+01	3.9940E+01
H	4.5106E+02	7.9176E+02	1.0940E+03
A	1.5463E+01	2.5922E+01	3.3258E+01
S	2.8201E+00	2.9759E+00	3.1134E+00
Z	3.2022E+00	3.6832E+00	3.8111E+00
GAME	9.1837E-01	1.1308E+00	1.1315E+00
U	4.2208E+01	1.2353E+01	1.5308E+01

SPECIES	MOLE FRACTIONS		
E-	3.9114E-01	4.7060E-01	4.8835E-01
H	2.0272E-01	5.5014E-02	2.5178E-02
H+	3.9038E-01	4.6076E-01	4.7334E-01
H2	3.8221E-06	4.2867E-08	1.2454E-09
H-	4.4334E-05	1.8078E-05	1.1593E-05
H2+	1.0023E-04	3.0905E-05	6.6891E-06
HE	1.4910E-02	3.7715E-03	1.3575E-03
HE+	7.0483E-04	9.7857E-03	8.5088E-03
HE++	5.8573E-12	1.8000E-05	3.2532E-03

P1 = 2.00E+03 N/SQ-M. US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1406E+03	2.3157E+04	4.4212E+04
T	8.8828E+01	1.9136E+02	3.0738E+02
RHO	1.0423E+01	3.2183E+01	3.7243E+01
H	5.1287E+02	8.9085E+02	1.2630E+03
A	1.6895E+01	2.8842E+01	3.6837E+01
S	2.9226E+00	3.0590E+00	3.1915E+00
Z	3.3922E+00	3.7632E+00	3.8621E+00
GAME	9.4724E-01	1.1561E+00	1.1430E+00
U	4.4922E+01	1.4521E+01	1.7457E+01

SPECIES	MOLE FRACTIONS		
E-	4.2522E-01	4.8142E-01	4.9510E-01
H	1.3643E-01	3.4942E-02	1.7508E-02
H+	4.2352E-01	4.7032E-01	4.7443E-01
H2	1.3159E-06	6.6517E-09	3.0488E-10
H-	2.6759E-05	1.1393E-05	7.7639E-06
H2+	6.6846E-05	1.2480E-05	3.4118E-06
HE	1.3080E-02	2.4092E-03	4.5471E-04
HE+	1.6599E-03	1.0676E-02	4.3086E-03
HE++	1.2483E-10	2.1172E-04	8.1829E-03

TABLE I. - Continued

$p_1 = 2\ kN/m^2$

P1 = 2.00E+03 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3340E+03	2.3748E+04	4.6549E+04
T	9.3361E+01	2.0714E+02	3.3527E+02
RHO	1.0260E+01	3.0273E+01	3.5775E+01
H	5.4519E+02	9.4127E+02	1.3508E+03
A	1.7720E+01	3.0089E+01	3.8811E+01
S	2.9718E+00	3.0973E+00	3.2287E+00
Z	3.4806E+00	3.7870E+00	3.8809E+00
GAME	9.6634E-01	1.1541E+00	1.1577E+00
U	4.6245E+01	1.5653E+01	1.8524E+01

SPECIES	MOLE FRACTIONS		
E-	4.3980E-01	4.8509E-01	4.9755E-01
H	1.0856E-01	2.8432E-02	1.4640E-02
H+	4.3720E-01	4.7325E-01	4.7492E-01
H2	6.9341E-07	2.8903E-09	1.5837E-10
H-	1.9469E-05	9.1762E-06	6.2123E-06
H2+	5.1134E-05	8.2640E-06	2.4840E-06
HE	1.1806E-02	1.9397E-03	2.2510E-04
HE+	2.5598E-03	1.0687E-02	2.6890E-03
HE++	6.2689E-10	5.7606E-04	9.9694E-03

P1 = 2.00E+03 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7319E+03	2.4593E+04	5.0385E+04
T	1.0496E+02	2.3902E+02	3.9472E+02
RHO	9.7740E+00	2.6861E+01	3.2688E+01
H	6.1261E+02	1.0453E+03	1.5343E+03
A	1.9711E+01	3.2226E+01	4.2556E+01
S	3.0679E+00	3.1700E+00	3.2986E+00
Z	3.6379E+00	3.8303E+00	3.9051E+00
GAME	1.0175E+00	1.1343E+00	1.1749E+00
U	4.8808E+01	1.7711E+01	2.0738E+01

SPECIES	MOLE FRACTIONS		
E-	4.6400E-01	4.9091E-01	5.0065E-01
H	6.3919E-02	1.9637E-02	1.0325E-02
H+	4.5830E-01	4.7639E-01	4.7622E-01
H2	1.4384E-07	6.7320E-10	4.7052E-11
H-	8.8350E-06	6.0529E-06	3.8513E-06
H2+	2.5279E-05	3.9800E-06	1.3681E-06
HE	8.0603E-03	1.1535E-03	5.3086E-05
HE+	5.6839E-03	9.2867E-03	1.0645E-03
HE++	1.9040E-08	2.6136E-03	1.1686E-02

P1 = 2.00E+03 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5315E+03	2.4223E+04	4.8527E+04
T	9.8727E+01	2.2310E+02	3.6384E+02
RHO	1.0036E+01	2.8499E+01	3.4317E+01
H	5.7845E+02	9.9286E+02	1.4423E+03
A	1.8661E+01	3.1197E+01	4.0688E+01
S	3.0210E+00	3.1343E+00	3.2634E+00
Z	3.5642E+00	3.8098E+00	3.8945E+00
GAME	9.8963E-01	1.1451E+00	1.1683E+00
U	4.7544E+01	1.6706E+01	1.9664E+01

SPECIES	MOLE FRACTIONS		
E-	4.5292E-01	4.8816E-01	4.9930E-01
H	8.4012E-02	2.3467E-02	1.2331E-02
H+	4.4899E-01	4.7523E-01	4.7553E-01
H2	3.2922E-07	1.3480E-09	8.6309E-11
H-	1.3374E-05	7.4318E-06	4.9464E-06
H2+	3.6856E-05	5.6469E-06	1.8470E-06
HE	1.0113E-02	1.5289E-03	1.1043E-04
HE+	3.9157E-03	1.0261E-02	1.6841E-03
HE++	3.4403E-09	1.3344E-03	1.1044E-02

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6583E+01
T	2.8250E+00	3.5120E+00	4.9534E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1971E+00
A	1.6758E+00	1.8612E+00	2.1883E+00
S	1.0635E+00	1.0655E+00	1.0854E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6678E-01
U	2.3185E+00	1.3798E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	2.6294E-65	7.5979E-47	4.8652E-31
H	2.7781E-11	3.9751E-09	8.6433E-06
H+	1.1797E-20	2.2336E-20	3.8469E-20
H2	9.5000E-01	9.5000E-01	9.4999E-01
H-	1.7121E-72	2.3309E-52	5.0336E-35
H2+	5.1663E-20	4.1124E-20	2.4991E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	1.9401E-73	2.3595E-62	5.4924E-53
HE++	0.	0.	0.

P1 = 5.00E+03 N/SQ-M. US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5423E+01	8.0117E+01	1.6095E+02
T	5.0963E+00	7.0585E+00	8.9703E+00
RHO	4.9882E+00	1.1341E+01	1.7774E+01
H	5.3592E+00	7.7056E+00	1.0536E+01
A	2.2173E+00	2.5655E+00	2.8226E+00
S	1.1335E+00	1.1419E+00	1.1677E+00
Z	1.0000E+00	1.0008E+00	1.0095E+00
GAME	9.6472E-01	9.3171E-01	8.7983E-01
U	3.7274E+00	1.6356E+00	1.4561E+00

SPECIES	MOLE FRACTIONS		
E-	4.3717E-29	8.5634E-18	1.1139E-13
H	2.1820E-05	1.6909E-03	1.8743E-02
H+	4.5555E-20	6.6966E-18	9.2552E-14
H2	9.4998E-01	9.4835E-01	9.3173E-01
H-	3.2429E-33	8.3065E-21	8.6239E-16
H2+	1.7905E-20	1.9386E-18	1.9702E-14
HE	4.9999E-02	4.9958E-02	4.9531E-02
HE+	3.7909E-52	9.2686E-41	2.8854E-33
HE++	0.	0.	0.

P1 = 5.00E+03 N/SQ-M. US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6644E+01	1.0213E+02
T	3.8703E+00	5.1633E+00	7.0153E+00
RHO	4.5267E+00	9.0321E+00	1.4549E+01
H	3.9997E+00	5.4353E+00	7.6451E+00
A	1.9491E+00	2.2310E+00	2.5609E+00
S	1.0990E+00	1.1041E+00	1.1276E+00
Z	1.0000E+00	1.0000E+00	1.0007E+00
GAME	9.8154E-01	9.6394E-01	9.3424E-01
U	3.0256E+00	1.5134E+00	1.3675E+00

SPECIES	MOLE FRACTIONS		
E-	2.0948E-43	5.8143E-28	3.5238E-18
H	1.0023E-07	2.1060E-05	1.3781E-03
H+	3.1737E-20	4.2075E-20	3.2202E-18
H2	9.5000E-01	9.4998E-01	9.4866E-01
H-	1.1504E-48	7.8832E-32	2.3319E-20
H2+	3.1724E-20	2.1385E-20	2.6358E-19
HE	5.0000E-02	4.9999E-02	4.9966E-02
HE+	9.5383E-61	2.4193E-51	5.0550E-40
HE++	0.	0.	0.

P1 = 5.00E+03 N/SQ-M. US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4859E+01	1.2681E+02	2.3333E+02
T	6.4637E+00	8.9035E+00	1.0475E+01
RHO	5.3910E+00	1.4104E+01	2.1536E+01
H	6.9687E+00	1.0474E+01	1.3817E+01
A	2.4681E+00	2.8093E+00	3.0343E+00
S	1.1666E+00	1.1792E+00	1.2077E+00
Z	1.0004E+00	1.0099E+00	1.0343E+00
GAME	9.4203E-01	8.7773E-01	8.4980E-01
U	4.4294E+00	1.6910E+00	1.4811E+00

SPECIES	MOLE FRACTIONS		
E-	3.6456E-19	9.6086E-14	1.3758E-11
H	7.8502E-04	1.9554E-02	6.6295E-02
H+	3.5237E-19	8.0993E-14	1.1760E-11
H2	9.4923E-01	9.3093E-01	8.8536E-01
H-	2.1048E-22	6.1863E-16	2.3048E-13
H2+	7.5840E-20	1.5711E-14	2.2279E-12
HE	4.9980E-02	4.9511E-02	4.8343E-02
HE+	4.5551E-45	3.5790E-34	7.7060E-29
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+03 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5996E+01	1.9290E+02	3.2713E+02
T	7.8422E+00	1.0406E+01	1.1721E+01
RHO	5.8416E+00	1.7902E+01	2.5996E+01
H	8.8367E+00	1.3795E+01	1.7605E+01
A	2.6611E+00	3.0227E+00	3.2529E+00
S	1.1984E+00	1.2177E+00	1.2496E+00
Z	1.0041E+00	1.0355E+00	1.0736E+00
GAME	8.9935E-01	8.4793E-01	8.4085E-01
U	5.1505E+00	1.6784E+00	1.4942E+00

SPECIES	MOLE FRACTIONS		
E-	1.3476E-15	1.2864E-11	2.7835E-10
H	8.1133E-03	6.8648E-02	1.3715E-01
H+	1.1635E-15	1.1122E-11	2.4234E-10
H2	9.4209E-01	8.8307E-01	8.1628E-01
H-	2.4313E-18	1.9131E-13	7.6519E-12
H2+	1.8659E-16	1.9335E-12	4.3668E-11
HE	4.9797E-02	4.8284E-02	4.6571E-02
HE+	4.0141E-37	5.5352E-29	6.5581E-26
HE++	0.	0.	3.7280E-92

P1 = 5.00E+03 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3962E+01	4.0994E+02	6.2819E+02
T	9.9526E+00	1.2822E+01	1.4306E+01
RHO	7.1571E+00	2.8324E+01	3.7701E+01
H	1.3368E+01	2.2111E+01	2.7066E+01
A	2.9475E+00	3.4871E+00	3.7539E+00
S	1.2628E+00	1.3018E+00	1.3415E+00
Z	1.0384E+00	1.1288E+00	1.1897E+00
GAME	8.4070E-01	8.4013E-01	8.4571E-01
U	6.6813E+00	1.6849E+00	1.5607E+00

SPECIES	MOLE FRACTIONS		
E-	6.2044E-12	2.4152E-09	1.4544E-08
H	7.3891E-02	2.2826E-01	3.1888E-01
H+	5.6031E-12	2.1420E-09	1.3014E-08
H2	8.7796E-01	7.2765E-01	6.3909E-01
H-	4.7865E-14	8.9336E-11	7.6023E-10
H2+	6.5214E-13	3.6219E-10	2.2904E-09
HE	4.8153E-02	4.4294E-02	4.2028E-02
HE+	2.4905E-30	6.4101E-24	4.5168E-22
HE++	0.	5.8661E-84	2.5915E-78

P1 = 5.00E+03 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9042E+01	2.8569E+02	4.5645E+02
T	9.0142E+00	1.1671E+01	1.2876E+01
RHO	6.4442E+00	2.2745E+01	3.1487E+01
H	1.0971E+01	1.7682E+01	2.2022E+01
A	2.8071E+00	3.2474E+00	3.4918E+00
S	1.2301E+00	1.2585E+00	1.2942E+00
Z	1.0164E+00	1.0762E+00	1.1259E+00
GAME	8.6005E-01	8.3960E-01	8.4103E-01
U	5.9056E+00	1.6706E+00	1.5204E+00

SPECIES	MOLE FRACTIONS		
E-	2.6306E-13	2.6945E-10	2.4740E-09
H	3.2308E-02	1.4164E-01	2.2371E-01
H+	2.3441E-13	2.3617E-10	2.1820E-09
H2	9.1850E-01	8.1191E-01	7.3189E-01
H-	1.2357E-15	6.7905E-12	9.7430E-11
H2+	2.9885E-14	4.0073E-11	3.8944E-10
HE	4.9192E-02	4.6459E-02	4.4407E-02
HE+	4.0411E-33	4.5212E-26	6.7546E-24
HE++	0.	3.5862E-92	6.8521E-83

P1 = 5.00E+03 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.0664E+01	5.6610E+02	8.4475E+02
T	1.0740E+01	1.3917E+01	1.5147E+01
RHO	7.9030E+00	3.4141E+01	4.4115E+01
H	1.6019E+01	2.7045E+01	3.2750E+01
A	3.0910E+00	3.7427E+00	4.0424E+00
S	1.2971E+00	1.3478E+00	1.3918E+00
Z	1.0681E+00	1.1914E+00	1.2642E+00
GAME	8.3286E-01	8.4480E-01	8.5336E-01
U	7.4643E+00	1.7329E+00	1.6262E+00

SPECIES	MOLE FRACTIONS		
E-	5.7489E-11	1.3500E-08	6.4667E-08
H	1.2753E-01	3.2136E-01	4.1800E-01
H+	5.2407E-11	1.2122E-08	5.8722E-08
H2	8.2566E-01	6.3667E-01	5.4245E-01
H-	6.3528E-13	6.5981E-10	4.1908E-09
H2+	5.7169E-12	2.0373E-09	1.0136E-08
HE	4.6812E-02	4.1966E-02	3.9550E-02
HE+	5.4672E-28	3.3838E-22	1.4338E-20
HE++	0.	4.2808E-78	2.8107E-72

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0899E+02	7.5465E+02	1.1044E+03
T	1.1434E+01	1.4994E+01	1.6320E+01
RHO	8.6321E+00	3.9859E+01	5.0201E+01
H	1.8920E+01	3.2457E+01	3.9019E+01
A	3.2384E+00	4.0163E+00	4.3585E+00
S	1.3331E+00	1.3958E+00	1.4442E+00
Z	1.1043E+00	1.2627E+00	1.3480E+00
GAME	8.3056E-01	8.5200E-01	8.6349E-01
U	8.2409E+00	1.7865E+00	1.7098E+00

SPECIES	MOLE FRACTIONS		
E-	2.9981E-10	5.6518E-08	2.3844E-07
H	1.8894E-01	4.1607E-01	5.1636E-01
H+	2.7516E-10	5.1437E-08	2.1989E-07
H2	7.6578E-01	5.4433E-01	4.4655E-01
H-	4.2590E-12	3.4356E-09	1.8045E-08
H2+	2.8912E-11	8.4863E-09	3.6589E-08
HE	4.5276E-02	3.9598E-02	3.7091E-02
HE+	1.6384E-26	9.7644E-21	3.0668E-19
HE++	1.0760E-92	4.4390E-73	2.0199E-67

P1 = 5.00E+03 N/SQ-M. US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5052E+02	1.2206E+03	1.7547E+03
T	1.2677E+01	1.7213E+01	1.8955E+01
RHO	9.9519E+00	4.9681E+01	6.0098E+01
H	2.5473E+01	4.4674E+01	5.3418E+01
A	3.5499E+00	4.6307E+00	5.1072E+00
S	1.4102E+00	1.4970E+00	1.5548E+00
Z	1.1931E+00	1.4273E+00	1.5404E+00
GAME	8.3318E-01	8.7280E-01	8.9338E-01
U	9.7800E+00	1.9615E+00	1.9408E+00

SPECIES	MOLE FRACTIONS		
E-	3.6212E-09	5.9919E-07	2.4626E-06
H	3.2374E-01	5.9877E-01	7.0159E-01
H+	3.3679E-09	5.6093E-07	2.3443E-06
H2	6.3436E-01	3.6620E-01	2.6594E-01
H-	7.3448E-11	4.6349E-08	2.1594E-07
H2+	3.2668E-10	8.4607E-08	3.3427E-07
HE	4.1907E-02	3.5031E-02	3.2460E-02
HE+	4.8330E-24	2.5173E-18	8.0032E-17
HE++	5.1197E-86	5.5650E-64	2.3440E-58

P1 = 5.00E+03 N/SQ-M. US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2895E+02	9.7337E+02	1.4077E+03
T	1.2072E+01	1.6082E+01	1.7568E+01
RHO	9.3197E+00	4.5115E+01	5.5629E+01
H	2.2072E+01	3.8335E+01	4.5898E+01
A	3.3910E+00	4.3107E+00	4.7094E+00
S	1.3708E+00	1.4457E+00	1.4987E+00
Z	1.1462E+00	1.3416E+00	1.4405E+00
GAME	8.3104E-01	8.6128E-01	8.7642E-01
U	9.0129E+00	1.8640E+00	1.8132E+00

SPECIES	MOLE FRACTIONS		
E-	1.1557E-09	1.9500E-07	7.8598E-07
H	2.5505E-01	5.0926E-01	6.1155E-01
H+	1.0679E-09	1.7993E-07	7.3646E-07
H2	7.0133E-01	4.5347E-01	3.5374E-01
H-	2.0037E-11	1.3664E-09	6.5807E-08
H2+	1.0799E-10	2.8724E-08	1.1533E-07
HE	4.3624E-02	3.7258E-02	3.4711E-02
HE+	3.5341E-25	1.7312E-19	5.1913E-18
HE++	6.8876E-89	3.3063E-68	5.1195E-64

P1 = 5.00E+03 N/SQ-M. US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7366E+02	1.4927E+03	2.1438E+03
T	1.3262E+01	1.8428E+01	2.0586E+01
RHO	1.0519E+01	5.3344E+01	6.3296E+01
H	2.9124E+01	5.1457E+01	6.1601E+01
A	3.7162E+00	4.9827E+00	5.5733E+00
S	1.4511E+00	1.5492E+00	1.6118E+00
Z	1.2449E+00	1.5184E+00	1.6453E+00
GAME	8.3648E-01	8.8727E-01	9.1709E-01
U	1.0541E+01	2.0810E+00	2.0952E+00

SPECIES	MOLE FRACTIONS		
E-	9.8065E-09	1.7107E-06	7.7751E-06
H	3.9341E-01	6.8283E-01	7.8437E-01
H+	9.1792E-09	1.6241E-06	7.5137E-06
H2	5.6642E-01	2.8423E-01	1.8522E-01
H-	2.2514E-10	1.3931E-07	6.7125E-07
H2+	8.5241E-10	2.2587E-07	9.3264E-07
HE	4.0165E-02	3.2929E-02	3.0390E-02
HE+	4.6525E-23	2.9946E-17	1.2550E-15
HE++	6.0655E-82	2.7971E-60	1.4153E-55

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9838E+02	1.7853E+03	2.5797E+03
T	1.3840E+01	1.9792E+01	2.2717E+01
RHO	1.1016E+01	5.5919E+01	6.4820E+01
H	3.3024E+01	5.8676E+01	7.0637E+01
A	3.8410E+00	5.3792E+00	6.1639E+00
S	1.4934E+00	1.6017E+00	1.6697E+00
Z	1.3011E+00	1.6131E+00	1.7519E+00
GAME	8.4074E-01	9.0633E-01	9.5469E-01
U	1.1295E+01	2.2280E+00	2.3113E+00

SPECIES	MOLE FRACTIONS		
E-	2.3970E-08	4.7916E-06	2.7618E-05
H	4.6286E-01	7.6013E-01	8.5828E-01
H+	2.2579E-08	4.6114E-06	2.7061E-05
H2	4.9871E-01	2.0887E-01	1.1312E-01
H-	6.0647E-10	3.8988E-07	2.1494E-06
H2+	1.9970E-09	5.7012E-07	2.7072E-06
HE	3.8429E-02	3.0996E-02	2.8541E-02
HE+	3.5555E-22	3.5182E-16	2.7031E-14
HE++	1.1120E-78	5.2609E-56	4.4072E-49

P1 = 5.00E+03 N/SQ-M. US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5243E+02	2.4016E+03	3.6189E+03
T	1.5019E+01	2.3502F+01	3.1245E+01
RHO	1.1787E+01	5.6865E+01	6.0529E+01
H	4.1573E+01	7.4321E+01	9.2316E+01
A	4.2719E+00	6.4172E+00	8.0835E+00
S	1.5815E+00	1.7048E+00	1.7838E+00
Z	1.4259E+00	1.7970E+00	1.9135E+00
GAME	8.5209E-01	9.7505E-01	1.0929E+00
U	1.2791E+01	2.6538E+00	3.0879E+00

SPECIES	MOLE FRACTIONS		
E-	1.1789E-07	4.4579E-05	8.5558E-04
H	5.9740E-01	8.8691E-01	9.5221E-01
H+	1.1247E-07	4.3909E-05	8.5207E-04
H2	3.6753E-01	8.5174E-02	1.9886E-02
H-	3.3871E-09	2.9376E-06	3.2935E-05
H2+	8.8102E-09	3.6082E-06	3.6445E-05
HE	3.5365E-02	2.7824E-02	2.6130E-02
HE+	1.3546E-20	7.7188E-14	1.1616E-10
HE++	1.4193E-72	1.5138E-47	1.2558E-35

P1 = 5.00E+03 N/SQ-M. US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2464E+02	2.0917E+03	3.0652E+03
T	1.4422E+01	2.1415E+01	2.5900E+01
RHO	1.1440E+01	5.7186E+01	6.4030E+01
H	3.7174E+01	6.6310E+01	8.0685E+01
A	4.0756E+00	5.8429E+00	6.9867E+00
S	1.5369E+00	1.6539E+00	1.7273E+00
Z	1.3616E+00	1.7080E+00	1.8483E+00
GAME	8.4590E-01	9.3338E-01	1.0197E+00
U	1.2047E+01	2.4124E+00	2.6109E+00

SPECIES	MOLE FRACTIONS		
E-	5.4498E-09	1.3881E-05	1.2743E-04
H	5.3111E-01	8.2899E-01	9.1751E-01
H+	5.1663E-08	1.3527E-05	1.2622E-04
H2	4.3217E-01	1.4170E-01	5.5168E-02
H-	1.4849E-09	1.0602E-06	7.7528E-06
H2+	4.3199E-09	1.4140E-06	8.9656E-06
HE	3.6722E-02	2.9274E-02	2.7053E-02
HE+	2.3214E-21	4.5778E-15	1.1186E-12
HE++	1.0273E-75	3.1474E-52	5.7363E-43

P1 = 5.00E+03 N/SQ-M. US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8171E+02	2.6999E+03	4.2165E+03
T	1.5647E+01	2.6412E+01	3.8091E+01
RHO	1.2053E+01	5.4682E+01	5.6947E+01
H	4.6220E+01	8.2643E+01	1.0505E+02
A	4.4823E+00	7.1571E+00	8.8888E+00
S	1.6270E+00	1.7531E+00	1.8336E+00
Z	1.4938E+00	1.8694E+00	1.9438E+00
GAME	8.5957E-01	1.0374E+00	1.0671E+00
U	1.3529E+01	2.9839E+00	3.6300E+00

SPECIES	MOLE FRACTIONS		
E-	2.4813E-07	1.7034E-04	4.6191E-03
H	6.6114E-01	9.2962E-01	9.5715E-01
H+	2.3824E-07	1.6907E-04	4.6030E-03
H2	3.0538E-01	4.3277E-02	7.6777E-03
H-	7.3598E-09	8.6176E-06	1.0735E-04
H2+	1.7254E-08	9.8900E-06	1.2347E-04
HE	3.3471E-02	2.6747E-02	2.5723E-02
HE+	7.5482E-20	2.0105E-12	7.0792E-09
HE++	1.7647E-69	4.6220E-42	3.5173E-29

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1246E+02	2.9699E+03	4.8050E+03
T	1.6323E+01	3.0444E+01	4.4186E+01
RHO	1.2233E+01	5.0953E+01	5.5266F+01
H	5.1116E+01	9.1193E+01	1.1783E+02
A	4.7109E+00	7.9830E+00	9.3380F+00
S	1.6731E+00	1.7974E+00	1.8755E+00
Z	1.5647E+00	1.9146E+00	1.9677E+00
GAME	8.6889E-01	1.0933E+00	1.0029E+00
U	1.4260E+01	3.4277E+00	4.0528E+00

SPECIES	MOLE FRACTIONS		
E-	5.2041E-07	7.3288E-04	1.3398E-02
H	7.2181E-01	9.5315E-01	9.4321E-01
H+	5.0294E-07	7.3012E-04	1.3346E-02
H2	2.4623E-01	1.9220E-02	4.1483E-03
H-	1.5555E-08	2.5343E-05	2.1695E-04
H2+	3.3023E-08	2.8094E-05	2.6926E-04
HE	3.1955E-02	2.6116E-02	2.5411E-02
HE+	4.4203E-19	6.9439E-11	9.5944E-08
HE++	3.8690E-67	1.6354E-36	4.2498E-25

P1 = 5.00E+03 N/SQ-M. US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7803E+02	3.4525E+03	5.8715E+03
T	1.7961E+01	3.9977E+01	5.3008E+01
RHO	1.2296E+01	4.4179E+01	5.4698E+01
H	6.1645E+01	1.0918E+02	1.4304E+02
A	5.2547E+00	9.0147E+00	1.0002E+01
S	1.7663E+00	1.8732E+00	1.9464E+00
Z	1.7118E+00	1.9548E+00	2.0251E+00
GAME	8.9807E-01	1.0399E+00	9.3192E-01
U	1.5694E+01	4.3634E+00	4.5512E+00

SPECIES	MOLE FRACTIONS		
E-	2.4719E-06	7.4965E-03	3.9769E-02
H	8.3163E-01	9.5429E-01	8.9283E-01
H+	2.4200E-06	7.4751E-03	3.9588E-02
H2	1.3915E-01	4.8987E-03	2.0973E-03
H-	6.8927E-08	1.2155E-04	4.2113E-04
H2+	1.2081E-07	1.4285E-04	5.9995E-04
HE	2.9209E-02	2.5578E-02	2.4689E-02
HE+	1.8210E-17	1.9412E-08	1.4559E-06
HE++	4.9924E-61	1.1064E-27	7.7392E-21

P1 = 5.00E+03 N/SQ-M. US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4459E+02	3.2161E+03	5.3557E+03
T	1.7085E+01	3.5239E+01	4.9020E+01
RHO	1.2309E+01	4.7094E+01	5.4773E+01
H	5.6258E+01	1.0001E+02	1.3041E+02
A	4.9669E+00	8.6187E+00	9.6841E+00
S	1.7203E+00	1.8372E+00	1.9122E+00
Z	1.6386E+00	1.9379E+00	1.9947E+00
GAME	8.8118E-01	1.0877E+00	9.5911E-01
U	1.4983E+01	3.9102E+00	4.3404E+00

SPECIES	MOLE FRACTIONS		
E-	1.1145E-06	2.7473E-03	2.5646E-02
H	7.7945E-01	9.5967E-01	9.2019E-01
H+	1.0842E-06	2.7395E-03	2.5536E-02
H2	1.9033E-01	8.9094E-03	2.7982E-03
H-	3.2698E-08	6.3098E-05	3.2574E-04
H2+	6.3030E-08	7.0860E-05	4.3501E-04
HE	3.0514E-02	2.5801E-02	2.5066E-02
HE+	2.6834E-18	1.7092E-09	4.8024E-07
HE++	2.9677E-64	1.8047E-31	1.4146E-22

P1 = 5.00E+03 N/SQ-M. US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1260E+02	3.6764E+03	6.3097E+03
T	1.9061E+01	4.4235E+01	5.6389E+01
RHO	1.2132E+01	4.2108E+01	5.4378E+01
H	6.7271E+01	1.1879E+02	1.5569E+02
A	5.6064E+00	9.3079E+00	1.0300E+01
S	1.8123E+00	1.9073E+00	1.9798E+00
Z	1.7842E+00	1.9738E+00	2.0577E+00
GAME	9.2423E-01	9.9230E-01	9.1433E-01
U	1.6388E+01	4.7140E+00	4.7048E+00

SPECIES	MOLE FRACTIONS		
E-	6.0798F-06	1.5410E-02	5.4760E-02
H	8.7904E-01	9.4033E-01	8.6354E-01
H+	5.9896E-06	1.5363E-02	5.4505E-02
H2	9.2925E-02	3.1387E-03	1.6534E-03
H-	1.5355E-07	1.8966E-04	1.9731E-04
H2+	2.4371E-07	2.3577E-04	7.4958E-04
HE	2.8024E-02	2.5332E-02	2.4295E-02
HE+	1.6002E-16	1.1163E-07	3.3141E-06
HE++	1.4899E-57	5.9313E-25	1.5019E-19

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4797E+02	3.8629E+03	6.6274E+03
T	2.0554E+01	4.7917E+01	5.9307E+01
RHO	1.1779E+01	4.3375E+01	5.3414E+01
H	7.3129E+01	1.2880E+02	1.6835E+02
A	6.0687E+00	9.5723E+00	1.0581E+01
S	1.8572E+00	1.9408E+00	2.0133E+00
Z	1.8503E+00	1.9967E+00	2.0921E+00
GAME	9.6842E-01	9.5770E-01	9.0235E-01
U	1.7054E+01	4.9655E+00	4.8206E+00

SPECIES	MOLE FRACTIONS		
E-	1.7805E-05	2.5937E-02	7.0124E-02
H	9.1904E-01	9.2035E-01	8.3342E-01
H+	1.7643E-05	2.5857E-02	6.9795E-02
H2	5.3904E-02	2.2229E-03	1.3329E-03
H-	3.7845E-07	2.5519E-04	5.5166E-04
H2+	5.4022E-07	3.3531E-04	8.7341E-04
HE	2.7023E-02	2.5041E-02	2.3893E-02
HE+	2.1900E-15	3.9761E-07	6.3010E-06
HE++	2.2586E-53	5.6497E-23	1.5077E-18

P1 = 5.00E+03 N/SQ-M. US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1900E+02	3.9838E+03	6.6981E+03
T	2.5906E+01	5.3707E+01	6.3911E+01
RHO	1.0376E+01	3.6144E+01	4.8426E+01
H	8.5474E+01	1.4937E+02	1.9301E+02
A	7.4453E+00	1.0060E+01	1.1084E+01
S	1.9387E+00	2.0094E+00	2.0833E+00
Z	1.9308E+00	2.0523E+00	2.1642E+00
GAME	1.1082E+00	9.1818E-01	8.8819E-01
U	1.8244E+01	5.2284E+00	4.9679E+00

SPECIES	MOLE FRACTIONS		
E-	3.1683E-04	5.1629E-02	1.0085E-01
H	9.6319E-01	8.7040E-01	7.7317E-01
H+	3.1626E-04	5.1472E-02	1.0041E-01
H2	1.0277E-02	1.2837E-03	8.7351E-04
H-	3.4239E-06	3.4720E-04	5.8797E-04
H2+	3.9900E-06	5.0117E-04	1.0063E-03
HE	2.5897E-02	2.4361E-02	2.3087E-02
HE+	2.5604E-12	2.1285E-06	1.6027E-05
HE++	3.0122E-42	2.2250E-20	4.0936E-17

P1 = 5.00E+03 N/SQ-M. US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8358E+02	3.9693E+03	6.7580E+03
T	2.2752E+01	5.1014E+01	6.1800E+01
RHO	1.1177E+01	3.8466E+01	5.1395E+01
H	7.9203E+01	1.3905E+02	1.8084E+02
A	6.7083E+00	9.8197E+00	1.0842E+01
S	1.8997E+00	1.9742E+00	2.0478E+00
Z	1.9016E+00	2.0228E+00	2.1277E+00
GAME	1.0402E+00	9.3446E-01	8.9400E-01
U	1.7677E+01	5.1307E+00	4.9065E+00

SPECIES	MOLE FRACTIONS		
E-	6.7859E-05	3.8074E-02	8.5547E-02
H	9.4803E-01	8.9685E-01	8.0317E-01
H+	6.7557E-05	3.7956E-02	8.5158E-02
H2	2.5542E-02	1.6702E-03	1.0797E-03
H-	1.0869E-06	3.0847E-04	5.8128E-04
H2+	1.3890E-06	4.2589E-04	9.5994E-04
HE	2.6294E-02	2.4717E-02	2.3489E-02
HE+	5.8142E-14	1.0150E-06	1.0538E-05
HE++	3.3373E-48	1.6049E-21	9.3940E-18

P1 = 5.00E+03 N/SQ-M. US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5512E+02	3.9872E+03	6.6086E+03
T	2.9685E+01	5.6074E+01	6.5845E+01
RHO	9.6191E+00	3.4123E+01	4.5581E+01
H	9.1964E+01	1.5998E+02	2.0530E+02
A	8.0118E+00	1.0294E+01	1.1321E+01
S	1.9734E+00	2.0436E+00	2.1186E+00
Z	1.9441E+00	2.0838E+00	2.2019E+00
GAME	1.1123E+00	9.0689E-01	8.8398E-01
U	1.8793E+01	5.2923E+00	5.0194E+00

SPECIES	MOLE FRACTIONS		
E-	1.3244E-03	6.5785E-02	1.1615E-01
H	9.6727E-01	8.4267E-01	7.4314E-01
H+	1.3233E-03	6.5593E-02	1.1568E-01
H2	4.3464E-03	1.0168E-03	7.1131E-04
H-	9.4829E-06	3.7489E-04	5.8403E-04
H2+	1.0574E-05	5.6305E-04	1.0327E-03
HE	2.5719E-02	2.3991E-02	2.2684E-02
HE+	8.5441E-11	3.8664E-06	2.3106E-05
HE++	9.4299E-37	1.8444E-19	1.4710E-16

TABLE I - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9252E+02	4.0439E+03	6.6117E+03
T	3.3476E+01	5.8295E+01	6.7756E+01
RHO	9.0605E+00	3.2765E+01	4.3548E+01
H	9.8686E+01	1.7099E+02	2.1803E+02
A	8.3529E+00	1.0532E+01	1.1564E+01
S	2.0045E+00	2.0763E+00	2.1524E+00
Z	1.9536E+00	2.1172E+00	2.2408E+00
GAME	1.0669E+00	8.9873E-01	8.8083E-01
U	1.9346E+01	5.3432E+00	5.0748E+00

SPECIES	MOLE FRACTIONS		
E-	4.0558E-03	8.0409E-02	1.3140E-01
H	9.6404E-01	8.1395E-01	7.1317E-01
H+	4.0534E-03	8.0180E-02	1.3089E-01
H2	2.2130E-03	8.2839E-04	5.8788E-04
H-	2.0473E-05	3.9777E-04	5.7864E-04
H2+	2.2823E-05	6.2023E-04	1.0563E-03
HE	2.5594E-32	2.3610E-02	2.2282E-02
HE+	1.3225E-09	6.4530E-06	3.2361E-05
HE++	1.9117E-32	1.1426E-18	4.8158E-16

P1 = 5.00E+03 N/SQ-M. US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7497E+02	4.4071E+03	7.0441E+03
T	3.9916E+01	6.2723E+01	7.1936E+01
RHO	8.5363E+00	3.2079E+01	4.2132E+01
H	1.1297E+02	1.9526E+02	2.4640E+02
A	8.7739E+00	1.1044E+01	1.2105E+01
S	2.0600E+00	2.1378E+00	2.2173E+00
Z	1.9809E+00	2.1903E+00	2.3242E+00
GAME	9.7358E-01	8.8780E-01	8.7646E-01
U	2.0572E+01	5.4593E+00	5.2188E+00

SPECIES	MOLE FRACTIONS		
E-	1.6611E-02	1.1104E-01	1.6252E-01
H	9.4050E-01	7.5363E-01	6.5195E-01
H+	1.6602E-02	1.1073E-01	1.6191E-01
H2	9.3730E-04	5.8616E-04	4.1546E-04
H-	5.2155E-05	4.4062E-04	5.7308E-04
H2+	6.1389E-05	7.4032E-04	1.1201E-03
HE	2.5241E-02	2.2812E-02	2.1451E-02
HE+	4.2468E-08	1.5735E-05	6.1992E-05
HE++	5.1443E-27	2.8387E-17	4.9371E-15

P1 = 5.00E+03 N/SQ-M. US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3247E+02	4.1855E+03	6.7630E+03
T	3.6916E+01	6.0501E+01	6.9781E+01
RHO	8.7174E+00	3.2136E+01	4.2480E+01
H	1.0569E+02	1.8274E+02	2.3173E+02
A	8.5782E+00	1.0782E+01	1.1825E+01
S	2.0331E+00	2.1076E+00	2.1852E+00
Z	1.9653E+00	2.1527E+00	2.2815E+00
GAME	1.0143E+00	8.9255E-01	8.7836E-01
U	1.9940E+01	5.4038E+00	5.1411E+00

SPECIES	MOLE FRACTIONS		
E-	9.1812E-03	9.5550E-02	1.4686E-01
H	9.5478E-01	7.8415E-01	6.8276E-01
H+	9.1762E-03	9.5280E-02	1.4631E-01
H2	1.3494E-03	6.9080E-04	4.9231E-04
H-	3.5378E-05	4.1965E-04	5.7552E-04
H2+	4.0353E-05	6.7919E-04	1.0862E-03
HE	2.5441E-02	2.3216E-02	2.1871E-02
HE+	9.8089E-09	1.0262E-05	4.4920E-05
HE++	2.5854E-29	6.0387E-19	1.5495E-15

P1 = 5.00E+03 N/SQ-M. US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6675E+02	5.0054E+03	7.8771E+03
T	4.4875E+01	6.7150E+01	7.6462E+01
RHO	8.4478E+00	3.2843E+01	4.2705E+01
H	1.2836E+02	2.2216E+02	2.7831E+02
A	9.1700E+00	1.1590E+01	1.2700E+01
S	2.1110E+00	2.1965E+00	2.2792E+00
Z	2.0226E+00	2.2698E+00	2.4124E+00
GAME	9.2647E-01	8.8129E-01	8.7438E-01
U	2.1913E+01	5.6301E+00	5.4018E+00

SPECIES	MOLE FRACTIONS		
E-	3.6564E-02	1.4219E-01	1.9316E-01
H	9.0142E-01	6.9225E-01	5.9164E-01
H+	3.6541E-02	1.4177E-01	1.9243E-01
H2	5.6383E-04	4.3394E-04	2.9988E-04
H-	8.5972E-05	4.7365E-04	5.6294E-04
H2+	1.0813E-04	8.5681E-04	1.1816E-03
HE	2.4720E-02	2.1995E-02	2.0612E-02
HE+	3.1003E-07	3.3592E-05	1.1390E-04
HE++	6.8082E-24	4.5068E-16	4.4883E-14

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. USI = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6674E+02	5.7655E+03	8.9720E+03
T	4.8912E+01	7.1599E+01	8.1375E+01
RHO	8.5432E+00	3.4208E+01	4.3982E+01
H	1.4482E+02	2.5143E+02	3.1333E+02
A	9.5774E+00	1.2162E+01	1.3357E+01
S	2.1601E+00	2.2543E+00	2.3417E+00
Z	2.0742E+00	2.3540E+00	2.5068E+00
GAME	9.0412E-01	8.7762E-01	8.7463E-01
U	2.3317E+01	5.8293E+00	5.6175E+00

SPECIES	MOLE FRACTIONS		
E-	6.0434E-02	1.7291E-01	2.2354E-01
H	8.5440E-01	6.3170E-01	5.3188E-01
H+	6.0394E-02	1.7238E-01	2.2266E-01
H2	3.9403E-04	3.2518E-04	2.1251E-04
H-	1.1614E-04	4.9113E-04	5.3731E-04
H2+	1.5539E-04	9.5535E-04	1.2136E-03
HE	2.4104E-02	2.1175E-02	1.9742E-02
HE+	1.1540E-06	6.5266E-05	2.0394E-04
HE++	8.0505E-22	5.1403E-15	3.7506E-13

P1 = 5.00E+03 N/SQ-M. USI = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0883E+03	7.6369E+03	1.1715E+04
T	5.5582E+01	8.0742E+01	9.2334E+01
RHO	8.9142E+00	3.7348E+01	4.6884E+01
H	1.8085E+02	3.1624E+02	3.9187E+02
A	1.0401E+01	1.3391E+01	1.4858E+01
S	2.2568E+00	2.3695E+00	2.4662E+00
Z	2.1966E+00	2.5325E+00	2.7062E+00
GAME	8.8609E-01	8.7696E-01	8.8352E-01
U	2.6203E+01	6.2652E+00	6.1510E+00

SPECIES	MOLE FRACTIONS		
E-	1.1272E-01	2.3125E-01	2.8067E-01
H	7.5125E-01	5.1685E-01	4.1982E-01
H+	1.1264E-01	2.3045E-01	2.7936E-01
H2	2.2829E-04	1.7665E-04	9.6264E-05
H-	1.6066E-04	4.7256E-04	4.3968E-04
H2+	2.3983E-04	1.0581E-03	1.1433E-03
HE	2.2756E-02	1.9538E-02	1.7873E-02
HE+	6.6002E-06	2.0529E-04	6.0284E-04
HE++	4.7172E-19	3.4342E-13	1.9943E-11

P1 = 5.00E+03 N/SQ-M. USI = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.7409E+02	6.6519E+03	1.0261E+04
T	5.2412E+01	7.6113E+01	8.6623E+01
RHO	8.7141E+00	3.5791E+01	4.5478E+01
H	1.6232E+02	2.8286E+02	3.5120E+02
A	9.9884E+00	1.2761E+01	1.4071E+01
S	2.2085E+00	2.3119E+00	2.4038E+00
Z	2.1329E+00	2.4418E+00	2.6046E+00
GAME	8.9251E-01	8.7620E-01	8.7751E-01
U	2.4752E+01	6.0328E+00	5.8651E+00

SPECIES	MOLE FRACTIONS		
E-	8.6190E-02	2.0269E-01	2.5268E-01
H	8.0360E-01	5.7305E-01	4.7465E-01
H+	8.6128E-02	2.0203E-01	2.5162E-01
H2	2.9492E-04	2.4203E-04	1.4637E-04
H-	1.4115E-04	4.9074E-04	4.9546E-04
H2+	1.9989E-04	1.0251E-03	1.2027E-03
HE	2.3441E-02	2.0358E-02	1.8842E-02
HE+	3.0485E-06	1.1859E-04	3.5417E-04
HE++	2.7878E-20	4.5966E-14	2.8201E-12

P1 = 5.00E+03 N/SQ-M. USI = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2092E+03	8.7079E+03	1.3326E+04
T	5.8541E+01	8.5565E+01	9.8693E+01
RHO	9.1209E+00	3.8760E+01	4.8026E+01
H	2.0039E+02	3.5151E+02	4.3556E+02
A	1.0817E+01	1.4061E+01	1.5745E+01
S	2.3053E+00	2.4272E+00	2.5289E+00
Z	2.2647E+00	2.6256E+00	2.8115E+00
GAME	8.8254E-01	8.8003E-01	8.9338E-01
U	2.7660E+01	6.5228E+00	6.4950E+00

SPECIES	MOLE FRACTIONS		
E-	1.3940E-01	2.5850E-01	3.0752E-01
H	6.9861E-01	4.6330E-01	3.6737E-01
H+	1.3928E-01	2.5754E-01	3.0585E-01
H2	1.7956E-04	1.2521E-04	5.9497E-05
H-	1.7467E-04	4.3897E-04	3.7506E-04
H2+	2.7405E-04	1.0514E-03	1.0367E-03
HE	2.2066E-02	1.8699E-02	1.6774E-02
HE+	1.2593E-05	3.4356E-04	1.0100E-03
HE++	5.0572E-18	2.2633E-12	1.3741E-10

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3366E+03	9.8500E+03	1.5077E+04
T	6.1368E+01	9.0667E+01	1.0588E+02
RHO	9.3218E+00	3.9928E+01	4.8778E+01
H	2.2094E+02	3.8858E+02	4.8208E+02
A	1.1238E+01	1.4782E+01	1.6752E+01
S	2.3541E+00	2.4846E+00	2.5912E+00
Z	2.3364E+00	2.7209E+00	2.9194E+00
GAME	8.8080E-01	8.8573E-01	9.0788E-01
U	2.9119E+01	6.8153E+00	6.8786E+00

SPECIES	MOLE FRACTIONS		
E-	1.6582E-01	2.8441E-01	3.3299E-01
H	6.4647E-01	4.1249E-01	3.1789E-01
H+	1.6568E-01	2.8324E-01	3.3076E-01
H2	1.4206E-04	8.5462E-05	3.4199E-05
H-	1.8336E-04	3.9367E-04	3.0891E-04
H2+	3.0172E-04	1.0049E-03	8.9260E-04
HE	2.1379E-02	1.7816E-02	1.5476E-02
HE+	2.2061E-05	5.6076E-04	1.6507E-03
HE++	3.9658E-17	1.3683E-11	9.2768E-10

P1 = 5.00E+03 N/SQ-M. US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6106E+03	1.2306E+04	1.9044E+04
T	6.6833E+01	1.0216E+02	1.2429E+02
RHO	9.6814E+00	4.1306E+01	4.8754E+01
H	2.6507E+02	4.6797E+02	5.8598E+02
A	1.2106E+01	1.6435E+01	1.9337E+01
S	2.4528E+00	2.5984E+00	2.7156E+00
Z	2.4892E+00	2.9163E+00	3.1428E+00
GAME	8.8094E-01	9.0666E-01	9.5729E-01
U	3.2042E+01	7.5254E+00	7.9205E+00

SPECIES	MOLE FRACTIONS		
E-	2.1704E-01	3.3218E-01	3.8009E-01
H	5.4543E-01	3.1929E-01	2.2737E-01
H+	2.1683E-01	3.3025E-01	3.7587E-01
H2	8.8257E-05	3.4411E-05	8.4197E-06
H-	1.8612E-04	2.8679E-04	1.9571E-04
H2+	3.3558E-04	8.1294E-04	5.4955E-04
HE	2.0029E-02	1.5742E-02	1.2039E-02
HE+	5.7546E-05	1.4032E-03	3.8701E-03
HE++	1.3390E-15	4.2984E-10	4.2734E-08

P1 = 5.00E+03 N/SQ-M. US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4702E+03	1.1051E+04	1.6978E+04
T	6.4117E+01	9.6150E+01	1.1422E+02
RHO	9.5094E+00	4.0787E+01	4.9066E+01
H	2.4250E+02	4.2737E+02	5.3206E+02
A	1.1666E+01	1.5567E+01	1.7923E+01
S	2.4033E+00	2.5418E+00	2.6532E+00
Z	2.4113E+00	2.8179E+00	3.0296E+00
GAME	8.8034E-01	8.9445E-01	9.2837E-01
U	3.0577E+01	7.1470E+00	7.3497E+00

SPECIES	MOLE FRACTIONS		
E-	1.9175E-01	3.0896E-01	3.5710E-01
H	5.9531E-01	3.6449E-01	2.7138E-01
H+	1.9158E-01	3.0748E-01	3.5402E-01
H2	1.1230E-04	5.5722E-05	1.7987E-05
H-	1.8703E-04	3.4129E-04	2.4774E-04
H2+	3.2232E-04	9.2295E-04	7.2526E-04
HE	2.0699E-02	1.6848E-02	1.3905E-02
HE+	3.5398E-05	9.9636E-04	2.5985E-03
HE++	2.4959E-16	7.8032E-11	6.2359E-09

P1 = 5.00E+03 N/SQ-M. US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7564E+03	1.3571E+04	2.1243E+04
T	6.9544E+01	1.0876E+02	1.3633E+02
RHO	9.8285E+00	4.1392E+01	4.7902E+01
H	2.8861E+02	5.0992E+02	6.4384E+02
A	1.2558E+01	1.7394E+01	2.1003F+01
S	2.5026E+00	2.6539E+00	2.7759E+00
Z	2.5696E+00	3.0146E+00	3.2528E+00
GAME	8.8251E-01	9.2285E-01	9.9474E-01
U	3.3488E+01	7.9625E+00	8.6133E+00

SPECIES	MOLE FRACTIONS		
E-	2.4154E-01	3.5385E-01	4.0092E-01
H	4.9711E-01	2.7735E-01	1.8775E-01
H+	2.4130E-01	3.5127E-01	3.9541E-01
H2	6.8674E-05	2.0071E-05	3.5646E-06
H-	1.8099E-04	2.3506E-04	1.5693E-04
H2+	3.4120E-04	6.8564E-04	3.9079E-04
HE	1.9370E-02	1.4460E-02	1.0101E-02
HE+	8.8155E-05	2.1258E-03	5.2701E-03
HE++	6.3661E-15	2.2619E-09	2.7802E-07

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9081E+03	1.4838E+04	2.3639E+04
T	7.2289E+01	1.1613E+02	1.5150E+02
RHO	9.9517E+00	4.1056E+01	4.6423E+01
H	3.1316E+02	5.5330E+02	7.0754E+02
A	1.3027E+01	1.8469E+01	2.3002E+01
S	2.5527E+00	2.7082E+00	2.8364E+00
Z	2.6524E+00	3.1121E+00	3.3610E+00
GAME	8.8505E-01	9.4379E-01	1.0390E+00
U	3.4928E+01	8.4758E+00	9.5284E+00

SPECIES	MOLE FRACTIONS		
E-	2.6521E-01	3.7397E-01	4.2008E-01
H	4.5046E-01	2.3869E-01	1.5133E-01
H+	2.6491E-01	3.7052E-01	4.1333E-01
H2	5.2708E-05	1.0996E-05	1.3168E-06
H-	1.7222E-04	1.8958E-04	1.2825E-04
H2+	3.3940E-04	5.5315E-04	2.5704E-04
HE	1.8719E-02	1.2982E-02	8.2657E-03
HE+	1.3211E-04	3.0845E-03	6.6090E-03
HE++	2.7785E-14	1.1427E-08	1.8253E-06

P1 = 5.00E+03 N/SQ-M. US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2292E+03	1.7305E+04	2.8849E+04
T	7.8016E+01	1.3378E+02	1.9075E+02
RHO	1.0118E+01	3.9230E+01	4.2735E+01
H	3.6521E+02	6.4398E+02	8.4918E+02
A	1.4030E+01	2.1020E+01	2.7357E+01
S	2.6535E+00	2.8111E+00	2.9478E+00
Z	2.8241E+00	3.2972E+00	3.5390E+00
GAME	8.9346E-01	1.0016E+00	1.1087E+00
U	3.7786E+01	9.7459E+00	1.1725E+01

SPECIES	MOLE FRACTIONS		
E-	3.0985E-01	4.0892E-01	4.4910E-01
H	3.6256E-01	1.7217E-01	9.6057E-02
H+	3.0939E-01	4.0330E-01	4.4052E-01
H2	2.9335E-05	2.7537E-06	1.5949E-07
H-	1.4615E-04	1.2364E-04	9.1151E-05
H2+	3.1486E-04	3.1726E-04	1.0108E-04
HE	1.7420E-02	9.7411E-03	5.6084E-03
HE+	2.8530E-04	5.4228E-03	8.4644E-03
HE++	4.5039E-13	2.4488E-07	5.5321E-05

P1 = 5.00E+03 N/SQ-M. US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0658E+03	1.6079E+04	2.6169E+04
T	7.5103E+01	1.2439E+02	1.6969E+02
RHO	1.0049E+01	4.0312E+01	4.4602E+01
H	3.3869E+02	5.9794E+02	7.7567E+02
A	1.3516E+01	1.9670E+01	2.5168E+01
S	2.6030E+00	2.7606E+00	2.8939E+00
Z	2.7373E+00	3.2066E+00	3.4576E+00
GAME	8.8866E-01	9.7003E-01	1.0795E+00
U	3.6362E+01	9.0904E+00	1.0548E+01

SPECIES	MOLE FRACTIONS		
E-	2.8800E-01	3.9232E-01	4.3619E-01
H	4.0558E-01	2.0369E-01	1.2063E-01
H+	2.8763E-01	3.8782E-01	4.2844E-01
H2	3.9749E-05	5.6762E-06	4.5736E-07
H-	1.6040E-04	1.5248E-04	1.0757E-04
H2+	3.3046E-04	4.2773E-04	1.6191E-04
HE	1.8071E-02	1.1372E-02	6.7753E-03
HE+	1.9505E-04	4.2210E-03	7.6746E-03
HE++	1.1414E-13	5.4322E-08	1.0837E-05

P1 = 5.00E+03 N/SQ-M. US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3983E+03	1.8455E+04	3.1614E+04
T	8.1075E+01	1.4455E+02	2.1440E+02
RHO	1.0157E+01	3.7736E+01	4.0889E+01
H	3.9271E+02	6.9096E+02	9.2692E+02
A	1.4575E+01	2.2518E+01	2.9487E+01
S	2.7039E+00	2.8606E+00	2.9990E+00
Z	2.9123E+00	3.3833E+00	3.6063E+00
GAME	8.9965E-01	1.0368E+00	1.1246E+00
U	3.9201E+01	1.0525E+01	1.2976E+01

SPECIES	MOLE FRACTIONS		
E-	3.3073E-01	4.2386E-01	4.5934E-01
H	3.2150E-01	1.4385E-01	7.6774E-02
H+	3.3016E-01	4.1718E-01	4.4988E-01
H2	2.1089E-05	1.2517E-06	5.8163E-08
H-	1.3013E-04	1.0129E-04	7.6529E-05
H2+	2.9328E-04	2.2536E-04	6.3889E-05
HE	1.6753E-02	8.2176E-03	4.6340E-03
HE+	4.1540E-04	6.5598E-03	8.9948E-03
HE++	1.7390E-12	1.0487E-06	2.3594E-04

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5728E+03	1.9493E+04	3.4344E+04
T	8.4327E+01	1.5647E+02	2.3913E+02
RHO	1.0165E+01	3.6004E+01	3.9243E+01
H	4.2120E+02	7.3862E+02	1.0062E+03
A	1.5156E+01	2.4075E+01	3.1416E+01
S	2.7542E+00	2.9074E+00	3.0459E+00
Z	3.0015E+00	3.4604E+00	3.6597E+00
GAME	9.0746E-01	1.0705E+00	1.1277E+00
U	4.0604E+01	1.1450E+01	1.4137E+01

SPECIES	MOLE FRACTIONS		
E-	3.5062E-01	4.3663E-01	4.6722E-01
H	2.8247E-01	1.1964E-01	6.2452E-02
H+	3.4986E-01	4.2904E-01	4.5656E-01
H2	1.4690E-05	5.5400E-07	2.3719E-08
H-	1.1304E-04	8.4349E-05	6.3944E-05
H2+	2.6664E-04	1.5625E-04	4.2301E-05
HE	1.6054E-02	6.9307E-03	3.7610E-03
HE+	6.0421E-04	7.5145E-03	9.1244E-03
HE++	6.6758E-12	4.0761E-06	7.7670E-04

P1 = 5.00E+03 N/SQ-M. US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9371E+03	2.1325E+04	3.9682E+04
T	9.1656E+01	1.8349E+02	2.8946E+02
RHO	1.0075E+01	3.2424E+01	3.6635E+01
H	4.8108E+02	8.3666E+02	1.1727E+03
A	1.6458E+01	2.7137E+01	3.4837E+01
S	2.8538E+00	2.9934E+00	3.1293E+00
Z	3.1807E+00	3.5843E+00	3.7420E+00
GAME	9.2913E-01	1.1197E+00	1.1204E+00
U	4.3366E+01	1.3435E+01	1.6445E+01

SPECIES	MOLE FRACTIONS		
E-	3.8715E-01	4.5604E-01	4.7891E-01
H	2.1111E-01	8.2816E-02	4.3827E-02
H+	3.8574E-01	4.4706E-01	4.6384E-01
H2	6.3295E-06	1.0988E-07	5.5319E-09
H-	7.8571E-05	6.0204E-05	4.4946E-05
H2+	2.0297E-04	7.3713E-05	2.1528E-05
HE	1.4436E-02	5.0281E-03	2.0707E-03
HE+	1.2839E-03	8.8761E-03	7.4862E-03
HE++	1.0186E-10	4.5388E-05	3.8050E-03

P1 = 5.00E+03 N/SQ-M. US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7525E+03	2.0451E+04	3.7097E+04
T	8.7830E+01	1.6943E+02	2.6450E+02
RHO	1.0139E+01	3.4225E+01	3.7865E+01
H	4.5066E+02	7.8718E+02	1.0896E+03
A	1.5781E+01	2.5621E+01	3.3174E+01
S	2.8042E+00	2.9514E+00	3.0893E+00
Z	3.0913E+00	3.5269E+00	3.7041E+00
GAME	9.1719E-01	1.0985E+00	1.1233E+00
U	4.1993E+01	1.2428E+01	1.5377E+01

SPECIES	MOLE FRACTIONS		
E-	3.6944E-01	4.4722E-01	4.7358E-01
H	2.4562E-01	9.9543E-02	5.1797E-02
H+	3.6842E-01	4.3888E-01	4.6104E-01
H2	9.8573E-06	2.4574E-07	1.0837E-08
H-	9.5611E-05	7.1193E-05	5.3501E-05
H2+	2.3608E-04	1.0750E-04	2.9452E-05
HE	1.5294E-02	5.8984E-03	2.8978E-03
HE+	8.8000E-04	8.2739E-03	8.6329E-03
HE++	2.5825E-11	1.4243E-05	1.9679E-03

P1 = 5.00E+03 N/SQ-M. US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1260E+03	2.2058E+04	4.2144E+04
T	9.5887E+01	1.9814E+02	3.1501E+02
RHO	9.9731E+00	3.0647E+01	3.5432E+01
H	5.1244E+02	8.8653E+02	1.2581E+03
A	1.7198E+01	2.8560E+01	3.6576E+01
S	2.9027E+00	3.0333E+00	3.1676E+00
Z	3.2689E+00	3.6325E+00	3.7758E+00
GAME	9.4359E-01	1.1333E+00	1.1247E+00
U	4.4713E+01	1.4522E+01	1.7509E+01

SPECIES	MOLE FRACTIONS		
E-	4.0364E-01	4.6323E-01	4.8357E-01
H	1.7917E-01	6.9262E-02	3.7408E-02
H+	4.0166E-01	4.5364E-01	4.6572E-01
H2	3.8631E-06	5.1027E-08	2.9984E-09
H-	6.2629E-05	5.0800E-05	3.7568E-05
H2+	1.6892E-04	5.1129E-05	1.6138E-05
HE	1.3425E-02	4.3108E-03	1.3438E-03
HE+	1.8707E-03	9.3258E-03	5.9229E-03
HE++	4.1221E-10	1.2812E-04	5.9754E-03

TABLE I. - Continued

$p_1 = 5\ kN/m^2$

P1 = 5.00E+03 N/SQ-M. US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3202E+03	2.2683E+04	4.4486E+04
T	1.0062E+02	2.1324E+02	3.4164E+02
RHO	9.8368E+00	2.8962E+01	3.4221E+01
H	5.4478E+02	9.3710E+02	1.3461E+03
A	1.8009E+01	2.9879E+01	3.8408E+01
S	2.9506E+00	3.0712E+00	3.2043E+00
Z	3.3543E+00	3.6729E+00	3.8051E+00
GAME	9.6090E-01	1.1399E+00	1.1348E+00
U	4.6053E+01	1.5658E+01	1.8569E+01

SPECIES	MOLE FRACTIONS		
E-	4.1880E-01	4.6911E-01	4.8754E-01
H	1.5010E-01	5.8321E-02	3.2049E-02
H+	4.1631E-01	4.5887E-01	4.6723E-01
H2	2.2292E-06	2.4795E-08	1.6865E-09
H-	4.8441E-05	4.2738E-05	3.1113E-05
H2+	1.3576E-04	3.6076E-05	1.2282E-05
HE	1.2204E-02	3.6859E-03	7.9917E-04
HE+	2.7018E-03	9.6057E-03	4.3524E-03
HE++	1.7121E-09	3.2173E-04	7.9888E-03

P1 = 5.00E+03 N/SQ-M. US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5173E+03	2.3216E+04	4.6611E+04
T	1.0603E+02	2.2898E+02	3.6967E+02
RHO	9.6572E+00	2.7344E+01	3.2925E+01
H	5.7803E+02	9.8855E+02	1.4365E+03
A	1.8908E+01	3.1115E+01	4.0280E+01
S	2.9976E+00	3.1083E+00	3.2402E+00
Z	3.4360E+00	3.7080E+00	3.8295E+00
GAME	9.8161E-01	1.1403E+00	1.1461E+00
U	4.7353E+01	1.6720E+01	1.9660E+01

SPECIES	MOLE FRACTIONS		
E-	4.3259E-01	4.7413E-01	4.9081E-01
H	1.2402E-01	4.9293E-02	2.7436E-02
H+	4.2870E-01	4.6303E-01	4.6867E-01
H2	1.2061E-06	1.2450E-08	9.6663E-10
H-	3.6373E-05	3.5708E-05	2.5384E-05
H2+	1.0492E-04	2.5759E-05	9.4012E-06
HE	1.0729E-02	3.1000E-03	4.4601E-04
HE+	3.8232E-03	9.6530E-03	3.0636E-03
HE++	7.2797E-09	7.3146E-04	9.5469E-03

P1 = 5.00E+03 N/SQ-M. US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7168E+03	2.3639E+04	4.8522E+04
T	1.1204E+02	2.4465E+02	3.9899E+02
RHO	9.4490E+00	2.5848E+01	3.1594E+01
H	6.1214E+02	1.0404E+03	1.5285E+03
A	1.9892E+01	3.2235E+01	4.2121E+01
S	3.0425E+00	3.1436E+00	3.2747E+00
Z	3.5109E+00	3.7383E+00	3.8492E+00
GAME	1.0060E+00	1.1361E+00	1.1552E+00
U	4.8609E+01	1.7764E+01	2.0761E+01

SPECIES	MOLE FRACTIONS		
E-	4.4465E-01	4.7839E-01	4.9341E-01
H	1.0158E-01	4.2076E-02	2.3501E-02
H+	4.3942E-01	4.6611E-01	4.7007E-01
H2	6.1900E-07	6.6178E-09	5.6575E-10
H-	2.6861E-05	2.9843E-05	2.0485E-05
H2+	7.8404E-05	1.8846E-05	7.2504E-06
HE	9.0593E-03	2.5467E-03	2.4260E-04
HE+	5.1824E-03	9.3720E-03	2.1402E-03
HE++	3.0413E-08	1.4564E-03	1.0607E-02

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6583E+01
T	2.8250E+00	3.5120E+00	4.9535E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1972E+00
A	1.6758E+00	1.8612E+00	2.1884E+00
S	1.0659E+00	1.0680E+00	1.0887E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6684E-01
U	2.3185E+00	1.3798E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	1.2085E-65	3.2767E-47	2.0111E-31
H	1.9644E-11	2.8108E-09	6.1135E-06
H+	8.8233E-21	1.7611E-20	3.3075E-20
H2	9.5000E-01	9.5000E-01	9.4999E-01
H-	1.1128E-72	1.4216E-52	2.9445E-35
H2+	5.4637E-20	4.5849E-20	3.0386E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	2.1105E-73	2.7364E-62	6.7106E-53
HE++	0.	0.	0.

P1 = 1.00E+04 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5423E+01	8.0023E+01	1.6131E+02
T	5.0964E+00	7.0671E+00	9.0726E+00
RHO	4.9880E+00	1.1317E+01	1.7648E+01
H	5.3592E+00	7.7032E+00	1.0557E+01
A	2.2175E+00	2.5719E+00	2.8496E+00
S	1.1386E+00	1.1473E+00	1.1741E+00
Z	1.0000E+00	1.0006E+00	1.0075E+00
GAME	9.6486E-01	9.3543E-01	8.8838E-01
U	3.7274E+00	1.6391E+00	1.4701E+00

SPECIES	MOLE FRACTIONS		
E-	1.7233E-29	5.4305E-18	9.7357E-14
H	1.5437E-05	1.2153E-03	1.4892E-02
H+	4.0787E-20	3.8957E-18	7.5826E-14
H2	9.4998E-01	9.4882E-01	9.3548E-01
H-	1.8078E-33	7.1723E-21	1.0957E-15
H2+	2.2673E-20	1.6054E-18	2.2627E-14
HE	5.0000E-02	4.9970E-02	4.9628E-02
HE+	4.8173E-52	6.5192E-41	1.4018E-33
HE++	0.	0.	0.

P1 = 1.00E+04 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6643E+01	1.0216E+02
T	3.8703E+00	5.1634E+00	7.0259E+00
RHO	4.5267E+00	9.0316E+00	1.4535E+01
H	3.9997E+00	5.4352E+00	7.6474E+00
A	1.9491E+00	2.2312E+00	2.5669E+00
S	1.1027E+00	1.1080E+00	1.1324E+00
Z	1.0000E+00	1.0000E+00	1.0005E+00
GAME	9.8155E-01	9.6407E-01	9.3738E-01
U	3.0256E+00	1.5135E+00	1.3694E+00

SPECIES	MOLE FRACTIONS		
E-	8.7314E-44	2.3254E-28	2.6000E-18
H	7.0874E-08	1.4897E-05	9.9275E-04
H+	2.6292E-20	3.6916E-20	2.2364E-18
H2	9.5000E-01	9.4999E-01	9.4903E-01
H-	6.7810E-49	4.4588E-32	2.2966E-20
H2+	3.7169E-20	2.6544E-20	3.2317E-19
HE	5.0000E-02	5.0000E-02	4.9975E-02
HE+	1.1416E-60	3.0289E-51	4.5542E-40
HE++	0.	0.	0.

P1 = 1.00E+04 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4853E+01	1.2597E+02	2.3404E+02
T	6.4685E+00	8.9848E+00	1.0717E+01
RHO	5.3866E+00	1.3914E+01	2.1212E+01
H	6.9683E+00	1.0457E+01	1.3866E+01
A	2.4720E+00	2.8337E+00	3.0750E+00
S	1.1729E+00	1.1858E+00	1.2151E+00
Z	1.0003E+00	1.0077E+00	1.0295E+00
GAME	9.4441E-01	8.8694E-01	8.5701E-01
U	4.4286E+00	1.7122E+00	1.5093E+00

SPECIES	MOLE FRACTIONS		
E-	2.2696E-19	7.5831E-14	1.7064E-11
H	5.6121E-04	1.5267E-02	5.7332E-02
H+	2.2301E-19	6.0041E-14	1.3910E-11
H2	9.4945E-01	9.3511E-01	8.9410E-01
H-	1.8843E-22	6.8159E-16	4.4368E-13
H2+	6.7587E-20	1.6471E-14	3.5980E-12
HE	4.9986E-02	4.9618E-02	4.8567E-02
HE+	4.5616E-45	4.7128E-33	3.2011E-28
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5945E+01	1.9005E+02	3.2653E+02
T	7.8846E+00	1.0609E+01	1.2083E+01
RHO	5.8096E+00	1.7391E+01	2.5347E+01
H	8.8341E+00	1.3754E+01	1.7665E+01
A	2.6793E+00	3.0574E+00	3.3031E+00
S	1.2058E+00	1.2249E+00	1.2575E+00
Z	1.0031E+00	1.0300E+00	1.0661E+00
GAME	9.0767E-01	8.5539E-01	8.4698E-01
U	5.1447E+00	1.7159E+00	1.5311E+00

SPECIES	MOLE FRACTIONS		
E-	1.0555E-15	1.4768E-11	3.8831E-10
H	6.1152E-03	5.8249E-02	1.2399E-01
H+	8.6627E-16	1.2218E-11	3.2495E-10
H2	9.4404E-01	8.9321E-01	8.2911E-01
H-	2.8850E-18	3.3573E-13	1.6561E-11
H2+	1.9218E-16	2.8855E-12	7.9917E-11
HE	4.9847E-02	4.8544E-02	4.6900E-02
HE+	3.1506E-37	2.0428E-28	2.7968E-25
HE++	0.	0.	3.6114E-90

P1 = 1.00E+04 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3726E+01	3.9725E+02	6.1712E+02
T	1.0170E+01	1.3244E+01	1.4584E+01
RHO	7.0170E+00	2.6860E+01	3.5963E+01
H	1.3358E+01	2.2003E+01	2.7117E+01
A	2.9844E+00	3.5367E+00	3.8230E+00
S	1.2715E+00	1.3091E+00	1.3494E+00
Z	1.0331E+00	1.1168E+00	1.1766E+00
GAME	8.4772E-01	8.4573E-01	8.5175E-01
U	6.6597E+00	1.7365E+00	1.6093E+00

SPECIES	MOLE FRACTIONS		
E-	7.7479E-12	3.3813E-09	2.2603E-08
H	6.4063E-02	2.0910E-01	3.0020E-01
H+	6.7722E-12	2.9067E-09	1.9713E-08
H2	8.8754E-01	7.4613E-01	6.5731E-01
H-	9.3463E-14	1.8996E-10	1.8194E-09
H2+	1.0691E-12	6.6452E-10	4.7100E-09
HE	4.8398E-02	4.4772E-02	4.2495E-02
HE+	1.6266E-29	2.8712E-23	2.4924E-21
HE++	0.	2.0617E-83	2.4947E-75

P1 = 1.00E+04 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8899E+01	2.7885E+02	4.5155E+02
T	9.1407E+00	1.1988E+01	1.3346E+01
RHO	6.3583E+00	2.1794E+01	3.0327E+01
H	1.0965E+01	1.7608E+01	2.2076E+01
A	2.8371E+00	3.2894E+00	3.5509E+00
S	1.2383E+00	1.2659E+00	1.3023E+00
Z	1.0134E+00	1.0673E+00	1.1156E+00
GAME	8.6895E-01	8.4564E-01	8.4685E-01
U	5.8910E+00	1.7152E+00	1.5634E+00

SPECIES	MOLE FRACTIONS		
E-	2.7119E-13	3.4963E-10	3.7253E-09
H	2.6402E-02	1.2615E-01	2.0725E-01
H+	2.3257E-13	2.9521E-10	3.1833E-09
H2	9.2426E-01	8.2700E-01	7.4793E-01
H-	1.9533E-15	1.3440E-11	2.2741E-10
H2+	4.0580E-14	6.7860E-11	7.6945E-10
HE	4.9340E-02	4.6846E-02	4.4819E-02
HE+	1.3700E-32	1.8105E-25	4.0665E-23
HE++	0.	6.8829E-91	3.3943E-82

P1 = 1.00E+04 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.0316E+01	5.4586E+02	8.2567E+02
T	1.1036E+01	1.4440E+01	1.5836E+01
RHO	7.7143E+00	3.2140E+01	4.1767E+01
H	1.6006E+01	2.6961E+01	3.2799E+01
A	3.1338E+00	3.8066E+00	4.1230E+00
S	1.3060E+00	1.3546E+00	1.3991E+00
Z	1.0609E+00	1.1762E+00	1.2483E+00
GAME	8.3882E-01	8.5048E-01	8.5990E-01
U	7.4354E+00	1.7875E+00	1.6815E+00

SPECIES	MOLE FRACTIONS		
E-	7.7144E-11	1.9772E-08	1.0267E-07
H	1.1475E-01	2.9961E-01	3.9785E-01
H+	6.8271E-11	1.7307E-08	9.1395E-08
H2	8.3812E-01	6.5788E-01	5.6209E-01
H-	1.3192E-12	1.4692E-09	1.0187E-08
H2+	1.0192E-11	3.9333E-09	2.1460E-08
HE	4.7131E-02	4.2510E-02	4.0054E-02
HE+	1.8768E-27	1.6433E-21	8.1660E-20
HE++	0.	5.8085E-76	8.5973E-70

TABLE I.- Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0861E+02	7.2582E+02	1.0772E+03
T	1.1803E+01	1.5621E+01	1.7132E+01
RHO	8.4010E+00	3.7334E+01	4.7287E+01
H	1.8907E+01	3.2295E+01	3.9099E+01
A	3.2874E+00	4.0843E+00	4.4537E+00
S	1.3420E+00	1.4020E+00	1.4511E+00
Z	1.0953E+00	1.2445E+00	1.3296E+00
GAME	8.3597E-01	8.5807E-01	8.7077E-01
U	8.2116E+00	1.8492E+00	1.7725E+00

SPECIES	MOLE FRACTIONS		
E-	4.4552E-10	8.5132E-08	3.8482E-07
H	1.7396E-01	3.9294E-01	4.9581E-01
H+	3.9871E-10	7.5913E-08	3.4973E-07
H2	7.8039E-01	5.6688E-01	4.6658E-01
H-	9.9401E-12	7.7824E-09	4.4388E-08
H2+	5.6752E-11	1.7002E-08	7.9474E-08
HE	4.5651E-02	4.0176E-02	3.7605E-02
HE+	1.0139E-25	4.8129E-20	1.7921E-18
HE++	0.	1.6420E-70	1.1320E-64

P1 = 1.00E+04 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4998E+02	1.1682E+03	1.7046E+03
T	1.3173E+01	1.8048E+01	2.0031E+01
RHO	9.6421E+00	4.6141E+01	5.6120E+01
H	2.5457E+01	4.4449E+01	5.3559E+01
A	3.6117E+00	4.7200E+00	5.2350E+00
S	1.4187E+00	1.5012E+00	1.5596E+00
Z	1.1808E+00	1.4028E+00	1.5164E+00
GAME	8.3858E-01	8.7996E-01	9.0223E-01
U	9.7448E+00	2.0385E+00	2.0215E+00

SPECIES	MOLE FRACTIONS		
E-	5.7768E-09	9.1735E-07	3.9447E-06
H	3.0625E-01	5.7431E-01	6.8105E-01
H+	5.2651E-09	8.4871E-07	3.7295E-06
H2	6.5140E-01	3.9005E-01	2.8597E-01
H-	1.8404E-10	1.0705E-07	5.2329E-07
H2+	6.9570E-10	1.7569E-07	7.3849E-07
HE	4.2344E-02	3.5642E-02	3.2973E-02
HE+	2.8280E-23	1.2628E-17	4.4455E-16
HE++	1.7751E-83	2.4617E-61	1.7479E-55

P1 = 1.00E+04 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2849E+02	9.3382E+02	1.3701E+03
T	1.2507E+01	1.6812E+01	1.8509E+01
RHO	9.0488E+00	4.2069E+01	5.2157E+01
H	2.2057E+01	3.8144E+01	4.6006E+01
A	3.4462E+00	4.3892E+00	4.8204E+00
S	1.3796E+00	1.4510E+00	1.5047E+00
Z	1.1354E+00	1.3203E+00	1.4193E+00
GAME	8.3635E-01	8.6788E-01	8.8454E-01
U	8.9808E+00	1.9336E+00	1.8845E+00

SPECIES	MOLE FRACTIONS		
E-	1.7834E-09	2.9800E-07	1.2727E-06
H	2.3858E-01	4.8524E-01	5.9087E-01
H+	1.6105E-09	2.7068E-07	1.1803E-06
H2	7.1739E-01	4.7689E-01	3.7390E-01
H-	4.8524E-11	3.1582E-08	1.6166E-07
H2+	2.2141E-10	5.8902E-08	2.5400E-07
HE	4.4036E-02	3.7869E-02	3.5228E-02
HE+	1.9133E-24	8.8013E-19	3.0231E-17
HE++	1.4570E-85	7.5356E-66	7.0954E-60

P1 = 1.00E+04 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7302E+02	1.4251E+03	2.0785E+03
T	1.3818E+01	1.9366E+01	2.1798E+01
RHO	1.0171E+01	4.9368E+01	5.8922E+01
H	2.9105E+01	5.1191E+01	6.1766E+01
A	3.7848E+00	5.0825E+00	5.7153E+00
S	1.4592E+00	1.5522E+00	1.6153E+00
Z	1.2310E+00	1.4906E+00	1.6183E+00
GAME	8.4210E-01	8.9485E-01	9.2601E-01
U	1.0502E+01	2.1660E+00	2.1839E+00

SPECIES	MOLE FRACTIONS		
E-	1.6019E-08	2.5953E-06	1.2073E-05
H	3.7529E-01	6.5826E-01	7.6409E-01
H+	1.4730E-08	2.4431E-06	1.1615E-05
H2	5.8409E-01	3.0819E-01	2.0499E-01
H-	5.7751E-10	3.1820E-07	1.5775E-06
H2+	1.8660E-09	4.7043E-07	2.0357E-06
HE	4.0618E-02	3.3543E-02	3.0897E-02
HE+	2.8769E-22	1.4773E-16	6.3966E-15
HE++	6.4039E-79	2.7769E-57	2.2917E-51

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9768E+02	1.7020E+03	2.4983E+03
T	1.4456E+01	2.0831E+01	2.4049E+01
RHO	1.0636E+01	5.1642E+01	6.0304E+01
H	3.3005E+01	5.8380E+01	7.0849E+01
A	3.9668E+00	5.4881E+00	6.3104E+00
S	1.5010E+00	1.6034E+00	1.6719E+00
Z	1.2857E+00	1.5822E+00	1.7226E+00
GAME	8.4667E-01	9.1385E-01	9.6123E-01
U	1.1256E+01	2.3207E+00	2.4088E+00

SPECIES	MOLE FRACTIONS		
E-	3.9735E-08	7.0878E-06	4.0060E-05
H	4.4441E-01	7.3590E-01	8.3886E-01
H+	3.6853E-08	6.7795E-06	3.9126E-05
H2	5.1670E-01	2.3248E-01	1.3202E-01
H-	1.5779E-09	8.7031E-07	4.7688E-06
H2+	4.4604E-09	1.1785E-06	5.7027E-06
HE	3.8890E-02	3.1602E-02	2.9025E-02
HE+	2.2304E-21	1.6047E-15	1.1425E-13
HE++	9.1122E-76	1.2394E-53	9.4181E-47

P1 = 1.00E+04 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5153E+02	2.2841E+03	3.4820E+03
T	1.5754E+01	2.4615E+01	3.2123E+01
RHO	1.1345E+01	5.2676E+01	5.7299E+01
H	4.1550E+01	7.3945E+01	9.2281E+01
A	4.3635E+00	6.5023E+00	8.0986E+00
S	1.5878E+00	1.7035E+00	1.7831E+00
Z	1.4073E+00	1.7616E+00	1.8917E+00
GAME	8.5879E-01	9.7503E-01	1.0793E+00
U	1.2745E+01	2.7486E+00	3.1428E+00

SPECIES	MOLE FRACTIONS		
E-	1.9845E-07	5.6198E-05	7.9983E-04
H	5.7888E-01	8.6451E-01	9.4032E-01
H+	1.8718E-07	5.5149E-05	7.9431E-04
H2	3.8559E-01	1.0698E-01	3.1538E-02
H-	8.9295E-09	5.7828E-06	5.3219E-05
H2+	2.0199E-08	6.8323E-06	5.8741E-05
HE	3.5528E-02	2.8383E-02	2.6431E-02
HE+	8.8200E-20	2.3061E-13	1.6097E-10
HE++	3.2875E-70	2.1606E-45	6.6655E-35

P1 = 1.00E+04 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2384E+02	1.9910E+03	2.9616E+03
T	1.5097E+01	2.2532E+01	2.7207E+01
RHO	1.1028E+01	5.2773E+01	5.9841E+01
H	3.7153E+01	6.5972E+01	8.0867E+01
A	4.1591E+00	5.9529E+00	7.0904E+00
S	1.5439E+00	1.6543E+00	1.7280E+00
Z	1.3446E+00	1.6744E+00	1.8191E+00
GAME	8.5220E-01	9.3930E-01	1.0158E+00
U	1.2004E+01	2.5107E+00	2.7037E+00

SPECIES	MOLE FRACTIONS		
E-	9.1035E-08	1.9483E-05	1.5747E-04
H	5.1254E-01	8.0547E-01	9.0005E-01
H+	8.5140E-08	1.8901E-05	1.5553E-04
H2	4.5028E-01	1.6463E-01	7.2116E-02
H-	3.8915E-09	2.2652E-06	1.5216E-05
H2+	9.7863E-09	2.8474E-06	1.7159E-05
HE	3.7187E-02	2.9862E-02	2.7487E-02
HE+	1.4352E-20	1.8094E-14	3.1402E-12
HE++	7.0096E-72	1.6892E-49	3.8296E-41

P1 = 1.00E+04 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.8069E+02	2.5665E+03	4.0467E+03
T	1.6441E+01	2.7391E+01	3.8688E+01
RHO	1.1586E+01	5.0979E+01	5.4172E+01
H	4.6195E+01	8.2228E+01	1.0489E+02
A	4.5823E+00	7.1861E+00	8.9577E+00
S	1.6325E+00	1.7516E+00	1.8334E+00
Z	1.4736E+00	1.8380E+00	1.9309E+00
GAME	8.6667E-01	1.0257E+00	1.0741E+00
U	1.3480E+01	3.0719E+00	3.6682E+00

SPECIES	MOLE FRACTIONS		
E-	4.1853E-07	1.8292E-04	3.7782E-03
H	6.4280E-01	9.1128E-01	9.5274E-01
H+	3.9808E-07	1.8099E-04	3.7536E-03
H2	3.2327E-01	6.1117E-02	1.3487E-02
H-	1.9406E-08	1.5145E-05	1.5947E-04
H2+	3.9856E-08	1.7068E-05	1.8402E-04
HE	3.3930E-02	2.7204E-02	2.5895E-02
HE+	5.0665E-19	3.9444E-12	6.9341E-09
HE++	9.5763E-67	5.4041E-41	5.3236E-29

TABLE I.- Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1131E+02	2.8312E+03	4.6089E+03
T	1.7177E+01	3.1100E+01	4.4962E+01
RHO	1.1746E+01	4.8116E+01	5.2399E+01
H	5.1088E+01	9.0789E+01	1.1770E+02
A	4.8192E+00	7.9618E+00	9.4583E+00
S	1.6777E+00	1.7959E+00	1.8762E+00
Z	1.5429E+00	1.8920E+00	1.9563E+00
GAME	8.7631E-01	1.0773E+00	1.0171E+00
U	1.4208E+01	3.4710E+00	4.1037E+00

SPECIES	MOLE FRACTIONS		
E-	8.6660E-07	6.5048E-04	1.0981E-02
H	7.0371E-01	9.4092E-01	9.4446E-01
H+	8.3094E-07	6.4638E-04	1.0900E-02
H2	2.6388E-01	3.1269E-02	7.3767E-03
H-	4.0569E-08	3.9344E-05	3.2323E-04
H2+	7.6224E-08	4.3447E-05	4.0431E-04
HE	3.2407E-02	2.6427E-02	2.5559E-02
HE+	2.7220E-18	8.4464E-11	9.2947E-08
HE++	6.3542E-64	4.8642E-36	6.2034E-25

P1 = 1.00E+04 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7662E+02	3.2925E+03	5.6366E+03
T	1.8927E+01	4.0383E+01	5.4471E+01
RHO	1.1796E+01	4.1944E+01	5.1500E+01
H	6.1610E+01	1.0870E+02	1.4312E+02
A	5.3755E+00	9.1007E+00	1.0133E+01
S	1.7688E+00	1.8732E+00	1.9485E+00
Z	1.6868E+00	1.9438E+00	2.0093E+00
GAME	9.0505E-01	1.0551E+00	9.3808E-01
U	1.5635E+01	4.3925E+00	4.6457E+00

SPECIES	MOLE FRACTIONS		
E-	3.9154E-06	5.8772E-03	3.4137E-02
H	8.1433E-01	9.5330E-01	9.0187E-01
H+	3.8142E-06	5.8459E-03	3.3843E-02
H2	1.5602E-01	8.8724E-03	3.6884E-03
H-	1.7209E-07	1.7574E-04	6.4420E-04
H2+	2.7327E-07	2.0703E-04	9.3652E-04
HE	2.9641E-02	2.5723E-02	2.4883E-02
HE+	9.8969E-17	1.7007E-08	1.5430E-06
HE++	3.2568E-58	1.1290E-27	1.5435E-20

P1 = 1.00E+04 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4332E+02	3.0707E+03	5.1423E+03
T	1.7992E+01	3.5635E+01	5.0152E+01
RHO	1.1820E+01	4.4796E+01	5.1742E+01
H	5.6227E+01	9.9592E+01	1.3040E+02
A	5.0802E+00	8.6403E+00	9.8167E+00
S	1.7233E+00	1.8363E+00	1.9137E+00
Z	1.6143E+00	1.9236E+00	1.9817E+00
GAME	8.8858E-01	1.0891E+00	9.6964E-01
U	1.4927E+01	3.9347E+00	4.4150E+00

SPECIES	MOLE FRACTIONS		
E-	1.8147E-06	2.1858E-03	2.1591E-02
H	7.6110E-01	9.5365E-01	9.2566E-01
H+	1.7542E-06	2.1745E-03	2.1416E-02
H2	2.0792E-01	1.5803E-02	4.9443E-03
H-	8.3525E-08	9.1799E-05	4.9331E-04
H2+	1.4407E-07	1.0314E-04	6.6827E-04
HE	3.0972E-02	2.5993E-02	2.5231E-02
HE+	1.5924E-17	1.5719E-09	4.9052E-07
HE++	3.9475E-61	2.1394E-31	2.4928E-22

P1 = 1.00E+04 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.1109E+02	3.5038E+03	6.0678E+03
T	2.0061E+01	4.4836E+01	5.8141E+01
RHO	1.1655E+01	3.9822E+01	5.1193E+01
H	6.7233E+01	1.1823E+02	1.5586E+02
A	5.7239E+00	9.4238E+00	1.0426E+01
S	1.8139E+00	1.9079E+00	1.9821E+00
Z	1.7582E+00	1.9624E+00	2.0386E+00
GAME	9.2886E-01	1.0093E+00	9.1706E-01
U	1.6327E+01	4.7699E+00	4.8119E+00

SPECIES	MOLE FRACTIONS		
E-	9.0658E-06	1.2331E-02	4.7572E-02
H	8.6248E-01	9.4363E-01	8.7589E-01
H+	8.8972E-06	1.2261E-02	4.7150E-02
H2	1.0907E-01	5.6687E-03	2.9082E-03
H-	3.6510E-07	2.7814E-04	7.6626E-04
H2+	5.3370E-07	3.4788E-04	1.1845E-03
HE	2.8437E-02	2.5479E-02	2.4523E-02
HE+	7.4597E-16	1.0160E-07	3.5913E-06
HE++	6.3881E-55	6.9447E-25	3.2267E-19

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4645E+02	3.6900E+03	6.4030E+03
T	2.1531E+01	4.8780E+01	6.1327E+01
RHO	1.1363E+01	3.8143E+01	5.0455E+01
H	7.3090E+01	1.2817E+02	1.6861E+02
A	6.1603E+00	9.6954E+00	1.0702E+01
S	1.8580E+00	1.9413E+00	2.0155E+00
Z	1.8248E+00	1.9832E+00	2.0693E+00
GAME	9.6586E-01	9.7167E-01	9.0247E-01
U	1.6996E+01	5.0533E+00	4.9364E+00

SPECIES	MOLE FRACTIONS		
E-	2.3717E-05	2.1253E-02	6.1415E-02
H	9.0395E-01	9.2752E-01	8.4895E-01
H+	2.3433E-05	2.1127E-02	6.0868E-02
H2	6.8604E-02	3.9590E-03	2.3533E-03
H-	8.2542E-07	3.8071E-04	8.5626E-04
H2+	1.1092E-06	5.0567E-04	1.3967E-03
HE	2.7400E-02	2.5211E-02	2.4155E-02
HE+	7.6400E-15	3.7990E-07	6.9405E-06
HE++	3.1881E-51	7.8339E-23	3.4348E-18

P1 = 1.00E+04 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1809E+02	3.8808E+03	6.6245E+03
T	2.6425E+01	5.5199E+01	6.6476E+01
RHO	1.0228E+01	3.4578E+01	4.6709E+01
H	8.5448E+01	1.4878E+02	1.9368E+02
A	7.4208E+00	1.0189E+01	1.1202E+01
S	1.9391E+00	2.0090E+00	2.0837E+00
Z	1.9170E+00	2.0332E+00	2.1335E+00
GAME	1.0871E+00	9.2505E-01	8.8483E-01
U	1.8212E+01	5.3743E+00	5.1006E+00

SPECIES	MOLE FRACTIONS		
E-	2.7967E-04	4.4052E-02	8.9237E-02
H	9.5585E-01	8.8391E-01	7.9467E-01
H+	2.7882E-04	4.3794E-02	8.8492E-02
H2	1.7498E-02	2.3155E-03	1.5728E-03
H-	5.5743E-06	5.3828E-04	9.3302E-04
H2+	6.4243E-06	7.9432E-04	1.6600E-03
HE	2.6083E-02	2.4589E-02	2.3418E-02
HE+	3.1615E-12	2.2337E-06	1.8188E-05
HE++	1.0923E-41	4.3322E-20	1.0427E-16

P1 = 1.00E+04 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8230E+02	3.8213E+03	6.5954E+03
T	2.3572E+01	5.2234E+01	6.4101E+01
RHO	1.0882E+01	3.6450E+01	4.8970E+01
H	7.9168E+01	1.3840E+02	1.8127E+02
A	6.7335E+00	9.9455E+00	1.0961E+01
S	1.9001E+00	1.9750E+00	2.0494E+00
Z	1.8802E+00	2.0071E+00	2.1011E+00
GAME	1.0230E+00	9.4425E-01	8.9211E-01
U	1.7630E+01	5.2525E+00	5.0303E+00

SPECIES	MOLE FRACTIONS		
E-	7.4651E-05	3.2084E-02	7.5406E-02
H	9.3605E-01	9.0699E-01	8.2166E-01
H+	7.4205E-05	3.1893E-02	7.4748E-02
H2	3.7205E-02	2.9883E-03	1.9212E-03
H-	2.0629E-06	4.7027E-04	9.1153E-04
H2+	2.5494E-06	6.6052E-04	1.5581E-03
HE	2.6593E-02	2.4911E-02	2.3785E-02
HE+	1.2512E-13	1.0337E-06	1.1803E-05
HE++	8.5674E-47	2.8012E-21	2.2734E-17

P1 = 1.00E+04 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5434E+02	3.9012E+03	6.5666E+03
T	3.0057E+01	5.7825E+01	6.8651E+01
RHO	9.5232E+00	3.2725E+01	4.4129E+01
H	9.1939E+01	1.5939E+02	2.0608E+02
A	8.0408E+00	1.0423E+01	1.1440E+01
S	1.9750E+00	2.0431E+00	2.1190E+00
Z	1.9366E+00	2.0616E+00	2.1676E+00
GAME	1.1107E+00	9.1126E-01	8.7944E-01
U	1.8767E+01	5.4502E+00	5.1556E+00

SPECIES	MOLE FRACTIONS		
E-	1.0610E-03	5.6859E-02	1.0337E-01
H	9.6407E-01	8.5902E-01	7.6706E-01
H+	1.0594E-03	5.6536E-02	1.0256E-01
H2	7.9603E-03	1.8364E-03	1.2848E-03
H-	1.4481E-05	5.8738E-04	9.3211E-04
H2+	1.6110E-05	9.0607E-04	1.7199E-03
HE	2.5818E-02	2.4249E-02	2.3041E-02
HE+	8.2304E-11	4.1694E-06	2.6563E-05
HE++	1.4552E-36	3.9495E-19	3.9171E-16

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9187E+02	3.9624E+03	6.5793E+03
T	3.3834E+01	6.0277E+01	7.0763E+01
RHO	8.9801E+00	3.1428E+01	4.2218E+01
H	9.8665E+01	1.7041E+02	2.1890E+02
A	8.4471E+00	1.0658E+01	1.1679E+01
S	2.0066E+00	2.0758E+00	2.1528E+00
Z	1.9480E+00	2.0916E+00	2.2023E+00
GAME	1.0826E+00	9.0103E-01	8.7530E-01
U	1.9324E+01	5.5121E+00	5.2119E+00

SPECIES	MOLE FRACTIONS		
E-	3.1609E-03	7.0211E-02	1.1740E-01
H	9.6379E-01	8.3293E-01	7.3961E-01
H+	3.1574E-03	6.9823E-02	1.1652E-01
H2	4.1564E-03	1.4966E-03	1.0649E-03
H-	3.0747E-05	6.2741E-04	9.2628E-04
H2+	3.4310E-05	1.0089E-03	1.7697E-03
HE	2.5667E-02	2.3898E-02	2.2666E-02
HE+	1.1820E-09	7.0960E-06	3.7433E-05
HE++	2.1542E-32	2.6111E-18	1.3056E-15

P1 = 1.00E+04 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7336E+02	4.2758E+03	6.9355E+03
T	4.0683E+01	6.5036E+01	7.5207E+01
RHO	8.3871E+00	3.0484E+01	4.0526E+01
H	1.1291E+02	1.9436E+02	2.4692E+02
A	8.9311E+00	1.1153E+01	1.2196E+01
S	2.0632E+00	2.1375E+00	2.2172E+00
Z	1.9734E+00	2.1567E+00	2.2755E+00
GAME	9.9353E-01	8.8687E-01	8.6917E-01
U	2.0523E+01	5.6402E+00	5.3476E+00

SPECIES	MOLE FRACTIONS		
E-	1.3676E-02	9.8113E-02	1.4569E-01
H	9.4543E-01	7.7816E-01	6.8413E-01
H+	1.3661E-02	9.7580E-02	1.4466E-01
H2	1.7214E-03	1.0576E-03	7.5510E-04
H-	8.0990E-05	6.9541E-04	9.1465E-04
H2+	9.6165E-05	1.2115E-03	1.8765E-03
HE	2.5337E-02	2.3166E-02	2.1902E-02
HE+	4.2659E-08	1.7488E-05	7.1098E-05
HE++	8.9120E-27	6.6359E-17	1.2786E-14

P1 = 1.00E+04 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3142E+02	4.0847E+03	6.6981E+03
T	3.7445E+01	6.2662E+01	7.2931E+01
RHO	8.6064E+00	3.0699E+01	4.1032E+01
H	1.0565E+02	1.8204E+02	2.3246E+02
A	8.7160E+00	1.0901E+01	1.1931E+01
S	2.0358E+00	2.1072E+00	2.1854E+00
Z	1.9593E+00	2.1234E+00	2.2383E+00
GAME	1.0355E+00	8.9314E-01	8.7194E-01
U	1.9907E+01	5.5730E+00	5.2749E+00

SPECIES	MOLE FRACTIONS		
E-	7.3250E-03	8.4009E-02	1.3152E-01
H	9.5721E-01	8.0587E-01	7.1195E-01
H+	7.3171E-03	8.3550E-02	1.3056E-01
H2	2.5131E-03	1.2470E-03	8.9271E-04
H-	5.3923E-05	6.6278E-04	9.2013E-04
H2+	6.1775E-05	1.1095E-03	1.8208E-03
HE	2.5519E-02	2.3536E-02	2.2287E-02
HE+	9.2069E-09	1.1378E-05	5.1851E-05
HE++	3.5313E-29	1.4124E-17	4.1381E-15

P1 = 1.00E+04 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6417E+02	4.8257E+03	7.6826E+03
T	4.6143E+01	6.9799E+01	8.0051E+01
RHO	8.2341E+00	3.1041E+01	4.0785E+01
H	1.2827E+02	2.2104E+02	2.7845E+02
A	9.3418E+00	1.1681E+01	1.2767E+01
S	2.1150E+00	2.1961E+00	2.2791E+00
Z	2.0113E+00	2.2273E+00	2.3531E+00
GAME	9.4034E-01	8.7765E-01	8.6527E-01
U	2.1839E+01	5.7781E+00	5.5198E+00

SPECIES	MOLE FRACTIONS		
E-	3.1663E-02	1.2668E-01	1.7383E-01
H	9.1053E-01	7.2194E-01	6.2888E-01
H+	3.1624E-02	1.2599E-01	1.7262E-01
H2	1.0134E-03	7.8473E-04	5.4589E-04
H-	1.3728E-04	7.4849E-04	8.9627E-04
H2+	1.7585E-04	1.4106E-03	1.9796E-03
HE	2.4859E-02	2.2411E-02	2.1119E-02
HE+	3.4666E-07	3.7548E-05	1.2981E-04
HE++	1.7135E-23	1.0610E-15	1.1219E-13

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6336E+02	5.5411E+03	8.7095E+03
T	5.0562E+01	7.4588E+01	8.5322E+01
RHO	8.2959E+00	3.2279E+01	4.1921E+01
H	1.4470E+02	2.5010E+02	3.1322E+02
A	9.7524E+00	1.2232E+01	1.3395E+01
S	2.1637E+00	2.2533E+00	2.3406E+00
Z	2.0583E+00	2.3015E+00	2.4350E+00
GAME	9.1388E-01	8.7164E-01	8.6366E-01
U	2.3226E+01	5.9623E+00	5.7313E+00

SPECIES	MOLE FRACTIONS		
E-	5.3577E-02	1.5489E-01	2.0161E-01
H	8.6747E-01	6.6641E-01	5.7436E-01
H+	5.3506E-02	1.5402E-01	2.0020E-01
H2	7.0500E-04	5.9177E-04	3.8998E-04
H-	1.8778E-04	7.7824E-04	8.5783E-04
H2+	2.5783E-04	1.5835E-03	2.0410E-03
HE	2.4291E-02	2.1652E-02	2.0304E-02
HE+	1.3489E-06	7.3008E-05	2.3011E-04
HE++	2.3567E-21	1.2007E-14	8.9961E-13

P1 = 1.00E+04 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0837E+03	7.3150E+03	1.1310E+04
T	5.7902E+01	8.4451E+01	9.7165E+01
RHO	8.6197E+00	3.5242E+01	4.4630E+01
H	1.8069E+02	3.1454E+02	3.9122E+02
A	1.0583E+01	1.3415E+01	1.4837E+01
S	2.2596E+00	2.3669E+00	2.4629E+00
Z	2.1713E+00	2.4578E+00	2.6080E+00
GAME	8.9079E-01	8.6704E-01	8.6865E-01
U	2.6091E+01	6.3870E+00	6.2445E+00

SPECIES	MOLE FRACTIONS		
E-	1.0274E-01	2.0873E-01	2.5444E-01
H	7.7057E-01	5.6060E-01	4.7101E-01
H+	1.0259E-01	2.0747E-01	2.5254E-01
H2	4.0838E-04	3.2685E-04	1.8029E-04
H-	2.6338E-04	7.5545E-04	7.1516E-04
H2+	4.0851E-04	1.7781E-03	1.9470E-03
HE	2.3020E-02	2.0115E-02	1.8510E-02
HE+	8.0857E-06	2.2814E-04	6.6165E-04
HE++	1.6078E-18	7.7505E-13	4.4092E-11

P1 = 1.00E+04 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6999E+02	6.3729E+03	9.9165E+03
T	5.4445E+01	7.9444E+01	9.0965E+01
RHO	8.4323E+00	3.3726E+01	4.3263E+01
H	1.6218E+02	2.8131E+02	3.5073E+02
A	1.0171E+01	1.2808E+01	1.4078E+01
S	2.2123E+00	2.3102E+00	2.4017E+00
Z	2.1128E+00	2.3786E+00	2.5198E+00
GAME	8.9924E-01	8.6817E-01	8.6468E-01
U	2.4648E+01	6.1620E+00	5.9627E+00

SPECIES	MOLE FRACTIONS		
E-	7.7934E-02	1.8233E-01	2.2843E-01
H	8.1948E-01	6.1245E-01	5.2182E-01
H+	7.7824E-02	1.8127E-01	2.2680E-01
H2	5.2504E-04	4.4356E-04	2.7102E-04
H-	2.3031E-04	7.7992E-04	7.9572E-04
H2+	3.3710E-04	1.7091E-03	2.0322E-03
HE	2.3661E-02	2.0889E-02	1.9448E-02
HE+	3.6992E-06	1.3231E-04	3.9458E-04
HE++	9.2471E-20	1.0548E-13	6.4759E-12

P1 = 1.00E+04 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2040E+03	8.3372E+03	1.2852E+04
T	6.1151E+01	8.9671E+01	1.0409E+02
RHO	8.8122E+00	3.6616E+01	4.5729E+01
H	2.0022E+02	3.4964E+02	4.3480E+02
A	1.0999E+01	1.4061E+01	1.5693E+01
S	2.3075E+00	2.4235E+00	2.5244E+00
Z	2.2342E+00	2.5392E+00	2.7001E+00
GAME	8.8556E-01	8.6832E-01	8.7623E-01
U	2.7540E+01	6.6376E+00	6.5928E+00

SPECIES	MOLE FRACTIONS		
E-	1.2800E-01	2.3405E-01	2.7971E-01
H	7.2075E-01	5.1094E-01	4.2179E-01
H+	1.2780E-01	2.3260E-01	2.7747E-01
H2	3.2242E-04	2.3415E-04	1.1302E-04
H-	2.8746E-04	7.0746E-04	6.2321E-04
H2+	4.7097E-04	1.7810E-03	1.7829E-03
HE	2.2364E-02	1.9312E-02	1.7434E-02
HE+	1.5570E-05	3.7897E-04	1.0836E-03
HE++	1.7675E-17	4.9910E-12	2.8979E-10

TABLE I.- Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3310E+03	9.4361E+03	1.4536E+04
T	6.4255E+01	9.5218E+01	1.1190E+02
RHO	9.0045E+00	3.7788E+01	4.6476E+01
H	2.2076E+02	3.8660E+02	4.8114E+02
A	1.1421E+01	1.4758E+01	1.6666E+01
S	2.3555E+00	2.4800E+00	2.5853E+00
Z	2.3004E+00	2.6225E+00	2.7950E+00
GAME	8.8241E-01	8.7222E-01	8.8810E-01
U	2.8997E+01	6.9224E+00	6.9672E+00

SPECIES	MOLE FRACTIONS		
E-	1.5309E-01	2.5833E-01	3.0395E-01
H	6.7125E-01	4.6344E-01	3.7479E-01
H+	1.5284E-01	2.5664E-01	3.0121E-01
H2	2.5641E-04	1.6178E-04	6.6404E-05
H-	3.0277E-04	6.4233E-04	5.3203E-04
H2+	5.2260E-04	1.7184E-03	1.5572E-03
HE	2.1708E-02	1.8454E-02	1.6179E-02
HE+	2.7409E-05	6.1188E-04	1.7103E-03
HE++	1.4026E-16	2.9387E-11	1.8278E-09

P1 = 1.00E+04 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.6037E+03	1.1791E+04	1.8356E+04
T	7.0246E+01	1.0767E+02	1.3188E+02
RHO	9.3528E+00	3.9188E+01	4.6446E+01
H	2.6485E+02	4.6359E+02	5.8477E+02
A	1.2286E+01	1.6356E+01	1.9178E+01
S	2.4523E+00	2.5912E+00	2.7071E+00
Z	2.4409E+00	2.7944E+00	2.9968E+00
GAME	8.8033E-01	8.8913E-01	9.3065E-01
U	3.1905E+01	7.6275E+00	8.0184E+00

SPECIES	MOLE FRACTIONS		
E-	2.0187E-01	3.0367E-01	3.5034E-01
H	5.7506E-01	3.7519E-01	2.8549E-01
H+	2.0152E-01	3.0127E-01	3.4608E-01
H2	1.6144E-04	6.7648E-05	1.7597E-05
H-	3.0920E-04	4.9062E-04	3.8294E-04
H2+	5.8922E-04	1.4257E-03	1.0050E-03
HE	2.0412E-02	1.6430E-02	1.3051E-02
HE+	7.1551E-05	1.4630E-03	3.6334E-03
HE++	4.6985E-15	8.3770E-10	6.9387E-08

P1 = 1.00E+04 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4642E+03	1.0590E+04	1.6371E+04
T	6.7270E+01	1.0117E+02	1.2101E+02
RHO	9.1863E+00	3.8661E+01	4.6750E+01
H	2.4231E+02	4.2526E+02	5.3106E+02
A	1.1848E+01	1.5517E+01	1.7809E+01
S	2.4037E+00	2.5358E+00	2.6462E+00
Z	2.3694E+00	2.7075E+00	2.8939E+00
GAME	8.8076E-01	8.7901E-01	9.0569E-01
U	3.0452E+01	7.2538E+00	7.4414E+00

SPECIES	MOLE FRACTIONS		
E-	1.7777E-01	2.8149E-01	3.2749E-01
H	6.2258E-01	4.1827E-01	3.2939E-01
H+	1.7747E-01	2.7950E-01	3.2407E-01
H2	2.0395E-04	1.0722E-04	3.5890E-05
H-	3.0979E-04	5.6757E-04	4.4987E-04
H2+	5.6223E-04	1.5962E-03	1.2888E-03
HE	2.1057E-02	1.7507E-02	1.4702E-02
HE+	4.5258E-05	9.6023E-04	2.5754E-03
HE++	8.8297E-16	1.6093E-10	1.1352E-08

P1 = 1.00E+04 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7493E+03	1.3014E+04	2.0513E+04
T	7.3222E+01	1.1484E+02	1.4489E+02
RHO	9.5000E+00	3.9313E+01	4.5660E+01
H	2.8840E+02	5.0744E+02	6.4326E+02
A	1.2737E+01	1.7291E+01	2.0793E+01
S	2.5011E+00	2.6456E+00	2.7663E+00
Z	2.5148E+00	2.8825E+00	3.1005E+00
GAME	8.8100E-01	9.0316E-01	9.6241E-01
U	3.3353E+01	8.0726E+00	8.7576E+00

SPECIES	MOLE FRACTIONS		
E-	2.2531E-01	3.2476E-01	3.7182E-01
H	5.2888E-01	3.3439E-01	2.4429E-01
H+	2.2490E-01	3.2182E-01	3.6668E-01
H2	1.2665E-04	4.0513E-05	7.9041E-06
H-	3.0178E-04	4.1851E-04	3.3442E-04
H2+	6.0324E-04	1.2238E-03	7.4184E-04
HE	1.9773E-02	1.5204E-02	1.1399E-02
HE+	1.0936E-04	2.1426E-03	4.7266E-03
HE++	2.2096E-14	4.1316E-09	4.0350E-07

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9009E+03	1.4250E+04	2.2827E+04
T	7.6238E+01	1.2279E+02	1.6069E+02
RHO	9.6239E+00	3.9066E+01	4.4339E+01
H	3.1293E+02	5.5080E+02	7.0654E+02
A	1.3205E+01	1.8336E+01	2.2667E+01
S	2.5502E+00	2.6985E+00	2.8245E+00
Z	2.5908E+00	2.9707E+00	3.2040E+00
GAME	8.8279E-01	9.2166E-01	9.9798E-01
U	3.4796E+01	8.5714E+00	9.6439E+00

SPECIES	MOLE FRACTIONS		
E-	2.4804E-01	3.4462E-01	3.9191E-01
H	4.8410E-01	2.9617E-01	2.0571E-01
H+	2.4756E-01	3.4098E-01	3.8596E-01
H2	9.8065E-05	2.3062E-05	3.2480E-06
H-	2.8835E-04	3.5659E-04	2.9841E-04
H2+	6.0426E-04	1.0116E-03	5.1840E-04
HE	1.9136E-02	1.3849E-02	9.8782E-03
HE+	1.6331E-04	2.9820E-03	5.7251E-03
HE++	9.5058E-14	1.9153E-08	2.2479E-06

P1 = 1.00E+04 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2219E+03	1.6651E+04	2.7890E+04
T	8.2514E+01	1.4165E+02	2.0081E+02
RHO	9.7988E+00	3.7374E+01	4.0968E+01
H	3.6499E+02	6.4134E+02	8.4756E+02
A	1.4206E+01	2.0820E+01	2.6826E+01
S	2.6484E+00	2.7995E+00	2.9342E+00
Z	2.7481E+00	3.1452E+00	3.3903E+00
GAME	8.8998E-01	9.7293E-01	1.0571E+00
U	3.7662E+01	9.8579E+00	1.1799E+01

SPECIES	MOLE FRACTIONS		
E-	2.9104E-01	3.8064E-01	4.2506E-01
H	3.9952E-01	2.2715E-01	1.4201E-01
H+	2.9037E-01	3.7542E-01	4.1771E-01
H2	5.5900E-05	6.4070E-06	5.0314E-07
H-	2.4775E-04	2.6632E-04	2.3994E-04
H2+	5.6972E-04	6.1860E-04	2.3452E-04
HE	1.7847E-02	1.1037E-02	7.4513E-03
HE+	3.4732E-04	4.8601E-03	7.2458E-03
HE++	1.4652E-12	3.3852E-07	5.1040E-05

P1 = 1.00E+04 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0582E+03	1.5454E+04	2.5265E+04
T	7.9351E+01	1.3166E+02	1.7908E+02
RHO	9.7158E+00	3.8373E+01	4.2746E+01
H	3.3846E+02	5.9540E+02	7.7449E+02
A	1.3698E+01	1.9510E+01	2.4680E+01
S	2.6000E+00	2.7500E+00	2.8798E+00
Z	2.6696E+00	3.0588E+00	3.3004E+00
GAME	8.8579E-01	9.4516E-01	1.0306E+00
U	3.6227E+01	9.1620E+00	1.0659E+01

SPECIES	MOLE FRACTIONS		
E-	2.7023E-01	3.6332E-01	4.0952E-01
H	4.4044E-01	2.6032E-01	1.7185E-01
H+	2.6967E-01	3.5890E-01	4.0286E-01
H2	7.4453E-05	1.2445E-05	1.2948E-06
H-	2.6956E-04	3.0584E-04	2.6931E-04
H2+	5.9213E-04	8.0443E-04	3.5254E-04
HE	1.8489E-02	1.2427E-02	8.5906E-03
HE+	2.4056E-04	3.9190E-03	6.5479E-03
HE++	3.8733E-13	8.3179E-08	1.1172E-05

P1 = 1.00E+04 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3906E+03	1.7750E+04	3.0552E+04
T	8.5858E+01	1.5277E+02	2.2408E+02
RHO	9.8419E+00	3.5982E+01	3.9341E+01
H	3.9249E+02	6.8801E+02	9.2430E+02
A	1.4750E+01	2.2244E+01	2.8883E+01
S	2.6976E+00	2.8476E+00	2.9837E+00
Z	2.8291E+00	3.2291E+00	3.4657E+00
GAME	8.9567E-01	1.0030E+00	1.0742E+00
U	3.9075E+01	1.0674E+01	1.2998E+01

SPECIES	MOLE FRACTIONS		
E-	3.1130E-01	3.9658E-01	4.3750E-01
H	3.5974E-01	1.9662E-01	1.1830E-01
H+	3.1049E-01	3.9062E-01	4.2940E-01
H2	4.0808E-05	3.1675E-06	2.1116E-07
H-	2.2261E-04	2.3432E-04	2.1115E-04
H2+	5.3582E-04	4.6101E-04	1.6024E-04
HE	1.7174E-02	9.7569E-03	6.4636E-03
HE+	4.9961E-04	5.7261E-03	7.7751E-03
HE++	5.4600E-12	1.2774E-06	1.8840E-04

TABLE I. - Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5646E+03	1.8788E+04	3.3234E+04
T	8.9401E+01	1.6483E+02	2.4854E+02
RHO	9.8542E+00	3.4474E+01	3.7889E+01
H	4.2096E+02	7.3571E+02	1.0041E+03
A	1.5330E+01	2.3712E+01	3.0820E+01
S	2.7465E+00	2.8927E+00	3.0295E+00
Z	2.9112E+00	3.3063E+00	3.5292E+00
GAME	9.0301E-01	1.0317E+00	1.0829E+00
U	4.0476E+01	1.1551E+01	1.4205E+01

SPECIES	MOLE FRACTIONS		
E-	3.3069E-01	4.1056E-01	4.4758E-01
H	3.2175E-01	1.6982E-01	9.9520E-02
H+	3.2967E-01	4.0395E-01	4.3843E-01
H2	2.8979E-05	1.5556E-06	9.6373E-08
H-	1.9579E-04	2.0854E-04	1.8341E-04
H2+	4.9281E-04	3.3911E-04	1.1310E-04
HE	1.6460E-02	8.6527E-03	5.5178E-03
HE+	7.1482E-04	6.4655E-03	8.0831E-03
HE++	2.0021E-11	4.3596E-06	5.6661E-04

P1 = 1.00E+04 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9281E+03	2.0567E+04	3.8454E+04
T	9.7308E+01	1.9169E+02	2.9926E+02
RHO	9.7794E+00	3.1179E+01	3.5382E+01
H	4.8081E+02	8.3326E+02	1.1705E+03
A	1.6629E+01	2.6668E+01	3.4362E+01
S	2.8433E+00	2.9772E+00	3.1128E+00
Z	3.0770E+00	3.4412E+00	3.6317E+00
GAME	9.2354E-01	1.0781E+00	1.0864E+00
U	4.3233E+01	1.3564E+01	1.6521E+01

SPECIES	MOLE FRACTIONS		
E-	3.6666E-01	4.3352E-01	4.6313E-01
H	2.5157E-01	1.2582E-01	7.2734E-02
H+	3.6498E-01	4.2579E-01	4.5018E-01
H2	1.3214E-05	3.7922E-07	2.5600E-08
H-	1.4175E-04	1.6390E-04	1.3505E-04
H2+	3.8750E-04	1.7973E-04	6.2180E-05
HE	1.4806E-02	6.8535E-03	3.5061E-03
HE+	1.4432E-03	7.6375E-03	7.5012E-03
HE++	2.6704E-10	3.8760E-05	2.7603E-03

P1 = 1.00E+04 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7439E+03	1.9746E+04	3.5885E+04
T	9.3196E+01	1.7784E+02	2.7398E+02
RHO	9.8338E+00	3.2881E+01	3.6540E+01
H	4.5040E+02	7.8430E+02	1.0864E+03
A	1.5954E+01	2.5195E+01	3.2653E+01
S	2.7951E+00	2.9356E+00	3.0729E+00
Z	2.9940E+00	3.3769E+00	3.5844E+00
GAME	9.1222E-01	1.0570E+00	1.0857E+00
U	4.1862E+01	1.2493E+01	1.5386E+01

SPECIES	MOLE FRACTIONS		
E-	3.4916E-01	4.2279E-01	4.5606E-01
H	2.8565E-01	1.4636E-01	8.4438E-02
H+	3.4787E-01	4.1561E-01	4.4531E-01
H2	1.9930E-05	7.6536E-07	4.7397E-08
H-	1.6845E-04	1.8579E-04	1.5736E-04
H2+	4.4261E-04	2.4750E-04	8.2206E-05
HE	1.5682E-02	7.6989E-03	4.5211E-03
HE+	1.0184E-03	7.0941E-03	8.0298E-03
HE++	7.3038E-11	1.3577E-05	1.3984E-03

P1 = 1.00E+04 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1170E+03	2.1355E+04	4.0911E+04
T	1.0181E+02	2.0621E+02	3.2530E+02
RHO	9.6902E+00	2.9611E+01	3.4222E+01
H	5.1217E+02	8.8356E+02	1.2566E+03
A	1.7363E+01	2.8089E+01	3.6095E+01
S	2.8908E+00	3.0163E+00	3.1517E+00
Z	3.1594E+00	3.4975E+00	3.6750E+00
GAME	9.3724E-01	1.0940E+00	1.0898E+00
U	4.4584E+01	1.4564E+01	1.7626E+01

SPECIES	MOLE FRACTIONS		
E-	3.8314E-01	4.4259E-01	4.6944E-01
H	2.1968E-01	1.0853E-01	6.2955E-02
H+	3.8090E-01	4.3431E-01	4.5384E-01
H2	8.4089E-06	1.9415E-07	1.4489E-08
H-	1.1672E-04	1.4406E-04	1.1483E-04
H2+	3.3010E-04	1.3191E-04	4.7873E-05
HE	1.3799E-02	6.1071E-03	2.5092E-03
HE+	2.0271E-03	8.0886E-03	6.5251E-03
HE++	9.8214E-10	1.0035E-04	4.5711E-03

TABLE I.- Continued

$p_1 = 10\ kN/m^2$

P1 = 1.00E+04 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3085E+03	2.1929E+04	4.3109E+04
T	1.0685E+02	2.2114E+02	3.5158E+02
RHO	9.5514E+00	2.7946E+01	3.3019E+01
H	5.4443E+02	9.3347E+02	1.3435E+03
A	1.8178E+01	2.9452E+01	3.7848E+01
S	2.9384E+00	3.0549E+00	3.1889E+00
Z	3.2418E+00	3.5483E+00	3.7135E+00
GAME	9.5394E-01	1.1054E+00	1.0972E+00
U	4.5891E+01	1.5682E+01	1.8681E+01

SPECIES	MOLE FRACTIONS		
E-	3.9877E-01	4.5054E-01	4.7492E-01
H	1.8967E-01	9.3509E-02	5.4750E-02
H+	3.9577E-01	4.4164E-01	4.5673E-01
H2	5.0698E-06	1.0148E-07	8.5581E-09
H-	9.3829E-05	1.2442E-04	9.6794E-05
H2+	2.7198E-04	9.7027E-05	3.7442E-05
HE	1.26C8E-02	5.4013E-03	1.6714E-03
HE+	2.8157E-03	8.4530E-03	5.3366E-03
HE++	3.6939E-09	2.3698E-04	6.4566E-03

P1 = 1.00E+04 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7054E+03	2.2959E+04	4.7153E+04
T	1.1856E+02	2.5194E+02	4.0674E+02
RHO	9.2090E+00	2.5095E+01	3.0711E+01
H	6.1178E+02	1.0368E+03	1.5241E+03
A	2.0025E+01	3.1931E+01	4.1387E+01
S	3.0276E+00	3.1261E+00	3.2581E+00
Z	3.3938E+00	3.6313E+00	3.7748E+00
GAME	9.9655E-01	1.1144E+00	1.1156E+00
U	4.8461E+01	1.7780E+01	2.0772E+01

SPECIES	MOLE FRACTIONS		
E-	4.2560E-01	4.6306E-01	4.8344E-01
H	1.3887E-01	7.0603E-02	4.1748E-02
H+	4.2057E-01	4.5242E-01	4.6148E-01
H2	1.6380E-06	3.1373E-08	3.2526E-09
H-	5.9025E-05	9.1986E-05	6.7413E-05
H2+	1.7063E-04	5.5208E-05	2.3702E-05
HE	9.8130E-03	4.0798E-03	6.3978E-04
HE+	4.9196E-03	8.7619E-03	3.2031E-03
HE++	4.8929E-08	9.8739E-04	9.4028E-03

P1 = 1.00E+04 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.5054E+03	2.2517E+04	4.5239E+04
T	1.1233E+02	2.3672E+02	3.7829E+02
RHO	9.4029E+00	2.6475E+01	3.1925E+01
H	5.7765E+02	9.8497E+02	1.4321E+03
A	1.9048E+01	3.0752E+01	3.9592E+01
S	2.9831E+00	3.0915E+00	3.2235E+00
Z	3.3189E+00	3.5928E+00	3.7459E+00
GAME	9.7324E-01	1.1119E+00	1.1062E+00
U	4.7193E+01	1.6726E+01	1.9687E+01

SPECIES	MOLE FRACTIONS		
E-	4.1268E-01	4.5732E-01	4.7947E-01
H	1.6320E-01	8.0931E-02	4.7929E-02
H+	4.0876E-01	4.4765E-01	4.5914E-01
H2	2.9681E-06	5.4957E-08	5.2751E-09
H-	7.4931E-05	1.0715E-04	8.1520E-05
H2+	2.1924E-04	7.2429E-05	2.9842E-05
HE	1.1286E-02	4.7278E-03	1.0619E-03
HE+	3.7790E-03	8.6753E-03	4.1973E-03
HE++	1.3374E-08	5.1360E-04	8.0885E-03

TABLE I.- Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6583E+01
T	2.8250E+00	3.5120E+00	4.9535E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1972E+00
A	1.6758E+00	1.8612E+00	2.1885E+00
S	1.0685E+00	1.0707E+00	1.0922E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6688E-01
U	2.3185E+00	1.3798E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	5.6446E-66	1.4537E-47	8.5257E-32
H	1.3890E-11	1.9875E-09	4.3238E-06
H+	6.5044E-21	1.3555E-20	2.7601E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01
H-	7.3759E-73	8.9194E-53	1.7654E-35
H2+	5.6956E-20	4.9906E-20	3.5859E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	2.2503E-73	3.0847E-62	7.9515E-53
HE++	0.	0.	0.

P1 = 2.00E+04 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5422E+01	7.9954E+01	1.6162E+02
T	5.0965E+00	7.0734E+00	9.1596E+00
RHO	4.9879E+00	1.1299E+01	1.7543E+01
H	5.3592E+00	7.7014E+00	1.0576E+01
A	2.2177E+00	2.5767E+00	2.8738E+00
S	1.1441E+00	1.1531E+00	1.1811E+00
Z	1.0000E+00	1.0004E+00	1.0058E+00
GAME	9.6496E-01	9.3823E-01	8.9645E-01
U	3.7274E+00	1.6416E+00	1.4821E+00

SPECIES	MOLE FRACTIONS		
E-	6.9783E-30	3.4821E-18	8.3697E-14
H	1.0919E-05	8.6951E-04	1.1601E-02
H+	3.5528E-20	2.2413E-18	6.0100E-14
H2	9.4999E-01	9.4915E-01	9.3869E-01
H-	1.0353E-33	6.4057E-21	1.3902E-15
H2+	2.7932E-20	1.3106E-18	2.4987E-14
HE	5.0000E-02	4.9978E-02	4.9710E-02
HE+	5.9555E-52	7.3689E-41	2.7742E-33
HE++	0.	0.	0.

P1 = 2.00E+04 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6642E+01	1.0219E+02
T	3.8703E+00	5.1634E+00	7.0337E+00
RHO	4.5267E+00	9.0313E+00	1.4524E+01
H	3.9997E+00	5.4352E+00	7.6492E+00
A	1.9491E+00	2.2313E+00	2.5714E+00
S	1.1068E+00	1.1123E+00	1.1377E+00
Z	1.0000E+00	1.0000E+00	1.0004E+00
GAME	9.8155E-01	9.6416E-01	9.3973E-01
U	3.0256E+00	1.5135E+00	1.3707E+00

SPECIES	MOLE FRACTIONS		
E-	3.7496E-44	9.5670E-29	1.7746E-18
H	5.0116E-08	1.0537E-05	7.1153E-04
H+	2.1158E-20	3.1459E-20	1.4154E-18
H2	9.5000E-01	9.4999E-01	9.4931E-01
H-	4.1181E-49	2.5942E-32	2.1739E-20
H2+	4.2302E-20	3.2001E-20	3.1755E-19
HE	5.0000E-02	5.0000E-02	4.9982E-02
HE+	1.3262E-60	3.6845E-51	3.8997E-40
HE++	0.	0.	0.

P1 = 2.00E+04 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4848E+01	1.2528E+02	2.3476E+02
T	6.4719E+00	9.0521E+00	1.0946E+01
RHO	5.3834E+00	1.3760E+01	2.0924E+01
H	6.9681E+00	1.0443E+01	1.3913E+01
A	2.4748E+00	2.8556E+00	3.1145E+00
S	1.1797E+00	1.1929E+00	1.2232E+00
Z	1.0002E+00	1.0059E+00	1.0250E+00
GAME	9.4615E-01	8.9560E-01	8.6456E-01
U	4.4280E+00	1.7301E+00	1.5356E+00

SPECIES	MOLE FRACTIONS		
E-	1.3738E-19	6.1835E-14	1.9512E-11
H	3.9998E-04	1.1697E-02	4.8726E-02
H+	1.4079E-19	4.5387E-14	1.4953E-11
H2	9.4961E-01	9.3860E-01	9.0249E-01
H-	1.6356E-22	8.2162E-16	7.7226E-13
H2+	6.0199E-20	1.7271E-14	5.3320E-12
HE	4.9990E-02	4.9708E-02	4.8782E-02
HE+	4.2835E-45	3.8234E-33	8.5689E-28
HE++	0.	0.	0.

TABLE I.- Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5905E+01	1.8761E+02	3.2635E+02
T	7.9178E+00	1.0798E+01	1.2446E+01
RHO	5.7846E+00	1.6951E+01	2.4771E+01
H	8.8320E+00	1.3717E+01	1.7728E+01
A	2.6945E+00	3.0910E+00	3.3533E+00
S	1.2139E+00	1.2328E+00	1.2663E+00
Z	1.0023E+00	1.0249E+00	1.0586E+00
GAME	9.1485E-01	8.6331E-01	8.5349E-01
U	5.1401E+00	1.7509E+00	1.5673E+00

SPECIES	MOLE FRACTIONS		
E-	8.0462E-16	1.5510E-11	5.1212E-10
H	4.5445E-03	4.8543E-02	1.1066E-01
H+	6.1812E-16	1.2105E-11	4.0767E-10
H2	9.4557E-01	9.0267E-01	8.4211E-01
H-	3.3172E-18	5.2740E-13	3.3504E-11
H2+	1.8988E-16	3.9316E-12	1.3796E-10
HE	4.9886E-02	4.8786E-02	4.7233E-02
HE+	1.7555E-37	4.4822E-28	7.8903E-25
HE++	0.	0.	3.8735E-85

P1 = 2.00E+04 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3505E+01	3.8544E+02	6.0740E+02
T	1.0376E+01	1.3672E+01	1.5191E+01
RHO	6.8906E+00	2.5523E+01	3.4379E+01
H	1.3348E+01	2.1898E+01	2.7176E+01
A	3.0206E+00	3.5862E+00	3.8937E+00
S	1.2810E+00	1.3174E+00	1.3584E+00
Z	1.0281E+00	1.1046E+00	1.1630E+00
GAME	8.5529E-01	8.5164E-01	8.5811E-01
U	6.6395E+00	1.7909E+00	1.6591E+00

SPECIES	MOLE FRACTIONS		
E-	8.6831E-12	4.5679E-09	3.4185E-08
H	5.4641E-02	1.8933E-01	2.8029E-01
H+	7.2596E-12	3.7837E-09	2.8967E-08
H2	8.9673E-01	7.6540E-01	6.7671E-01
H-	1.5823E-13	3.8903E-10	4.2170E-09
H2+	1.5818E-12	1.1732E-09	9.4351E-09
HE	4.8634E-02	4.5267E-02	4.2993E-02
HE+	3.0807E-29	1.1711E-22	1.2716E-20
HE++	0.	3.3005E-80	1.2311E-72

P1 = 2.00E+04 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8773E+01	2.7277E+02	4.4765E+02
T	9.2522E+00	1.2300E+01	1.3833E+01
RHO	6.2850E+00	2.0948E+01	2.9285E+01
H	1.0959E+01	1.7539E+01	2.2138E+01
A	2.8654E+00	3.3310E+00	3.6109E+00
S	1.2473E+00	1.2742E+00	1.3113E+00
Z	1.0107E+00	1.0586E+00	1.1050E+00
GAME	8.7799E-01	8.5209E-01	8.5299E-01
U	5.8783E+00	1.7592E+00	1.6070E+00

SPECIES	MOLE FRACTIONS		
E-	2.5140E-13	4.3107E-10	5.4310E-09
H	2.1160E-02	1.1076E-01	1.9007E-01
H+	2.0458E-13	3.4731E-10	4.4714E-09
H2	9.2937E-01	8.4201E-01	7.6468E-01
H-	2.6912E-15	2.5070E-11	5.1128E-10
H2+	4.9502E-14	1.0883E-10	1.4709E-09
HE	4.9471E-02	4.7231E-02	4.5248E-02
HE+	2.3861E-32	5.7801E-25	2.0700E-22
HE++	0.	5.5877E-88	8.8858E-79

P1 = 2.00E+04 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.0006E+01	5.2712E+02	8.0854E+02
T	1.1332E+01	1.4982E+01	1.6572E+01
RHO	7.5383E+00	3.0313E+01	3.9613E+01
H	1.5994E+01	2.6766E+01	3.2865E+01
A	3.1766E+00	3.8591E+00	4.2063E+00
S	1.3158E+00	1.3625E+00	1.4078E+00
Z	1.0536E+00	1.1607E+00	1.2317E+00
GAME	8.4514E-01	8.5645E-01	8.6682E-01
U	7.4096E+00	1.8444E+00	1.7384E+00

SPECIES	MOLE FRACTIONS		
E-	1.0197E-10	2.8110E-08	1.5957E-07
H	1.0183E-01	2.7684E-01	3.7620E-01
H+	8.6998E-11	2.3897E-08	1.3911E-07
H2	8.5072E-01	6.8008E-01	5.8321E-01
H-	2.7082E-12	3.1607E-09	2.4126E-08
H2+	1.7682E-11	7.3733E-09	4.4591E-08
HE	4.7454E-02	4.3079E-02	4.0595E-02
HE+	8.6963E-27	7.2455E-21	4.4221E-19
HE++	0.	1.6158E-73	9.9880E-67

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0823E+02	6.9759E+02	1.0516E+03
T	1.2178E+01	1.6277E+01	1.8005E+01
RHO	8.1825E+00	3.4989E+01	4.4586E+01
H	1.8893E+01	3.2127E+01	3.9187E+01
A	3.3367E+00	4.1526E+00	4.5519E+00
S	1.3520E+00	1.4094E+00	1.4591E+00
Z	1.0861E+00	1.2256E+00	1.3100E+00
GAME	8.4177E-01	8.6442E-01	8.7848E-01
U	8.1824E+00	1.9183E+00	1.8376E+00

SPECIES	MOLE FRACTIONS		
E-	6.3056E-10	1.2443E-07	6.0761E-07
H	1.5848E-01	3.6812E-01	4.7324E-01
H+	5.4626E-10	1.0848E-07	5.4428E-07
H2	7.9549E-01	5.9108E-01	4.8859E-01
H-	2.1870E-11	1.7160E-08	1.0622E-07
H2+	1.0617E-10	3.3105E-08	1.6955E-07
HE	4.6038E-02	4.0797E-02	3.8169E-02
HE+	4.5196E-25	2.1659E-19	9.9511E-18
HE++	2.3631E-89	2.3818E-67	1.3048E-61

P1 = 2.00E+04 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4944E+02	1.1178E+03	1.6568E+03
T	1.3693E+01	1.8939E+01	2.1207E+01
RHO	9.3441E+00	4.2865E+01	5.2419E+01
H	2.5440E+01	4.4218E+01	5.3710E+01
A	3.6746E+00	4.8108E+00	5.3678E+00
S	1.4284E+00	1.5068E+00	1.5658E+00
Z	1.1679E+00	1.3770E+00	1.4904E+00
GAME	8.443CE-01	8.8746E-01	9.1162E-01
U	9.7092E+00	2.1184E+00	2.1061E+00

SPECIES	MOLE FRACTIONS		
E-	8.9974E-09	1.3714E-06	6.1972E-06
H	2.8756E-01	5.4754E-01	6.5806E-01
H+	8.0016E-09	1.2540E-06	5.8244E-06
H2	6.6963E-01	4.1614E-01	3.0838E-01
H-	4.4768E-10	2.4009E-07	1.2360E-06
H2+	1.4434E-09	3.5756E-07	1.6085E-06
HE	4.2811E-02	3.6311E-02	3.3548E-02
HE+	1.5798E-22	5.9211E-17	2.3444E-15
HE++	3.8393E-81	1.3475E-58	1.5465E-53

P1 = 2.00E+04 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2803E+02	8.9584E+02	1.3343E+03
T	1.2956E+01	1.7585E+01	1.9528E+01
RHO	8.7889E+00	3.9246E+01	4.8924E+01
H	2.2041E+01	3.7948E+01	4.6121E+01
A	3.5022E+00	4.4686E+00	4.9353E+00
S	1.3895E+00	1.4576E+00	1.5119E+00
Z	1.1243E+00	1.2980E+00	1.3966E+00
GAME	8.4198E-01	8.7478E-01	8.9313E-01
U	8.9482E+00	2.0055E+00	1.9589E+00

SPECIES	MOLE FRACTIONS		
E-	2.6828E-09	4.4478E-07	2.0171E-06
H	2.2119E-01	4.5919E-01	5.6790E-01
H+	2.3556E-09	3.9748E-07	1.8532E-06
H2	7.3434E-01	5.0229E-01	3.9630E-01
H-	1.1395E-10	7.0855E-08	3.8643E-07
H2+	4.4112E-10	1.1815E-07	5.5036E-07
HE	4.4470E-02	3.8520E-02	3.5802E-02
HE+	1.0483E-23	4.3051E-18	1.6645E-16
HE++	5.2662E-83	5.8632E-63	5.0687E-57

P1 = 2.00E+04 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7244E+02	1.3617E+03	2.0194E+03
T	1.4408E+01	2.0380E+01	2.3148E+01
RHO	9.8399E+00	4.5721E+01	5.4878E+01
H	2.9088E+01	5.0937E+01	6.2011E+01
A	3.8551E+00	5.1856E+00	5.8679E+00
S	1.4686E+00	1.5567E+00	1.6206E+00
Z	1.2164E+00	1.4614E+00	1.5897E+00
GAME	8.4806E-01	9.0288E-01	9.3574E-01
U	1.0466E+01	2.2546E+00	2.2865E+00

SPECIES	MOLE FRACTIONS		
E-	2.5609E-08	3.8696E-06	1.8639E-05
H	3.5574E-01	6.3140E-01	7.4182E-01
H+	2.3055E-08	3.6135E-06	1.7867E-05
H2	6.0316E-01	3.3438E-01	2.2668E-01
H-	1.4420E-09	7.1026E-07	3.6564E-06
H2+	3.9960E-09	9.6634E-07	4.4282E-06
HE	4.1107E-02	3.4215E-02	3.1453E-02
HE+	1.6814E-21	6.9452E-16	3.2396E-14
HE++	4.7195E-76	1.1652E-54	2.2526E-48

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9690E+02	1.6204E+03	2.4183E+03
T	1.5111E+01	2.1952E+01	2.5523E+01
RHO	1.0266E+01	4.7652E+01	5.6057E+01
H	3.2983E+01	5.8054E+01	7.1058E+01
A	4.0447E+00	5.5987E+00	6.4645E+00
S	1.5099E+00	1.6065E+00	1.6754E+00
Z	1.2693E+00	1.5490E+00	1.6903E+00
GAME	8.5295E-01	9.2180E-01	9.6868E-01
U	1.1212E+01	2.4176E+00	2.5121E+00

SPECIES	MOLE FRACTIONS		
E-	6.4467E-08	1.0295E-05	5.7651E-05
H	4.2429E-01	7.0884E-01	8.1659E-01
H+	5.8706E-08	9.7914E-06	5.6134E-05
H2	5.3632E-01	2.5886E-01	1.5370E-01
H-	3.9953E-09	1.8930E-06	1.0393E-05
H2+	9.7563E-09	2.3562E-06	1.1910E-05
HE	3.9393E-02	3.2278E-02	2.9581E-02
HE+	1.3047E-20	7.0276E-15	4.7838E-13
HE++	5.0040E-72	7.3242E-51	4.6228E-44

P1 = 2.00E+04 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5058E+02	2.1675E+03	3.3522E+03
T	1.6545E+01	2.5894E+01	3.3331E+01
RHO	1.0916E+01	4.8548E+01	5.3974E+01
H	4.1524E+01	7.3530E+01	9.2327E+01
A	4.4583E+00	6.6075E+00	8.1423E+00
S	1.5954E+00	1.7046E+00	1.7837E+00
Z	1.3874E+00	1.7242E+00	1.8634E+00
GAME	8.6591E-01	9.7788E-01	1.0674E+00
U	1.2697E+01	2.8620E+00	3.2165E+00

SPECIES	MOLE FRACTIONS		
E-	3.2868E-07	7.2720E-05	8.0685E-04
H	5.5844E-01	8.3984E-01	9.2418E-01
H+	3.0608E-07	7.1096E-05	7.9769E-04
H2	4.0552E-01	1.3099E-01	4.7190E-02
H-	2.3017E-08	1.1469E-05	8.9656E-05
H2+	4.5618E-08	1.3093E-05	9.8817E-05
HE	3.6039E-02	2.8998E-02	2.6833E-02
HE+	5.5620E-19	7.3141E-13	2.6939E-10
HE++	1.2856E-66	1.5160E-43	6.4986E-34

P1 = 2.00E+04 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2301E+02	1.8931E+03	2.8618E+03
T	1.5820E+01	2.3753E+01	2.8716E+01
RHO	1.0628E+01	4.8651E+01	5.5805E+01
H	3.7130E+01	6.5613E+01	8.1080E+01
A	4.2454E+00	6.0673E+00	7.2154E+00
S	1.5523E+00	1.6561E+00	1.7301E+00
Z	1.3264E+00	1.6382E+00	1.7859E+00
GAME	8.5888E-01	9.4605E-01	1.0152E+00
U	1.1959E+01	2.6143E+00	2.8060E+00

SPECIES	MOLE FRACTIONS		
E-	1.5012E-07	2.7114E-05	1.9943E-04
H	4.9216E-01	7.7905E-01	8.7947E-01
H+	1.3828E-07	2.6191E-05	1.9626E-04
H2	4.7014E-01	1.9036E-01	9.2075E-02
H-	9.9962E-09	4.7545E-06	3.0060E-05
H2+	2.1840E-08	5.6774E-06	3.3225E-05
HE	3.7696E-02	3.0522E-02	2.7998E-02
HE+	9.2080E-20	7.0131E-14	9.3793E-12
HE++	1.7189E-69	3.9810E-47	3.0419E-39

P1 = 2.00E+04 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7962E+02	2.4376E+03	3.8805E+03
T	1.7301E+01	2.8580E+01	3.9450E+01
RHO	1.1132E+01	4.7368E+01	5.1457E+01
H	4.6167E+01	8.1790E+01	1.0467E+02
A	4.6861E+00	7.2437E+00	9.0015E+00
S	1.6393E+00	1.7513E+00	1.8335E+00
Z	1.4518E+00	1.8013E+00	1.9116E+00
GAME	8.7423E-01	1.0192E+00	1.0745E+00
U	1.3429E+01	3.1632E+00	3.7008E+00

SPECIES	MOLE FRACTIONS		
E-	6.9146E-07	2.0661E-04	3.1820E-03
H	6.2243E-01	8.8906E-01	9.4398E-01
H+	6.5073E-07	2.0366E-04	3.1443E-03
H2	3.4313E-01	8.2717E-02	2.3017E-02
H-	4.9895E-08	2.7266E-05	2.3953E-04
H2+	9.0617E-08	3.0219E-05	2.7725E-04
HE	3.4439E-02	2.7757E-02	2.6157E-02
HE+	3.0900E-18	8.8978E-12	7.3230E-09
HE++	4.6014E-64	2.2806E-39	1.0455E-28

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1010E+02	2.6915E+03	4.4149E+03
T	1.8107E+01	3.2029E+01	4.5764E+01
RHO	1.1273E+01	4.5134E+01	4.9700E+01
H	5.1056E+01	9.0332E+01	1.1748E+02
A	4.9320E+00	7.9614E+00	9.5529E+00
S	1.6836E+00	1.7953E+00	1.8772E+00
Z	1.5192E+00	1.8618E+00	1.9411E+00
GAME	8.8424E-01	1.0629E+00	1.0273E+00
U	1.4153E+01	3.5382E+00	4.1438E+00

SPECIES	MOLE FRACTIONS		
E-	1.4263E-06	6.2112E-04	9.0042E-03
H	6.8354E-01	9.2387E-01	9.4227E-01
H+	1.3561E-06	6.1478E-04	8.8806E-03
H2	2.8354E-01	4.7905E-02	1.3003E-02
H-	1.0378E-07	6.3408E-05	4.7908E-04
H2+	1.7399E-07	6.9747E-05	6.0256E-04
HE	3.2911E-02	2.6855E-02	2.5759E-02
HE+	1.6823E-17	1.2380E-10	9.0314E-08
HE++	5.0707E-61	3.3792E-35	9.1104E-25

P1 = 2.00E+04 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7513E+02	3.1365E+03	5.4022E+03
T	1.9988E+01	4.0896E+01	5.5851E+01
RHO	1.1309E+01	3.9777E+01	4.8565E+01
H	6.1571E+01	1.0820E+02	1.4309E+02
A	5.5024E+00	9.1586E+00	1.0236E+01
S	1.7727E+00	1.8737E+00	1.9512E+00
Z	1.6596E+00	1.9281E+00	1.9916E+00
GAME	9.1271E-01	1.0638E+00	9.4190E-01
U	1.5573E+01	4.4222E+00	4.7270E+00

SPECIES	MOLE FRACTIONS		
E-	6.1492E-06	4.6914E-03	2.8855E-02
H	7.9488E-01	9.4844E-01	9.0873E-01
H+	5.9586E-06	4.6454E-03	2.8390E-02
H2	1.7497E-01	1.5737E-02	6.5084E-03
H-	4.2268E-07	2.5534E-04	9.7299E-04
H2+	6.1329E-07	3.0134E-04	1.4366E-03
HE	3.0127E-02	2.5932E-02	2.5103E-02
HE+	5.3002E-16	1.5625E-08	1.5748E-06
HE++	2.3568E-55	1.3559E-27	2.6897E-20

P1 = 2.00E+04 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4196E+02	2.9246E+03	4.9267E+03
T	1.8989E+01	3.6265E+01	5.1238E+01
RHO	1.1334E+01	4.2394E+01	4.8902E+01
H	5.6192E+01	9.9132E+01	1.3028E+02
A	5.2013E+00	8.6449E+00	9.9249E+00
S	1.7282E+00	1.8361E+00	1.9157E+00
Z	1.5889E+00	1.9023E+00	1.9662E+00
GAME	8.9666E-01	1.0833E+00	9.7775E-01
U	1.4868E+01	3.9695E+00	4.4788E+00

SPECIES	MOLE FRACTIONS		
E-	2.9341E-06	1.8339E-03	1.7988E-02
H	7.4123E-01	9.4301E-01	9.2839E-01
H+	2.8170E-06	1.8169E-03	1.7715E-02
H2	2.2730E-01	2.6769E-02	8.7277E-03
H-	2.1035E-07	1.3689E-04	7.3881E-04
H2+	3.2741E-07	1.5392E-04	1.0114E-03
HE	3.1469E-02	2.6284E-02	2.5429E-02
HE+	9.1961E-17	1.6526E-09	4.8841E-07
HE++	3.5400E-58	4.1046E-31	3.9816E-22

P1 = 2.00E+04 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0947E+02	3.3371E+03	5.8274E+03
T	2.1168E+01	4.5478E+01	5.9820E+01
RHO	1.1183E+01	3.7658E+01	4.8271E+01
H	6.7191E+01	1.1766E+02	1.5599E+02
A	5.8499E+00	9.5205E+00	1.0522E+01
S	1.8168E+00	1.9093E+00	1.9854E+00
Z	1.7297E+00	1.9486E+00	2.0181E+00
GAME	9.3463E-01	1.0228E+00	9.1703E-01
U	1.6263E+01	4.8160E+00	4.9209E+00

SPECIES	MOLE FRACTIONS		
E-	1.3510E-05	9.9021E-03	4.0710E-02
H	8.4371E-01	9.4359E-01	8.8635E-01
H+	1.3203E-05	9.7977E-03	4.0032E-02
H2	1.2736E-01	1.0134E-02	5.1311E-03
H-	8.5950E-07	4.0677E-04	1.1661E-03
H2+	1.1656E-06	5.1107E-04	1.8399E-03
HE	2.8906E-02	2.5660E-02	2.4772E-02
HE+	3.4749E-15	9.3482E-08	3.7510E-06
HE++	2.5549E-52	8.3797E-25	6.0805E-19

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4479E+02	3.5190E+03	6.1668E+03
T	2.2638E+01	4.9609E+01	6.3224E+01
RHO	1.0938E+01	3.6036E+01	4.7699E+01
H	7.3046E+01	1.2751E+02	1.6869E+02
A	6.2682E+00	9.8011E+00	1.0786E+01
S	1.8599E+00	1.9429E+00	2.0185E+00
Z	1.7962E+00	1.9684E+00	2.0449E+00
GAME	9.6624E-01	9.8373E-01	8.9979E-01
U	1.6933E+01	5.1301E+00	5.0360E+00

SPECIES	MOLE FRACTIONS		
E-	3.2261E-05	1.7276E-02	5.2775E-02
H	8.8645E-01	9.3175E-01	8.6321E-01
H+	3.1772E-05	1.7C85E-02	5.1889E-02
H2	8.5649E-02	7.1729E-03	4.1769E-03
H-	1.8115E-06	5.6257E-04	1.3092E-03
H2+	2.3009E-06	7.5324E-04	2.1873E-03
HE	2.7836E-02	2.5401E-02	2.4444E-02
HE+	2.8217E-14	3.5659E-07	7.2897E-06
HE++	6.0241E-49	1.0175E-22	6.5808E-18

P1 = 2.00E+04 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1695E+02	3.7612E+03	6.5026E+03
T	2.7192E+01	5.6584E+01	6.8920E+01
RHO	1.0018E+01	3.3012E+01	4.4900E+01
H	8.5414E+01	1.4816E+02	1.9408E+02
A	7.4202E+00	1.0294E+01	1.1277E+01
S	1.9404E+00	2.0099E+00	2.0861E+00
Z	1.8976E+00	2.0135E+00	2.1013E+00
GAME	1.0670E+00	9.3003E-01	8.7814E-01
U	1.8172E+01	5.4990E+00	5.2096E+00

SPECIES	MOLE FRACTIONS		
E-	2.7045E-04	3.6969E-02	7.7520E-02
H	9.4522E-01	8.9541E-01	8.1545E-01
H+	2.6914E-04	3.6554E-02	7.6282E-02
H2	2.7869E-02	4.1827E-03	2.8330E-03
H-	9.6003E-06	8.2123E-04	1.4531E-03
H2+	1.0911E-05	1.2337E-03	2.6710E-03
HE	2.6349E-02	2.4830E-02	2.3775E-02
HE+	4.9073E-12	2.2488E-06	1.9670E-05
HE++	8.8719E-41	7.2437E-20	2.2228E-16

P1 = 2.00E+04 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.8077E+02	3.6679E+03	6.4011E+03
T	2.4576E+01	5.3327E+01	6.6251E+01
RHO	1.0550E+01	3.4563E+01	4.6614E+01
H	7.9126E+01	1.3773E+02	1.8146E+02
A	6.7909E+00	1.0055E+01	1.1038E+01
S	1.9014E+00	1.9764E+00	2.0521E+00
Z	1.8542E+00	1.99C1E+00	2.0727E+00
GAME	1.0120E+00	9.5274E-01	8.8723E-01
U	1.7574E+01	5.3463E+00	5.1337E+00

SPECIES	MOLE FRACTIONS		
E-	8.7307E-05	2.6519E-02	6.5118E-02
H	9.2110E-01	9.1505E-01	8.3941E-01
H+	8.6519E-05	2.6220E-02	6.4040E-02
H2	5.1749E-02	5.3747E-03	3.4352E-03
H-	4.0530E-06	7.0589E-04	1.4050E-03
H2+	4.8409E-06	1.0041E-03	2.4699E-03
HE	2.6966E-02	2.5124E-02	2.4110E-02
HE+	3.1374E-13	1.0048E-06	1.2542E-05
HE++	3.7806E-45	4.1246E-21	4.5407E-17

P1 = 2.00E+04 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5355E+02	3.8127E+03	6.5056E+03
T	3.0576E+01	5.9487E+01	7.1331E+01
RHO	9.4069E+00	3.1437E+01	4.2800E+01
H	9.1915E+01	1.5883E+02	2.0668E+02
A	8.0511E+00	1.0525E+01	1.1509E+01
S	1.9769E+00	2.0437E+00	2.1206E+00
Z	1.9245E+00	2.0387E+00	2.1309E+00
GAME	1.1015E+00	9.1336E-01	8.7146E-01
U	1.8740E+01	5.5931E+00	5.2700E+00

SPECIES	MOLE FRACTIONS		
E-	8.8763E-04	4.8294E-02	9.0037E-02
H	9.5811E-01	8.7374E-01	7.9123E-01
H+	8.8516E-04	4.7765E-02	8.8671E-02
H2	1.4091E-02	3.3325E-03	2.3365E-03
H-	2.2663E-05	9.0794E-04	1.4638E-03
H2+	2.5138E-05	1.4327E-03	2.8007E-03
HE	2.5980E-02	2.4521E-02	2.3435E-02
HE+	8.8508E-11	4.3151E-06	2.8968E-05
HE++	3.2059E-36	7.2992E-19	8.6108E-16

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.9117E+02	3.8885E+03	6.5466E+03
T	3.4208E+01	6.2175E+01	7.3653E+01
RHO	8.9096E+00	3.0282E+01	4.1130E+01
H	9.8641E+01	1.6985E+02	2.1956E+02
A	8.5114E+00	1.0755E+01	1.1742E+01
S	2.0085E+00	2.0762E+00	2.1541E+00
Z	1.9396E+00	2.0653E+00	2.1611E+00
GAME	1.0918E+00	9.0080E-01	8.6620E-01
U	1.9301E+01	5.6660E+00	5.3263E+00

SPECIES	MOLE FRACTIONS		
E-	2.4668E-03	6.0150E-02	1.0253E-01
H	9.6143E-01	8.5082E-01	7.6697E-01
H+	2.4615E-03	5.9505E-02	1.0105E-01
H2	7.7612E-03	2.7256E-03	1.9478E-03
H-	4.6084E-05	9.7767E-04	1.4617E-03
H2+	5.1465E-05	1.6147E-03	2.9046E-03
HE	2.5778E-02	2.4203E-02	2.3095E-02
HE+	1.0644E-09	7.4731E-06	4.1051E-05
HE++	2.5580E-32	5.1339E-18	2.9235E-15

P1 = 2.00E+04 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7184E+02	4.1638E+03	6.8359E+03
T	4.1405E+01	6.7280E+01	7.8378E+01
RHO	8.2563E+00	2.9161E+01	3.9212E+01
H	1.1286E+02	1.9355E+02	2.4725E+02
A	9.0790E+00	1.1229E+01	1.2232E+01
S	2.0669E+00	2.1384E+00	2.2187E+00
Z	1.9653E+00	2.1223E+00	2.2242E+00
GAME	1.0130E+00	8.8305E-01	8.5825E-01
U	2.0477E+01	5.7884E+00	5.4512E+00

SPECIES	MOLE FRACTIONS		
E-	1.1103E-02	8.5048E-02	1.2775E-01
H	9.4892E-01	8.0227E-01	7.1783E-01
H+	1.1078E-02	8.4161E-02	1.2603E-01
H2	3.1791E-03	1.9251E-03	1.3835E-03
H-	1.2445E-04	1.0857E-03	1.4401E-03
H2+	1.4896E-04	1.9535E-03	3.0820E-03
HE	2.5442E-02	2.3541E-02	2.2402E-02
HE+	4.1528E-08	1.8654E-05	7.7630E-05
HE++	1.3820E-26	1.3421E-16	2.7771E-14

P1 = 2.00E+04 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.3045E+02	3.9947E+03	6.6358E+03
T	3.7970E+01	6.4745E+01	7.5970E+01
RHO	8.5059E+00	2.9475E+01	3.9843E+01
H	1.0562E+02	1.8139E+02	2.3301E+02
A	8.8375E+00	1.0989E+01	1.1981E+01
S	2.0390E+00	2.1079E+00	2.1869E+00
Z	1.9520E+00	2.0932E+00	2.1923E+00
GAME	1.0537E+00	8.9099E-01	8.6193E-01
U	1.9876E+01	5.7249E+00	5.3843E+00

SPECIES	MOLE FRACTIONS		
E-	5.8172E-03	7.2476E-02	1.1515E-01
H	9.5791E-01	8.2684E-01	7.4242E-01
H+	5.8049E-03	7.1714E-02	1.1355E-01
H2	4.6756E-03	2.2692E-03	1.6335E-03
H-	8.1766E-05	1.0345E-03	1.4506E-03
H2+	9.4060E-05	1.7843E-03	2.9910E-03
HE	2.5614E-02	2.3875E-02	2.2750E-02
HE+	8.57C1E-09	1.2093E-05	5.6831E-05
HE++	4.6674E-29	2.8433E-17	9.1775E-15

P1 = 2.00E+04 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.6180E+02	4.6687E+03	7.5147E+03
T	4.7304E+01	7.2368E+01	8.3546E+01
RHO	8.0554E+00	2.9547E+01	3.9267E+01
H	1.2818E+02	2.1996E+02	2.7842E+02
A	9.5025E+00	1.1731E+01	1.2772E+01
S	2.1189E+00	2.1970E+00	2.2806E+00
Z	1.9992E+00	2.1834E+00	2.2906E+00
GAME	9.5482E-01	8.7050E-01	8.5239E-01
U	2.1771E+01	5.9296E+00	5.6106E+00

SPECIES	MOLE FRACTIONS		
E-	2.6741E-02	1.1062E-01	1.5296E-01
H	9.1923E-01	7.5212E-01	6.6858E-01
H+	2.6675E-02	1.0947E-01	1.5097E-01
H2	1.8486E-03	1.4319E-03	1.0023E-03
H-	2.1583E-04	1.1696E-03	1.4099E-03
H2+	2.8108E-04	2.2863E-03	3.2544E-03
HE	2.5010E-02	2.2860E-02	2.1687E-02
HE+	3.6549E-07	4.0203E-05	1.4100E-04
HE++	3.4900E-23	2.1439E-15	2.3653E-13

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, USI = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.6013E+02	5.3418E+03	8.4621E+03
T	5.2182E+01	7.7500E+01	8.9145E+01
RHO	8.0722E+00	3.0670E+01	4.0226E+01
H	1.4458E+02	2.4885E+02	3.1274E+02
A	9.9176E+00	1.2255E+01	1.3362E+01
S	2.1682E+00	2.2541E+00	2.3414E+00
Z	2.0420E+00	2.2474E+00	2.3598E+00
GAME	9.2308E-01	8.6234E-01	8.4869E-01
U	2.3139E+01	6.0763E+00	5.8032E+00

SPECIES	MOLE FRACTIONS		
E-	4.6738E-02	1.3599E-01	1.7773E-01
H	8.8017E-01	7.0233E-01	6.2018E-01
H+	4.6614E-02	1.3455E-01	1.7547E-01
H2	1.2719E-03	1.0845E-03	7.2029E-04
H-	3.0020E-04	1.2185E-03	1.3526E-03
H2+	4.2268E-04	2.5808E-03	3.3612E-03
HE	2.4485E-02	2.2170E-02	2.0941E-02
HE+	1.5179E-06	7.8319E-05	2.4713E-04
HE++	6.0111E-21	2.4162E-14	1.8115E-12

P1 = 2.00E+04 N/SQ-M, USI = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0793E+03	7.0289E+03	1.0936E+04
T	6.0230E+01	8.8098E+01	1.0194E+02
RHO	8.3554E+00	3.3509E+01	4.2801E+01
H	1.8054E+02	3.1293E+02	3.9025E+02
A	1.0744E+01	1.3378E+01	1.4724E+01
S	2.2637E+00	2.3668E+00	2.4623E+00
Z	2.1446E+00	2.3810E+00	2.5065E+00
GAME	8.9366E-01	8.5325E-01	8.4847E-01
U	2.5984E+01	6.4960E+00	6.3017E+00

SPECIES	MOLE FRACTIONS		
E-	9.2164E-02	1.8455E-01	2.2560E-01
H	7.9078E-01	6.0715E-01	5.2691E-01
H+	9.1893E-02	1.8257E-01	2.2282E-01
H2	7.3707E-04	6.0649E-04	3.3711E-04
H-	4.2700E-04	1.1926E-03	1.1515E-03
H2+	6.8785E-04	2.9311E-03	3.2380E-03
HE	2.3305E-02	2.0756E-02	1.9254E-02
HE+	9.5382E-06	2.4357E-04	6.9419E-04
HE++	4.7677E-18	1.5183E-12	8.3808E-11

P1 = 2.00E+04 N/SQ-M, USI = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6613E+02	6.1364E+03	9.6131E+03
T	5.6411E+01	8.2718E+01	9.5234E+01
RHO	8.1905E+00	3.2068E+01	4.1512E+01
H	1.6204E+02	2.7989E+02	3.5004E+02
A	1.0332E+01	1.2803E+01	1.4008E+01
S	2.2162E+00	2.3106E+00	2.4019E+00
Z	2.0910E+00	2.3133E+00	2.4317E+00
GAME	9.0492E-01	8.5657E-01	8.4730E-01
U	2.4550E+01	6.2646E+00	6.0311E+00

SPECIES	MOLE FRACTIONS		
E-	6.8956E-02	1.6068E-01	2.0194E-01
H	8.3649E-01	6.5389E-01	5.7294E-01
H+	6.8762E-02	1.5857E-01	1.9942E-01
H2	9.4883E-04	8.1814E-04	5.0337E-04
H-	3.7110E-04	1.2257E-03	1.2640E-03
H2+	5.6058E-04	2.8030E-03	3.3620E-03
HE	2.3907E-02	2.1472E-02	2.0142E-02
HE+	4.2594E-06	1.4181E-04	4.2016E-04
HE++	2.5388E-19	2.1024E-13	1.2723E-11

P1 = 2.00E+04 N/SQ-M, USI = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1993E+03	8.0248E+03	1.2420E+04
T	6.3785E+01	9.3716E+01	1.0946E+02
RHO	8.5404E+00	3.4923E+01	4.3898E+01
H	2.0006E+02	3.4803E+02	4.3349E+02
A	1.1156E+01	1.3994E+01	1.5531E+01
S	2.3109E+00	2.4229E+00	2.5227E+00
Z	2.2015E+00	2.4504E+00	2.5848E+00
GAME	8.8628E-01	8.5222E-01	8.5258E-01
U	2.7432E+01	6.7146E+00	6.6261E+00

SPECIES	MOLE FRACTIONS		
E-	1.1564E-01	2.0761E-01	2.4878E-01
H	7.4450E-01	5.6209E-01	4.8193E-01
H+	1.1529E-01	2.0538E-01	2.4571E-01
H2	5.8443E-04	4.3751E-04	2.1369E-04
H-	4.6792E-04	1.1267E-03	1.0288E-03
H2+	8.0018E-04	2.9577E-03	2.9907E-03
HE	2.2693E-02	2.0002E-02	1.8234E-02
HE+	1.8529E-05	4.0306E-04	1.1106E-03
HE++	5.3713E-17	9.7046E-12	5.2804E-10

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3257E+03	9.0846E+03	1.4049E+04
T	6.7182E+01	9.9796E+01	1.1804E+02
RHO	8.7259E+00	3.6162E+01	4.4632E+01
H	2.2059E+02	3.8485E+02	4.7986E+02
A	1.1572E+01	1.4656E+01	1.6456E+01
S	2.3584E+00	2.4786E+00	2.5829E+00
Z	2.2614E+00	2.5215E+00	2.6668E+00
GAME	8.8134E-01	8.5363E-01	8.6033E-01
U	2.8883E+01	6.9902E+00	7.0183E+00

SPECIES	MOLE FRACTIONS		
E-	1.3908E-01	2.2983E-01	2.7156E-01
H	6.9830E-01	5.1877E-01	4.3788E-01
H+	1.3865E-01	2.2735E-01	2.6813E-01
H2	4.6696E-04	3.0479E-04	1.2690E-04
H-	4.9438E-04	1.0363E-03	9.1200E-04
H2+	8.9463E-04	2.8744E-03	2.6388E-03
HE	2.2077E-02	1.9186E-02	1.7049E-02
HE+	3.2792E-05	6.4390E-04	1.7001E-03
HE++	4.3141E-16	5.5937E-11	3.1941E-09

P1 = 2.00E+04 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5979E+03	1.1374E+04	1.7773E+04
T	7.3737E+01	1.1341E+02	1.3983E+02
RHO	9.0742E+00	3.7574E+01	4.4701E+01
H	2.6466E+02	4.6367E+02	5.8358E+02
A	1.2423E+01	1.6178E+01	1.8812E+01
S	2.4538E+00	2.5881E+00	2.7013E+00
Z	2.3880E+00	2.6694E+00	2.8435E+00
GAME	8.7641E-01	8.6453E-01	8.9006E-01
U	3.1789E+01	7.6870E+00	8.0881E+00

SPECIES	MOLE FRACTIONS		
E-	1.8475E-01	2.7205E-01	3.1604E-01
H	6.0833E-01	4.3685E-01	3.5209E-01
H+	1.8415E-01	2.6898E-01	3.1172E-01
H2	2.9771E-04	1.3036E-04	3.5695E-05
H-	5.0792E-04	8.3246E-04	7.4565E-04
H2+	1.0222E-03	2.4314E-03	1.7754E-03
HE	2.0852E-02	1.7253E-02	1.4289E-02
HE+	8.5770E-05	1.4780E-03	3.2942E-03
HE++	1.4389E-14	1.4964E-09	1.0325E-07

P1 = 2.00E+04 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4586E+03	1.0207E+04	1.5834E+04
T	7.0480E+01	1.0630E+02	1.2802E+02
RHO	8.9065E+00	3.7010E+01	4.4927E+01
H	2.4212E+02	4.2343E+02	5.2977E+02
A	1.1993E+01	1.5380E+01	1.7537E+01
S	2.4060E+00	2.5337E+00	2.6425E+00
Z	2.3237E+00	2.5945E+00	2.7530E+00
GAME	8.7816E-01	8.5762E-01	8.7263E-01
U	3.0337E+01	7.3112E+00	7.4982E+00

SPECIES	MOLE FRACTIONS		
E-	1.6216E-01	2.5130E-01	2.9398E-01
H	6.5283E-01	4.7705E-01	3.9464E-01
H+	1.6164E-01	2.4855E-01	2.9012E-01
H2	3.7364E-04	2.0384E-04	7.0024E-05
H-	5.0735E-04	9.3423E-04	8.1536E-04
H2+	9.6910E-04	2.6628E-03	2.2191E-03
HE	2.1463E-02	1.8277E-02	1.5709E-02
HE+	5.4302E-05	9.9483E-04	2.4526E-03
HE++	2.7185E-15	2.9919E-10	1.8568E-08

P1 = 2.00E+04 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7432E+03	1.2569E+04	1.9889E+04
T	7.6996E+01	1.2121E+02	1.5426E+02
RHO	9.2245E+00	3.7766E+01	4.3850E+01
H	2.8820E+02	5.0544E+02	6.4232E+02
A	1.2866E+01	1.7063E+01	2.0342E+01
S	2.5018E+00	2.6410E+00	2.7605E+00
Z	2.4544E+00	2.7457E+00	2.9403E+00
GAME	8.7593E-01	8.7478E-01	9.1234E-01
U	3.3237E+01	8.1283E+00	8.8506E+00

SPECIES	MOLE FRACTIONS		
E-	2.0678E-01	2.9200E-01	3.3816E-01
H	5.6496E-01	3.9832E-01	3.0940E-01
H+	2.0610E-01	2.8853E-01	3.3337E-01
H2	2.3524E-04	7.9757E-05	1.6534E-05
H-	4.9740E-04	7.4150E-04	6.9821E-04
H2+	1.0531E-03	2.1191E-03	1.3434E-03
HE	2.0241E-02	1.6119E-02	1.2868E-02
HE+	1.3088E-04	2.0909E-03	4.1365E-03
HE++	6.7025E-14	6.9580E-09	5.6528E-07

TABLE I.- Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8946E+03	1.3759E+04	2.2171E+04
T	8.0298E+01	1.2991E+02	1.7137E+02
RHO	9.3536E+00	3.7498E+01	4.2588E+01
H	3.1274E+02	5.4856E+02	7.0605E+02
A	1.3326E+01	1.8061E+01	2.2073E+01
S	2.5499E+00	2.6931E+00	2.8176E+00
Z	2.5225E+00	2.8245E+00	3.0379E+00
GAME	8.7670E-01	8.8903E-01	9.3592E-01
U	3.4680E+01	8.6699E+00	9.7722E+00

SPECIES	MOLE FRACTIONS		
E-	2.2819E-01	3.1143E-01	3.5909E-01
H	5.2285E-01	3.6087E-01	2.6891E-01
H+	2.2741E-01	3.0751E-01	3.5389E-01
H2	1.8368E-04	4.6372E-05	7.2544E-06
H-	4.7728E-04	6.6503E-04	6.6500E-04
H2+	1.0618E-03	1.7796E-03	9.7879E-04
HE	1.9627E-02	1.4897E-02	1.1576E-02
HE+	1.9469E-04	2.8055E-03	4.8798E-03
HE++	2.8393E-13	3.0404E-08	2.8571E-06

P1 = 2.00E+04 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2147E+03	1.6102E+04	2.7120E+04
T	8.7184E+01	1.5033E+02	2.1310E+02
RHO	9.5368E+00	3.5902E+01	3.9516E+01
H	3.6477E+02	6.3879E+02	8.4688E+02
A	1.4313E+01	2.0400E+01	2.5869E+01
S	2.6462E+00	2.7917E+00	2.9238E+00
Z	2.6636E+00	2.9835E+00	3.2205E+00
GAME	8.8220E-01	9.2786E-01	9.7510E-01
U	3.7539E+01	9.9530E+00	1.1932E+01

SPECIES	MOLE FRACTIONS		
E-	2.6904E-01	3.4798E-01	3.9501E-01
H	4.4263E-01	2.9122E-01	1.9944E-01
H+	2.6803E-01	3.4272E-01	3.8893E-01
H2	1.0665E-04	1.3958E-05	1.3915E-06
H-	4.1485E-04	5.6087E-04	5.8878E-04
H2+	1.0149E-03	1.1470E-03	5.0099E-04
HE	1.8362E-02	1.2493E-02	9.4023E-03
HE+	4.0902E-04	4.2655E-03	6.0729E-03
HE++	4.2096E-12	4.5982E-07	5.0120E-05

P1 = 2.00E+04 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0518E+03	1.4959E+04	2.4576E+04
T	8.3680E+01	1.3958E+02	1.9099E+02
RHO	9.4586E+00	3.6912E+01	4.1083E+01
H	3.3826E+02	5.9318E+02	7.7385E+02
A	1.3807E+01	1.9171E+01	2.3931E+01
S	2.5980E+00	2.7431E+00	2.8719E+00
Z	2.5923E+00	2.9035E+00	3.1321E+00
GAME	8.7876E-01	9.0690E-01	9.5739E-01
U	3.6114E+01	9.2437E+00	1.0776E+01

SPECIES	MOLE FRACTIONS		
E-	2.4895E-01	3.2988E-01	3.7811E-01
H	4.8205E-01	3.2534E-01	2.3209E-01
H+	2.4807E-01	3.2548E-01	3.7250E-01
H2	1.4125E-04	2.5949E-05	3.1496E-06
H-	4.4918E-04	6.0652E-04	6.3140E-04
H2+	1.0486E-03	1.4505E-03	7.0094E-04
HE	1.9004E-02	1.3671E-02	1.0437E-02
HE+	2.8420E-04	3.5494E-03	5.5138E-03
HE++	1.1212E-12	1.2266E-07	1.2779E-05

P1 = 2.00E+04 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3831E+03	1.7174E+04	2.9714E+04
T	9.0852E+01	1.6218E+02	2.3656E+02
RHO	9.5859E+00	3.4570E+01	3.8078E+01
H	3.9226E+02	6.8529E+02	9.2304E+02
A	1.4851E+01	2.1727E+01	2.7766E+01
S	2.6942E+00	2.8387E+00	2.9714E+00
Z	2.7364E+00	3.0630E+00	3.2987E+00
GAME	8.8716E-01	9.5029E-01	9.8796E-01
U	3.8953E+01	1.0785E+01	1.3098E+01

SPECIES	MOLE FRACTIONS		
E-	2.8842E-01	3.6427E-01	4.0922E-01
H	4.0463E-01	2.5900E-01	1.7220E-01
H+	2.8725E-01	3.5899E-01	4.0252E-01
H2	7.8801E-05	7.3132E-06	6.5883E-07
H-	3.7616E-04	5.2185E-04	5.3867E-04
H2+	9.6239E-04	8.8604E-04	3.6638E-04
HE	1.7690E-02	1.1407E-02	8.4459E-03
HE+	5.8220E-04	4.9156E-03	6.5491E-03
HE++	1.5250E-11	1.5934E-06	1.6294E-04

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5568E+03	1.8193E+04	3.2366E+04
T	9.4730E+01	1.7466E+02	2.6192E+02
RHO	9.6041E+00	3.3208E+01	3.6663E+01
H	4.2072E+02	7.3285E+02	1.0034E+03
A	1.5426E+01	2.3068E+01	2.9670E+01
S	2.7420E+00	2.8819E+00	3.0176E+00
Z	2.8104E+00	3.1367E+00	3.3705E+00
GAME	8.9378E-01	9.7132E-01	9.9719E-01
U	4.0353E+01	1.1662E+01	1.4344E+01

SPECIES	MOLE FRACTIONS		
E-	3.0709E-01	3.7901E-01	4.2172E-01
H	3.6813E-01	2.3054E-01	1.4862E-01
H+	3.0571E-01	3.7334E-01	4.1408E-01
H2	5.6793E-05	3.8991E-06	3.2588E-07
H-	3.3499E-04	4.8830E-04	4.8116E-04
H2+	8.9367E-04	6.8340E-04	2.7148E-04
HE	1.6970E-02	1.0467E-02	7.4431E-03
HE+	8.2092E-04	5.4689E-03	6.9316E-03
HE++	5.3930E-11	4.8851E-06	4.5998E-04

P1 = 2.00E+04 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9193E+03	1.9979E+04	3.7453E+04
T	1.0334E+02	2.0237E+02	3.1343E+02
RHO	9.5417E+00	3.0133E+01	3.4251E+01
H	4.8054E+02	8.3032E+02	1.1686E+03
A	1.6712E+01	2.5860E+01	3.3184E+01
S	2.8364E+00	2.9649E+00	3.1001E+00
Z	2.9607E+00	3.2749E+00	3.4888E+00
GAME	9.1282E-01	1.0090E+00	1.0070E+00
U	4.3103E+01	1.3621E+01	1.6608E+01

SPECIES	MOLE FRACTIONS		
E-	3.4213E-01	4.0497E-01	4.4123E-01
H	2.9990E-01	1.8047E-01	1.1364E-01
H+	3.4008E-01	3.9848E-01	4.3026E-01
H2	2.7032E-05	1.1144E-06	1.0041E-07
H-	2.5267E-04	4.1428E-04	3.7228E-04
H2+	7.2127E-04	3.9789E-04	1.6282E-04
HE	1.5305E-02	8.8029E-03	5.2400E-03
HE+	1.5828E-03	6.4279E-03	7.0046E-03
HE++	6.4572E-10	3.6675E-05	2.0870E-03

P1 = 2.00E+04 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7357E+03	1.9125E+04	3.4934E+04
T	9.8872E+01	1.8869E+02	2.8746E+02
RHO	9.5897E+00	3.1699E+01	3.5402E+01
H	4.5015E+02	7.8120E+02	1.0846E+03
A	1.6043E+01	2.4454E+01	3.1459E+01
S	2.7894E+00	2.9240E+00	3.0600E+00
Z	2.8853E+00	3.2077E+00	3.4328E+00
GAME	9.0227E-01	9.9113E-01	1.0029E+00
U	4.1737E+01	1.2618E+01	1.5472E+01

SPECIES	MOLE FRACTIONS		
E-	3.2500E-01	3.9261E-01	4.3216E-01
H	3.3318E-01	2.0428E-01	1.2951E-01
H+	3.2334E-01	3.8654E-01	4.2313E-01
H2	3.9798E-05	2.0749E-06	1.7534E-07
H-	2.9324E-04	4.5270E-04	4.2502E-04
H2+	8.1202E-04	5.2224E-04	2.0775E-04
HE	1.6183E-02	9.6044E-03	6.3868E-03
HE+	1.1465E-03	5.9692E-03	7.1126E-03
HE++	1.8766E-10	1.3908E-05	1.0660E-03

P1 = 2.00E+04 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.1075E+03	2.0699E+04	3.9855E+04
T	1.0819E+02	2.1694E+02	3.3956E+02
RHO	9.4596E+00	2.8601E+01	3.3161E+01
H	5.1188E+02	8.7993E+02	1.2543E+03
A	1.7438E+01	2.7228E+01	3.4864E+01
S	2.8826E+00	3.0037E+00	3.1382E+00
Z	3.0363E+00	3.3361E+00	3.5395E+00
GAME	9.2573E-01	1.0243E+00	1.0113E+00
U	4.4448E+01	1.4695E+01	1.7704E+01

SPECIES	MOLE FRACTIONS		
E-	3.5842E-01	4.1580E-01	4.4920E-01
H	2.6840E-01	1.5968E-01	1.0036E-01
H+	3.5586E-01	4.0885E-01	4.3586E-01
H2	1.7749E-05	6.1862E-07	6.0664E-08
H-	2.1482E-04	3.7466E-04	3.2411E-04
H2+	6.2571E-04	3.0579E-04	1.3023E-04
HE	1.4316E-02	8.0618E-03	4.0702E-03
HE+	2.1514E-03	6.8383E-03	6.5722E-03
HE++	2.2001E-09	8.7348E-05	3.4839E-03

TABLE I. - Continued

$p_1 = 20\ kN/m^2$

P1 = 2.00E+04 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2995E+03	2.1368E+04	4.2112E+04
T	1.1351E+02	2.3189E+02	3.6581E+02
RHO	9.3427E+00	2.7169E+01	3.2108E+01
H	5.4414E+02	9.3057E+02	1.3419E+03
A	1.8233E+01	2.8558E+01	3.6519E+01
S	2.9281E+00	3.0406E+00	3.1744E+00
Z	3.1114E+00	3.3917E+00	3.5853E+00
GAME	9.4132E-01	1.0369E+00	1.0169E+00
U	4.5765E+01	1.5714E+01	1.8787E+01

SPECIES	MOLE FRACTIONS		
E-	3.7361E-01	4.2530E-01	4.5622E-01
H	2.3880E-01	1.4157E-01	8.9071E-02
H+	3.7060E-01	4.1782E-01	4.4038E-01
H2	1.1240E-05	3.5434E-07	3.8241E-08
H-	1.8087E-04	3.3572E-04	2.8072E-04
H2+	5.2972E-04	2.3738E-04	1.0584E-04
HE	1.3208E-02	7.3543E-03	2.9929E-03
HE+	2.8623E-03	7.1968E-03	5.8846E-03
HE++	7.4068E-09	1.9099E-04	5.0682E-03

P1 = 2.00E+04 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6957E+03	2.2359E+04	4.6051E+04
T	1.2589E+02	2.6274E+02	4.1986E+02
RHO	9.0130E+00	2.4380E+01	2.9934E+01
H	6.1146E+02	1.0333E+03	1.5208E+03
A	2.0067E+01	3.1114E+01	3.9830E+01
S	3.0157E+00	3.1121E+00	3.2431E+00
Z	3.2572E+00	3.4906E+00	3.6641E+00
GAME	9.8206E-01	1.0556E+00	1.0312E+00
U	4.8333E+01	1.7866E+01	2.0810E+01

SPECIES	MOLE FRACTIONS		
E-	4.0168E-01	4.4151E-01	4.6788E-01
H	1.8567E-01	1.1128E-01	7.0410E-02
H+	3.9682E-01	4.3248E-01	4.4779E-01
H2	4.0213E-06	1.2440E-07	1.6278E-08
H-	1.2712E-04	2.5987E-04	2.0521E-04
H2+	3.5246E-04	1.4552E-04	7.1455E-05
HE	1.0717E-02	5.9125E-03	1.4076E-03
HE+	4.6332E-03	7.6836E-03	4.2480E-03
HE++	7.9872E-08	7.2789E-04	7.9903E-03

P1 = 2.00E+04 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4961E+03	2.1934E+04	4.4244E+04
T	1.1930E+02	2.4723E+02	3.9306E+02
RHO	9.2029E+00	2.5767E+01	3.1031E+01
H	5.7735E+02	9.8169E+02	1.4312E+03
A	1.9094E+01	2.9857E+01	3.8206E+01
S	2.9718E+00	3.0767E+00	3.2099E+00
Z	3.1842E+00	3.4430E+00	3.6275E+00
GAME	9.5974E-01	1.0473E+00	1.0237E+00
U	4.7067E+01	1.6796E+01	1.9833E+01

SPECIES	MOLE FRACTIONS		
E-	3.8805E-01	4.3383E-01	4.6253E-01
H	2.1159E-01	1.2550E-01	7.9034E-02
H+	3.8407E-01	4.2567E-01	4.4633E-01
H2	6.9042E-06	2.0755E-07	2.4559E-08
H-	1.5203E-04	2.9714E-04	2.4057E-04
H2+	4.3894E-04	1.8532E-04	8.6490E-05
HE	1.2010E-02	6.6437E-03	2.0782E-03
HE+	3.6922E-03	7.4906E-03	5.0521E-03
HE++	2.4220E-08	3.8770E-04	6.6533E-03

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6583E+01
T	2.8250E+00	3.5120E+00	4.9536E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1972E+00
A	1.6758E+00	1.8612E+00	2.1885E+00
S	1.0723E+00	1.0746E+00	1.0973E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6692E-01
U	2.3185E+00	1.3798E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	2.1302E-66	5.1594E-48	2.8563E-32
H	8.7851E-12	1.2570E-09	2.7351E-06
H+	4.2752E-21	9.3013E-21	2.0778E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01
H-	4.3930E-73	5.0053E-53	9.3475E-36
H2+	5.9185E-20	5.4159E-20	4.2682E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	2.3908E-73	3.4775E-62	9.5070E-53
HE++	0.	0.	0.

P1 = 5.00E+04 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5422E+01	7.9892E+01	1.6195E+02
T	5.0966E+00	7.0791E+00	9.2515E+00
RHO	4.9878E+00	1.1283E+01	1.7434E+01
H	5.3591E+00	7.6998E+00	1.0596E+01
A	2.2178E+00	2.5811E+00	2.9009E+00
S	1.1521E+00	1.1616E+00	1.1911E+00
Z	1.0000E+00	1.0003E+00	1.0041E+00
GAME	9.6505E-01	9.4085E-01	9.0592E-01
U	3.7274E+00	1.6439E+00	1.4947E+00

SPECIES	MOLE FRACTIONS		
E-	2.2090E-30	1.9621E-18	6.5615E-14
H	6.9079E-06	5.5583E-04	8.1120E-03
H+	2.8291E-20	1.0544E-18	4.1060E-14
H2	9.4999E-01	9.4946E-01	9.4209E-01
H-	5.1816E-34	5.6879E-21	1.8337E-15
H2+	3.5170E-20	9.7689E-19	2.6389E-14
HE	5.0000E-02	4.9986E-02	4.9797E-02
HE+	7.5329E-52	5.7297E-41	1.0006E-32
HE++	0.	0.	0.

P1 = 5.00E+04 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.0641E+01	1.0221E+02
T	3.8703E+00	5.1635E+00	7.0467E+00
RHO	4.5267E+00	9.0311E+00	1.4515E+01
H	3.9997E+00	5.4352E+00	7.6507E+00
A	1.9491E+00	2.2314E+00	2.5755E+00
S	1.1127E+00	1.1185E+00	1.1453E+00
Z	1.0000E+00	1.0000E+00	1.0002E+00
GAME	9.8155E-01	9.6424E-01	9.4192E-01
U	3.0256E+00	1.5136E+00	1.3719E+00

SPECIES	MOLE FRACTIONS		
E-	1.2811E-44	3.0947E-29	1.0260E-18
H	3.1696E-08	6.6660E-06	4.5558E-04
H+	1.5250E-20	2.4326E-20	7.1328E-19
H2	9.5000E-01	9.4999E-01	9.4956E-01
H-	2.2247E-49	1.3268E-32	1.9797E-20
H2+	4.8210E-20	3.9135E-20	2.6904E-19
HE	5.0030E-02	5.0000E-02	4.9989E-02
HE+	1.5487E-60	4.5594E-51	3.0081E-40
HE++	0.	0.	0.

P1 = 5.00E+04 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4844E+01	1.2458E+02	2.3566E+02
T	6.4750E+00	9.1209E+00	1.1224E+01
RHO	5.3806E+00	1.3605E+01	2.0595E+01
H	6.9679E+00	1.0428E+01	1.3970E+01
A	2.4774E+00	2.8799E+00	3.1638E+00
S	1.1897E+00	1.2033E+00	1.2351E+00
Z	1.0001E+00	1.0040E+00	1.0194E+00
GAME	9.4775E-01	9.0571E-01	8.7480E-01
U	4.4275E+00	1.7487E+00	1.5671E+00

SPECIES	MOLE FRACTIONS		
E-	6.7600E-20	4.5432E-14	2.1009E-11
H	2.5477E-04	8.0223E-03	3.8149E-02
H+	7.8297E-20	2.9288E-14	1.4477E-11
H2	9.4975E-01	9.4218E-01	9.1280E-01
H-	1.2961E-22	1.0165E-15	1.4219E-12
H2+	5.2885E-20	1.7161E-14	7.9541E-12
HE	4.9994E-02	4.9799E-02	4.9046E-02
HE+	3.7646E-45	2.8095E-35	1.9136E-27
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5866E+01	1.8495E+02	3.2666E+02
T	7.9501E+00	1.1021E+01	1.2923E+01
RHO	5.7606E+00	1.6471E+01	2.4103E+01
H	8.8300E+00	1.3674E+01	1.7814E+01
A	2.7101E+00	3.1329E+00	3.4189E+00
S	1.2256E+00	1.2446E+00	1.2794E+00
Z	1.0015E+00	1.0189E+00	1.0488E+00
GAME	9.2245E-01	8.7412E-01	8.6249E-01
U	5.1356E+00	1.7925E+00	1.6140E+00

SPECIES	MOLE FRACTIONS		
E-	5.3149E-16	1.4316E-11	7.0746E-10
H	3.0158E-03	3.7028E-02	9.2994E-02
H+	3.6262E-16	1.0047E-11	5.2112E-10
H2	9.4706E-01	9.1390E-01	8.5933E-01
H-	3.6747E-18	7.9892E-13	8.1445E-11
H2+	1.7260E-16	5.0686E-12	2.6779E-10
HE	4.9925E-02	4.9074E-02	4.7675E-02
HE+	2.4228E-38	5.8398E-29	5.1012E-24
HE++	0.	0.	1.2270E-83

P1 = 5.00E+04 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3237E+01	3.7160E+02	5.9640E+02
T	1.0628E+01	1.4240E+01	1.6035E+01
RHO	6.7428E+00	2.3973E+01	3.2504E+01
H	1.3336E+01	2.1767E+01	2.7265E+01
A	3.0666E+00	3.6510E+00	3.9885E+00
S	1.2952E+00	1.3302E+00	1.3722E+00
Z	1.0220E+00	1.0886E+00	1.1443E+00
GAME	8.6582E-01	8.5993E-01	8.6699E-01
U	6.6149E+00	1.8579E+00	1.7262E+00

SPECIES	MOLE FRACTIONS		
E-	9.6695E-12	6.3478E-09	5.6154E-08
H	4.2991E-02	1.6272E-01	2.5213E-01
H+	7.4941E-12	4.9582E-09	4.5688E-08
H2	9.0808E-01	7.9135E-01	7.0417E-01
H-	3.0687E-13	9.2839E-10	1.2081E-08
H2+	2.4823E-12	2.3180E-09	2.2548E-08
HE	4.8925E-02	4.5932E-02	4.3697E-02
HE+	1.5371E-28	5.9687E-22	9.7615E-20
HE++	0.	9.5892E-77	5.1017E-70

P1 = 5.00E+04 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8635E+01	2.6555E+02	4.4395E+02
T	9.3755E+00	1.2697E+01	1.4493E+01
RHO	6.2063E+00	1.9964E+01	2.8081E+01
H	1.0952E+01	1.7451E+01	2.2228E+01
A	2.8991E+00	3.3844E+00	3.6907E+00
S	1.2604E+00	1.2867E+00	1.3251E+00
Z	1.0077E+00	1.0476E+00	1.0908E+00
GAME	8.8958E-01	8.6116E-01	8.6159E-01
U	5.8642E+00	1.8213E+00	1.6646E+00

SPECIES	MOLE FRACTIONS		
E-	1.9687E-13	5.2839E-10	8.3610E-09
H	1.5321E-02	9.0863E-02	1.6647E-01
H+	1.4522E-13	3.9429E-10	6.4955E-09
H2	9.3506E-01	8.6141E-01	7.8769E-01
H-	3.4109E-15	5.2678E-11	1.3817E-09
H2+	5.5054E-14	1.8677E-10	3.2432E-09
HE	4.9617E-02	4.7728E-02	4.5838E-02
HE+	1.4625E-34	2.4405E-24	1.3666E-21
HE++	0.	2.1060E-86	4.6585E-76

P1 = 5.00E+04 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9614E+01	5.0469E+02	7.8829E+02
T	1.1712E+01	1.5722E+01	1.7611E+01
RHO	7.3266E+00	2.8166E+01	3.7043E+01
H	1.5978E+01	2.6598E+01	3.2964E+01
A	3.2322E+00	3.9364E+00	4.3188E+00
S	1.3306E+00	1.3751E+00	1.4213E+00
Z	1.0444E+00	1.1397E+00	1.2084E+00
GAME	8.5416E-01	8.6476E-01	8.7647E-01
U	7.3769E+00	1.9157E+00	1.8158E+00

SPECIES	MOLE FRACTIONS		
E-	1.3492E-10	4.2295E-08	2.7279E-07
H	8.4932E-02	2.4521E-01	3.4489E-01
H+	1.0794E-10	3.4435E-08	2.3145E-07
H2	8.6719E-01	7.1092E-01	6.1373E-01
H-	6.3037E-12	8.1572E-09	7.1386E-08
H2+	3.3281E-11	1.6017E-08	1.1273E-07
HE	4.7877E-02	4.3870E-02	4.1378E-02
HE+	4.4571E-26	4.4274E-20	3.6566E-18
HE++	0.	3.8592E-70	1.5596E-63

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 1.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0772E+02	6.6438E+02	1.0204E+03
T	1.2679E+01	1.7189E+01	1.9256E+01
RHO	7.9129E+00	3.2217E+01	4.1332E+01
H	1.8875E+01	3.1910E+01	3.9312E+01
A	3.4017E+00	4.2435E+00	4.6855E+00
S	1.3671E+00	1.4214E+00	1.4720E+00
Z	1.0738E+00	1.1997E+00	1.2821E+00
GAME	8.4996E-01	8.7322E-01	8.8926E-01
U	8.1442E+00	2.0017E+00	1.9268E+00

SPECIES	MOLE FRACTIONS		
E-	9.4231E-10	1.9682E-07	1.0644E-06
H	1.3741E-01	3.3289E-01	4.4001E-01
H+	7.7290E-10	1.6649E-07	9.3776E-07
H2	8.1603E-01	6.2543E-01	5.2098E-01
H-	5.8017E-11	4.6350E-08	3.1959E-07
H2+	2.2742E-10	7.6680E-08	4.4628E-07
HE	4.6565E-02	4.1678E-02	3.9000E-02
HE+	2.9216E-24	1.5401E-18	8.6149E-17
HE++	1.9106E-86	1.4895E-64	6.4390E-59

P1 = 5.00E+04 N/SQ-M, US1 = 1.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4870E+02	1.0538E+03	1.5970E+03
T	1.4414E+01	2.0204E+01	2.2528E+01
RHO	8.9700E+00	3.8903E+01	4.7944E+01
H	2.5416E+01	4.3894E+01	5.3924E+01
A	3.7589E+00	4.9316E+00	5.5502E+00
S	1.4434E+00	1.5167E+00	1.5765E+00
Z	1.1501E+00	1.3407E+00	1.4528E+00
GAME	8.5233E-01	8.9785E-01	9.2479E-01
U	9.6612E+00	2.2340E+00	2.2236E+00

SPECIES	MOLE FRACTIONS		
E-	1.5470E-08	2.2431E-06	1.0900E-05
H	2.6098E-01	5.0828E-01	6.2335E-01
H+	1.3230E-08	2.0237E-06	1.0194E-05
H2	6.9554E-01	4.5442E-01	3.4221E-01
H-	1.3750E-09	6.6367E-07	3.6826E-06
H2+	3.6143E-09	8.8301E-07	4.3889E-06
HE	4.3475E-02	3.7293E-02	3.4415E-02
HE+	1.4095E-21	4.3738E-16	2.0167E-14
HE++	3.1590E-76	2.5267E-55	4.8868E-49

P1 = 5.00E+04 N/SQ-M, US1 = 1.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2742E+02	8.4813E+02	1.2899E+03
T	1.3569E+01	1.8671E+01	2.1006E+01
RHO	8.4635E+00	3.5852E+01	4.5024E+01
H	2.2020E+01	3.7678E+01	4.6285E+01
A	3.5767E+00	4.5739E+00	5.0925E+00
S	1.4047E+00	1.4687E+00	1.5238E+00
Z	1.1092E+00	1.2670E+00	1.3639E+00
GAME	8.4991E-01	8.8433E-01	9.0518E-01
U	8.9049E+00	2.1061E+00	2.0615E+00

SPECIES	MOLE FRACTIONS		
E-	4.3483E-09	7.1929E-07	3.5673E-06
H	1.9696E-01	4.2147E-01	5.3361E-01
H+	3.6444E-09	6.2962E-07	3.2468E-06
H2	7.5797E-01	5.3906E-01	4.2972E-01
H-	3.2931E-10	1.9470E-07	1.1651E-06
H2+	1.0332E-09	2.8436E-07	1.4855E-06
HE	4.5076E-02	3.9463E-02	3.6659E-02
HE+	7.9909E-23	3.0735E-17	1.4572E-15
HE++	8.6512E-80	7.5856E-61	1.2383E-53

P1 = 5.00E+04 N/SQ-M, US1 = 1.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7156E+02	1.2797E+03	1.9409E+03
T	1.5233E+01	2.1827E+01	2.5119E+01
RHO	9.4177E+00	4.1295E+01	4.9550E+01
H	2.9061E+01	5.0556E+01	6.2273E+01
A	3.9498E+00	5.3219E+00	6.0730E+00
S	1.4832E+00	1.5650E+00	1.6296E+00
Z	1.1958E+00	1.4197E+00	1.5470E+00
GAME	8.5642E-01	9.1396E-01	9.4915E-01
U	1.0412E+01	2.3761E+00	2.4191E+00

SPECIES	MOLE FRACTIONS		
E-	4.5613E-08	6.2820E-06	3.1747E-05
H	3.2752E-01	5.9127E-01	7.0704E-01
H+	3.9727E-08	5.8153E-06	3.0324E-05
H2	6.3067E-01	3.7349E-01	2.6055E-01
H-	4.5862E-09	1.9453E-06	1.0540E-05
H2+	1.0472E-08	2.4120E-06	1.1963E-05
HE	4.1812E-02	3.5218E-02	3.2321E-02
HE+	1.5495E-20	4.8289E-15	2.4877E-13
HE++	3.5696E-73	2.3231E-53	3.5197E-45

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9599E+02	1.5196E+03	2.3206E+03
T	1.6048E+01	2.3585E+01	2.7739E+01
RHO	9.7980E+00	4.2883E+01	5.0910E+01
H	3.2956E+01	5.7643E+01	7.1412E+01
A	4.1520E+00	5.7503E+00	6.6835E+00
S	1.5243E+00	1.6134E+00	1.6829E+00
Z	1.2465E+00	1.5025E+00	1.6432E+00
GAME	8.6183E-01	9.3311E-01	9.7595E-01
U	1.1160E+01	2.5515E+00	2.6578E+00

SPECIES	MOLE FRACTIONS		
E-	1.1917E-07	1.6416E-05	9.2349E-05
H	3.9549E-01	6.6880E-01	7.8259E-01
H+	1.0562E-07	1.5522E-05	8.9529E-05
H2	5.6440E-01	2.9788E-01	1.8674E-01
H-	1.3173E-08	5.0932E-06	2.8373E-05
H2+	2.6726E-08	5.9877E-06	3.1193E-05
HE	4.0113E-02	3.3279E-02	3.0428E-02
HE+	1.3560E-19	4.6237E-14	3.1038E-12
HE++	7.3471E-69	7.2997E-48	7.5016E-41

P1 = 5.00E+04 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4919E+02	2.0199E+03	3.1888E+03
T	1.7685E+01	2.7777E+01	3.5431E+01
RHO	1.0370E+01	4.3581E+01	4.9569E+01
H	4.1485E+01	7.2936E+01	9.2466E+01
A	4.5880E+00	6.7523E+00	8.2433E+00
S	1.6078E+00	1.7079E+00	1.7871E+00
Z	1.3588E+00	1.6686E+00	1.8157E+00
GAME	8.7596E-01	9.3369E-01	1.0563E+00
U	1.2626E+01	3.0093E+00	3.3389E+00

SPECIES	MOLE FRACTIONS		
E-	6.1873E-07	1.0143E-04	8.9198E-04
H	5.2809E-01	8.0106E-01	8.9562E-01
H+	5.6575E-07	9.8607E-05	8.7273E-04
H2	4.3511E-01	1.6872E-01	7.4682E-02
H-	7.7031E-08	2.7639E-05	1.8618E-04
H2+	1.3000E-07	3.0459E-05	2.0543E-04
HE	3.6798E-02	2.9965E-02	2.7538E-02
HE+	5.7371E-18	3.3409E-12	6.6452E-10
HE++	8.7085E-63	5.8985E-41	2.9990E-32

P1 = 5.00E+04 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2184E+02	1.7675E+03	2.7358E+03
T	1.6855E+01	2.5546E+01	3.1040E+01
RHO	1.0120E+01	4.3599E+01	5.0785E+01
H	3.7096E+01	6.5095E+01	8.1394E+01
A	4.3628E+00	6.2261E+00	7.4051E+00
S	1.5656E+00	1.6615E+00	1.7354E+00
Z	1.3005E+00	1.5870E+00	1.7355E+00
GAME	8.6830E-01	9.5617E-01	1.0179E+00
U	1.1896E+01	2.7654E+00	2.9539E+00

SPECIES	MOLE FRACTIONS		
E-	2.8020E-07	4.1292E-05	2.1767E-04
H	4.6217E-01	7.3959E-01	8.4669E-01
H+	2.5236E-07	3.9687E-05	2.7154E-04
H2	4.9938E-01	2.2880E-01	1.2379E-01
H-	3.3222E-08	1.2277E-05	7.3550E-05
H2+	6.1064E-08	1.3881E-05	7.9880E-05
HE	3.8446E-02	3.1507E-02	2.8810E-02
HE+	9.4791E-19	4.0405E-13	4.1927E-11
HE++	1.4128E-65	3.2942E-44	1.1239E-36

P1 = 5.00E+04 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7813E+02	2.2706E+03	3.6764E+03
T	1.8548E+01	3.0455E+01	4.1050E+01
RHO	1.0556E+01	4.2719E+01	4.7795E+01
H	4.6126E+01	8.1152E+01	1.0458E+02
A	4.8287E+00	7.3501E+00	9.0563E+00
S	1.6506E+00	1.7533E+00	1.8359E+00
Z	1.4205E+00	1.7453E+00	1.8738E+00
GAME	8.8494E-01	1.0164E+00	1.0663E+00
U	1.3357E+01	3.3070E+00	3.7832E+00

SPECIES	MOLE FRACTIONS		
E-	1.3073E-06	2.5388E-04	2.8061E-03
H	5.9202E-01	8.5323E-01	9.2387E-01
H+	1.2126E-06	2.4853E-04	2.7355E-03
H2	3.7278E-01	1.1749E-01	4.2968E-02
H-	1.6739E-07	6.0012E-05	4.3071E-04
H2+	2.6204E-07	6.5366E-05	5.0138E-04
HE	3.5199E-02	2.8649E-02	2.6684E-02
HE+	3.2583E-17	2.9116E-11	1.0107E-08
HE++	9.2276E-60	2.6865E-37	6.0972E-28

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0841E+02	2.5113E+03	4.1715E+03
T	1.9462E+01	3.3704E+01	4.7143E+01
RHO	1.0671E+01	4.1151E+01	4.6294E+01
H	5.1010E+01	8.9668E+01	1.1726E+02
A	5.0874E+00	8.0038E+00	9.6385E+00
S	1.6938E+00	1.7967E+00	1.8801E+00
Z	1.4851E+00	1.8107E+00	1.9114E+00
GAME	8.9550E-01	1.0497E+00	1.0310E+00
U	1.4075E+01	3.6454E+00	4.2149E+00

SPECIES	MOLE FRACTIONS		
E-	2.6756E-06	6.4373E-04	7.2083E-03
H	6.5324E-01	8.9339E-01	9.3143E-01
H+	2.5151E-06	6.3178E-04	6.9934E-03
H2	3.1309E-01	7.7458E-02	2.6366E-02
H-	3.4539E-07	1.2474E-04	8.1570E-04
H2+	5.0597E-07	1.3669E-04	1.0306E-03
HE	3.3669E-02	2.7614E-02	2.6159E-02
HE+	1.7119E-16	2.6149E-10	9.5922E-08
HE++	4.6208E-57	8.6107E-34	2.1155E-24

P1 = 5.00E+04 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7302E+02	2.9346E+03	5.0958E+03
T	2.1551E+01	4.1925E+01	5.7610E+01
RHO	1.0685E+01	3.6918E+01	4.5061E+01
H	6.1514E+01	1.0748E+02	1.4284E+02
A	5.6790E+00	9.1965E+00	1.0320E+01
S	1.7801E+00	1.8757E+00	1.9559E+00
Z	1.6199E+00	1.8960E+00	1.9630E+00
GAME	9.2384E-01	1.0640E+00	9.4173E-01
U	1.5485E+01	4.4757E+00	4.8131E+00

SPECIES	MOLE FRACTIONS		
E-	1.0955E-05	3.6972E-03	2.2784E-02
H	7.6533E-01	9.3370E-01	9.1195E-01
H+	1.0542E-05	3.6192E-03	2.1973E-02
H2	2.0378E-01	3.1674E-02	1.3711E-02
H-	1.3438E-06	4.2787E-04	1.6510E-03
H2+	1.7568E-06	5.0584E-04	2.4611E-03
HE	3.0866E-02	2.6371E-02	2.5470E-02
HE+	4.6591E-15	1.6230E-08	1.5593E-06
HE++	1.1254E-51	2.8610E-27	4.8889E-20

P1 = 5.00E+04 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4007E+02	2.7312E+03	4.6480E+03
T	2.0451E+01	3.7573E+01	5.2734E+01
RHO	1.0715E+01	3.9067E+01	4.5462E+01
H	5.6140E+01	9.8429E+01	1.3001E+02
A	5.3687E+00	8.6511E+00	1.0020E+01
S	1.7370E+00	1.8375E+00	1.9194E+00
Z	1.5519E+00	1.8607E+00	1.9388E+00
GAME	9.0818E-01	1.0705E+00	9.8206E-01
U	1.4785E+01	4.0523E+00	4.5513E+00

SPECIES	MOLE FRACTIONS		
E-	5.4034E-06	1.6029E-03	1.4140E-02
H	7.1121E-01	9.2010E-01	9.2523E-01
H+	5.1418E-06	1.5722E-03	1.3669E-02
H2	2.5656E-01	4.9335E-02	1.8202E-02
H-	6.3827E-07	2.4258E-04	1.2483E-03
H2+	9.4988E-07	2.7322E-04	1.7191E-03
HE	3.2219E-02	2.6872E-02	2.5789E-02
HE+	8.8231E-16	2.2528E-09	4.6589E-07
HE++	1.9768E-54	2.2549E-30	7.3707E-22

P1 = 5.00E+04 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0717E+02	3.1247E+03	5.5001E+03
T	2.2814E+01	4.6414E+01	6.1836E+01
RHO	1.0575E+01	3.5032E+01	4.4783E+01
H	6.7128E+01	1.1686E+02	1.5570E+02
A	6.0284E+00	9.5987E+00	1.0586E+01
S	1.8228E+00	1.9117E+00	1.9905E+00
Z	1.6878E+00	1.9217E+00	1.9862E+00
GAME	9.4385E-01	1.0330E+00	9.1247E-01
U	1.6172E+01	4.8711E+00	5.0070E+00

SPECIES	MOLE FRACTIONS		
E-	2.2712E-05	7.4774E-03	3.2292E-02
H	8.1494E-01	9.3633E-01	8.9538E-01
H+	2.2075E-05	7.3046E-03	3.1098E-02
H2	1.5539E-01	2.1356E-02	1.0897E-02
H-	2.6067E-06	6.6915E-04	1.9871E-03
H2+	3.2438E-06	8.4182E-04	3.1767E-03
HE	2.9625E-02	2.6018E-02	2.5170E-02
HE+	2.6119E-14	8.6010E-08	3.7142E-06
HE++	5.7590E-49	1.1639E-24	1.1000E-18

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4225E+02	3.2997E+03	5.8378E+03
T	2.4319E+01	5.0708E+01	6.5510E+01
RHO	1.0373E+01	3.3487E+01	4.4358E+01
H	7.2975E+01	1.2660E+02	1.6842E+02
A	6.4317E+00	9.6989E+00	1.0833E+01
S	1.8646E+00	1.9461E+00	2.0240E+00
Z	1.7532E+00	1.9432E+00	2.0089E+00
GAME	9.7023E-01	9.9442E-01	8.9164E-01
U	1.6836E+01	5.2096E+00	5.1346E+00

SPECIES	MOLE FRACTIONS		
E-	4.9269E-05	1.3088E-02	4.2083E-02
H	8.5906E-01	9.3090E-01	8.7753E-01
H+	4.8299E-05	1.2767E-02	4.0506E-02
H2	1.1231E-01	1.5331E-02	8.9324E-03
H-	5.0995E-06	9.3221E-04	2.2436E-03
H2+	6.0700E-06	1.2532E-03	3.8127E-03
HE	2.8520E-02	2.5730E-02	2.4882E-02
HE+	1.6503E-13	3.2555E-07	7.2625E-06
HE++	6.4166E-46	1.3824E-22	1.2126E-17

P1 = 5.00E+04 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7839E+02	3.4558E+03	6.1082E+03
T	2.6191E+01	5.4675E+01	6.8835E+01
RHO	1.0076E+01	3.2186E+01	4.3667E+01
H	7.9057E+01	1.3676E+02	1.8132E+02
A	6.9084E+00	1.0152E+01	1.1071E+01
S	1.9052E+00	1.9798E+00	2.0575E+00
Z	1.8128E+00	1.9638E+00	2.0321E+00
GAME	1.0052E+00	9.5983E-01	8.7620E-01
U	1.7486E+01	5.4689E+00	5.2367E+00

SPECIES	MOLE FRACTIONS		
E-	1.1461E-04	2.0314E-02	5.2169E-02
H	8.9640E-01	9.1995E-01	8.5880E-01
H+	1.1312E-04	1.9799E-02	5.0224E-02
H2	7.5765E-02	1.1593E-02	7.4140E-03
H-	1.0213E-05	1.1849E-03	2.4282E-03
H2+	1.1703E-05	1.6992E-03	4.3607E-03
HE	2.7581E-02	2.5460E-02	2.4593E-02
HE+	1.2531E-12	9.3251E-07	1.2619E-05
HE++	1.1144E-42	9.9672E-21	8.6634E-17

P1 = 5.00E+04 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1518E+02	3.5872E+03	6.2893E+03
T	2.8580E+01	5.8282E+01	7.1843E+01
RHO	9.6792E+00	3.1010E+01	4.2586E+01
H	8.5361E+01	1.4729E+02	1.9422E+02
A	7.4654E+00	1.0385E+01	1.1301E+01
S	1.9438E+00	2.0132E+00	2.0913E+00
Z	1.8623E+00	1.9848E+00	2.0557E+00
GAME	1.0471E+00	9.3240E-01	8.6471E-01
U	1.8110E+01	5.6470E+00	5.3155E+00

SPECIES	MOLE FRACTIONS		
E-	2.8900E-04	2.8767E-02	6.2386E-02
H	9.2520E-01	9.0537E-01	8.3966E-01
H+	2.8659E-04	2.8030E-02	6.0111E-02
H2	4.7334E-02	9.0997E-03	6.1842E-03
H-	2.0975E-05	1.4051E-03	2.5405E-03
H2+	2.3387E-05	2.1404E-03	4.7952E-03
HE	2.6848E-02	2.5189E-02	2.4303E-02
HE+	1.1608E-11	2.1601E-06	2.0081E-05
HE++	3.6391E-39	1.1929E-19	4.4788E-16

P1 = 5.00E+04 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5206E+02	3.6766E+03	6.3698E+03
T	3.1614E+01	6.1499E+01	7.4568E+01
RHO	9.1973E+00	2.9796E+01	4.1073E+01
H	9.1867E+01	1.5798E+02	2.0697E+02
A	8.0620E+00	1.0607E+01	1.1523E+01
S	1.9805E+00	2.0465E+00	2.1253E+00
Z	1.8987E+00	2.0064E+00	2.0798E+00
GAME	1.0828E+00	9.1180E-01	8.5617E-01
U	1.8690E+01	5.7637E+00	5.3782E+00

SPECIES	MOLE FRACTIONS		
E-	7.7286E-04	3.7971E-02	7.2676E-02
H	9.4427E-01	8.8866E-01	8.2031E-01
H+	7.6834E-04	3.7007E-02	7.0127E-02
H2	2.7767E-02	7.3251E-03	5.1593E-03
H-	4.3234E-05	1.5770E-03	2.5858E-03
H2+	4.7754E-05	2.5370E-03	5.1042E-03
HE	2.6334E-02	2.4916E-02	2.4011E-02
HE+	1.2469E-10	4.2414E-06	2.9898E-05
HE++	2.1637E-35	1.3085E-18	1.8081E-15

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8997E+02	3.7752E+03	6.4455E+03
T	3.5071E+01	6.4503E+01	7.7152E+01
RHO	8.7535E+00	2.8848E+01	3.9703E+01
H	9.8601E+01	1.6910E+02	2.1999E+02
A	8.5742E+00	1.0828E+01	1.1743E+01
S	2.0133E+00	2.0791E+00	2.1585E+00
Z	1.9217E+00	2.0288E+00	2.1042E+00
GAME	1.0908E+00	8.9585E-01	8.4545E-01
U	1.9262E+01	5.8279E+00	5.4343E+00

SPECIES	MOLE FRACTIONS		
E-	1.9414E-03	4.7793E-02	8.2960E-02
H	9.5337E-01	8.7032E-01	8.0083E-01
H+	1.9315E-03	4.6596E-02	8.0171E-02
H2	1.6561E-02	6.0249E-03	4.3332E-03
H-	8.2560E-05	1.7169E-03	2.5968E-03
H2+	9.2404E-05	2.9061E-03	5.3435E-03
HE	2.6018E-02	2.4637E-02	2.3719E-02
HE+	1.1544E-09	7.5093E-06	4.2606E-05
HE++	6.8752E-32	9.9460E-18	6.2480E-15

P1 = 5.00E+04 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.7022E+02	4.0412E+03	6.7180E+03
T	4.2365E+01	7.0094E+01	8.2317E+01
RHO	8.1049E+00	2.7775E+01	3.7876E+01
H	1.1280E+02	1.9267E+02	2.4750E+02
A	9.2500E+00	1.1271E+01	1.2199E+01
S	2.0729E+00	2.1418E+00	2.2234E+00
Z	1.9519E+00	2.0758E+00	2.1547E+00
GAME	1.0347E+00	8.7314E-01	8.3901E-01
U	2.0427E+01	5.9483E+00	5.5494E+00

SPECIES	MOLE FRACTIONS		
E-	8.3721E-03	6.8435E-02	1.0382E-01
H	9.5007E-01	8.3094E-01	7.6100E-01
H+	8.3268E-03	6.6767E-02	1.0059E-01
H2	7.1295E-03	4.2827E-03	3.0563E-03
H-	2.1776E-04	1.9219E-03	2.5667E-03
H2+	2.6310E-04	3.5706E-03	5.7159E-03
HE	2.5616E-02	2.4069E-02	2.3124E-02
HE+	3.9611E-08	1.9077E-05	8.0709E-05
HE++	2.3463E-26	2.7336E-16	5.5037E-14

P1 = 5.00E+04 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2914E+02	3.8861E+03	6.5446E+03
T	3.8764E+01	6.7330E+01	7.9704E+01
RHO	8.3750E+00	2.8128E+01	3.8564E+01
H	1.0557E+02	1.8060E+02	2.3340E+02
A	8.9632E+00	1.1047E+01	1.1967E+01
S	2.0442E+00	2.1110E+00	2.1914E+00
Z	1.9379E+00	2.0520E+00	2.1292E+00
GAME	1.0694E+00	8.8336E-01	8.4388E-01
U	1.9835E+01	5.8921E+00	5.4689E+00

SPECIES	MOLE FRACTIONS		
E-	4.3555E-03	5.7977E-02	9.3371E-02
H	9.5478E-01	8.5100E-01	7.6101E-01
H+	4.3332E-03	5.6549E-02	9.0360E-02
H2	1.0424E-02	5.0397E-03	3.6529E-03
H-	1.4229E-04	1.8274E-03	2.5855E-03
H2+	1.6456E-04	3.2435E-03	5.5368E-03
HE	2.5801E-02	2.4355E-02	2.3423E-02
HE+	8.1343E-09	1.2285E-05	5.5137E-05
HE++	7.8631E-29	5.7006E-17	1.9712E-14

P1 = 5.00E+04 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5892E+02	4.4956E+03	7.3084E+03
T	4.8805E+01	7.5987E+01	8.7865E+01
RHO	7.8436E+00	2.7990E+01	3.7690E+01
H	1.2807E+02	2.1876E+02	2.7808E+02
A	9.6996E+00	1.1734E+01	1.2692E+01
S	2.1260E+00	2.2011E+00	2.2855E+00
Z	1.9825E+00	2.1249E+00	2.2069E+00
GAME	9.7235E-01	8.5720E-01	8.3665E-01
U	2.1689E+01	6.0691E+00	5.6890E+00

SPECIES	MOLE FRACTIONS		
E-	2.1032E-02	8.9706E-02	1.2468E-01
H	9.2784E-01	7.8976E-01	7.2085E-01
H+	2.0904E-02	8.7535E-02	1.2101E-01
H2	4.1066E-03	3.1955E-03	2.2501E-03
H-	3.8697E-04	2.0713E-03	2.5109E-03
H2+	5.1409E-04	4.2012E-03	6.0366E-03
HE	2.5220E-02	2.3489E-02	2.2511E-02
HE+	3.7752E-07	4.1228E-05	1.4529E-04
HE++	7.8147E-23	4.3322E-15	4.8088E-13

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5621E+02	5.1161E+03	8.1717E+03
T	5.4244E+01	8.1141E+01	9.3935E+01
RHO	7.8160E+00	2.8981E+01	3.8479E+01
H	1.4444E+02	2.4735E+02	3.1190E+02
A	1.0111E+01	1.2216E+01	1.3229E+01
S	2.1758E+00	2.2585E+00	2.3464E+00
Z	2.0195E+00	2.1756E+00	2.2608E+00
GAME	9.3320E-01	8.4534E-01	8.2402E-01
U	2.3033E+01	6.2065E+00	5.8634E+00

SPECIES	MOLE FRACTIONS		
E-	3.8016E-02	1.1089E-01	1.4533E-01
H	8.9531E-01	7.4857E-01	6.8101E-01
H+	3.7767E-02	1.0821E-01	1.4125E-01
H2	2.8064E-03	2.4303E-03	1.6210E-03
H-	5.4797E-04	2.1608E-03	2.4176E-03
H2+	7.9526E-04	4.7651E-03	6.2455E-03
HE	2.4757E-02	2.2902E-02	2.1864E-02
HE+	1.6699E-06	8.0319E-05	2.5242E-04
HE++	1.6660E-20	4.8120E-14	3.5578E-12

P1 = 5.00E+04 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0740E+03	6.7342E+03	1.0501E+04
T	6.3266E+01	9.2783E+01	1.0805E+02
RHO	8.0544E+00	3.1827E+01	4.0518E+01
H	1.8035E+02	3.1126E+02	3.8870E+02
A	1.0915E+01	1.3251E+01	1.4468E+01
S	2.2710E+00	2.3714E+00	2.4669E+00
Z	2.1076E+00	2.2805E+00	2.3752E+00
GAME	8.9347E-01	8.2981E-01	8.1560E-01
U	2.5856E+01	6.3283E+00	6.3353E+00

SPECIES	MOLE FRACTIONS		
E-	7.7735E-02	1.5176E-01	1.8584E-01
H	8.1760E-01	6.6915E-01	6.0295E-01
H+	7.7178E-02	1.4817E-01	1.8120E-01
H2	1.6274E-03	1.3722E-03	7.6234E-04
H-	7.9357E-04	2.1396E-03	2.1231E-03
H2+	1.3397E-03	5.4844E-03	6.0707E-03
HE	2.3713E-02	2.1676E-02	2.0362E-02
HE+	1.1156E-05	2.4982E-04	6.8958E-04
HE++	1.6065E-17	3.0050E-12	1.5654E-10

P1 = 5.00E+04 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.6139E+02	5.6716E+03	9.2479E+03
T	5.8975E+01	8.6846E+01	1.0061E+02
RHO	7.9073E+00	3.0354E+01	3.9676E+01
H	1.6187E+02	2.7825E+02	3.4878E+02
A	1.0514E+01	1.2720E+01	1.3816E+01
S	2.2239E+00	2.3151E+00	2.4067E+00
Z	2.0616E+00	2.2275E+00	2.3167E+00
GAME	9.0922E-01	8.3641E-01	8.1898E-01
U	2.4429E+01	6.3524E+00	6.0761E+00

SPECIES	MOLE FRACTIONS		
E-	5.7291E-02	1.3162E-01	1.6569E-01
H	8.5771E-01	7.0826E-01	6.4176E-01
H+	5.6896E-02	1.2844E-01	1.6128E-01
H2	2.0921E-03	1.8429E-03	1.1358E-03
H-	6.8476E-04	2.1831E-03	2.2834E-03
H2+	1.0757E-03	5.2089E-03	6.2701E-03
HE	2.4248E-02	2.2302E-02	2.1158E-02
HE+	4.8615E-06	1.4553E-04	4.2444E-04
HE++	7.9279E-19	4.1643E-13	2.4335E-11

P1 = 5.00E+04 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1934E+03	7.6813E+03	1.1928E+04
T	6.7219E+01	9.9035E+01	1.1649E+02
RHO	8.2361E+00	3.3223E+01	4.2022E+01
H	1.9985E+02	3.4611E+02	4.3171E+02
A	1.1309E+01	1.3813E+01	1.5201E+01
S	2.3184E+00	2.4271E+00	2.5268E+00
Z	2.1557E+00	2.3346E+00	2.4367E+00
GAME	8.8267E-01	8.2524E-01	8.1400E-01
U	2.7299E+01	6.7781E+00	6.6547E+00

SPECIES	MOLE FRACTIONS		
E-	9.8289E-02	1.7129E-01	2.0587E-01
H	7.7720E-01	6.3134E-01	5.6440E-01
H+	9.7565E-02	1.6736E-01	2.0111E-01
H2	1.2991E-03	9.9425E-04	4.8495E-04
H-	8.7358E-04	2.0432E-03	1.9655E-03
H2+	1.5751E-03	5.5640E-03	5.6502E-03
HE	2.3173E-02	2.1007E-02	1.9446E-02
HE+	2.1841E-05	4.1001E-04	1.0735E-03
HE++	1.8408E-16	1.8865E-11	9.5809E-10

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3196E+03	8.7152E+03	1.3508E+04
T	7.1008E+01	1.0577E+02	1.2623E+02
RHO	8.4235E+00	3.4471E+01	4.2767E+01
H	2.2037E+02	3.8290E+02	4.7795E+02
A	1.1707E+01	1.4420E+01	1.6040E+01
S	2.3654E+00	2.4825E+00	2.5863E+00
Z	2.2062E+00	2.3903E+00	2.5022E+00
GAME	8.7488E-01	8.2245E-01	8.1455E-01
U	2.8749E+01	7.0315E+00	7.0436E+00

SPECIES	MOLE FRACTIONS		
E-	1.1894E-01	1.9034E-01	2.2601E-01
H	7.3660E-01	5.9452E-01	5.2561E-01
H+	1.1805E-01	1.8616E-01	2.2123E-01
H2	1.0451E-03	6.9530E-04	2.8944E-04
H-	9.2660E-04	1.9154E-03	1.8384E-03
H2+	1.7774E-03	5.4473E-03	5.0370E-03
HE	2.2625E-02	2.0270E-02	1.8403E-02
HE+	3.8856E-05	6.4769E-04	1.5797E-03
HE++	1.4912E-15	1.0779E-10	5.5632E-09

P1 = 5.00E+04 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5914E+03	1.0960E+04	1.7180E+04
T	7.8313E+01	1.2117E+02	1.5157E+02
RHO	8.7906E+00	3.6071E+01	4.2778E+01
H	2.6445E+02	4.6164E+02	5.8229E+02
A	1.2517E+01	1.5809E+01	1.8175E+01
S	2.4591E+00	2.5908E+00	2.7038E+00
Z	2.3117E+00	2.5076E+00	2.6495E+00
GAME	8.6540E-01	8.2255E-01	8.2250E-01
U	3.1661E+01	7.7232E+00	8.1677E+00

SPECIES	MOLE FRACTIONS		
E-	1.5922E-01	2.2736E-01	2.6760E-01
H	6.5744E-01	5.2314E-01	4.4514E-01
H+	1.5801E-01	2.2291E-01	2.6307E-01
H2	6.7777E-04	3.0052E-04	8.2566E-05
H-	9.5946E-04	1.6545E-03	1.7457E-03
H2+	2.0636E-03	4.6924E-03	3.4919E-03
HE	2.1527E-02	1.8527E-02	1.6087E-02
HE+	1.0161E-04	1.4121E-03	2.7844E-03
HE++	4.8909E-14	2.7511E-09	1.6735E-07

P1 = 5.00E+04 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4525E+03	9.8175E+03	1.5267E+04
T	7.4681E+01	1.1311E+02	1.3780E+02
RHO	8.6131E+00	3.5456E+01	4.3057E+01
H	2.4192E+02	4.2150E+02	5.2816E+02
A	1.2108E+01	1.5082E+01	1.7025E+01
S	2.4121E+00	2.5372E+00	2.6456E+00
Z	2.2582E+00	2.4479E+00	2.5731E+00
GAME	8.6928E-01	8.2148E-01	8.1748E-01
U	3.0209E+01	7.3466E+00	7.5473E+00

SPECIES	MOLE FRACTIONS		
E-	1.3925E-01	2.0901E-01	2.4661E-01
H	6.9668E-01	5.5851E-01	4.8584E-01
H+	1.3820E-01	2.0466E-01	2.4191E-01
H2	8.4343E-04	4.6690E-04	1.6021E-04
H-	9.5459E-04	1.7787E-03	1.7637E-03
H2+	1.9415E-03	5.1456E-03	4.2887E-03
HE	2.2078E-02	1.9445E-02	1.7256E-02
HE+	6.4389E-05	9.8088E-04	2.1757E-03
HE++	9.3376E-15	5.6752E-10	3.1439E-08

P1 = 5.00E+04 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7367E+03	1.2127E+04	1.9270E+04
T	8.1996E+01	1.3004E+02	1.6834E+02
RHO	8.9460E+00	3.6299E+01	4.1879E+01
H	2.8799E+02	5.0336E+02	6.4167E+02
A	1.2943E+01	1.6610E+01	1.9529E+01
S	2.5066E+00	2.6426E+00	2.7621E+00
Z	2.3676E+00	2.5692E+00	2.7333E+00
GAME	8.6300E-01	8.2576E-01	8.2883E-01
U	3.3113E+01	8.1690E+00	8.977CE+00

SPECIES	MOLE FRACTIONS		
E-	1.7904E-01	2.4534E-01	2.8935E-01
H	6.1852E-01	4.8847E-01	4.0281E-01
H+	1.7769E-01	2.4084E-01	2.8503E-01
H2	5.3823E-04	1.8603E-04	3.9433E-05
H-	9.4301E-04	1.5594E-03	1.7633E-03
H2+	2.1412E-03	4.1432E-03	2.7179E-03
HE	2.0963E-02	1.7544E-02	1.4934E-02
HE+	1.5541E-04	1.9169E-03	3.3575E-03
HE++	2.2847E-13	1.2194E-08	8.6132E-07

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 5.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4880E+03	1.3307E+04	2.1520E+04
T	8.5709E+01	1.4009E+02	1.8768E+02
RHO	9.0862E+00	3.6051E+01	4.0684E+01
H	3.1252E+02	5.4650E+02	7.0547E+02
A	1.3383E+01	1.7518E+01	2.1012E+01
S	2.3541E+00	2.6940E+00	2.8171E+00
Z	2.4243E+00	2.6348E+00	2.8185E+00
GAME	8.6202E-01	8.3136E-01	8.3469E-01
U	3.4559E+01	8.6978E+00	9.9023E+00

SPECIES	MOLE FRACTIONS		
E-	1.9823E-01	2.6356E-01	3.1023E-01
H	5.8090E-01	4.5328E-01	3.6208E-01
H+	1.9674E-01	2.5905E-01	3.0607E-01
H2	4.2353E-04	1.0940E-04	1.8573E-05
H-	9.0958E-04	1.4942E-03	1.7856E-03
H2+	2.1742E-03	3.5329E-03	2.0759E-03
HE	2.0394E-02	1.6511E-02	1.3883E-02
HE+	2.3050E-04	2.4656E-03	3.8534E-03
HE++	9.5569E-13	5.1176E-08	3.9198E-06

P1 = 5.00E+04 N/SQ-M, US1 = 5.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2079E+03	1.5579E+04	2.6438E+04
T	9.3487E+01	1.6331E+02	2.3352E+02
RHO	9.2911E+00	3.4429E+01	3.7927E+01
H	3.6455E+02	6.3625E+02	8.4740E+02
A	1.4331E+01	1.9579E+01	2.4243E+01
S	2.6487E+00	2.7898E+00	2.9190E+00
Z	2.5419E+00	2.7708E+00	2.9851E+00
GAME	8.6421E-01	8.4718E-01	8.4310E-01
U	3.7424E+01	1.0077E+01	1.2131E+01

SPECIES	MOLE FRACTIONS		
E-	2.3522E-01	2.9865E-01	3.4796E-01
H	5.0851E-01	3.8522E-01	2.8870E-01
H+	2.3343E-01	2.9422E-01	3.4365E-01
H2	2.5017E-04	3.5143E-05	4.3982E-06
H-	8.0348E-04	1.4360E-03	1.7241E-03
H2+	2.1095E-03	2.3943E-03	1.2082E-03
HE	1.9192E-02	1.4569E-02	1.1971E-02
HE+	4.7783E-04	3.4756E-03	4.7253E-03
HE++	1.3669E-11	6.7439E-07	5.3687E-05

P1 = 5.00E+04 N/SQ-M, US1 = 5.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0451E+03	1.4461E+04	2.3928E+04
T	8.9524E+01	1.5115E+02	2.0960E+02
RHO	9.2023E+00	3.5407E+01	3.9319E+01
H	3.3805E+02	5.9081E+02	7.7443E+02
A	1.3844E+01	1.8508E+01	2.2603E+01
S	2.6015E+00	2.7429E+00	2.8695E+00
Z	2.4824E+00	2.7020E+00	2.9034E+00
GAME	8.6241E-01	8.3871E-01	8.3552E-01
U	3.5997E+01	9.3425E+00	1.0982E+01

SPECIES	MOLE FRACTIONS		
E-	2.1696E-01	2.8132E-01	3.2996E-01
H	5.4422E-01	4.1887E-01	3.2362E-01
H+	2.1532E-01	2.7685E-01	3.2583E-01
H2	3.2838E-04	6.2632E-05	8.8417E-06
H-	8.6190E-04	1.4577E-03	1.7775E-03
H2+	2.1630E-03	2.9380E-03	1.5760E-03
HE	1.9807E-02	1.5511E-02	1.2904E-02
HE+	3.3473E-04	2.9933E-03	4.3018E-03
HE++	3.7154E-12	1.9422E-07	1.5693E-05

P1 = 5.00E+04 N/SQ-M, US1 = 5.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3762E+03	1.6623E+04	2.9007E+04
T	9.7642E+01	1.7641E+02	2.5906E+02
RHO	9.3498E+00	3.3183E+01	3.6562E+01
H	3.9204E+02	6.8252E+02	9.2381E+02
A	1.4848E+01	2.0710E+01	2.5903E+01
S	2.6957E+00	2.8346E+00	2.9659E+00
Z	2.6028E+00	2.8398E+00	3.0624E+00
GAME	8.6751E-01	8.5621E-01	8.4571E-01
U	3.8839E+01	1.0939E+01	1.3311E+01

SPECIES	MOLE FRACTIONS		
E-	2.5300E-01	3.1528E-01	3.6419E-01
H	4.7380E-01	3.5290E-01	2.5748E-01
H+	2.5105E-01	3.1085E-01	3.5943E-01
H2	1.8677E-04	1.9658E-05	2.3078E-06
H-	7.3803E-04	1.4124E-03	1.6284E-03
H2+	2.0173E-03	1.9276E-03	9.4060E-04
HE	1.8538E-02	1.3699E-02	1.1030E-02
HE+	6.7191E-04	3.9061E-03	5.1395E-03
HE++	4.8235E-11	2.1208E-06	1.5735E-04

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	EFLECTED SHOCK
P	2.5497E+03	1.7619E+04	3.1584E+04
T	1.0204E+02	1.9053E+02	2.8541E+02
RHO	9.3763E+00	3.1791E+01	3.5321E+01
H	4.2050E+02	7.2586E+02	1.0031E+03
A	1.5402E+01	2.1900E+01	2.7530E+01
S	2.7424E+00	2.8779E+00	3.0095E+00
Z	2.6649E+00	2.9088E+00	3.1335E+00
GAME	8.7241E-01	8.6538E-01	8.4742E-01
U	4.0240E+01	1.1837E+01	1.4493E+01

SPECIES	MOLE FRACTIONS		
E-	2.7030E-01	3.3116E-01	3.7844E-01
H	4.4010E-01	3.2200E-01	2.3046E-01
H+	2.6814E-01	3.2670E-01	3.7289E-01
H2	1.3632E-04	1.1018E-05	1.2949E-06
H-	6.6922E-04	1.3770E-03	1.5079E-03
H2+	1.8914E-03	1.5401E-03	7.4907E-04
HE	1.7831E-02	1.2882E-02	1.0040E-02
HE+	9.3095E-04	4.3008E-03	5.5258E-03
HE++	1.6479E-10	6.1458E-06	3.9110E-04

P1 = 5.00E+04 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9115E+03	1.9356E+04	3.6655E+04
T	1.1179E+02	2.1986E+02	3.3963E+02
RHO	9.3264E+00	2.8988E+01	3.3107E+01
H	4.8029E+02	8.2686E+02	1.1701E+03
A	1.6647E+01	2.4276E+01	3.0674E+01
S	2.8342E+00	2.9567E+00	3.0897E+00
Z	2.7926E+00	3.0370E+00	3.2600E+00
GAME	8.8772E-01	8.8261E-01	8.4584E-01
U	4.2987E+01	1.3818E+01	1.6865E+01

SPECIES	MOLE FRACTIONS		
E-	3.0336E-01	3.5893E-01	4.0234E-01
H	3.7593E-01	2.6822E-01	1.8668E-01
H+	3.0063E-01	3.5412E-01	3.9390E-01
H2	6.7310E-05	3.8000E-06	4.8227E-07
H-	5.3516E-04	1.2595E-03	1.2413E-03
H2+	1.5662E-03	1.0012E-03	5.0317E-04
HE	1.6207E-02	1.1427E-02	7.7154E-03
HE+	1.6975E-03	4.9989E-03	6.0567E-03
HE++	1.7762E-09	3.7180E-05	1.5614E-03

P1 = 5.00E+04 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7283E+03	1.8531E+04	3.4165E+04
T	1.0674E+02	2.0493E+02	3.1235E+02
RHO	9.3689E+00	3.0408E+01	3.4193E+01
H	4.4992E+02	7.7799E+02	1.0857E+03
A	1.6000E+01	2.3079E+01	2.9119E+01
S	2.7886E+00	2.9180E+00	3.0506E+00
Z	2.7282E+00	2.9739E+00	3.1589E+00
GAME	8.7908E-01	8.7403E-01	8.4859E-01
U	4.1624E+01	1.2806E+01	1.5704E+01

SPECIES	MOLE FRACTIONS		
E-	2.8709E-01	3.4554E-01	3.9103E-01
H	4.0746E-01	2.9413E-01	2.0708E-01
H+	2.8468E-01	3.4094E-01	3.8427E-01
H2	9.7069E-05	6.4037E-06	7.7114E-07
H-	6.0057E-04	1.3272E-03	1.3764E-03
H2+	1.7386E-03	1.2402E-03	6.0900E-04
HE	1.7058E-02	1.2141E-02	8.9438E-03
HE+	1.2692E-03	4.6366E-03	5.8494E-03
HE++	5.4770E-10	1.5761E-05	8.3709E-04

P1 = 5.00E+04 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0995E+03	2.0113E+04	3.9024E+04
T	1.1723E+02	2.3537E+02	3.6697E+02
RHO	9.2531E+00	2.7581E+01	3.2061E+01
H	5.1162E+02	8.7665E+02	1.2555E+03
A	1.7349E+01	2.5491E+01	3.2192E+01
S	2.8789E+00	2.9944E+00	3.1271E+00
Z	2.8573E+00	3.0982E+00	3.3169E+00
GAME	8.9852E-01	8.9108E-01	8.5139E-01
U	4.4333E+01	1.4841E+01	1.7943E+01

SPECIES	MOLE FRACTIONS		
E-	3.1898E-01	3.7141E-01	4.1252E-01
H	3.4576E-01	2.4419E-01	1.6889E-01
H+	3.1585E-01	3.6628E-01	4.0199E-01
H2	4.5512E-05	2.2996E-06	3.1489E-07
H-	4.7588E-04	1.1775E-03	1.1103E-03
H2+	1.3842E-03	8.1100E-04	4.2173E-04
HE	1.5283E-02	1.0722E-02	6.4174E-03
HE+	2.2156E-03	5.3346E-03	6.0945E-03
HE++	5.5878E-09	8.1649E-05	2.5625E-03

TABLE I. - Continued

$p_1 = 50\ kN/m^2$

P1 = 5.00E+04 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2910E+03	2.0733E+04	4.1216E+04
T	1.2321E+02	2.5100E+02	3.9390E+02
RHO	9.1363E+00	2.6168E+01	3.1057E+01
H	5.4387E+02	9.2677E+02	1.3429E+03
A	1.8125E+01	2.0698E+01	3.3652E+01
S	2.9232E+00	3.0310E+00	3.1623E+00
Z	2.9235E+00	3.1565E+00	3.3691E+00
GAME	9.1203E-01	8.9968E-01	8.5334E-01
U	4.5648E+01	1.5908E+01	1.9019E+01

SPECIES	MOLE FRACTIONS		
E-	3.3421E-01	3.8289E-01	4.2158E-01
H	3.1642E-01	2.2220E-01	1.5346E-01
H+	3.3062E-01	3.7732E-01	4.0877E-01
H2	2.9748E-05	1.4286E-06	2.1407E-07
H-	4.2290E-04	1.0841E-03	9.8859E-04
H2+	1.1963E-03	6.6067E-04	3.5836E-04
HE	1.4281E-02	1.0015E-02	5.1501E-03
HE+	2.8224E-03	5.6595E-03	5.5485E-03
HE++	1.7322E-08	1.6528E-04	3.7420E-03

P1 = 5.00E+04 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6852E+03	2.1716E+04	4.5035E+04
T	1.3695E+02	2.8218E+02	4.4921E+02
RHO	8.8071E+00	2.3589E+01	2.8926E+01
H	6.1111E+02	1.0293E+03	1.5219E+03
A	1.9907E+01	2.9040E+01	3.6580E+01
S	3.0085E+00	3.0997E+00	3.2316E+00
Z	3.0555E+00	3.2624E+00	3.4659E+00
GAME	9.4708E-01	9.1603E-01	8.5545E-01
U	4.8196E+01	1.7990E+01	2.1079E+01

SPECIES	MOLE FRACTIONS		
E-	3.6265E-01	4.0273E-01	4.3764E-01
H	2.6181E-01	1.8473E-01	1.2651E-01
H+	3.5798E-01	3.9587E-01	4.2040E-01
H2	1.1684E-05	6.0139E-07	1.0374E-07
H-	3.4083E-04	8.9421E-04	7.6147E-04
H2+	8.4298E-04	4.5030E-04	2.6123E-04
HE	1.2194E-02	8.5632E-03	4.9570E-03
HE+	4.1695E-03	6.2227E-03	5.2035E-03
HE++	1.5195E-07	5.4023E-04	6.2657E-03

P1 = 5.00E+04 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4869E+03	2.1272E+04	4.3276E+04
T	1.2968E+02	2.6646E+02	4.2144E+02
RHO	8.9967E+00	2.4867E+01	3.0036E+01
H	5.7705E+02	9.7754E+02	1.4318E+03
A	1.8965E+01	2.7867E+01	3.5116E+01
S	2.9657E+00	3.0655E+00	3.1969E+00
Z	2.9886E+00	3.2104E+00	3.4188E+00
GAME	9.2799E-01	9.0779E-01	8.5586E-01
U	4.6943E+01	1.6996E+01	2.0055E+01

SPECIES	MOLE FRACTIONS		
E-	3.4856E-01	3.9315E-01	4.2994E-01
H	2.8685E-01	2.0272E-01	1.3943E-01
H+	3.4445E-01	3.8702E-01	4.1483E-01
H2	1.9032E-05	9.1981E-07	1.4815E-07
H-	3.7884E-04	9.9024E-04	8.7245E-04
H2+	1.0168E-03	5.4469E-04	3.0587E-04
HE	1.3253E-02	9.3108E-03	5.9691E-03
HE+	3.4769E-03	5.9561E-03	5.6357E-03
HE++	5.1427E-08	3.0743E-04	5.0199E-03

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 4.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1127E+01	2.3180E+01	5.6583E+01
T	2.8250E+00	3.5120E+00	4.9536E+00
RHO	3.9387E+00	6.6011E+00	1.1423E+01
H	2.8883E+00	3.6144E+00	5.1972E+00
A	1.6758E+00	1.8612E+00	2.1886E+00
S	1.0754E+00	1.0779E+00	1.1015E+00
Z	1.0000E+00	1.0000E+00	1.0000E+00
GAME	9.9406E-01	9.8632E-01	9.6694E-01
U	2.3185E+00	1.3798E+00	1.2214E+00

SPECIES	MOLE FRACTIONS		
E-	1.0329E-66	2.4145E-48	1.2866E-32
H	6.2120E-12	8.8884E-10	1.9342E-06
H+	3.3837E-21	6.8707E-21	1.6251E-20
H2	9.5000E-01	9.5000E-01	9.5000E-01
H-	3.0075E-73	3.3127E-53	5.9516E-36
H2+	6.0377E-20	5.6590E-20	4.7209E-20
HE	5.0000E-02	5.0000E-02	5.0000E-02
HE+	2.4692E-73	3.7159E-62	1.0544E-52
HE++	0.	0.	0.

P1 = 1.00E+05 N/SQ-M, US1 = 5.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7520E+01	4.6640E+01	1.0223E+02
T	3.8703E+00	5.1635E+00	7.0444E+00
RHO	4.5267E+00	9.0310E+00	1.4510E+01
H	3.9997E+00	5.4351E+00	7.6515E+00
A	1.9491E+00	2.2314E+00	2.5776E+00
S	1.1176E+00	1.1237E+00	1.1517E+00
Z	1.0000E+00	1.0000E+00	1.0002E+00
GAME	9.8155E-01	9.6429E-01	9.4306E-01
U	3.0256E+00	1.5136E+00	1.3726E+00

SPECIES	MOLE FRACTIONS		
E-	5.8546E-45	1.3627E-29	6.7444E-19
H	2.2413E-08	4.7142E-06	3.2418E-04
H+	1.1600E-20	1.9375E-20	4.0699E-19
H2	9.5000E-01	9.5000E-01	9.4968E-01
H-	1.4377E-49	8.2627E-33	1.8442E-20
H2+	5.1860E-20	4.4085E-20	2.2244E-19
HE	5.0000E-02	5.0000E-02	4.9992E-02
HE+	1.6918E-60	5.1787E-51	2.3943E-40
HE++	0.	0.	0.

P1 = 1.00E+05 N/SQ-M, US1 = 6.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5422E+01	7.9860E+01	1.6214E+02
T	5.0966E+00	7.0821E+00	9.3049E+00
RHO	4.9878E+00	1.1274E+01	1.7372E+01
H	5.3591E+00	7.6990E+00	1.0607E+01
A	2.2178E+00	2.5834E+00	2.9174E+00
S	1.1587E+00	1.1686E+00	1.1995E+00
Z	1.0000E+00	1.0002E+00	1.0030E+00
GAME	9.6509E-01	9.4221E-01	9.1195E-01
U	3.7274E+00	1.6451E+00	1.5020E+00

SPECIES	MOLE FRACTIONS		
E-	9.5761E-31	1.2839E-18	5.1706E-14
H	4.8854E-06	3.9518E-04	6.0758E-03
H+	2.3008E-20	5.8525E-19	2.8363E-14
H2	9.5000E-01	9.4961E-01	9.4408E-01
H-	3.1767E-34	5.2725E-21	2.1147E-15
H2+	4.0452E-20	7.6738E-19	2.5458E-14
HE	5.0000E-02	4.9990E-02	4.9848E-02
HE+	8.6921E-52	4.5806E-41	1.4552E-32
HE++	0.	0.	0.

P1 = 1.00E+05 N/SQ-M, US1 = 7.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4842E+01	1.2419E+02	2.3628E+02
T	6.4766E+00	9.1598E+00	1.1412E+01
RHO	5.3792E+00	1.3518E+01	2.0385E+01
H	6.9677E+00	1.0420E+01	1.4008E+01
A	2.4787E+00	2.8947E+00	3.1583E+00
S	1.1979E+00	1.2120E+00	1.2452E+00
Z	1.0001E+00	1.0030E+00	1.0157E+00
GAME	9.4857E-01	9.1208E-01	8.8248E-01
U	4.4272E+00	1.7593E+00	1.5881E+00

SPECIES	MOLE FRACTIONS		
E-	3.8196E-20	3.4450E-14	2.1417E-11
H	1.8081E-04	5.9362E-03	3.0951E-02
H+	5.2021E-20	1.9588E-14	1.3424E-11
H2	9.4982E-01	9.4421E-01	9.1582E-01
H-	1.0522E-22	1.1286E-15	2.1871E-12
H2+	4.9734E-20	1.5990E-14	1.0180E-11
HE	4.9995E-02	4.9852E-02	4.9226E-02
HE+	3.3893E-45	2.4423E-33	5.7975E-27
HE++	0.	0.	0.

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 8.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.5845E+01	1.8330E+02	3.2717E+02
T	7.9675E+00	1.1167E+01	1.3271E+01
RHO	5.7477E+00	1.6174E+01	2.3668E+01
H	8.8289E+00	1.3647E+01	1.7878E+01
A	2.7190E+00	3.1620E+00	3.4670E+00
S	1.2354E+00	1.2546E+00	1.2906E+00
Z	1.0011E+00	1.0149E+00	1.0416E+00
GAME	9.2684E-01	8.8222E-01	8.6955E-01
U	5.1332E+00	1.8202E+00	1.0474E+00

SPECIES	MOLE FRACTIONS		
E-	3.7581E-16	1.3237E-11	8.5505E-10
H	2.1885E-03	2.9448E-02	7.9900E-02
H+	2.2785E-16	8.4417E-12	5.8902E-10
H2	9.4787E-01	9.2129E-01	8.7210E-01
H-	3.7816E-18	1.0929E-12	1.5002E-10
H2+	1.5181E-16	5.8681E-12	4.1604E-10
HE	4.9945E-02	4.9264E-02	4.8003E-02
HE+	4.3745E-38	4.9226E-28	1.8660E-23
HE++	0.	0.	2.0615E-82

P1 = 1.00E+05 N/SQ-M, US1 = 1.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.3056E+01	3.6238E+02	5.8966E+02
T	1.0798E+01	1.4664E+01	1.6700E+01
RHO	6.6473E+00	2.2951E+01	3.1256E+01
H	1.3328E+01	2.1674E+01	2.7340E+01
A	3.0993E+00	3.6988E+00	4.0606E+00
S	1.3072E+00	1.3414E+00	1.3844E+00
Z	1.0178E+00	1.0767E+00	1.1297E+00
GAME	8.7403E-01	8.6649E-01	8.7400E-01
U	6.5984E+00	1.9076E+00	1.7772E+00

SPECIES	MOLE FRACTIONS		
E-	9.7072E-12	7.7411E-09	7.8223E-08
H	3.5040E-02	1.4251E-01	2.2957E-01
H+	6.9764E-12	5.7563E-09	6.1784E-08
H2	9.1584E-01	8.1105E-01	7.2617E-01
H-	4.6191E-13	1.6950E-09	2.5471E-08
H2+	3.1927E-12	3.6798E-09	4.1910E-08
HE	4.9124E-02	4.6437E-02	4.4261E-02
HE+	3.3611E-28	1.9767E-21	4.2704E-19
HE++	0.	2.6970E-75	1.4265E-66

P1 = 1.00E+05 N/SQ-M, US1 = 9.00E+03 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8550E+01	2.6106E+02	4.4210E+02
T	9.4507E+00	1.2980E+01	1.4999E+01
RHO	6.1591E+00	1.9343E+01	2.7293E+01
H	1.0948E+01	1.7394E+01	2.2302E+01
A	2.9212E+00	3.4234E+00	3.7506E+00
S	1.2715E+00	1.2975E+00	1.3369E+00
Z	1.0059E+00	1.0398E+00	1.0800E+00
GAME	8.9767E-01	8.6834E-01	8.6839E-01
U	5.8556E+00	1.8626E+00	1.7072E+00

SPECIES	MOLE FRACTIONS		
E-	1.6244E-13	5.7833E-10	1.0959E-08
H	1.1742E-02	7.6599E-02	1.4816E-01
H+	1.0905E-13	4.0245E-10	8.1254E-09
H2	9.3855E-01	8.7532E-01	8.0554E-01
H-	4.1448E-15	8.6042E-11	2.7513E-09
H2+	5.7536E-14	2.6192E-10	5.5851E-09
HE	4.9706E-02	4.8085E-02	4.6296E-02
HE+	1.8814E-32	6.1529E-24	4.9840E-21
HE++	0.	5.9493E-85	6.4957E-74

P1 = 1.00E+05 N/SQ-M, US1 = 1.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.9336E+01	4.8876E+02	7.7491E+02
T	1.1985E+01	1.6288E+01	1.8445E+01
RHO	7.1834E+00	2.6702E+01	3.5306E+01
H	1.5967E+01	2.6460E+01	3.3047E+01
A	3.2731E+00	3.9935E+00	4.4051E+00
S	1.3433E+00	1.3863E+00	1.4334E+00
Z	1.0377E+00	1.1238E+00	1.1899E+00
GAME	8.6140E-01	8.7128E-01	8.8412E-01
U	7.3538E+00	1.9768E+00	1.8754E+00

SPECIES	MOLE FRACTIONS		
E-	1.5488E-10	5.4880E-08	3.9332E-07
H	7.2571E-02	2.2026E-01	3.1918E-01
H+	1.1633E-10	4.3213E-08	3.2805E-07
H2	8.7924E-01	7.3525E-01	6.3880E-01
H-	1.0944E-11	1.5808E-08	1.5479E-07
H2+	4.9496E-11	2.7475E-08	2.2006E-07
HE	4.8186E-02	4.4493E-02	4.2021E-02
HE+	1.0822E-25	1.6496E-19	1.7121E-17
HE++	1.6527E-89	4.4281E-68	1.4375E-60

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 1.20E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0736E+02	6.4093E+02	9.9900E+02
T	1.3054E+01	1.7906E+01	2.0276E+01
RHO	7.7257E+00	3.0345E+01	3.9116E+01
H	1.8861E+01	3.1747E+01	3.9416E+01
A	3.4501E+00	4.3116E+00	4.7885E+00
S	1.3801E+00	1.4324E+00	1.4838E+00
Z	1.0646E+00	1.1796E+00	1.2596E+00
GAME	8.5655E-01	8.8014E-01	8.9781E-01
U	8.1162E+00	2.0648E+00	1.9961E+00

SPECIES	MOLE FRACTIONS		
E-	1.2066E-09	2.6591E-07	1.5685E-06
H	1.2128E-01	3.0450E-01	4.1218E-01
H+	9.4000E-10	2.2013E-07	1.3701E-06
H2	8.3175E-01	6.5311E-01	5.4812E-01
H-	1.1361E-10	9.3262E-08	7.0360E-07
H2+	3.8018E-10	1.3904E-07	9.0193E-07
HE	4.6968E-02	4.2388E-02	3.5655E-02
HE+	9.9571E-24	6.0828E-18	4.1844E-16
HE++	7.2143E-83	2.7361E-62	2.4813E-55

P1 = 1.00E+05 N/SQ-M, US1 = 1.40E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4815E+02	1.0092E+03	1.5556E+03
T	1.4981E+01	2.1229E+01	2.4371E+01
RHO	8.7044E+00	3.6235E+01	4.4880E+01
H	2.5397E+01	4.3651E+01	5.4121E+01
A	3.8230E+00	5.0234E+00	5.6938E+00
S	1.4566E+00	1.5262E+00	1.5869E+00
Z	1.1361E+00	1.3120E+00	1.4222E+00
GAME	8.5875E-01	9.0603E-01	9.3532E-01
U	9.6247E+00	2.3154E+00	2.3222E+00

SPECIES	MOLE FRACTIONS		
E-	2.2325E-08	3.1383E-06	1.6234E-05
H	2.3957E-01	4.7562E-01	5.9370E-01
H+	1.8451E-08	2.8110E-06	1.5162E-05
H2	7.1642E-01	4.8626E-01	3.7110E-01
H-	3.0538E-09	1.3719E-06	8.1052E-06
H2+	6.9286E-09	1.6992E-06	9.1775E-06
HE	4.4011E-02	3.8109E-02	3.5156E-02
HE+	6.5489E-21	1.8334E-15	9.6090E-14
HE++	1.0794E-73	6.5326E-53	1.5299E-46

P1 = 1.00E+05 N/SQ-M, US1 = 1.30E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.2695E+02	8.1482E+02	1.2589E+03
T	1.4042E+01	1.9539E+01	2.2226E+01
RHO	8.2474E+00	3.3560E+01	4.2355E+01
H	2.2004E+01	3.7475E+01	4.6417E+01
A	3.6328E+00	4.6534E+00	5.2143E+00
S	1.4179E+00	1.4790E+00	1.5349E+00
Z	1.0976E+00	1.2427E+00	1.3373E+00
GAME	8.5627E-01	8.9184E-01	9.1476E-01
U	8.8723E+00	2.1793E+00	2.1417E+00

SPECIES	MOLE FRACTIONS		
E-	5.9910E-09	9.9432E-07	5.3096E-06
H	1.7783E-01	3.9054E-01	5.0444E-01
H+	4.8152E-09	8.5915E-07	4.8163E-06
H2	7.7661E-01	5.6922E-01	4.5816E-01
H-	6.9742E-10	3.9921E-07	2.5747E-06
H2+	1.8733E-09	5.3438E-07	3.0680E-06
HE	4.5554E-02	4.0236E-02	3.7389E-02
HE+	3.4235E-22	1.2633E-16	7.1297E-15
HE++	2.5735E-77	4.5570E-58	1.1791E-50

P1 = 1.00E+05 N/SQ-M, US1 = 1.50E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7090E+02	1.2209E+03	1.8856E+03
T	1.5892E+01	2.3009E+01	2.6782E+01
RHO	9.1166E+00	3.8272E+01	4.6575E+01
H	2.9039E+01	5.0258E+01	6.2490E+01
A	4.0223E+00	5.4254E+00	6.2336E+00
S	1.4962E+00	1.5736E+00	1.6388E+00
Z	1.1795E+00	1.3865E+00	1.5116E+00
GAME	8.6310E-01	9.2269E-01	9.5581E-01
U	1.0372E+01	2.4749E+00	2.5239E+00

SPECIES	MOLE FRACTIONS		
E-	6.8216E-08	8.7811E-06	4.6328E-05
H	3.0439E-01	5.5746E-01	6.7677E-01
H+	5.7803E-08	8.0960E-06	4.4164E-05
H2	6.5322E-01	4.0645E-01	2.9002E-01
H-	1.0555E-08	4.0031E-06	2.2673E-05
H2+	2.0968E-08	4.6882E-06	2.4837E-05
HE	4.2390E-02	3.6063E-02	3.3077E-02
HE+	7.9453E-20	2.0019E-14	1.1119E-12
HE++	1.7963E-69	5.3114E-49	1.5384E-42

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 1.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.9518E+02	1.4460E+03	2.2500E+03
T	1.6794E+01	2.4923E+01	2.9618E+01
RHO	9.4684E+00	3.9615E+01	4.7375E+01
H	3.2931E+01	5.7283E+01	7.1657E+01
A	4.2321E+00	5.8637E+00	6.8531E+00
S	1.5366E+00	1.6207E+00	1.6907E+00
Z	1.2275E+00	1.4645E+00	1.6034E+00
GAME	8.6887E-01	9.4199E-01	9.8855E-01
U	1.1113E+01	2.6604E+00	2.7735E+00

SPECIES	MOLE FRACTIONS		
E-	1.8117E-07	2.2620E-05	1.2901E-04
H	3.7064E-01	6.3430E-01	7.5223E-01
H+	1.5704E-07	2.1323E-05	1.2448E-04
H2	5.8862E-01	3.3149E-01	2.1621E-01
H-	3.0788E-08	1.0330E-05	5.8658E-05
H2+	5.4919E-08	1.1627E-05	6.3229E-05
HE	4.0734E-02	3.4141E-02	3.1183E-02
HE+	7.0618E-19	1.8032E-13	1.2114E-11
HE++	3.1251E-66	1.3169E-45	1.2457E-38

P1 = 1.00E+05 N/SQ-M, US1 = 1.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.4829E+02	1.9175E+03	3.0770E+03
T	1.8624E+01	2.9396E+01	3.7423E+01
RHO	9.9825E+00	4.0186E+01	4.6397E+01
H	4.1459E+01	7.2515E+01	9.2649E+01
A	4.6892E+00	6.8718E+00	8.3478E+00
S	1.6193E+00	1.7130E+00	1.7920E+00
Z	1.3355E+00	1.6232E+00	1.7721E+00
GAME	8.8407E-01	9.8964E-01	1.0508E+00
U	1.2580E+01	3.1286E+00	3.4370E+00

SPECIES	MOLE FRACTIONS		
E-	9.7249E-07	1.3063E-04	1.0117E-03
H	5.0243E-01	7.6745E-01	8.6808E-01
H+	8.7745E-07	1.2634E-04	9.7650E-04
H2	4.6013E-01	2.0138E-01	1.0102E-01
H-	1.8562E-07	5.3043E-05	3.2976E-04
H2+	2.8066E-07	5.7339E-05	3.6455E-04
HE	3.7439E-02	3.0803E-02	2.8215E-02
HE+	3.2307E-17	1.0703E-11	1.4884E-09
HE++	9.6108E-60	8.8002E-39	8.2916E-31

P1 = 1.00E+05 N/SQ-M, US1 = 1.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2102E+02	1.6809E+03	2.6486E+03
T	1.7700E+01	2.7031E+01	3.3085E+01
RHO	9.7587E+00	4.0262E+01	4.7295E+01
H	3.7072E+01	6.4721E+01	8.1654E+01
A	4.4539E+00	6.3448E+00	7.5644E+00
S	1.5777E+00	1.6674E+00	1.7420E+00
Z	1.2796E+00	1.5444E+00	1.6927E+00
GAME	8.7587E-01	9.6429E-01	1.0218E+00
U	1.1852E+01	2.8756E+00	3.0747E+00

SPECIES	MOLE FRACTIONS		
E-	4.3541E-07	5.5309E-05	3.6028E-04
H	4.3702E-01	7.0482E-01	8.1724E-01
H+	3.8538E-07	5.2968E-05	3.4897E-04
H2	5.2391E-01	2.6264E-01	1.5221E-01
H-	7.9295E-08	2.4316E-05	1.4340E-04
H2+	1.2932E-07	2.6657E-05	1.5472E-04
HE	3.9075E-02	3.2375E-02	2.9539E-02
HE+	5.1194E-18	1.4451E-12	1.3342E-10
HE++	5.6822E-63	3.2543E-42	1.1240E-34

P1 = 1.00E+05 N/SQ-M, US1 = 1.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7692E+02	2.1511E+03	3.5308E+03
T	1.9581E+01	3.2111E+01	4.2745E+01
RHO	1.0140E+01	3.9460E+01	4.5024E+01
H	4.6091E+01	8.0640E+01	1.0456E+02
A	4.9399E+00	7.4469E+00	9.1020E+00
S	1.6613E+00	1.7573E+00	1.8398E+00
Z	1.3947E+00	1.6977E+00	1.8346E+00
GAME	8.9355E-01	1.0173E+00	1.0564E+00
U	1.3298E+01	3.4139E+00	3.8627E+00

SPECIES	MOLE FRACTIONS		
E-	2.0573E-06	3.0287E-04	2.7357E-03
H	5.6603E-01	8.2089E-01	9.0108E-01
H+	1.8889E-06	2.9421E-04	2.6189E-03
H2	3.9812E-01	1.4883E-01	6.4808E-02
H-	4.0329E-07	1.0883E-04	6.9108E-04
H2+	5.7166E-07	1.1750E-04	8.0785E-04
HE	3.5849E-02	2.9452E-02	2.7253E-02
HE+	1.8069E-16	7.5616E-11	1.5278E-08
HE++	7.1373E-57	1.2361E-35	4.1525E-27

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 2.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0701E+02	2.3770E+03	3.9935E+03
T	2.0590E+01	3.5288E+01	4.8576E+01
RHO	1.0235E+01	3.8185E+01	4.3765E+01
H	5.0970E+01	8.9095E+01	1.1706E+02
A	5.2091E+00	8.0609E+00	9.6725E+00
S	1.7036E+00	1.7998E+00	1.8841E+00
Z	1.4569E+00	1.7640E+00	1.8785E+00
GAME	9.0458E-01	1.0439E+00	1.0253E+00
U	1.4011E+01	3.7460E+00	4.2708E+00

SPECIES	MOLE FRACTIONS		
E-	4.1978E-06	6.9529E-04	6.3882E-03
H	6.2717E-01	8.6392E-01	9.1524E-01
H+	3.9135E-06	6.7535E-04	6.0616E-03
H2	3.3850E-01	1.0592E-01	4.2892E-02
H-	8.2890E-07	2.1152E-04	1.2382E-03
H2+	1.1111E-06	2.3146E-04	1.5647E-03
HE	3.4321E-02	2.8345E-02	2.6617E-02
HE+	9.3725E-16	5.2266E-10	1.1242E-07
HE++	3.5410E-54	1.5699E-32	5.8831E-24

P1 = 1.00E+05 N/SQ-M, US1 = 2.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.7126E+02	2.7832E+03	4.8669E+03
T	2.2868E+01	4.3090E+01	5.8997E+01
RHO	1.0231E+01	3.4720E+01	4.2652E+01
H	6.1464E+01	1.0684E+02	1.4250E+02
A	5.8186E+00	9.2071E+00	1.0336E+01
S	1.7879E+00	1.8787E+00	1.9606E+00
Z	1.5868E+00	1.8604E+00	1.9341E+00
GAME	9.3298E-01	1.0575E+00	9.3630E-01
U	1.5412E+01	4.5340E+00	4.8634E+00

SPECIES	MOLE FRACTIONS		
E-	1.6633E-05	3.2824E-03	1.9095E-02
H	7.3959E-01	9.1457E-01	9.0740E-01
H+	1.5932E-05	3.1642E-03	1.7911E-02
H2	2.2886E-01	5.0697E-02	2.3674E-02
H-	3.1314E-06	6.4663E-04	2.4418E-03
H2+	3.8320E-06	7.6478E-04	3.6243E-03
HE	3.1509E-02	2.6876E-02	2.5850E-02
HE+	2.3059E-14	1.9425E-08	1.5462E-06
HE++	4.1469E-49	8.5002E-27	7.5762E-20

P1 = 1.00E+05 N/SQ-M, US1 = 2.10E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.3848E+02	2.5873E+03	4.4422E+03
T	2.1675E+01	3.8948E+01	5.4057E+01
RHO	1.0266E+01	3.6535E+01	4.3043E+01
H	5.6095E+01	9.7824E+01	1.2972E+02
A	5.5302E+00	8.6670E+00	1.0049E+01
S	1.7459E+00	1.8401E+00	1.9236E+00
Z	1.5212E+00	1.8183E+00	1.9091E+00
GAME	9.1752E-01	1.0607E+00	9.7839E-01
U	1.4716E+01	4.1309E+00	4.6012E+00

SPECIES	MOLE FRACTIONS		
E-	8.3856E-06	1.5461E-03	1.1997E-02
H	6.8521E-01	8.9507E-01	9.1526E-01
H+	7.9331E-06	1.4990E-03	1.1306E-02
H2	2.8190E-01	7.3570E-02	3.0850E-02
H-	1.6345E-06	3.8402E-04	1.8542E-03
H2+	2.0870E-06	4.3310E-04	2.5447E-03
HE	3.2809E-02	2.7499E-02	2.6189E-02
HE+	4.6733E-15	3.3687E-09	5.0337E-07
HE++	1.4474E-51	1.4496E-29	1.3304E-21

P1 = 1.00E+05 N/SQ-M, US1 = 2.30E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.0528E+02	2.9643E+03	5.2551E+03
T	2.4212E+01	4.7417E+01	6.3344E+01
RHO	1.0129E+01	3.3047E+01	4.2405E+01
H	6.7074E+01	1.1617E+02	1.5532E+02
A	6.1715E+00	9.6228E+00	1.0588E+01
S	1.8296E+00	1.9151E+00	1.9958E+00
Z	1.6526E+00	1.8917E+00	1.9564E+00
GAME	9.5188E-01	1.0323E+00	9.0458E-01
U	1.6096E+01	4.9340E+00	5.0585E+00

SPECIES	MOLE FRACTIONS		
E-	3.3294E-05	6.2949E-03	2.6972E-02
H	7.8967E-01	9.2311E-01	8.9560E-01
H+	3.2236E-05	6.0431E-03	2.5226E-02
H2	1.8000E-01	3.5896E-02	1.9021E-02
H-	5.9006E-06	9.8522E-04	2.9402E-03
H2+	6.9593E-06	1.2370E-03	4.6821E-03
HE	3.0256E-02	2.6432E-02	2.5554E-02
HE+	1.1821E-13	8.9047E-08	3.6180E-06
HE++	2.5906E-46	2.0842E-24	1.6039E-18

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 2.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.4042E+02	3.1402E+03	5.5536E+03
T	2.5773E+01	5.1748E+01	6.7187E+01
RHO	9.9547E+00	3.1660E+01	4.2105E+01
H	7.2921E+01	1.2592E+02	1.6812E+02
A	6.5691E+00	9.9369E+00	1.0822E+01
S	1.8704E+00	1.9503E+00	2.0268E+00
Z	1.7166E+00	1.9167E+00	1.9773E+00
GAME	9.7538E-01	9.9555E-01	8.8153E-01
U	1.6766E+01	5.2632E+00	5.1904E+00

SPECIES	MOLE FRACTIONS		
E-	6.8249E-05	1.0852E-02	3.5173E-02
H	8.3468E-01	9.2306E-01	8.8200E-01
H+	6.6664E-05	1.0384E-02	3.2850E-02
H2	1.3603E-01	2.6412E-02	1.5711E-02
H-	1.1051E-05	1.3695E-03	3.3307E-03
H2+	1.2636E-05	1.8369E-03	5.6471E-03
HE	2.9128E-02	2.6087E-02	2.5280E-02
HE+	6.4438E-13	3.2069E-07	7.0472E-06
HE++	1.4075E-43	2.0914E-22	1.7422E-17

P1 = 1.00E+05 N/SQ-M, US1 = 2.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.1317E+02	3.4442E+03	6.0823E+03
T	2.9925E+01	5.9520E+01	7.3828E+01
RHO	9.3793E+00	2.9547E+01	4.0820E+01
H	8.5298E+01	1.4652E+02	1.9387E+02
A	7.5362E+00	1.0412E+01	1.1265E+01
S	1.9481E+00	2.0173E+00	2.0970E+00
Z	1.8284E+00	1.9584E+00	2.0182E+00
GAME	1.0380E+00	9.2997E-01	8.5168E-01
U	1.8039E+01	5.7197E+00	5.3685E+00

SPECIES	MOLE FRACTIONS		
E-	3.2504E-04	2.3646E-02	5.2062E-02
H	9.0511E-01	9.0684E-01	8.5245E-01
H+	3.2108E-04	2.2556E-02	4.8660E-02
H2	6.6811E-02	1.6180E-02	1.1072E-02
H-	3.9149E-05	2.0804E-03	3.8015E-03
H2+	4.3110E-05	3.1680E-03	7.1842E-03
HE	2.7347E-02	2.5529E-02	2.4755E-02
HE+	2.6450E-11	2.0524E-06	1.9349E-05
HE++	1.2213E-37	1.6028E-19	6.2888E-16

P1 = 1.00E+05 N/SQ-M, US1 = 2.50E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	4.7653E+02	3.3031E+03	5.8746E+03
T	2.7642E+01	5.5788E+01	7.0664E+01
RHO	9.7054E+00	3.0549E+01	4.1613E+01
H	7.9001E+01	1.3607E+02	1.8100E+02
A	7.0228E+00	1.0187E+01	1.1047E+01
S	1.9100E+00	1.9839E+00	2.0635E+00
Z	1.7763E+00	1.9361E+00	1.9978E+00
GAME	1.0045E+00	9.5982E-01	8.6445E-01
U	1.7418E+01	5.5283E+00	5.2891E+00

SPECIES	MOLE FRACTIONS		
E-	1.4551E-04	1.6714E-02	4.3575E-02
H	8.7360E-01	9.1694E-01	8.6745E-01
H+	1.4309E-04	1.5961E-02	4.0689E-02
H2	9.7918E-02	2.0348E-02	1.3151E-02
H-	2.0757E-05	1.7447E-03	3.6170E-03
H2+	2.3175E-05	2.4976E-03	6.4911E-03
HE	2.8149E-02	2.5797E-02	2.5015E-02
HE+	3.8857E-12	8.9385E-07	1.2190E-05
HE++	1.0022E-40	8.2425E-21	1.2264E-16

P1 = 1.00E+05 N/SQ-M, US1 = 2.70E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.5057E+02	3.5673E+03	6.2290E+03
T	3.2717E+01	6.2957E+01	7.6774E+01
RHO	9.0000E+00	2.8639E+01	3.9794E+01
H	9.1818E+01	1.5732E+02	2.0684E+02
A	8.0861E+00	1.0626E+01	1.1479E+01
S	1.9841E+00	2.0504E+00	2.1307E+00
Z	1.8698E+00	1.9784E+00	2.0389E+00
GAME	1.0688E+00	9.0648E-01	8.4186E-01
U	1.8639E+01	5.8510E+00	5.4326E+00

SPECIES	MOLE FRACTIONS		
E-	7.5119E-04	3.1356E-02	6.0664E-02
H	9.2805E-01	8.9413E-01	8.3704E-01
H+	7.4374E-04	2.9903E-02	5.6803E-02
H2	4.3563E-02	1.3170E-02	9.3359E-03
H-	7.3300E-05	2.3617E-03	3.9012E-03
H2+	8.0752E-05	3.8101E-03	7.7333E-03
HE	2.6741E-02	2.5268E-02	2.4494E-02
HE+	1.9616E-10	4.0715E-06	2.8949E-05
HE++	1.7695E-34	1.8362E-18	2.5948E-15

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 2.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	5.8871E+02	3.6795E+03	6.3386E+03
T	3.5993E+01	6.6140E+01	7.9565E+01
RHO	8.6096E+00	2.7837E+01	3.8676E+01
H	9.8558E+01	1.6845E+02	2.1995E+02
A	8.6058E+00	1.0836E+01	1.1692E+01
S	2.0178E+00	2.0832E+00	2.1642E+00
Z	1.8998E+00	1.9985E+00	2.0598E+00
GAME	1.0831E+00	8.8827E-01	8.3411E-01
U	1.9221E+01	5.9387E+00	5.4879E+00

SPECIES	MOLE FRACTIONS		
E-	1.7133E-03	3.9588E-02	6.9347E-02
H	9.4199E-01	8.7973E-01	8.2132E-01
H+	1.6973E-03	3.7765E-02	6.5085E-02
H2	2.7999E-02	1.0913E-02	7.8833E-03
H-	1.3183E-04	2.5868E-03	3.9357E-03
H2+	1.4789E-04	4.4026E-03	8.1567E-03
HE	2.6319E-02	2.5011E-02	2.4233E-02
HE+	1.4160E-09	7.2397E-06	4.1468E-05
HE++	2.3501E-31	1.4165E-17	9.1333E-15

P1 = 1.00E+05 N/SQ-M, US1 = 3.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.6893E+02	3.9580E+03	6.6248E+03
T	4.3186E+01	7.2088E+01	8.5041E+01
RHO	7.9950E+00	2.6926E+01	3.7059E+01
H	1.1275E+02	1.9206E+02	2.4741E+02
A	9.3519E+00	1.1257E+01	1.2123E+01
S	2.0785E+00	2.1465E+00	2.2292E+00
Z	1.9374E+00	2.0392E+00	2.1021E+00
GAME	1.0453E+00	8.6206E-01	8.2209E-01
U	2.0388E+01	6.0388E+00	5.5955E+00

SPECIES	MOLE FRACTIONS		
E-	6.8352E-03	5.7033E-02	8.6820E-02
H	9.4693E-01	8.4777E-01	7.8915E-01
H+	6.7634E-03	5.4453E-02	8.1856E-02
H2	1.2928E-02	7.8299E-03	5.6844E-03
H-	3.3271E-04	2.9184E-03	3.9069E-03
H2+	4.0446E-04	5.4758E-03	8.7927E-03
HE	2.5808E-02	2.4501E-02	2.3708E-02
HE+	3.9357E-08	1.8558E-05	7.8453E-05
HE++	3.8369E-26	4.0064E-16	8.5567E-14

P1 = 1.00E+05 N/SQ-M, US1 = 2.90E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	6.2800E+02	3.8031E+03	6.4571E+03
T	3.9567E+01	6.9164E+01	8.2258E+01
RHO	8.2626E+00	2.7253E+01	3.7704E+01
H	1.0553E+02	1.8002E+02	2.3340E+02
A	9.0302E+00	1.1046E+01	1.1906E+01
S	2.0492E+00	2.1152E+00	2.1972E+00
Z	1.9209E+00	2.0188E+00	2.0809E+00
GAME	1.0729E+00	8.7382E-01	8.2768E-01
U	1.9799E+01	5.9674E+00	5.5407E+00

SPECIES	MOLE FRACTIONS		
E-	3.6240E-03	4.8197E-02	7.8101E-02
H	9.4778E-01	8.6413E-01	8.0529E-01
H+	3.5886E-03	4.5558E-02	7.3477E-02
H2	1.8502E-02	9.1828E-03	6.6762E-03
H-	2.1954E-04	2.7691E-03	3.9309E-03
H2+	2.5498E-04	4.9564E-03	8.4975E-03
HE	2.6029E-02	2.4756E-02	2.3970E-02
HE+	8.5499E-09	1.1925E-05	5.7668E-05
HE++	1.5604E-28	8.3233E-17	2.8981E-14

P1 = 1.00E+05 N/SQ-M, US1 = 3.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	7.5698E+02	4.3883E+03	7.1713E+03
T	4.9916E+01	7.7874E+01	9.0916E+01
RHO	7.7067E+00	2.7086E+01	3.6765E+01
H	1.2830E+02	2.1799E+02	2.7770E+02
A	9.8257E+00	1.1691E+01	1.2586E+01
S	2.1326E+00	2.2066E+00	2.2923E+00
Z	1.9678E+00	2.0805E+00	2.1452E+00
GAME	9.8291E-01	8.4365E-01	8.1215E-01
U	2.1634E+01	6.1448E+00	5.7252E+00

SPECIES	MOLE FRACTIONS		
E-	1.7344E-02	7.5051E-02	1.0453E-01
H	9.3120E-01	8.1375E-01	7.5600E-01
H+	1.7138E-02	7.1686E-02	9.8917E-02
H2	7.5109E-03	5.8621E-03	4.1244E-03
H-	5.9551E-04	3.1478E-03	3.8225E-03
H2+	8.0064E-04	6.4731E-03	9.2987E-03
HE	2.5409E-02	2.3993E-02	2.3164E-02
HE+	3.7746E-07	4.0124E-05	1.4106E-04
HE++	1.3121E-22	6.2961E-15	6.9006E-13

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 3.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	8.5358E+02	4.9800E+03	7.9835E+03
T	5.5735E+01	8.3737E+01	9.7349E+01
RHO	7.6532E+00	2.8022E+01	3.7452E+01
H	1.4434E+02	2.4641E+02	3.1118E+02
A	1.0229E+01	1.2143E+01	1.3088E+01
S	2.1830E+00	2.2647E+00	2.3537E+00
Z	2.0011E+00	2.1224E+00	2.1897E+00
GAME	9.3817E-01	8.2966E-01	8.0355E-01
U	2.2963E+01	6.2648E+00	5.8886E+00

SPECIES	MOLE FRACTIONS		
E-	3.1935E-02	9.3049E-02	1.2206E-01
H	9.0431E-01	7.7938E-01	7.2294E-01
H+	3.1525E-02	8.8896E-02	1.1588E-01
H2	5.1333E-03	4.4677E-03	2.9687E-03
H-	8.5209E-04	3.2862E-03	3.6914E-03
H2+	1.2599E-03	7.3614E-03	9.6282E-03
HE	2.4984E-02	2.3480E-02	2.2591E-02
HE+	1.7211E-06	7.8133E-05	2.4381E-04
HE++	3.0951E-20	6.9249E-14	5.0217E-12

P1 = 1.00E+05 N/SQ-M, US1 = 3.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.0704E+03	6.5501E+03	1.0237E+04
T	6.5426E+01	9.6C94E+01	1.1257E+02
RHO	7.8748E+00	3.0877E+01	3.9826E+01
H	1.8022E+02	3.1010E+02	3.8757E+02
A	1.0998E+01	1.3107E+01	1.4246E+01
S	2.2791E+00	2.3780E+00	2.4752E+00
Z	2.0777E+00	2.2076E+00	2.2834E+00
GAME	8.8982E-01	8.0979E-01	7.8959E-01
U	2.5772E+01	6.5710E+00	6.3481E+00

SPECIES	MOLE FRACTIONS		
E-	6.6619E-02	1.2774E-01	1.5680E-01
H	8.3722E-01	7.1302E-01	6.5713E-01
H+	6.5686E-02	1.2225E-01	1.5007E-01
H2	2.9964E-03	2.5355E-03	1.3872E-03
H-	1.2478E-03	3.2793E-03	3.3245E-03
H2+	2.1691E-03	8.5236E-03	9.3999E-03
HE	2.4053E-02	2.2408E-02	2.1243E-02
HE+	1.1829E-05	2.4156E-04	6.5450E-04
HE++	3.2495E-17	4.2299E-12	2.1866E-10

P1 = 1.00E+05 N/SQ-M, US1 = 3.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	9.5825E+02	5.7112E+03	9.0155E+03
T	6.0827E+01	8.9797E+01	1.0446E+02
RHO	7.7298E+00	2.9379E+01	3.8615E+01
H	1.6175E+02	2.7721E+02	3.4782E+02
A	1.0617E+01	1.2615E+01	1.3633E+01
S	2.2315E+00	2.3219E+00	2.4140E+00
Z	2.0380E+00	2.1648E+00	2.2351E+00
GAME	9.0926E-01	8.1862E-01	7.9607E-01
U	2.4349E+01	6.3917E+00	6.0528E+00

SPECIES	MOLE FRACTIONS		
E-	4.8761E-02	1.1070E-01	1.3931E-01
H	8.7197E-01	7.4559E-01	6.9030E-01
H+	4.8102E-02	1.0582E-01	1.3273E-01
H2	3.8325E-03	3.3927E-03	2.0816E-03
H-	1.0722E-03	3.3278E-03	3.5188E-03
H2+	1.7262E-03	8.0702E-03	9.6878E-03
HE	2.4528E-02	2.2955E-02	2.1965E-02
HE+	5.1151E-06	1.4153E-04	4.0597E-04
HE++	1.5721E-18	5.9650E-13	3.3678E-11

P1 = 1.00E+05 N/SQ-M, US1 = 4.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.1698E+03	7.4806E+03	1.1633E+04
T	6.9706E+01	1.0288E+02	1.2179E+02
RHO	8.0539E+00	3.2286E+01	4.0927E+01
H	1.9972E+02	3.4494E+02	4.3055E+02
A	1.1376E+01	1.3637E+01	1.4930E+01
S	2.3263E+00	2.4347E+00	2.5351E+00
Z	2.1193E+00	2.2522E+00	2.3339E+00
GAME	8.7604E-01	8.0258E-01	7.8417E-01
U	2.7215E+01	6.8036E+00	6.6689E+00

SPECIES	MOLE FRACTIONS		
E-	8.4842E-02	1.4467E-01	1.7416E-01
H	8.0159E-01	6.8072E-01	6.2405E-01
H+	8.3626E-02	1.3875E-01	1.6754E-01
H2	2.3976E-03	1.8290E-03	8.7956E-04
H-	1.3783E-03	3.1566E-03	3.1663E-03
H2+	2.5706E-03	8.6715E-03	8.7830E-03
HE	2.3570E-02	2.1804E-02	2.0425E-02
HE+	2.3403E-05	3.9661E-04	9.9801E-04
HE++	3.8323E-16	2.6986E-11	1.3225E-09

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 4.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.3159E+03	8.5054E+03	1.3200E+04
T	7.3790E+01	1.1021E+02	1.3273E+02
RHO	8.2469E+00	3.3588E+01	4.1622E+01
H	2.2024E+02	3.8177E+02	4.7700E+02
A	1.1754E+01	1.4204E+01	1.5727E+01
S	2.3733E+00	2.4904E+00	2.5557E+00
Z	2.1624E+00	2.2977E+00	2.3894E+00
GAME	8.6589E-01	7.9671E-01	7.7989E-01
U	2.8669E+01	7.0442E+00	7.0754E+00

SPECIES	MOLE FRACTIONS		
E-	1.0308E-01	1.6112E-01	1.9226E-01
H	7.6590E-01	6.4933E-01	5.8931E-01
H+	1.0158E-01	1.5499E-01	1.8606E-01
H2	1.9377E-03	1.2760E-03	5.1765E-04
H-	1.4656E-03	3.0048E-03	3.0810E-03
H2+	2.9186E-03	6.5195E-03	7.8491E-03
HE	2.3081E-02	2.1139E-02	1.9490E-02
HE+	4.1780E-05	6.2136E-04	1.4354E-03
HE++	3.1192E-15	1.5448E-10	7.8149E-09

P1 = 1.00E+05 N/SQ-M, US1 = 4.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.5877E+03	1.0715E+04	1.6864E+04
T	8.1709E+01	1.2719E+02	1.6152E+02
RHO	8.6272E+00	3.5171E+01	4.1492E+01
H	2.6432E+02	4.6039E+02	5.8238E+02
A	1.2527E+01	1.5504E+01	1.7734E+01
S	2.4674E+00	2.5994E+00	2.7137E+00
Z	2.2524E+00	2.3552E+00	2.5163E+00
GAME	8.5262E-01	7.8898E-01	7.7378E-01
U	3.1587E+01	7.7698E+00	8.2772E+00

SPECIES	MOLE FRACTIONS		
E-	1.3893E-01	1.9381E-01	2.3071E-01
H	6.9574E-01	5.8678E-01	5.1448E-01
H+	1.3692E-01	1.8786E-01	2.2605E-01
H2	1.2643E-03	5.4565E-04	1.4532E-04
H-	1.5238E-03	2.7438E-03	3.2332E-03
H2+	3.4217E-03	7.3868E-03	5.5148E-03
HE	2.2089E-02	1.9569E-02	1.7488E-02
HE+	1.0989E-04	1.3062E-03	2.3823E-03
HE++	1.0317E-13	3.9206E-09	2.3311E-07

P1 = 1.00E+05 N/SQ-M, US1 = 4.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.4466E+03	9.5871E+03	1.4932E+04
T	7.7794E+01	1.1824E+02	1.4562E+02
RHO	8.4366E+00	3.4570E+01	4.1870E+01
H	2.4178E+02	4.2030E+02	5.2734E+02
A	1.2139E+01	1.4821E+01	1.6642E+01
S	2.4208E+00	2.5452E+00	2.6545E+00
Z	2.2072E+00	2.3451E+00	2.4490E+00
GAME	8.5825E-01	7.9217E-01	7.7658E-01
U	3.0128E+01	7.3582E+00	7.5944E+00

SPECIES	MOLE FRACTIONS		
E-	1.2129E-01	1.7741E-01	2.1078E-01
H	7.3025E-01	6.1822E-01	5.5344E-01
H+	1.1953E-01	1.7127E-01	2.0524E-01
H2	1.5650E-03	8.5414E-04	2.8607E-04
H-	1.5123E-03	2.8562E-03	3.1070E-03
H2+	3.2047E-03	8.0747E-03	6.7337E-03
HE	2.2584E-02	2.0395E-02	1.8507E-02
HE+	6.9742E-05	9.2592E-04	1.9098E-03
HE++	1.9903E-14	8.0782E-10	4.3004E-08

P1 = 1.00E+05 N/SQ-M, US1 = 4.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.7331E+03	1.1883E+04	1.8971E+04
T	8.5674E+01	1.3710E+02	1.8030E+02
RHO	8.7986E+00	3.5421E+01	4.0657E+01
H	2.8787E+02	5.0212E+02	6.4228E+02
A	1.2928E+01	1.6249E+01	1.8966E+01
S	2.5145E+00	2.6510E+00	2.7701E+00
Z	2.2991E+00	2.4470E+00	2.5880E+00
GAME	8.4857E-01	7.8700E-01	7.7053E-01
U	3.3044E+01	8.2176E+00	9.1176E+00

SPECIES	MOLE FRACTIONS		
E-	1.5641E-01	2.0999E-01	2.5098E-01
H	6.6158E-01	5.5558E-01	4.7464E-01
H+	1.5418E-01	2.0440E-01	2.4719E-01
H2	1.0105E-03	3.3685E-04	7.1242E-05
H-	1.5029E-03	2.6958E-03	3.4104E-03
H2+	3.5665E-03	6.5618E-03	4.3914E-03
HE	2.1580E-02	1.8708E-02	1.6517E-02
HE+	1.6744E-04	1.7252E-03	2.8018E-03
HE++	4.7390E-13	1.7186E-08	1.1434E-06

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 5.00E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	1.8845E+03	1.3061E+04	2.1243E+04
T	8.9729E+01	1.4831E+02	2.0233E+02
RHO	8.9475E+00	3.5195E+01	3.9404E+01
H	3.1241E+02	5.4529E+02	7.0713E+02
A	1.3348E+01	1.7080E+01	2.0346E+01
S	2.5619E+00	2.7014E+00	2.8252E+00
Z	2.3472E+00	2.5022E+00	2.6644E+00
GAME	8.4594E-01	7.8013E-01	7.6789E-01
U	3.4495E+01	8.7439E+00	1.0108E+01

SPECIES	MOLE FRACTIONS		
E-	1.7366E-01	2.2655E-01	2.7160E-01
H	6.2792E-01	5.2346E-01	4.3408E-01
H+	1.7123E-01	2.2145E-01	2.6853E-01
H2	7.9688E-04	1.9929E-04	3.4326E-05
H-	1.4547E-03	2.7042E-03	3.5548E-03
H2+	3.6359E-03	5.6531E-03	3.4320E-03
HE	2.1054E-02	1.7830E-02	1.5574E-02
HE+	2.4836E-04	2.1522E-03	3.1863E-03
HE++	1.9827E-12	7.0104E-08	5.0837E-06

P1 = 1.00E+05 N/SQ-M, US1 = 5.40E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.2045E+03	1.5304E+04	2.6198E+04
T	9.8221E+01	1.7419E+02	2.5336E+02
RHO	9.1745E+00	3.3538E+01	3.6722E+01
H	3.6445E+02	6.3476E+02	8.5037E+02
A	1.4246E+01	1.8946E+01	2.3301E+01
S	2.6556E+00	2.7955E+00	2.9257E+00
Z	2.4464E+00	2.6197E+00	2.8159E+00
GAME	8.4462E-01	7.8660E-01	7.6101E-01
U	3.7367E+01	1.0195E+01	1.2403E+01

SPECIES	MOLE FRACTIONS		
E-	2.0695E-01	2.5964E-01	3.0966E-01
H	5.6309E-01	4.5886E-01	3.5983E-01
H+	2.0419E-01	2.5559E-01	3.0703E-01
H2	4.7442E-04	6.6037E-05	9.0518E-06
H-	1.3027E-03	2.8048E-03	3.5610E-03
H2+	3.5582E-03	3.9507E-03	2.1475E-03
HE	1.9928E-02	1.6180E-02	1.3779E-02
HE+	5.0978E-04	2.9052E-03	3.9154E-03
HE++	2.7779E-11	3.6599E-07	6.1794E-05

P1 = 1.00E+05 N/SQ-M, US1 = 5.20E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.0417E+03	1.4199E+04	2.3664E+04
T	9.3880E+01	1.6069E+02	2.2647E+02
RHO	9.0767E+00	3.4515E+01	3.8145E+01
H	3.3794E+02	5.8945E+02	7.7645E+02
A	1.3784E+01	1.7983E+01	2.1777E+01
S	2.6087E+00	2.7497E+00	2.8759E+00
Z	2.3961E+00	2.5602E+00	2.7353E+00
GAME	8.4463E-01	7.8614E-01	7.6441E-01
U	3.5938E+01	9.4338E+00	1.1201E+01

SPECIES	MOLE FRACTIONS		
E-	1.9042E-01	2.4320E-01	2.9087E-01
H	5.9526E-01	4.9100E-01	3.9633E-01
H+	1.8782E-01	2.3864E-01	2.8820E-01
H2	6.2072E-04	1.1510E-04	1.7370E-05
H-	1.3866E-03	2.7493E-03	3.6174E-03
H2+	3.6330E-03	4.7589E-03	2.7C94E-03
HE	2.0508E-02	1.6980E-02	1.4093E-02
HE+	3.5902E-04	2.5494E-03	3.5412E-03
HE++	7.6165E-12	2.5925E-07	1.8873E-05

P1 = 1.00E+05 N/SQ-M, US1 = 5.60E+04 M/SEC
XM2 = .95 XME = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.3728E+03	1.6323E+04	2.8794E+04
T	1.0279E+02	1.8871E+02	2.8C98E+02
RHO	9.2408E+00	3.2264E+01	3.5499E+01
H	3.9193E+02	6.8077E+02	9.2784E+02
A	1.4738E+01	1.9962E+01	2.4788E+01
S	2.7022E+00	2.8396E+00	2.9707E+00
Z	2.4981E+00	2.6809E+00	2.8867E+00
GAME	8.4594E-01	7.8764E-01	7.5755E-01
U	3.8785E+01	1.1105E+01	1.3639E+01

SPECIES	MOLE FRACTIONS		
E-	2.2318E-01	2.7592E-01	3.2625E-01
H	5.3156E-01	4.2703E-01	3.2796E-01
H+	2.2026E-01	2.7227E-01	3.2329E-01
H2	3.5548E-04	3.7954E-05	5.1230E-06
H-	1.2100E-03	2.8333E-03	3.4248E-03
H2+	3.4183E-03	3.2482E-03	1.7493E-03
HE	1.9305E-02	1.5417E-02	1.2860E-02
HE+	7.1074E-04	3.2303E-03	4.2940E-03
HE++	9.6852E-11	2.6259E-06	1.6657E-04

TABLE I. - Continued

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 5.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.5463E+03	1.7305E+04	3.1405E+04
T	1.0764E+02	2.0414E+02	3.0548E+02
RHO	9.2729E+00	3.0914E+01	3.4356E+01
H	4.2039E+02	7.2794E+02	1.0084E+03
A	1.5266E+01	2.1015E+01	2.6261E+01
S	2.7484E+00	2.8817E+00	3.0132E+00
Z	2.5511E+00	2.7422E+00	2.9539E+00
GAME	8.4864E-01	7.8889E-01	7.5441E-01
U	4.0167E+01	1.2023E+01	1.4884E+01

SPECIES	MOLE FRACTIONS		
E-	2.3910E-01	2.9158E-01	3.4132E-01
H	5.0068E-01	3.9647E-01	2.9944E-01
H+	2.3602E-01	2.8819E-01	3.3763E-01
H2	2.6062E-04	2.2201E-05	3.0793E-06
H-	1.1145E-03	2.8256E-03	3.2268E-03
H2+	3.2219E-03	2.6693E-03	1.4523E-03
HE	1.8627E-02	1.4693E-02	1.1852E-02
HE+	9.7235E-04	3.5334E-03	4.6883E-03
HE++	3.2523E-10	7.2245E-06	3.8594E-04

P1 = 1.00E+05 N/SQ-M, US1 = 6.20E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.9078E+03	1.8988E+04	3.6413E+04
T	1.1842E+02	2.3595E+02	3.6738E+02
RHO	9.2276E+00	2.8136E+01	3.2202E+01
H	4.8017E+02	8.2431E+02	1.1748E+03
A	1.6451E+01	2.3127E+01	2.9120E+01
S	2.8392E+00	2.9593E+00	3.0916E+00
Z	2.6610E+00	2.8602E+00	3.0780E+00
GAME	8.5881E-01	7.9255E-01	7.4589E-01
U	4.2933E+01	1.4068E+01	1.7211E+01

SPECIES	MOLE FRACTIONS		
E-	2.7004E-01	3.2009E-01	3.6751E-01
H	4.4083E-01	3.4118E-01	2.5142E-01
H+	2.6657E-01	3.1673E-01	3.6103E-01
H2	1.3047E-04	8.3725E-06	1.2970E-06
H-	9.3608E-04	2.6724E-03	2.7440E-03
H2+	2.7044E-03	1.8379E-03	1.0499E-03
HE	1.7087E-02	1.3335E-02	9.4453E-03
HE+	1.7030E-03	4.1064E-03	5.4180E-03
HE++	3.3212E-09	3.9706E-05	1.3812E-03

P1 = 1.00E+05 N/SQ-M, US1 = 6.00E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	2.7247E+03	1.8182E+04	3.3949E+04
T	1.1283E+02	2.1993E+02	3.3838E+02
RHO	9.2689E+00	2.9501E+01	3.3246E+01
H	4.4980E+02	7.7566E+02	1.0905E+03
A	1.5834E+01	2.2074E+01	2.7708E+01
S	2.7941E+00	2.9216E+00	3.0534E+00
Z	2.6054E+00	2.8023E+00	3.0177E+00
GAME	8.5287E-01	7.9060E-01	7.5187E-01
U	4.1570E+01	1.3042E+01	1.6057E+01

SPECIES	MOLE FRACTIONS		
E-	2.5472E-01	3.0636E-01	3.5505E-01
H	4.7043E-01	3.6774E-01	2.7399E-01
H+	2.5146E-01	3.0307E-01	3.5018E-01
H2	1.8667E-04	1.3397E-05	1.5518E-06
H-	1.0217E-03	2.7683E-03	2.9915E-03
H2+	2.9797E-03	2.2051E-03	1.2257E-03
HE	1.7838E-02	1.4001E-02	1.0714E-02
HE+	1.3025E-03	3.8233E-03	5.0772E-03
HE++	1.0561E-09	1.7800E-05	7.7756E-04

P1 = 1.00E+05 N/SQ-M, US1 = 6.40E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.0952E+03	1.9700E+04	3.8738E+04
T	1.2449E+02	2.5215E+02	3.9570E+02
RHO	9.1469E+00	2.6787E+01	3.1241E+01
H	5.1148E+02	8.7366E+02	1.2607E+03
A	1.7125E+01	2.4179E+01	3.0464E+01
S	2.8835E+00	2.9955E+00	3.1271E+00
Z	2.7181E+00	2.9166E+00	3.1336E+00
GAME	8.6668E-01	7.9497E-01	7.4844E-01
U	4.4272E+01	1.5113E+01	1.8319E+01

SPECIES	MOLE FRACTIONS		
E-	2.8509E-01	3.3296E-01	3.7862E-01
H	4.1179E-01	3.1641E-01	2.3180E-01
H+	2.8137E-01	3.2940E-01	3.7020E-01
H2	8.8833E-05	5.3850E-06	9.0387E-07
H-	8.6062E-04	2.5416E-03	2.5047E-03
H2+	2.4085E-03	1.5424E-03	9.1349E-04
HE	1.6228E-02	1.2671E-02	8.1243E-03
HE+	2.1670E-03	4.3911E-03	5.6601E-03
HE++	1.0141E-08	8.1472E-05	2.1719E-03

TABLE I.- Concluded

$p_1 = 100\ kN/m^2$

P1 = 1.00E+05 N/SQ-M, US1 = 6.60E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.2864E+03	2.0318E+04	4.0925E+04
T	1.3107E+02	2.6855E+02	4.2474E+02
RHO	9.0323E+00	2.5460E+01	3.0219E+01
H	5.4372E+02	9.2365E+02	1.3487E+03
A	1.7858E+01	2.3234E+01	3.1823E+01
S	2.9266E+00	3.0309E+00	3.1625E+00
Z	2.7759E+00	2.9717E+00	3.1885E+00
GAME	8.7651E-01	7.9793E-01	7.4776E-01
U	4.5584E+01	1.6167E+01	1.9426E+01

SPECIES	MOLE FRACTIONS		
E-	2.9969E-01	3.4511E-01	3.8922E-01
H	3.8362E-01	2.9318E-01	2.1344E-01
H+	2.9571E-01	3.4120E-01	3.7860E-01
H2	5.9138E-05	3.5450E-06	6.4024E-07
H-	7.9773E-04	2.3846E-03	2.2604E-03
H2+	2.1086E-03	1.3010E-03	7.9684E-04
HE	1.5338E-02	1.1984E-02	6.7493E-03
HE+	2.6741E-03	4.6810E-03	5.7830E-03
HE++	2.9774E-08	1.5590E-04	3.1491E-03

P1 = 1.00E+05 N/SQ-M, US1 = 7.00E+04 M/SEC
XH2 = .95 XHE = .05

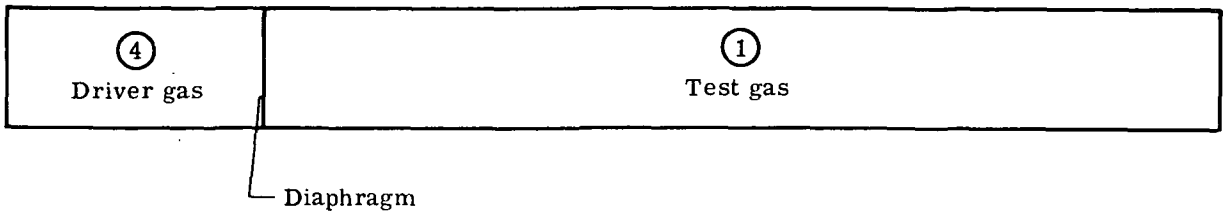
	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.6787E+03	2.1269E+04	4.4633E+04
T	1.4613E+02	3.0153E+02	4.8187E+02
RHO	8.6986E+00	2.2921E+01	2.8158E+01
H	6.1089E+02	1.0256E+03	1.5273E+03
A	1.9530E+01	2.7340E+01	3.4445E+01
S	3.0097E+00	3.0991E+00	3.2294E+00
Z	2.8941E+00	3.0773E+00	3.2895E+00
GAME	9.0186E-01	8.0553E-01	7.4652E-01
U	4.8111E+01	1.8222E+01	2.1480E+01

SPECIES	MOLE FRACTIONS		
E-	3.2778E-01	3.6727E-01	4.0782E-01
H	3.2946E-01	2.5135E-01	1.8167E-01
H+	3.2322E-01	3.6216E-01	3.9288E-01
H2	2.4426E-05	1.0376E-06	3.4351E-07
H-	7.0561E-04	2.0306E-03	1.8083E-03
H2+	1.5371E-03	9.3956E-04	6.1661E-04
HE	1.3557E-02	1.0520E-02	4.3227E-03
HE+	3.7197E-03	5.2558E-03	5.6216E-03
HE++	2.3195E-07	4.7204E-04	5.2555E-03

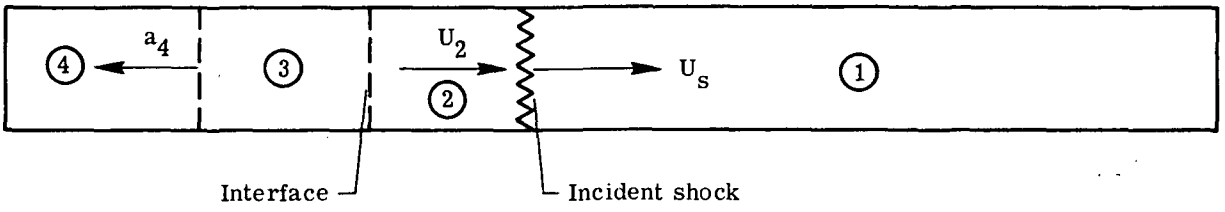
P1 = 1.00E+05 N/SQ-M, US1 = 6.80E+04 M/SEC
XH2 = .95 XHE = .05

	MOVING SHOCK	STANDING SHOCK	REFLECTED SHOCK
P	3.4812E+03	2.0838E+04	4.2866E+04
T	1.3827E+02	2.8492E+02	4.5298E+02
RHO	8.8812E+00	2.4178E+01	2.9226E+01
H	5.7686E+02	9.7430E+02	1.4373E+03
A	1.8660E+01	2.6281E+01	3.3124E+01
S	2.9688E+00	3.0651E+00	3.1959E+00
Z	2.8348E+00	3.0249E+00	3.2394E+00
GAME	8.8836E-01	8.0141E-01	7.4772E-01
U	4.6866E+01	1.7212E+01	2.0458E+01

SPECIES	MOLE FRACTIONS		
E-	3.1396E-01	3.5645E-01	3.9874E-01
H	3.5610E-01	2.7167E-01	1.9715E-01
H+	3.0970E-01	3.5203E-01	3.8594E-01
H2	3.8403E-05	2.3922E-06	4.6767E-07
H-	7.4647E-04	2.2127E-03	2.0328E-03
H2+	1.8142E-03	1.1044E-03	7.0151E-04
HE	1.4437E-02	1.1281E-02	5.4833E-03
HE+	3.2009E-03	4.9700E-03	5.7669E-03
HE++	8.4661E-08	2.7846E-04	4.1847E-03

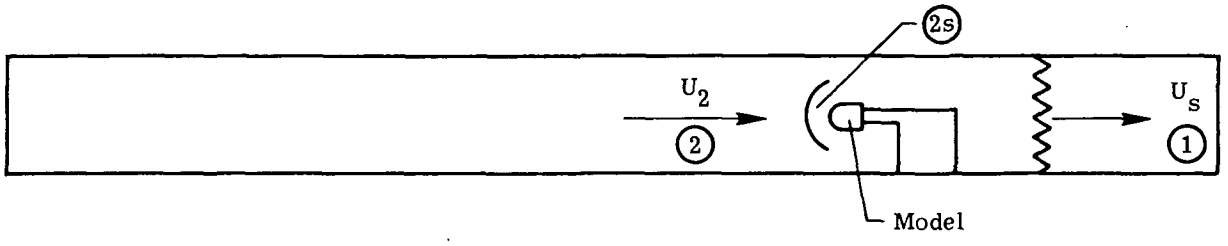


(a) Prior to diaphragm rupture.



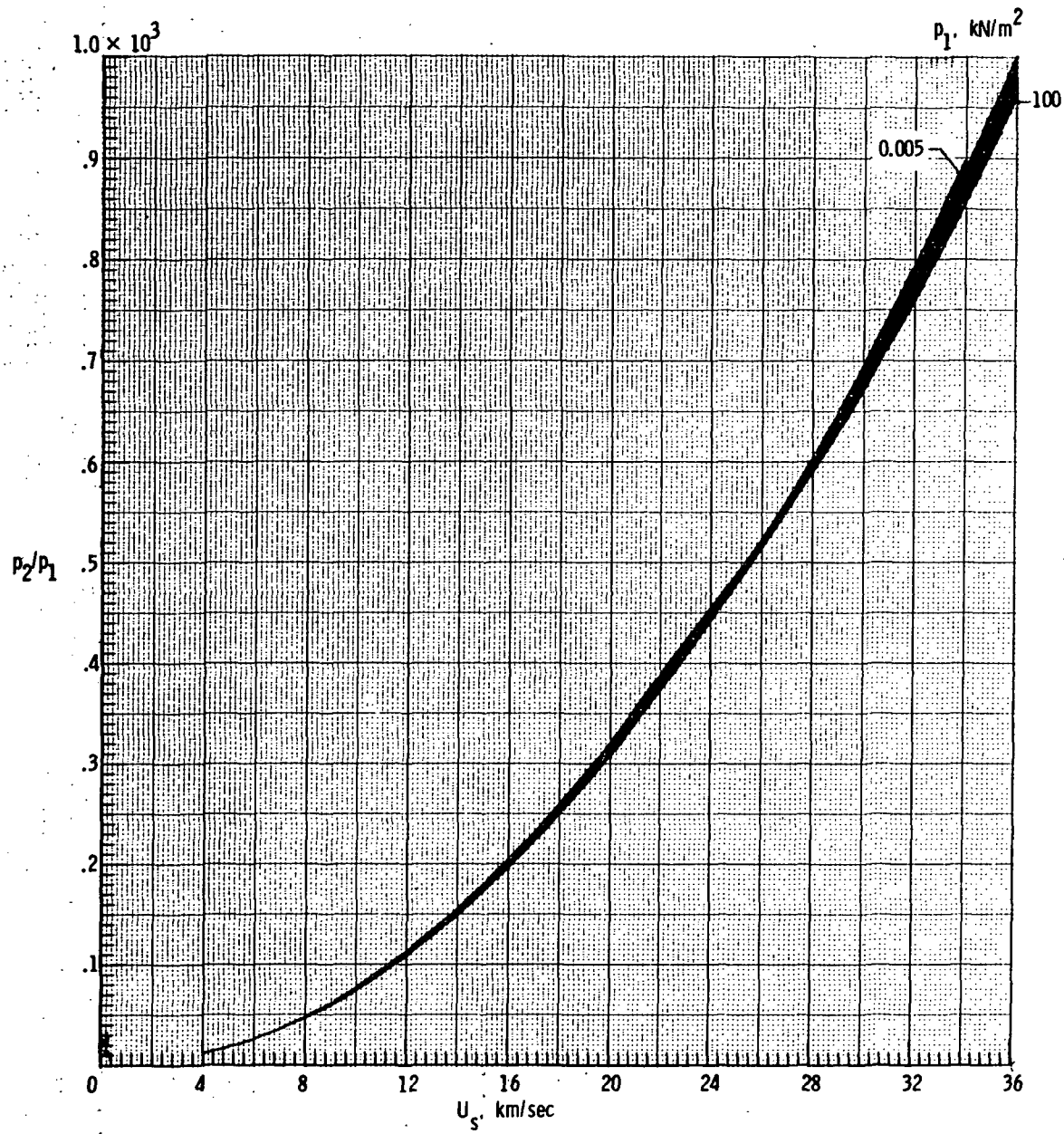
(b) Incident (moving) normal shock in test gas.

(c) Reflected normal shock from end wall.



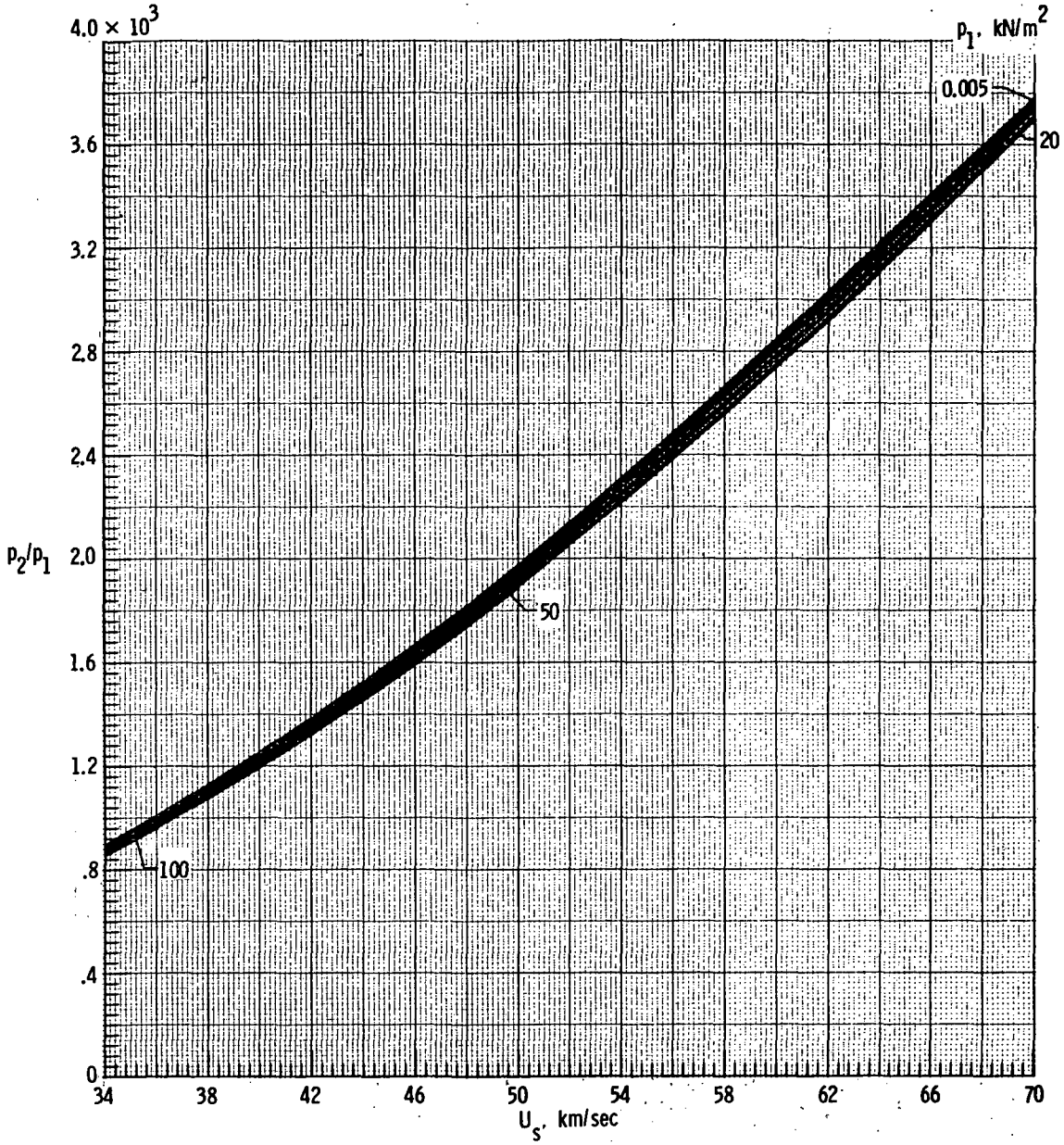
(d) Standing normal shock at test model.

Figure 1.- Sketches illustrating shock-tube regions of interest: regions ②, 2s, and 2r.



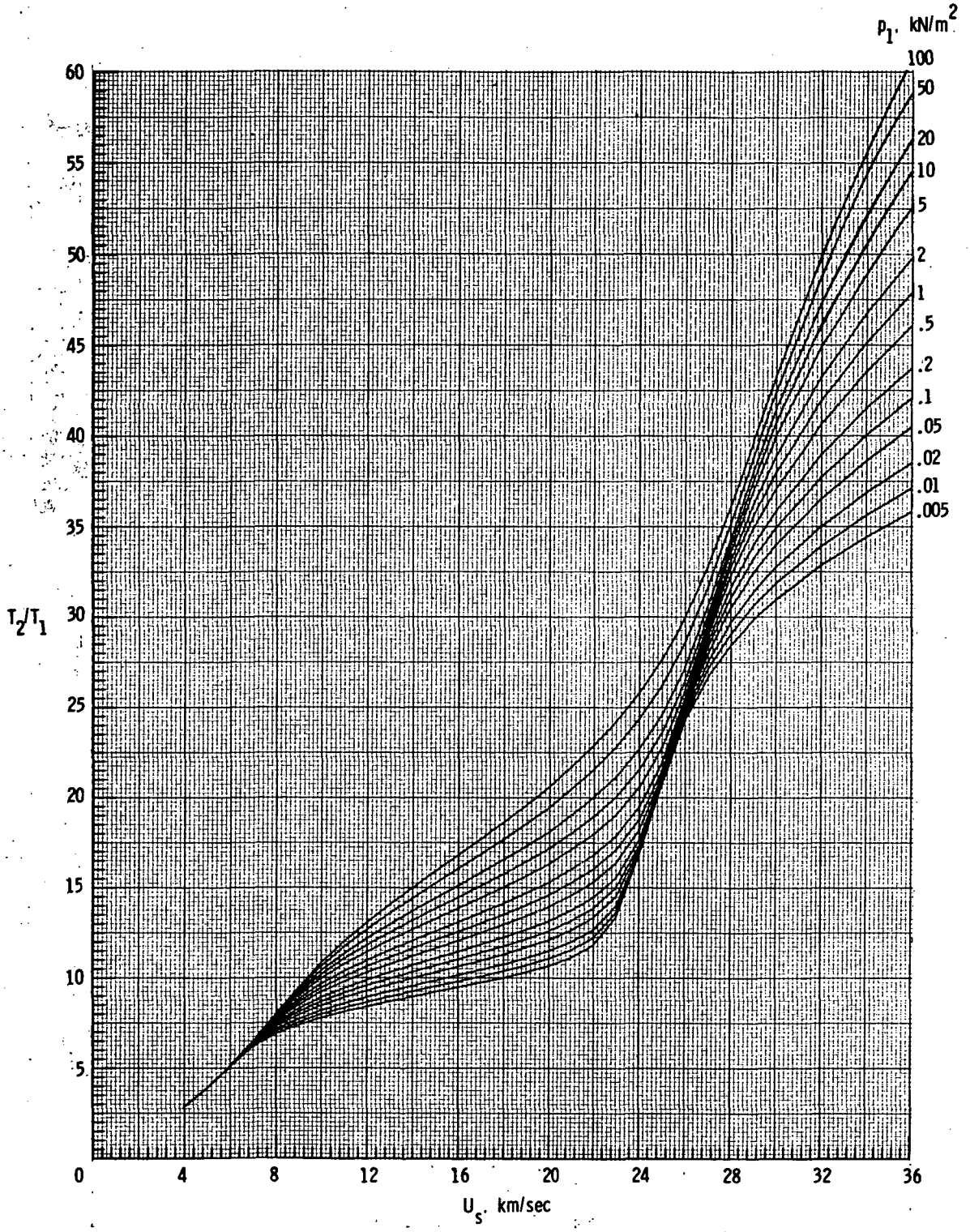
(a) Pressure p_2/p_1.

Figure 2.-Thermodynamic properties and flow velocity behind an incident normal shock into a $0.95H_2$-0.05He mixture.



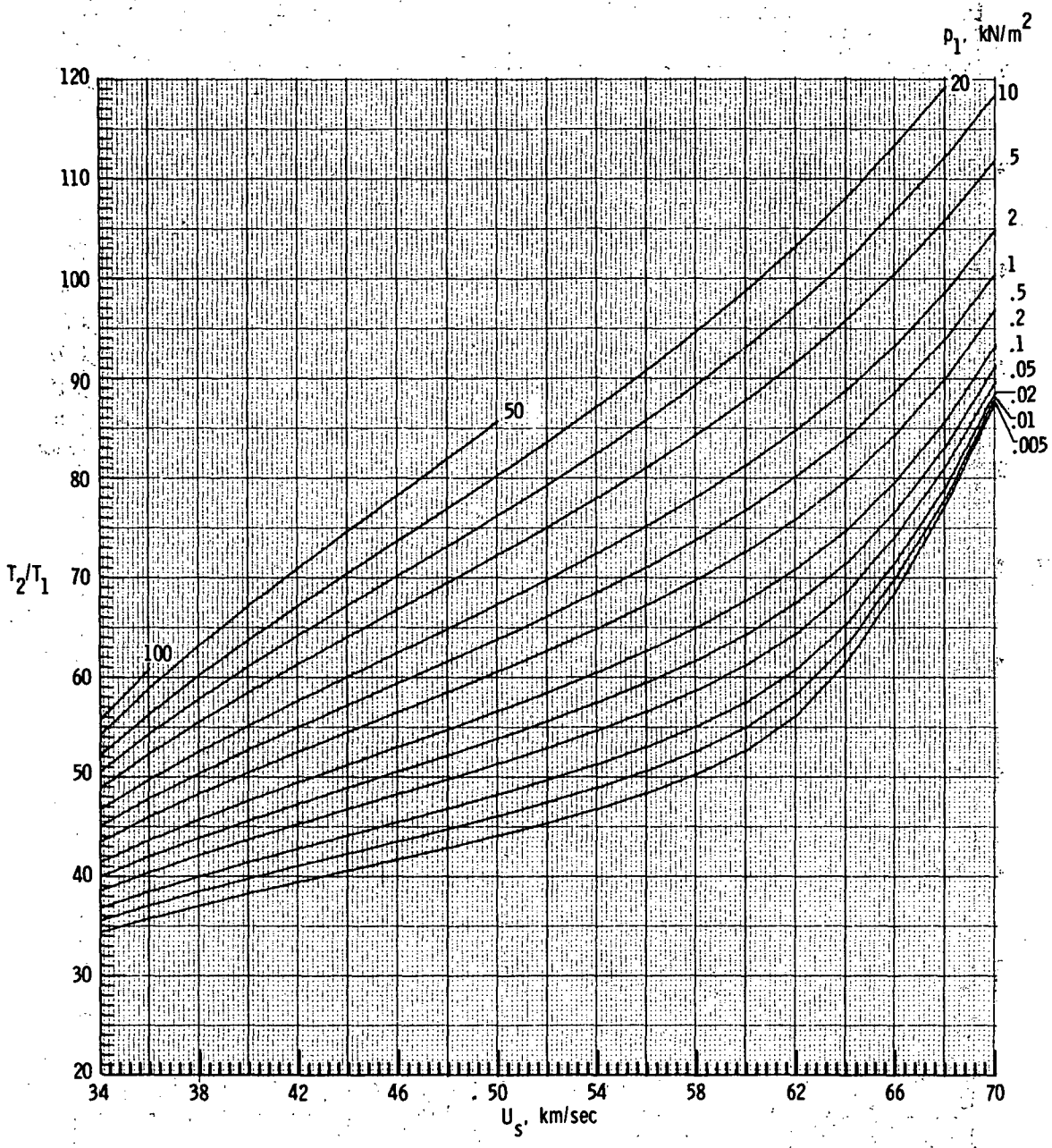
(a) Concluded.

Figure 2.- Continued.



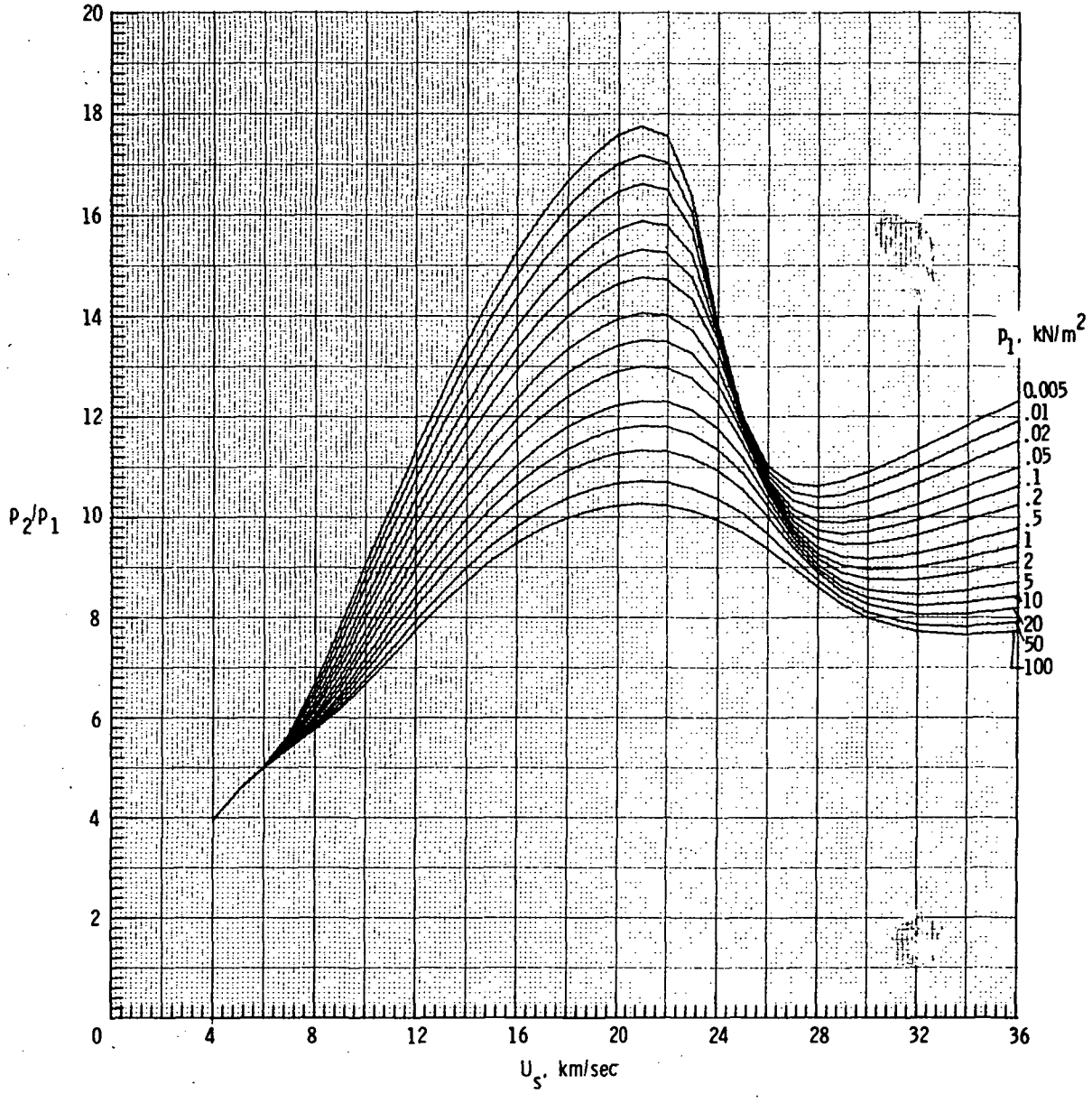
(b) Temperature T_2/T_1.

Figure 2.- Continued.



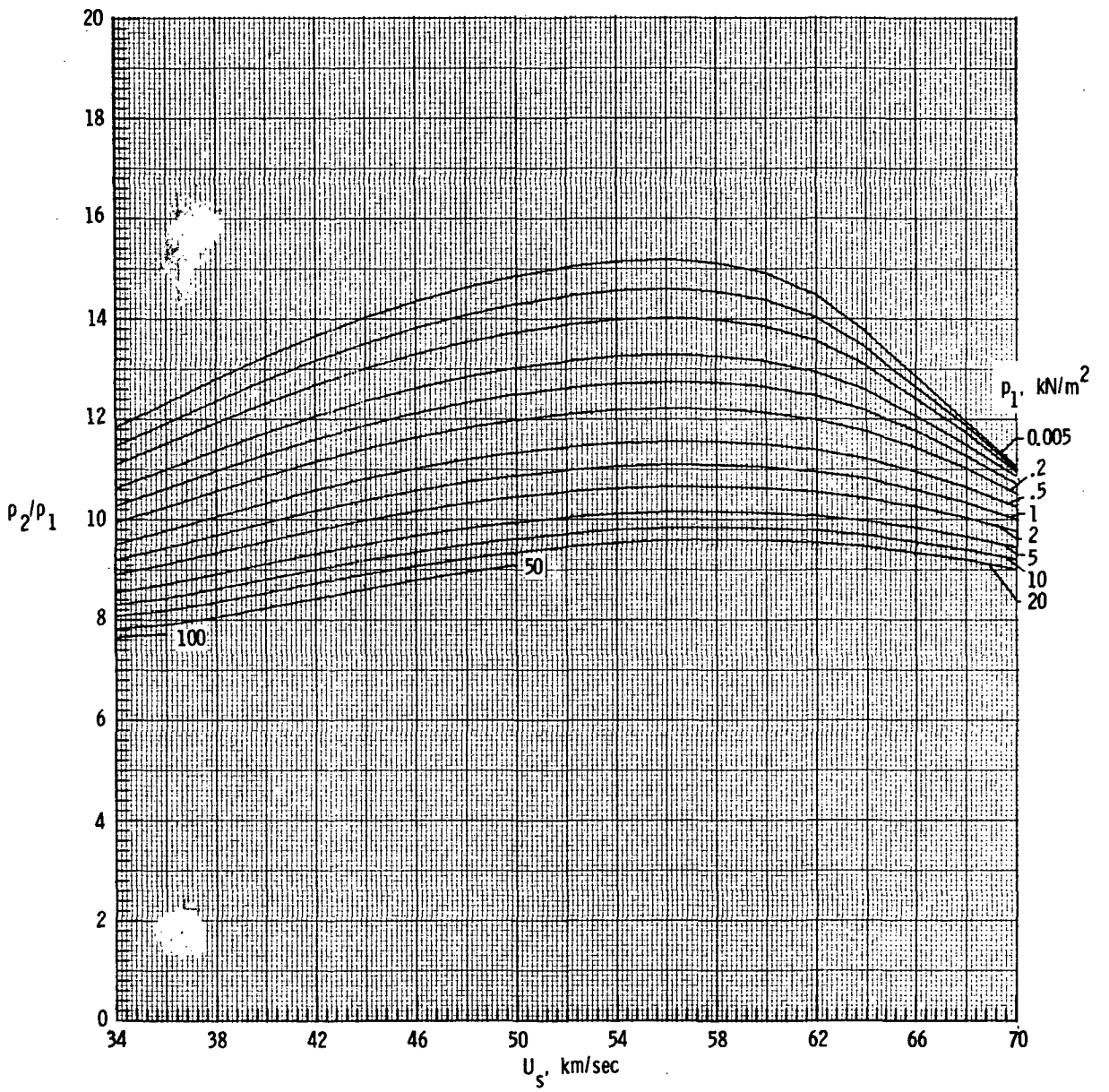
(b) Concluded.

Figure 2.- Continued.



(c) Density ρ_2/ρ_1.

Figure 2.- Continued.



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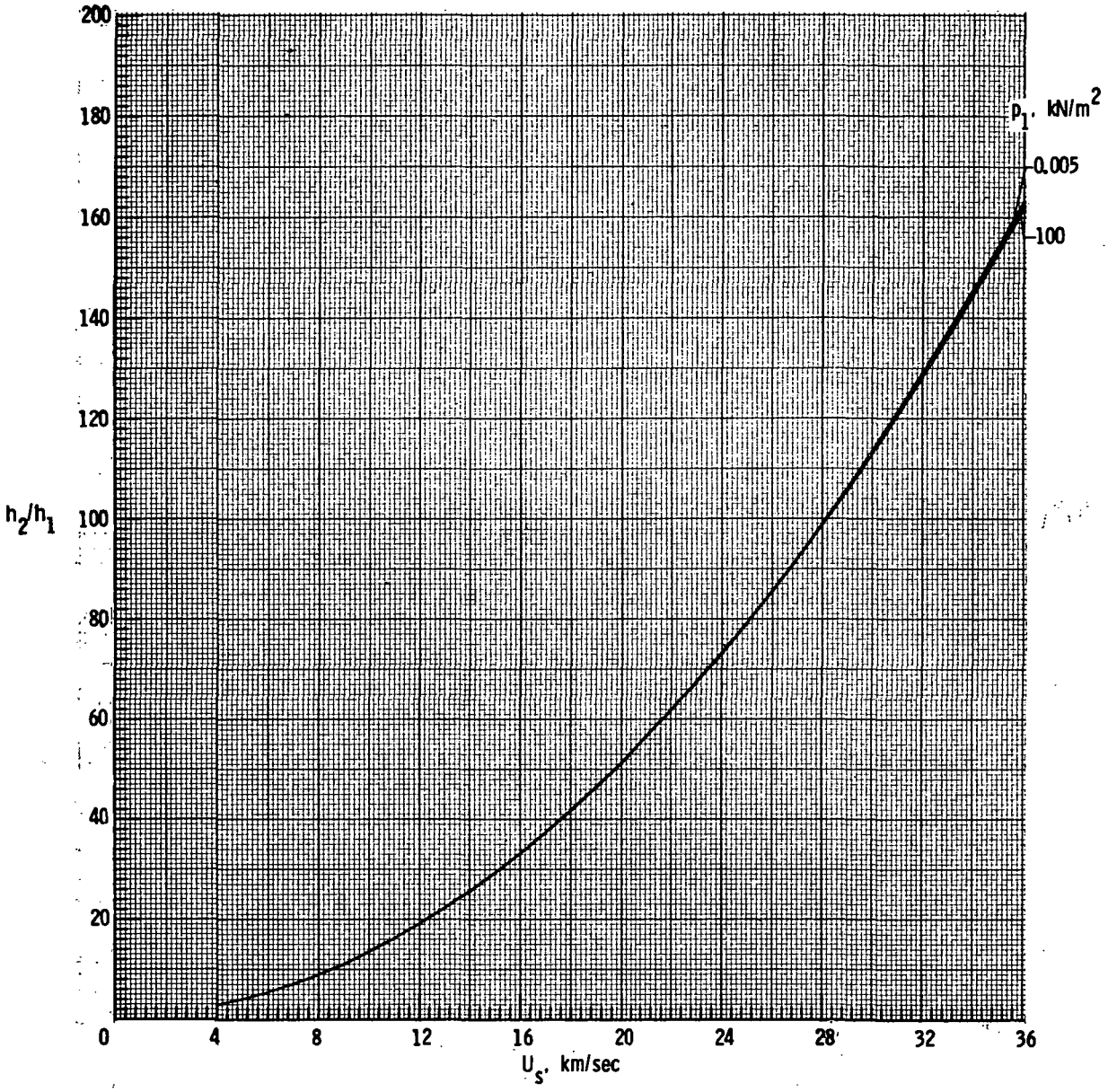
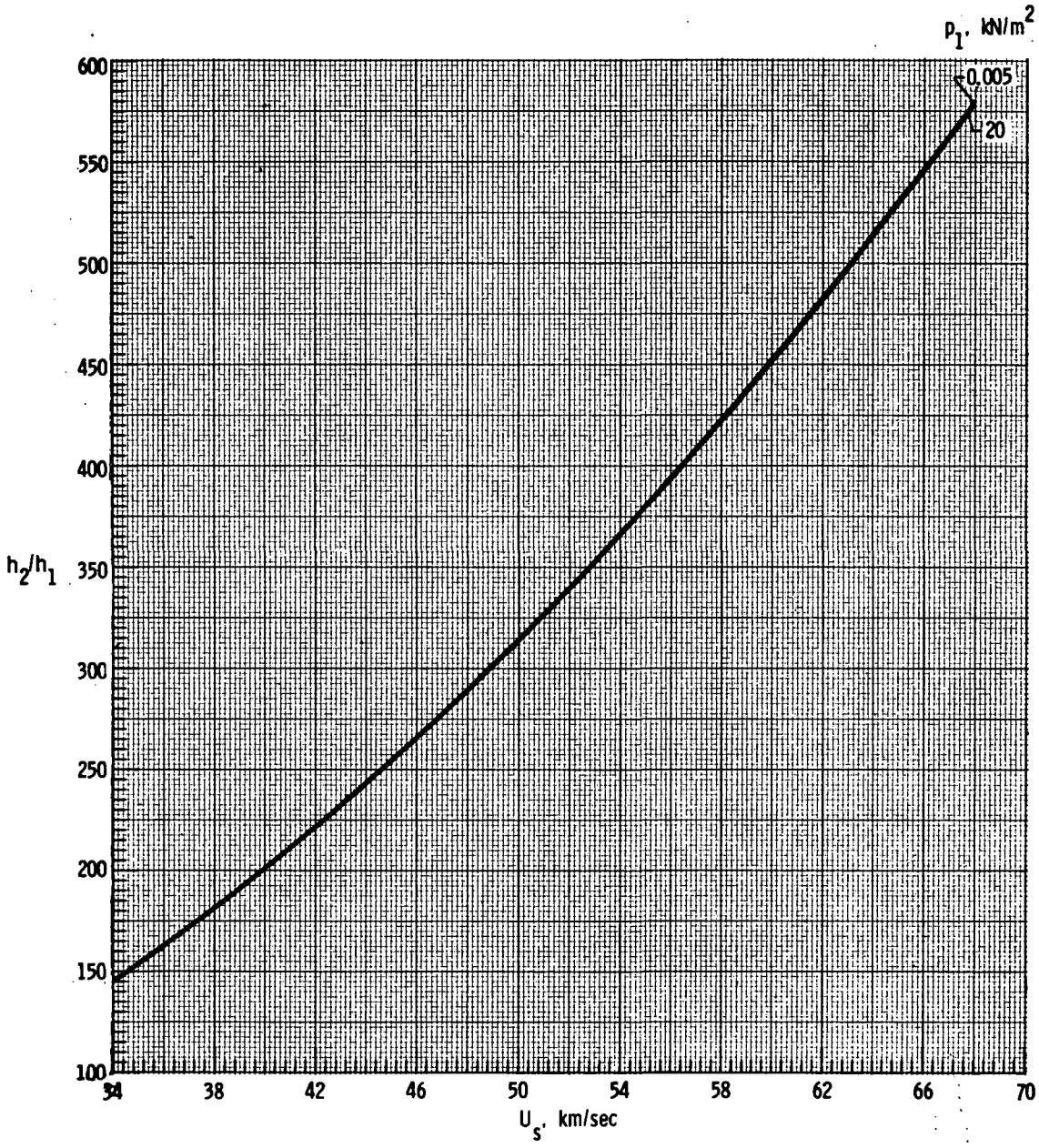


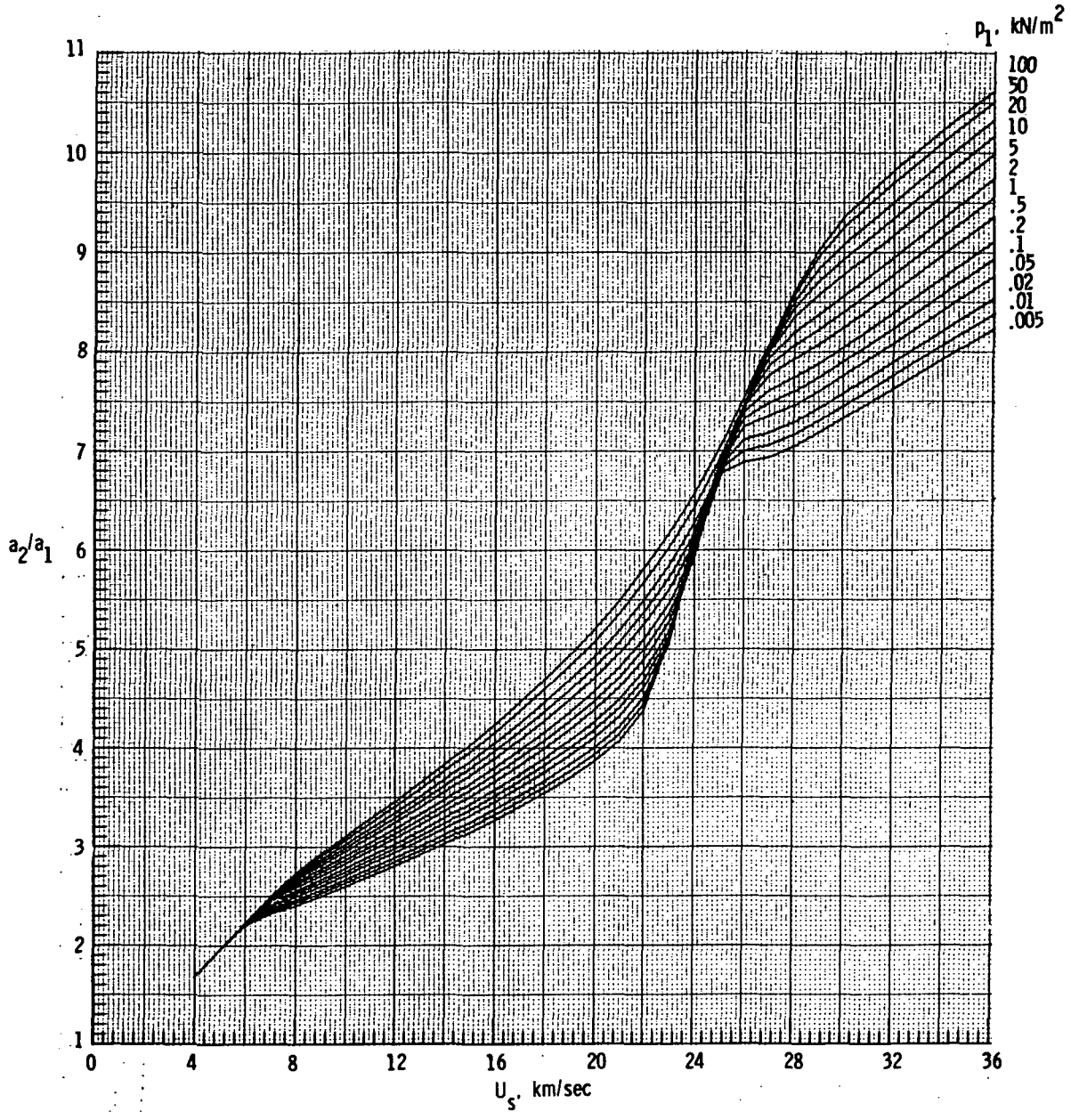
(d) Enthalpy h_2/h_1.

Figure 2.- Continued.



(d) Concluded.

Figure 2.- Continued.



(e) Speed of sound a_2/a_1.

Figure 2.- Continued.

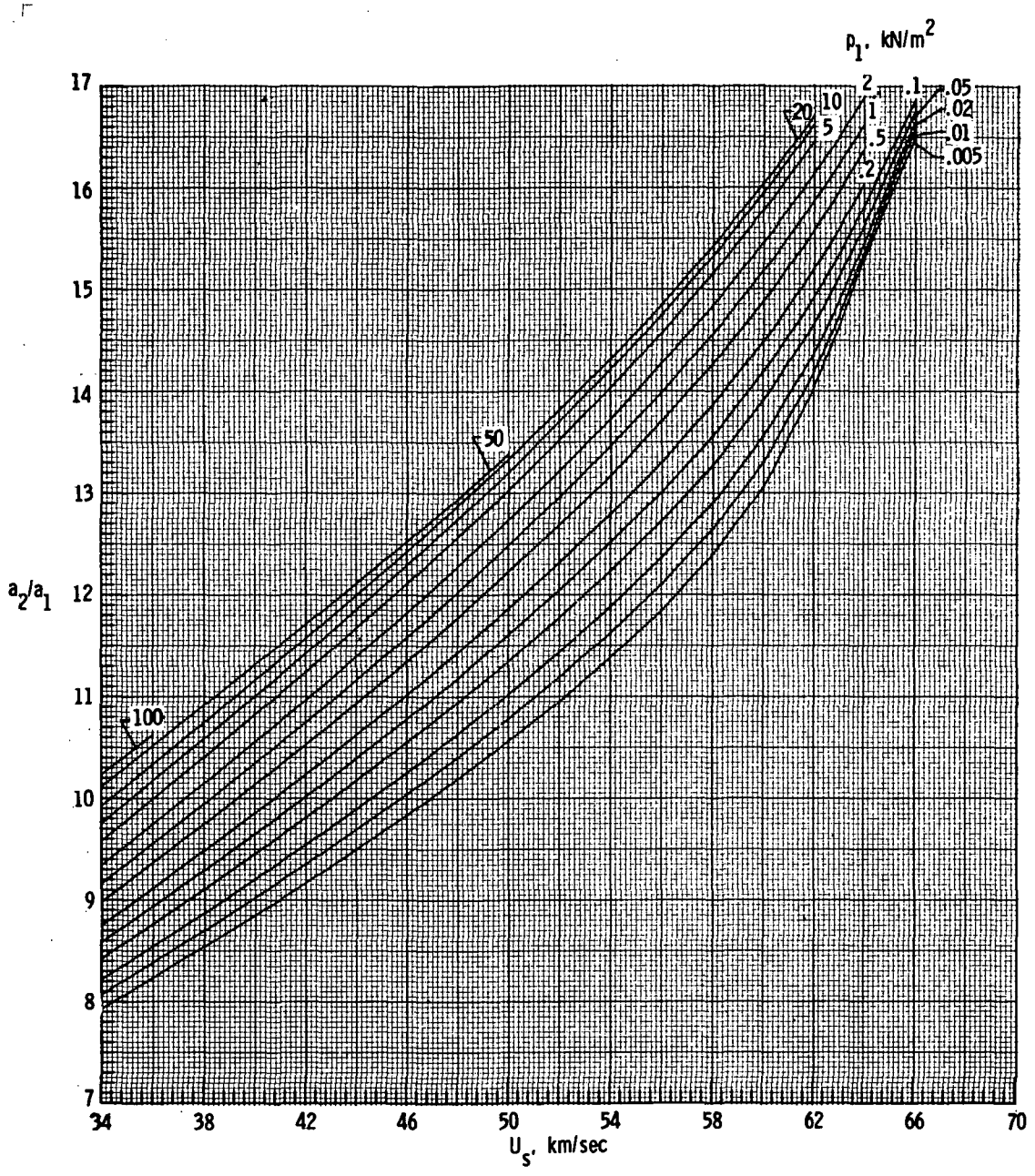


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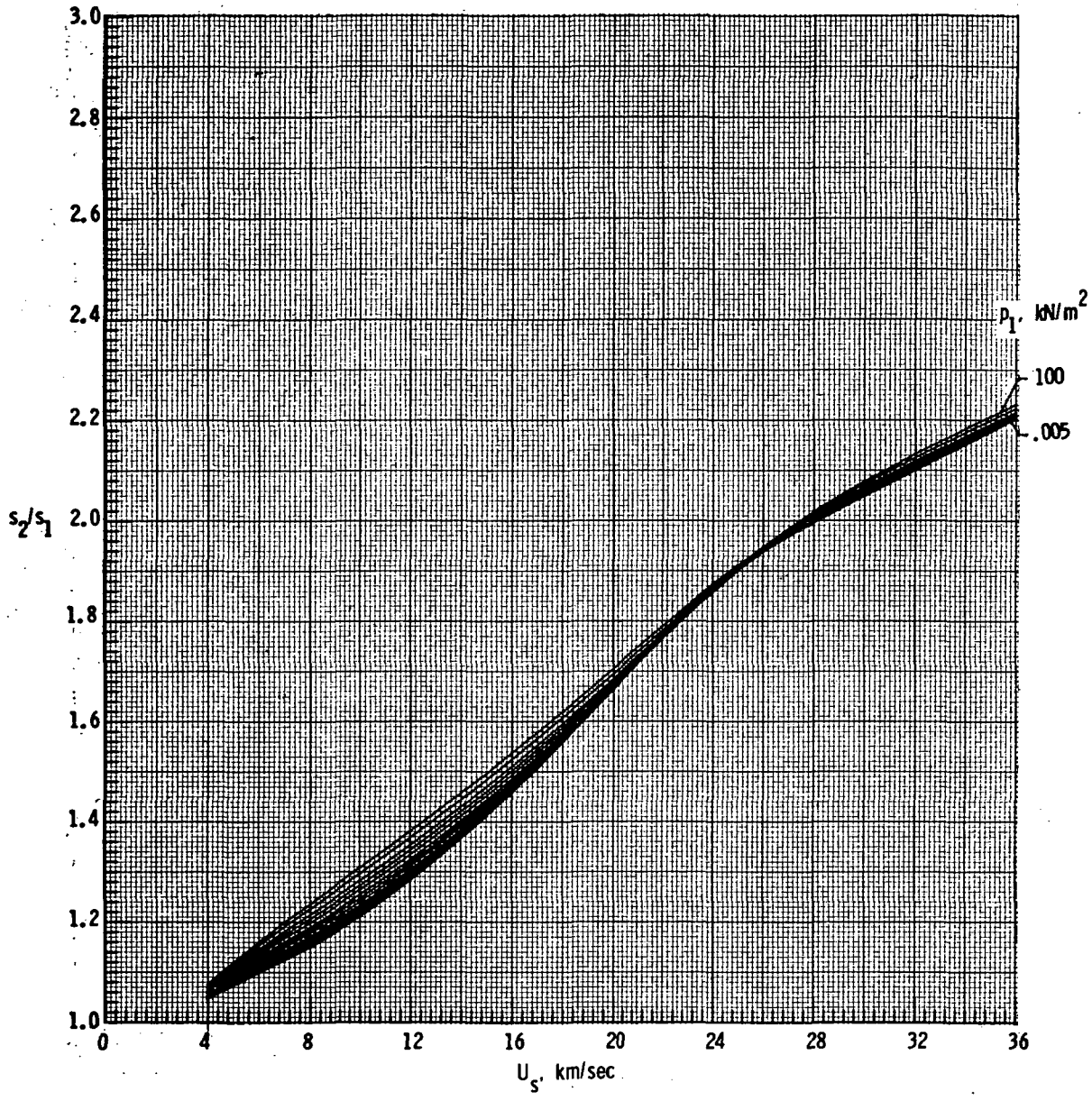
Figure 2.- Continued.



(f) Entropy s_2/s_1.

Figure 2.- Continued.

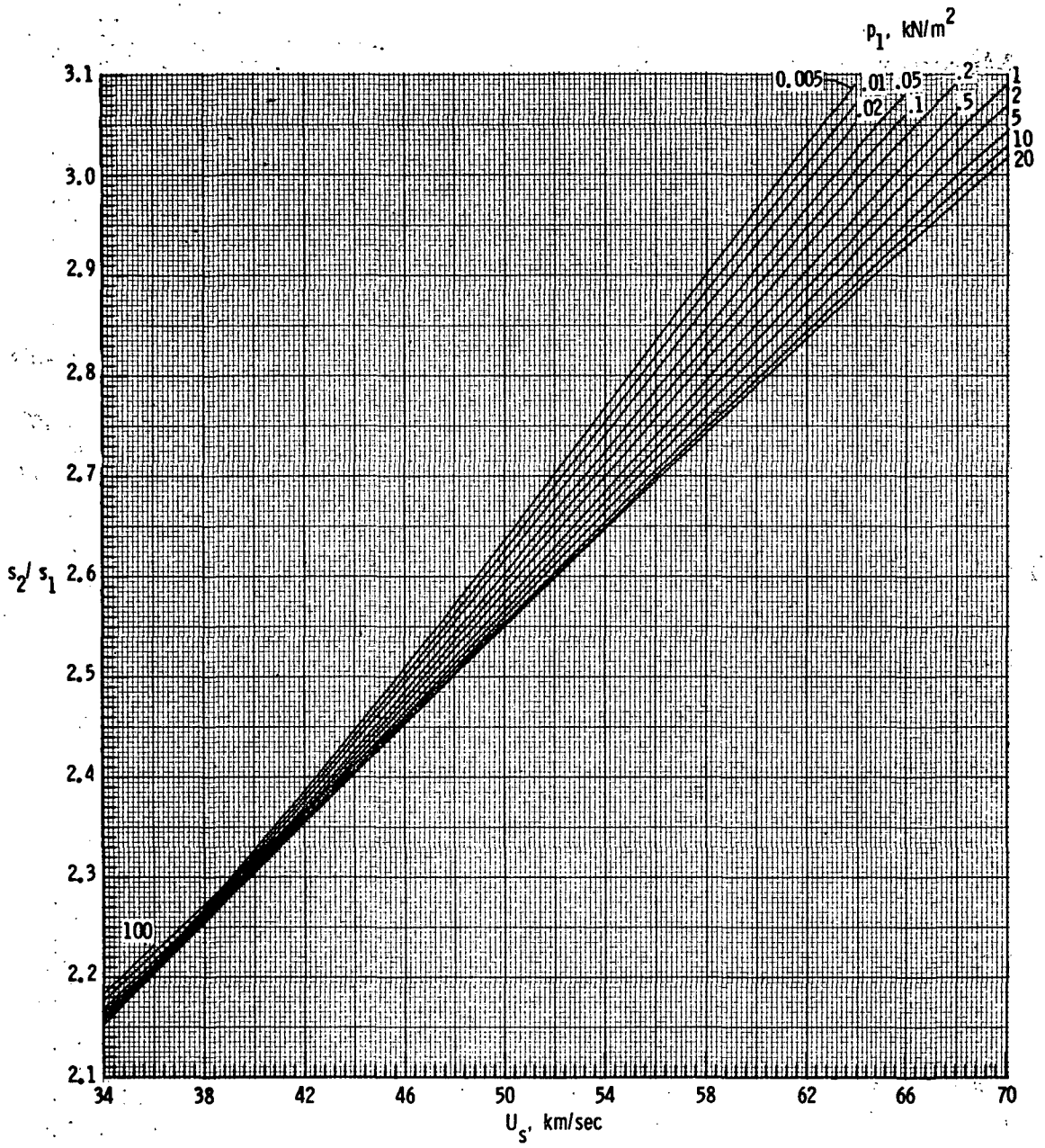


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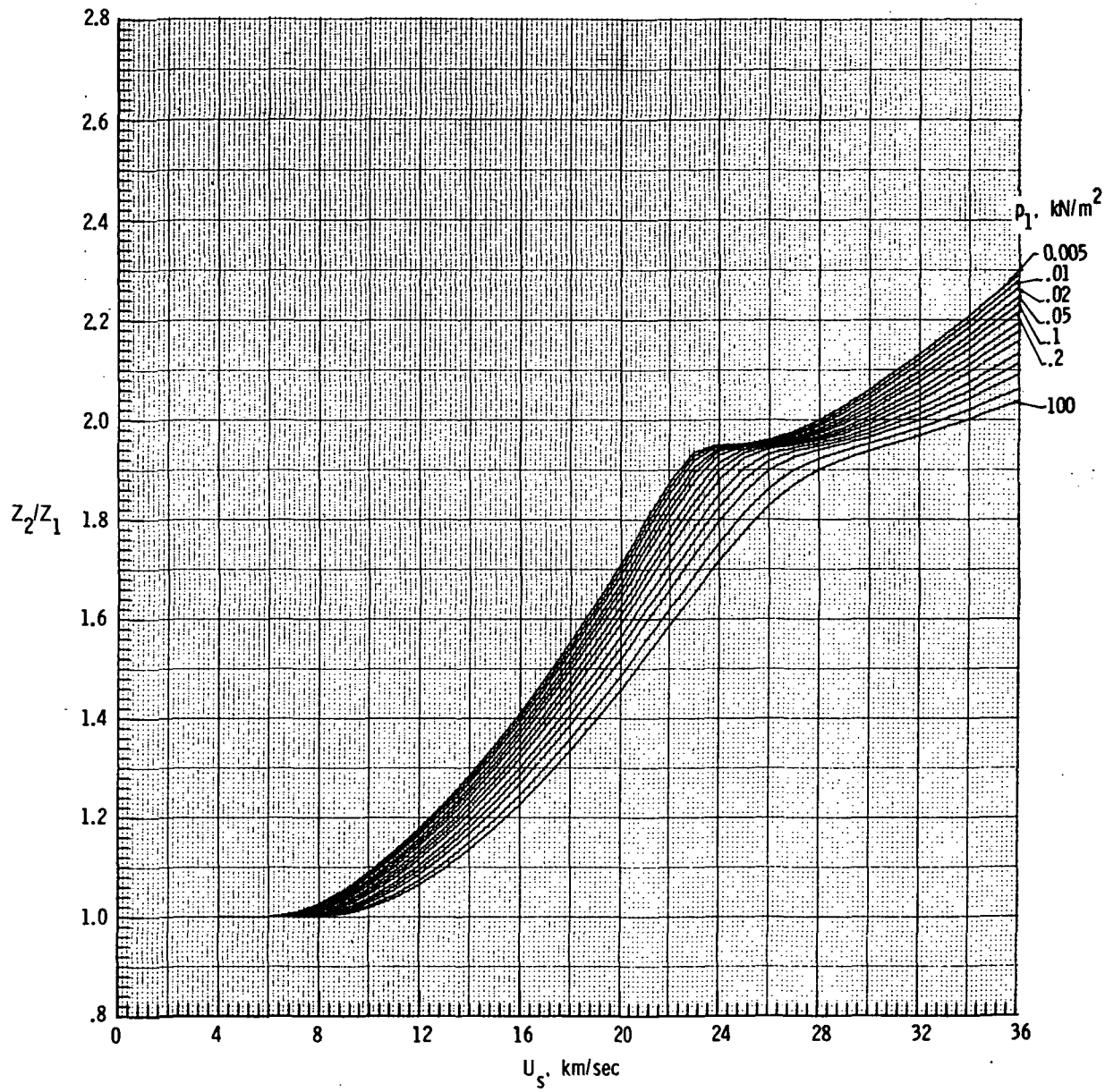
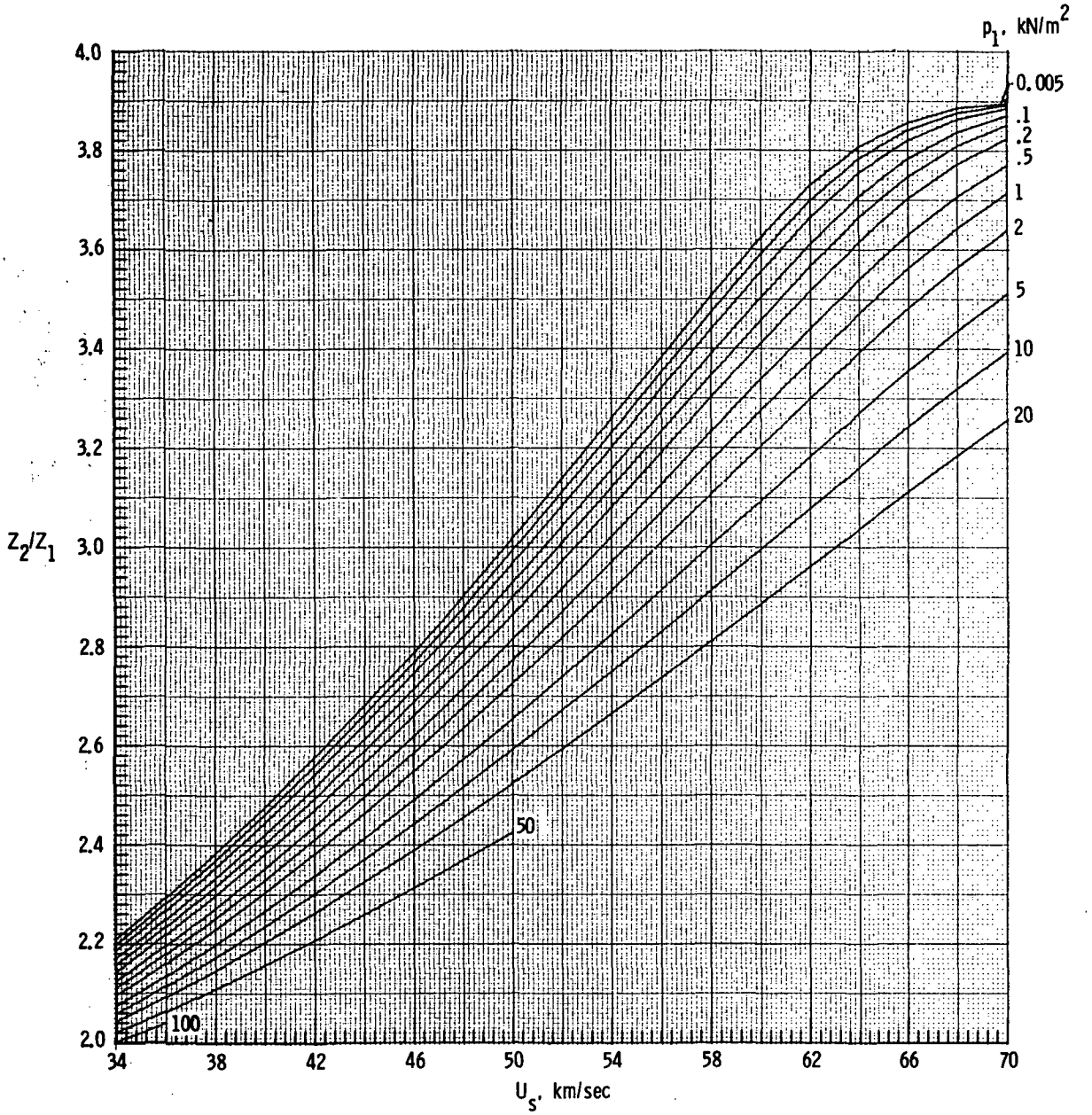
Figure 2.- Continued.



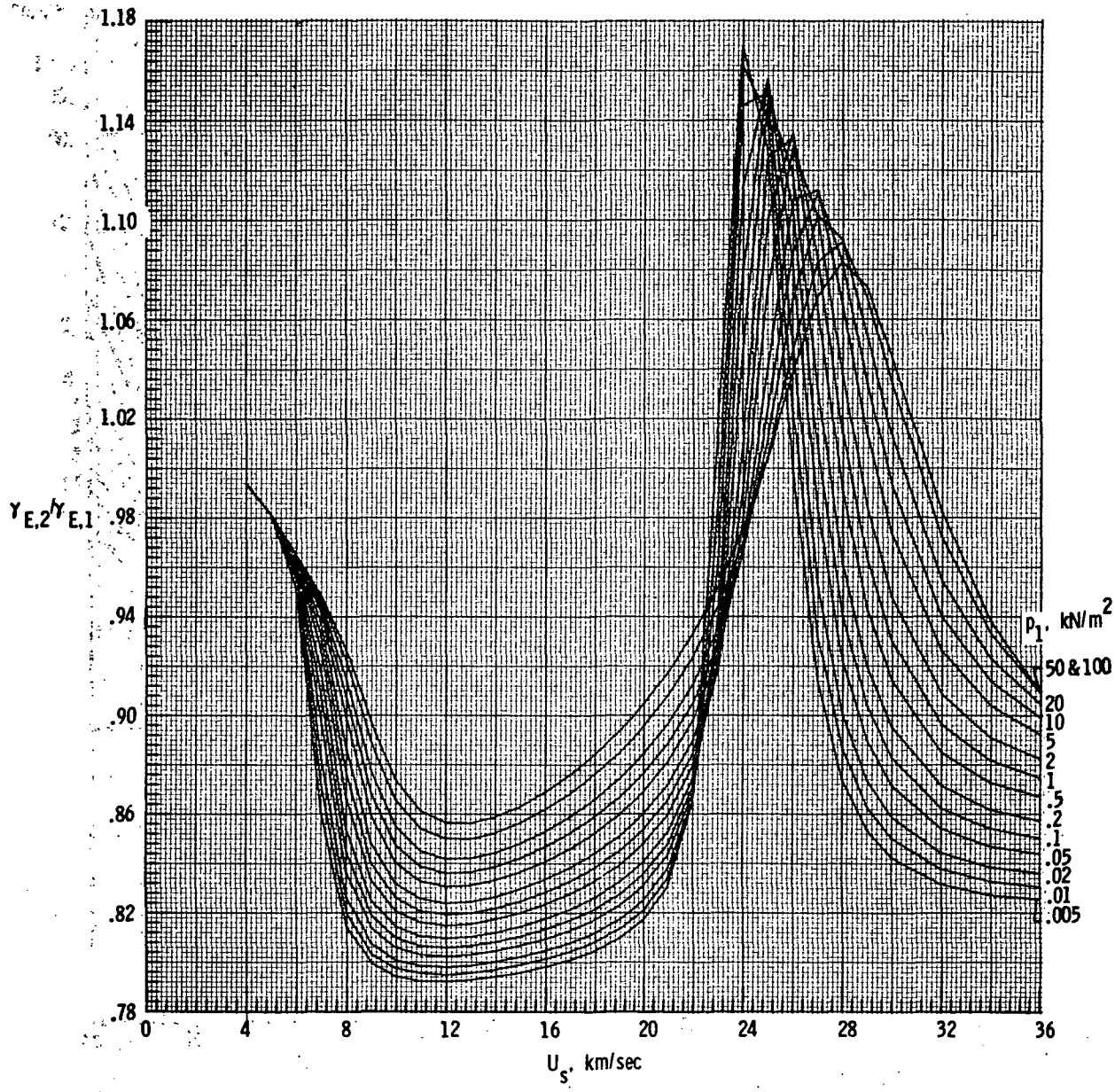
(g) Molecular-weight ratio Z_2/Z_1.

Figure 2.- Continued.



(g) Concluded.

Figure 2.- Continued.



(h) Isentropic exponent $\gamma_{E,2}/\gamma_{E,1}$.

Figure 2.- Continued.

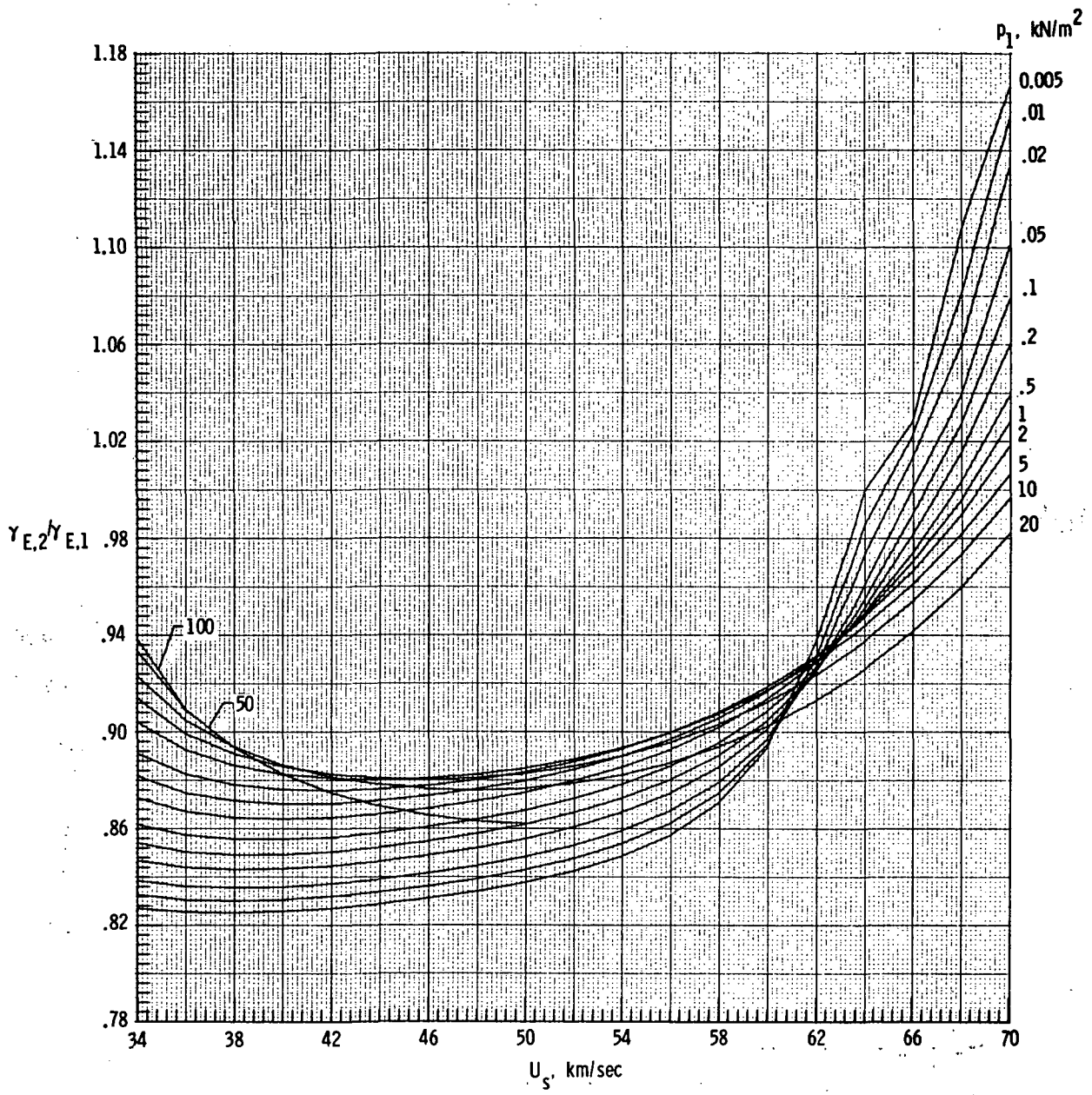


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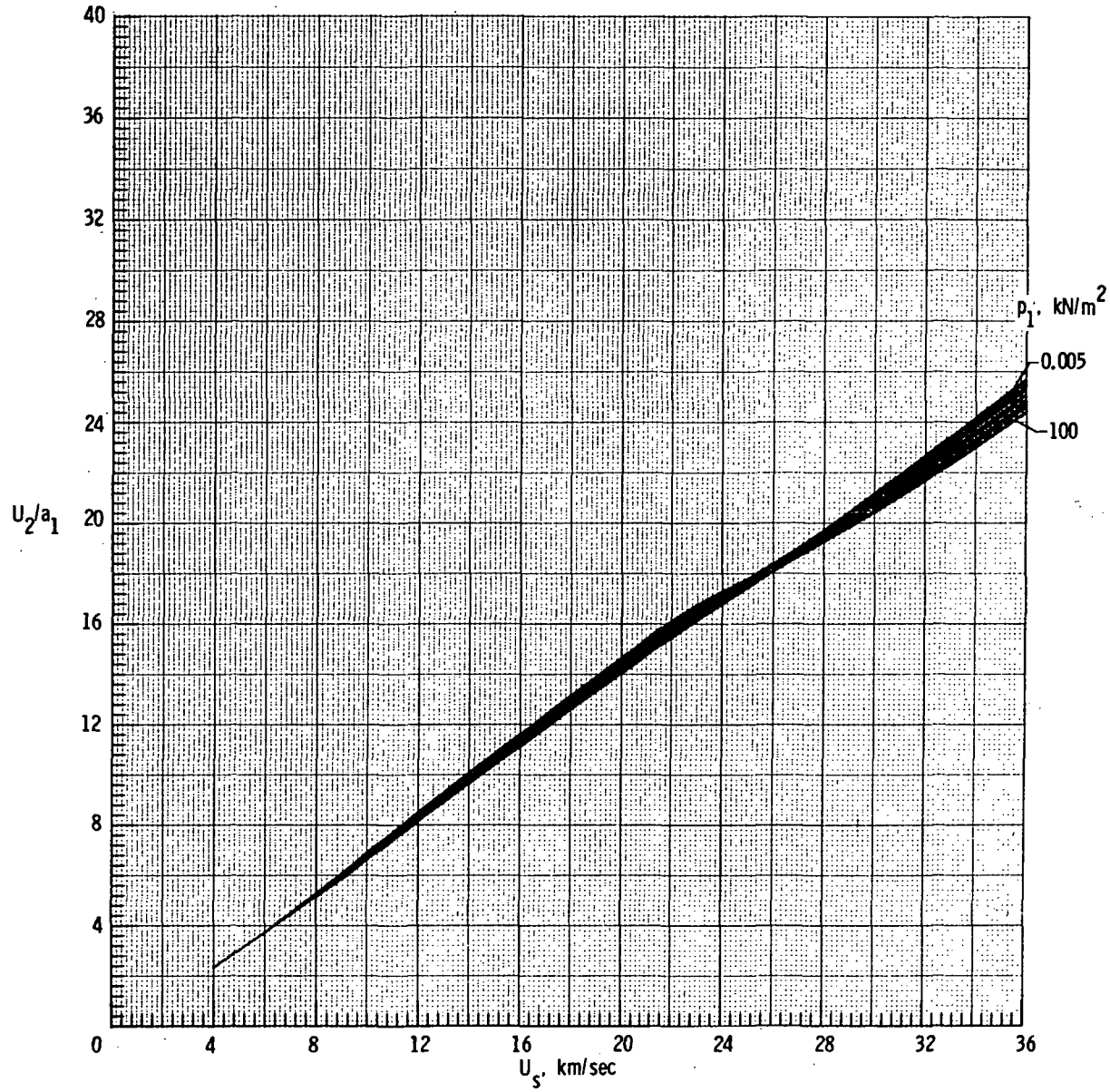
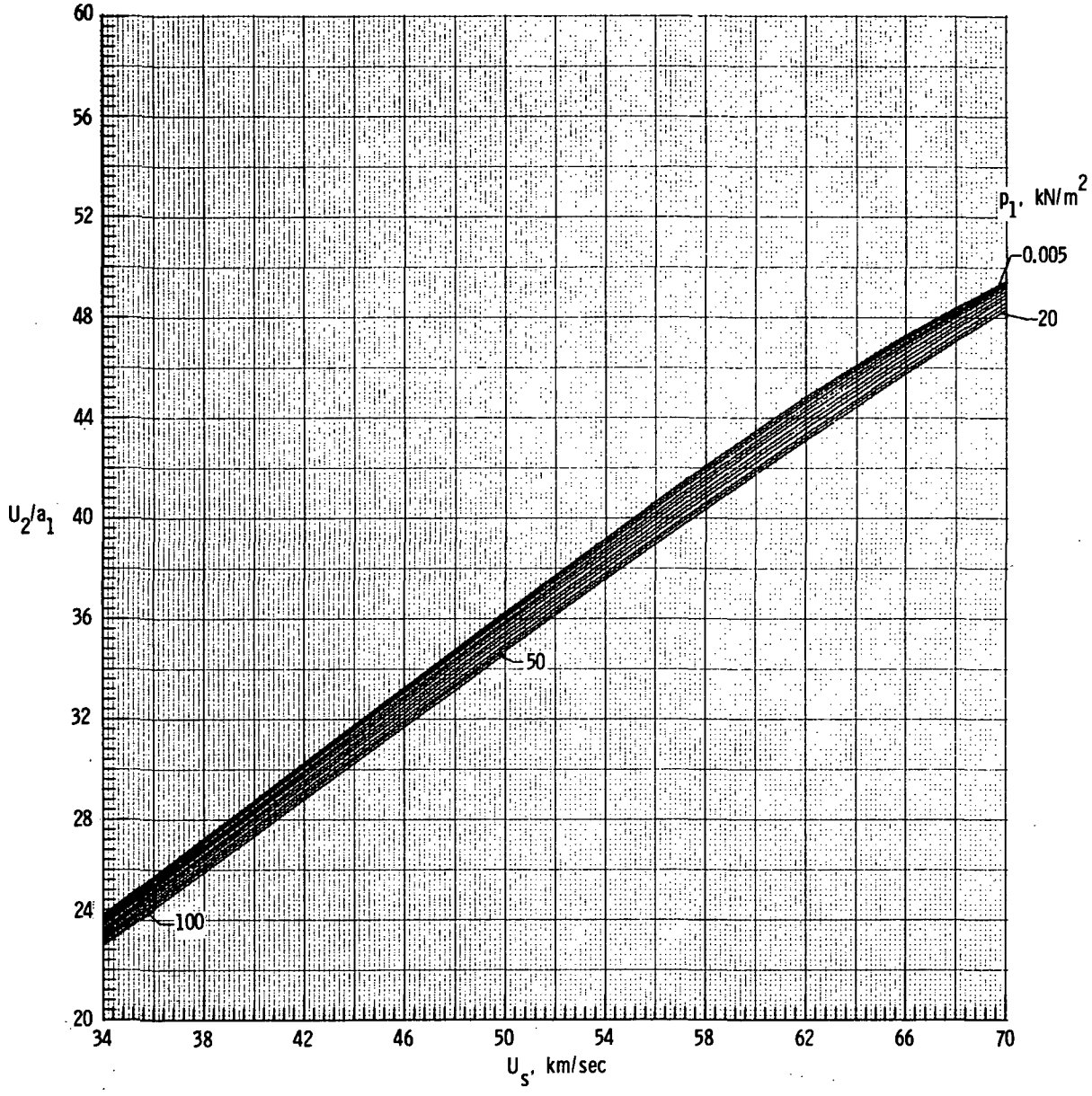
Figure 2.- Continued.



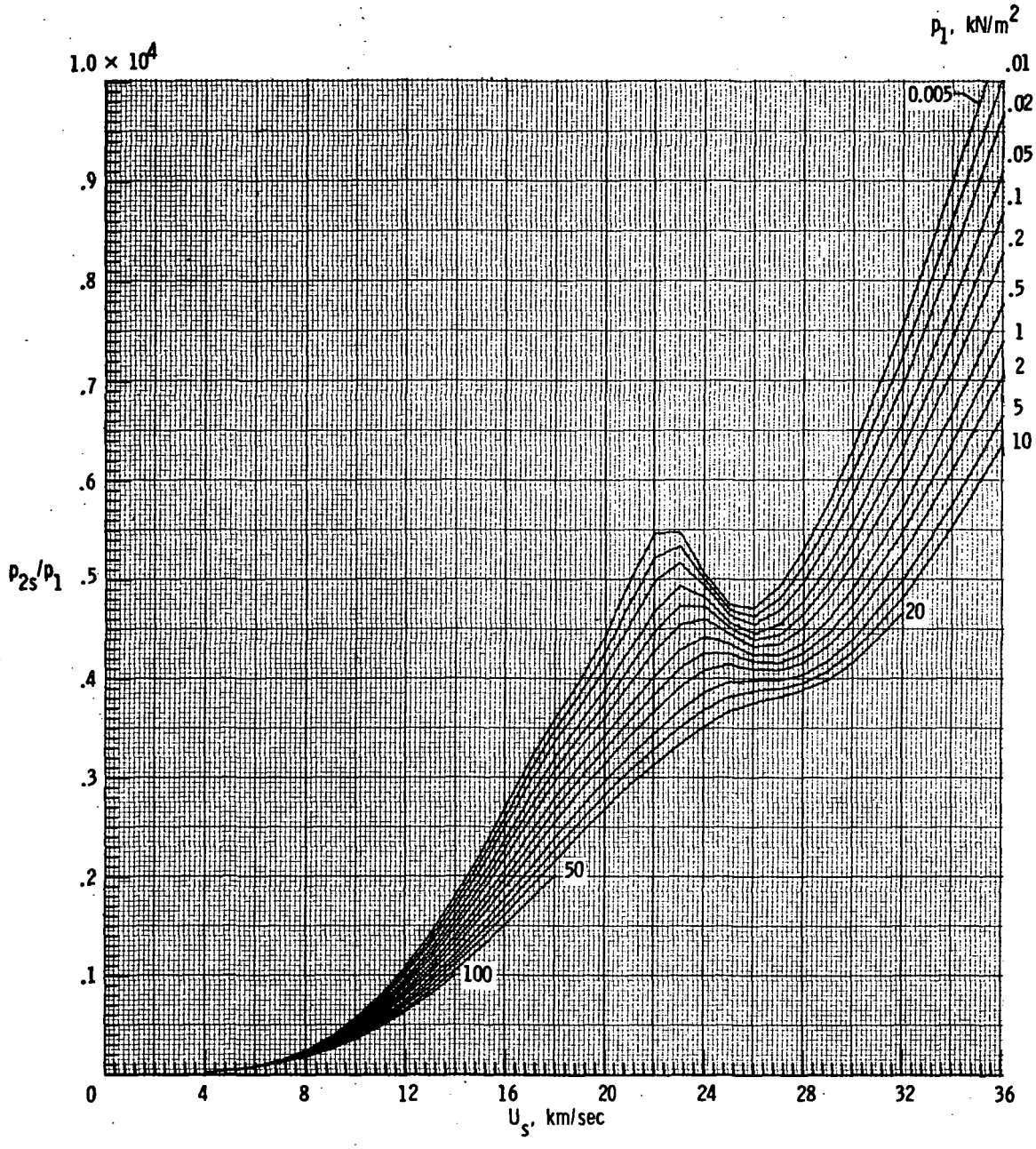
(i) Flow velocity U_2/a_1.

Figure 2.- Continued.



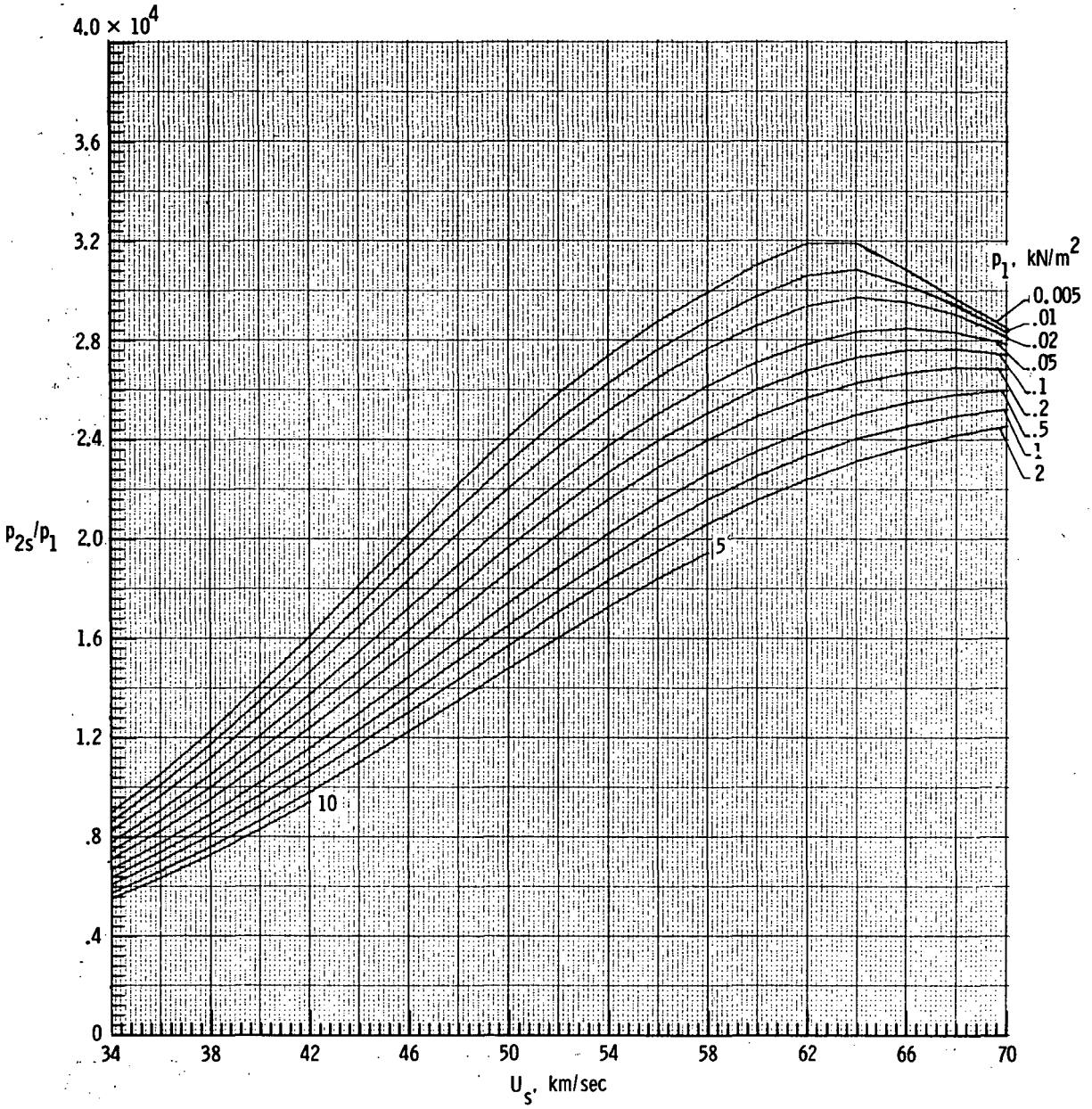
(i) Concluded.

Figure 2.- Concluded.



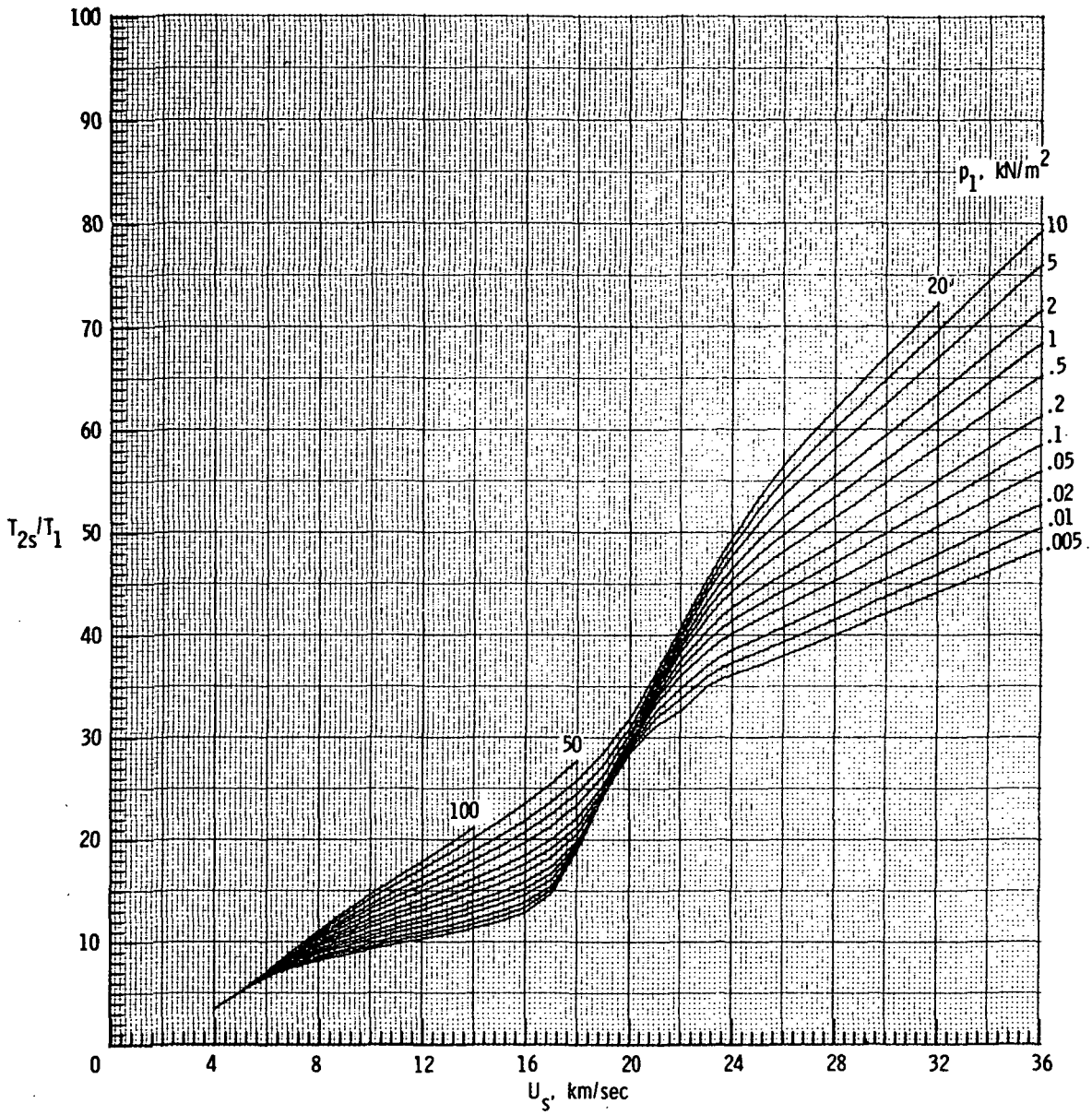
(a) Pressure p_{2s}/p_1.

Figure 3.- Thermodynamic properties and flow velocity behind a standing shock for a $0.95H_2$-0.05He mixture.



(a) Concluded.

Figure 3.- Continued.



(b) Temperature T_{2s}/T_1.

Figure 3.- Continued.

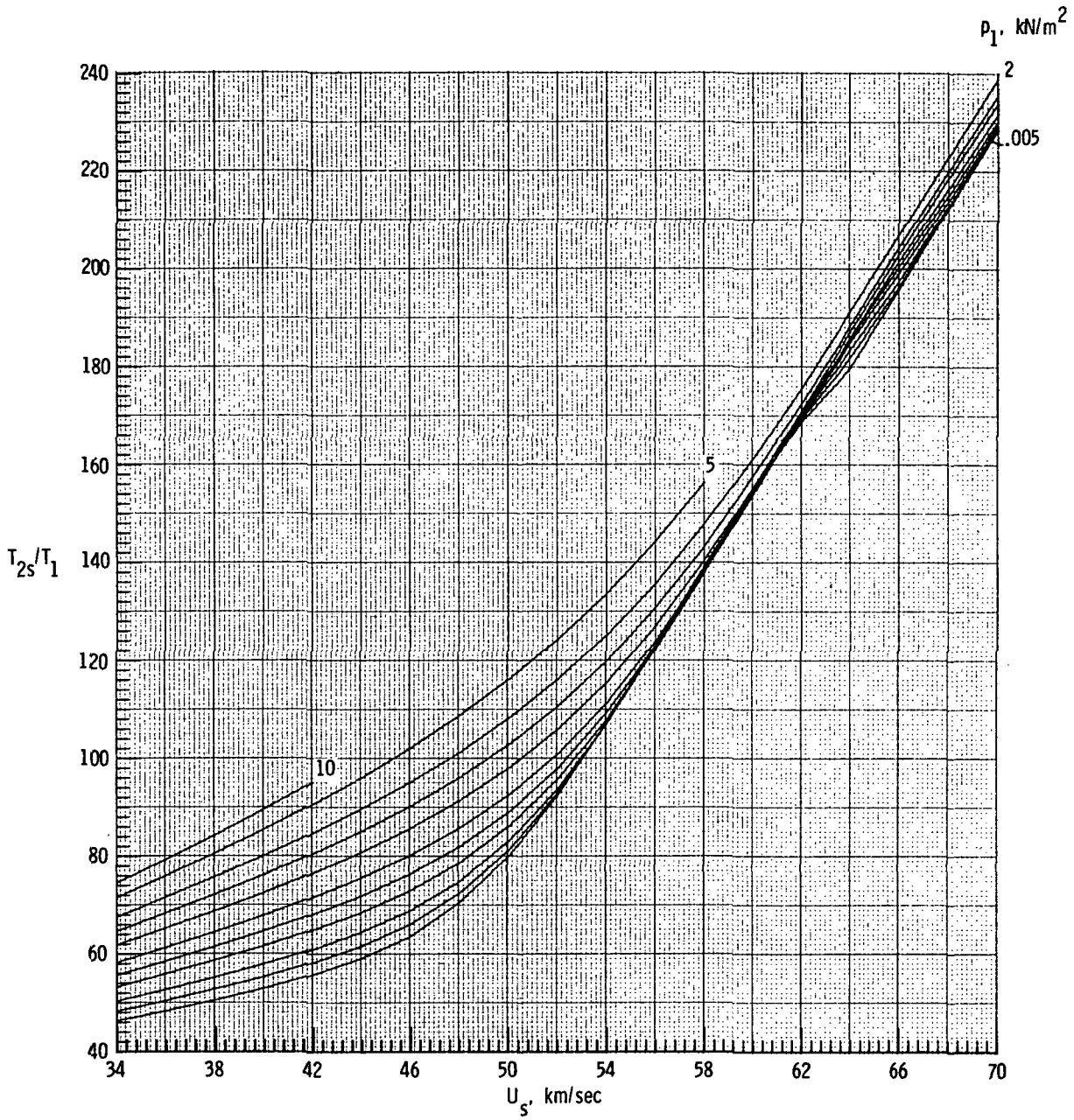


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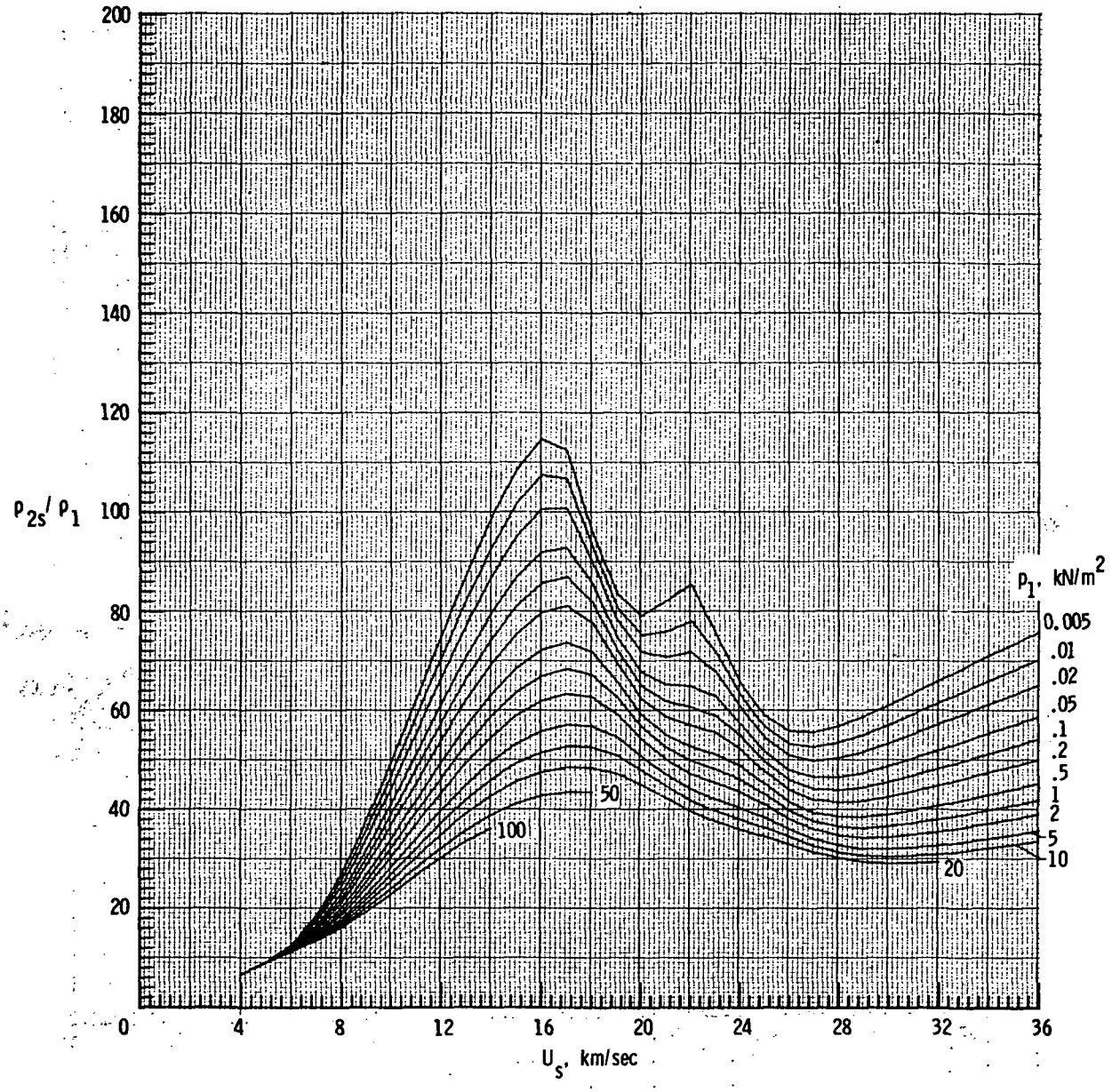
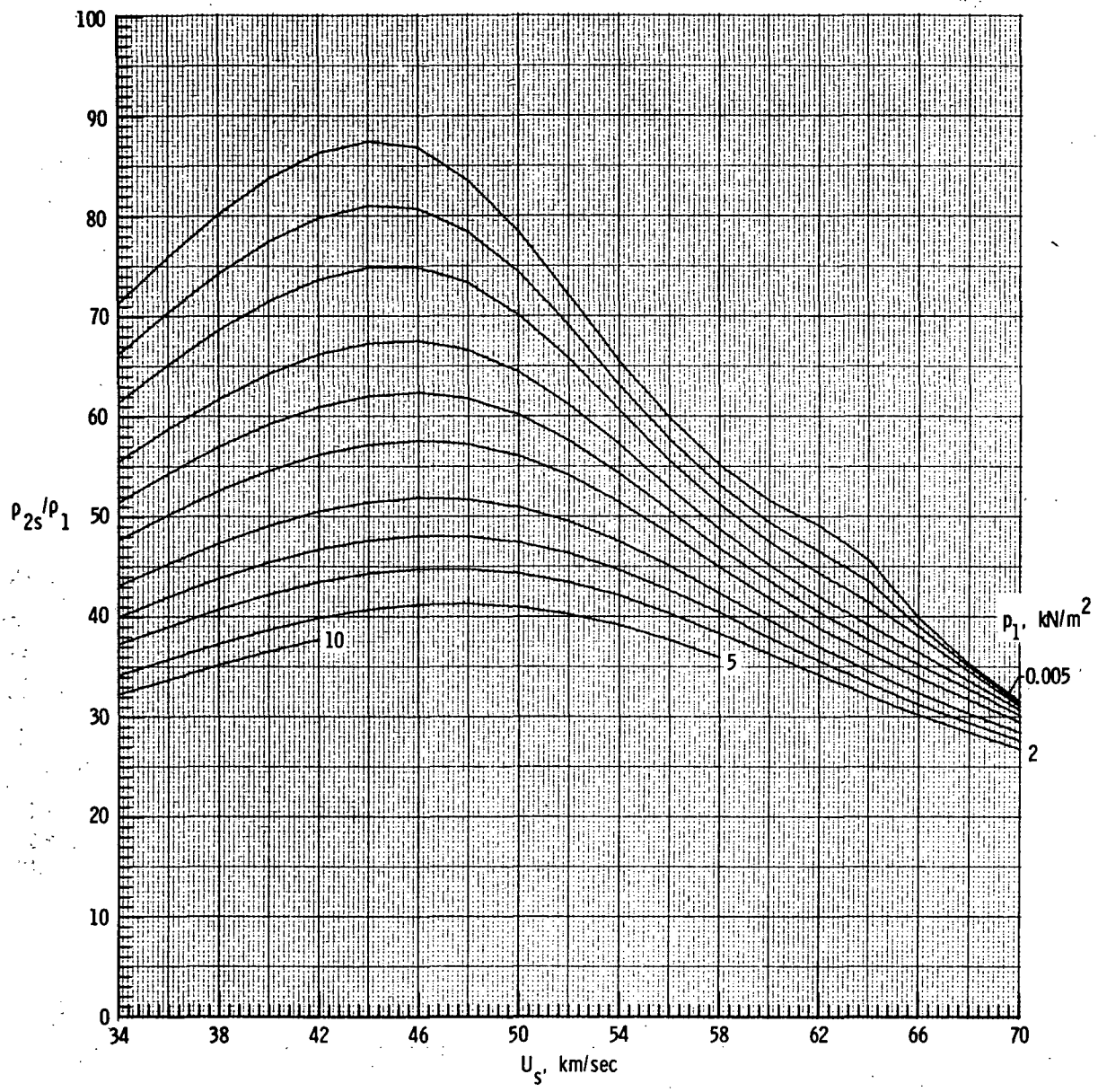
Figure 3.- Continued.



(c) Density ρ_{2s}/ρ_1.

Figure 3.- Continued.



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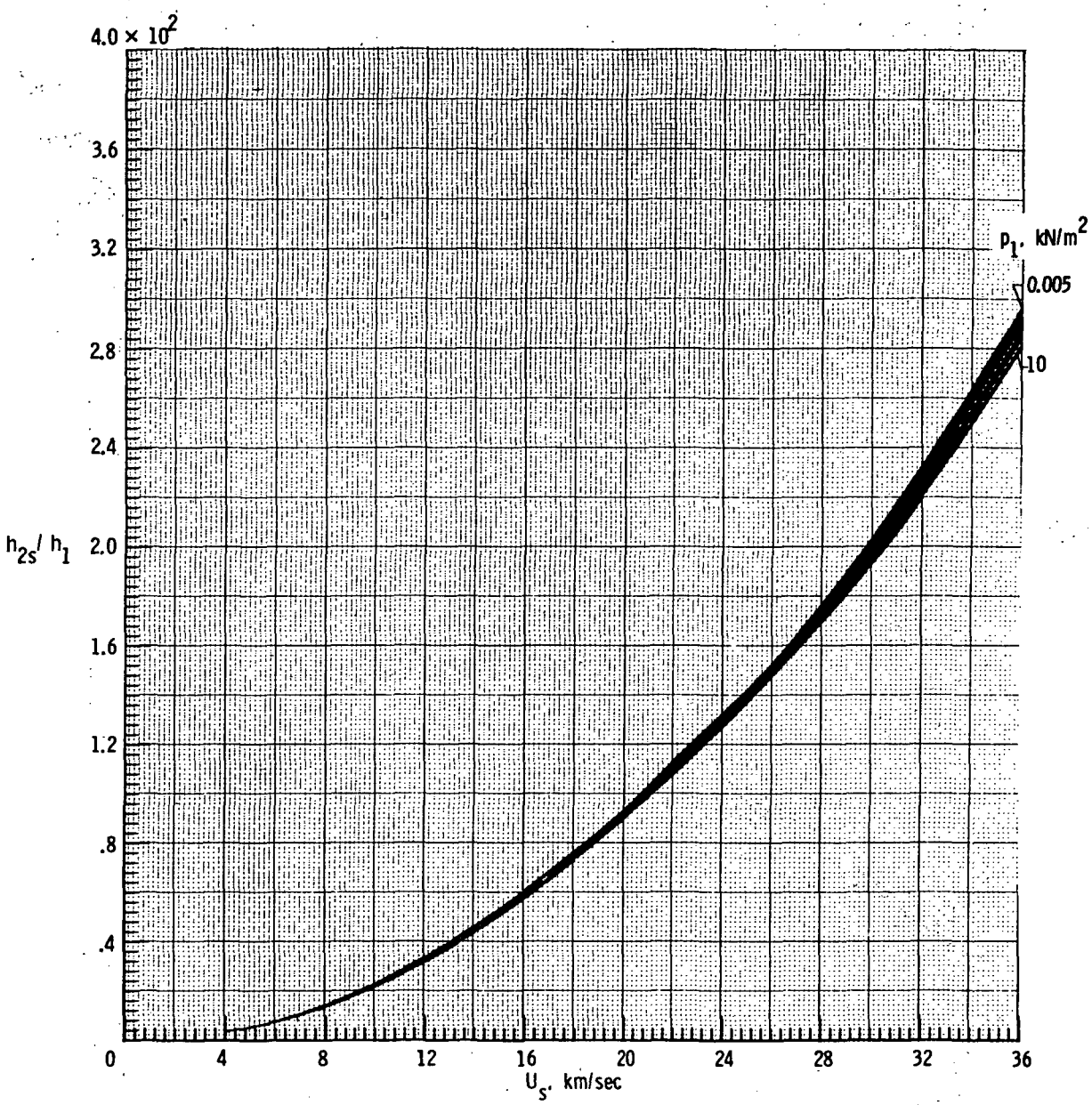
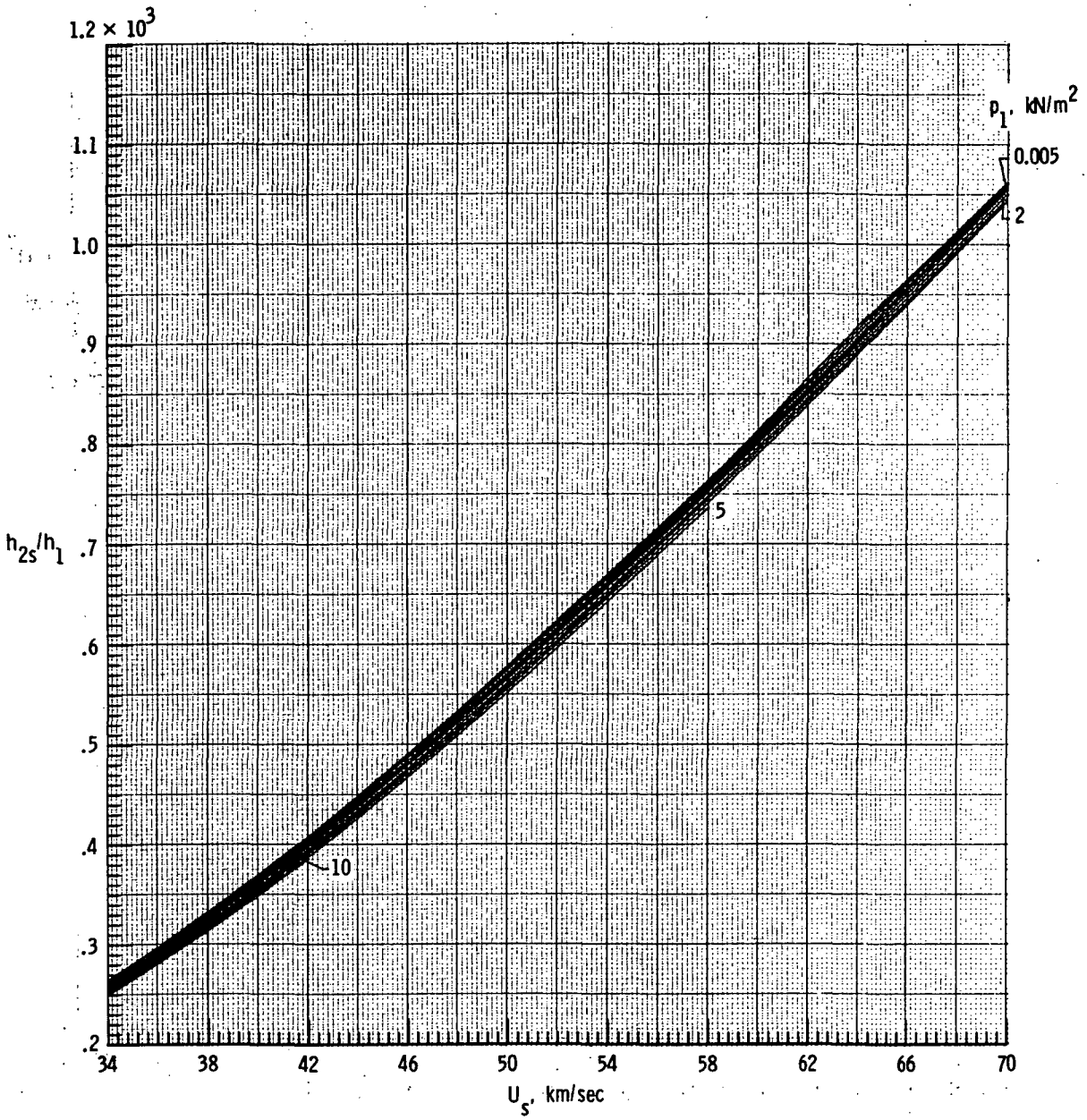


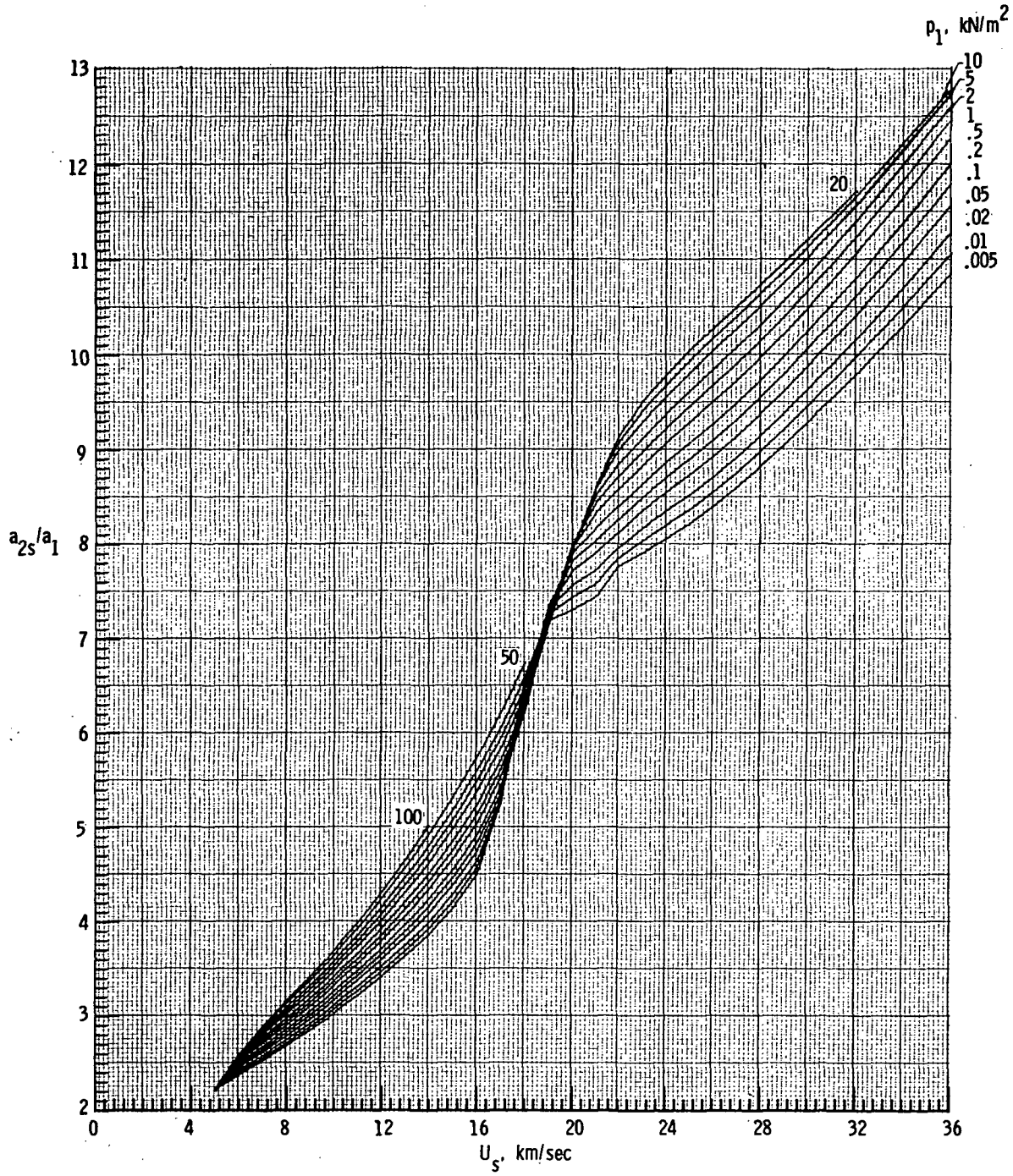
(d) Enthalpy h_{2s}/h_1.

Figure 3.- Continued.



(d) Concluded.

Figure 3.- Continued.



(e) Speed of sound a_{2s}/a_1.

Figure 3.- Continued.

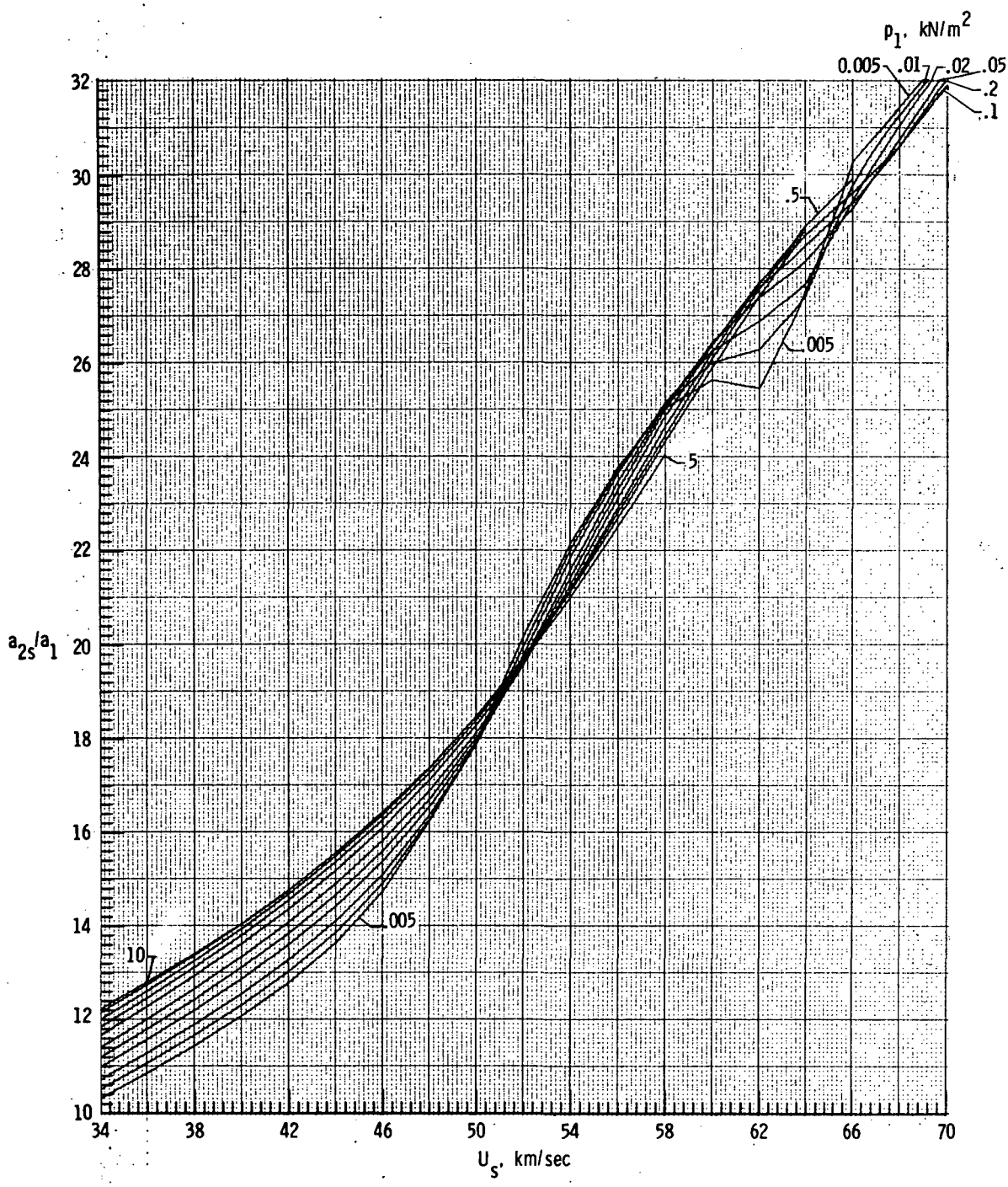


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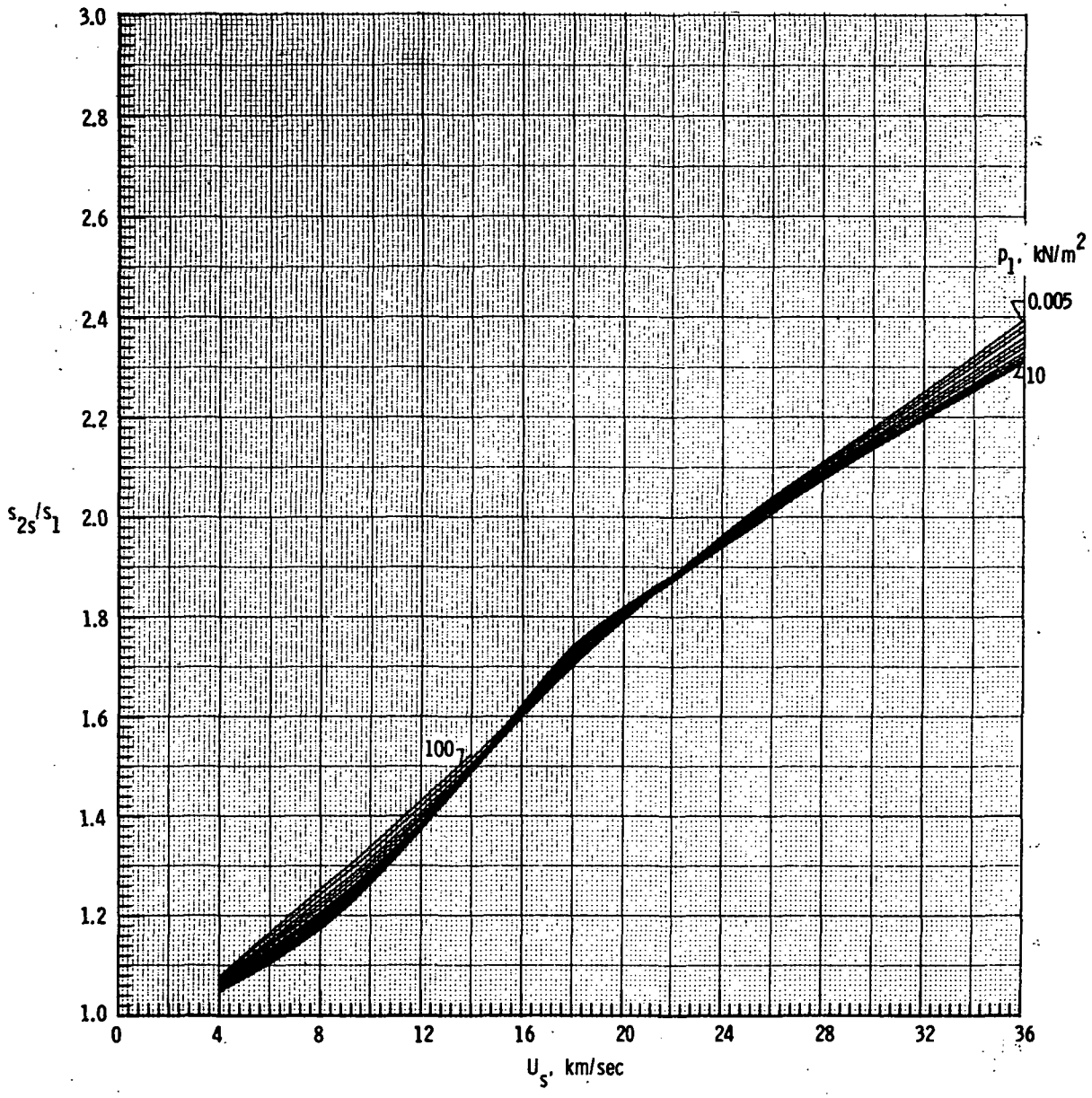
Figure 3.- Continued.



(f) Entropy s_{2s}/s_1.

Figure 3.- Continued.

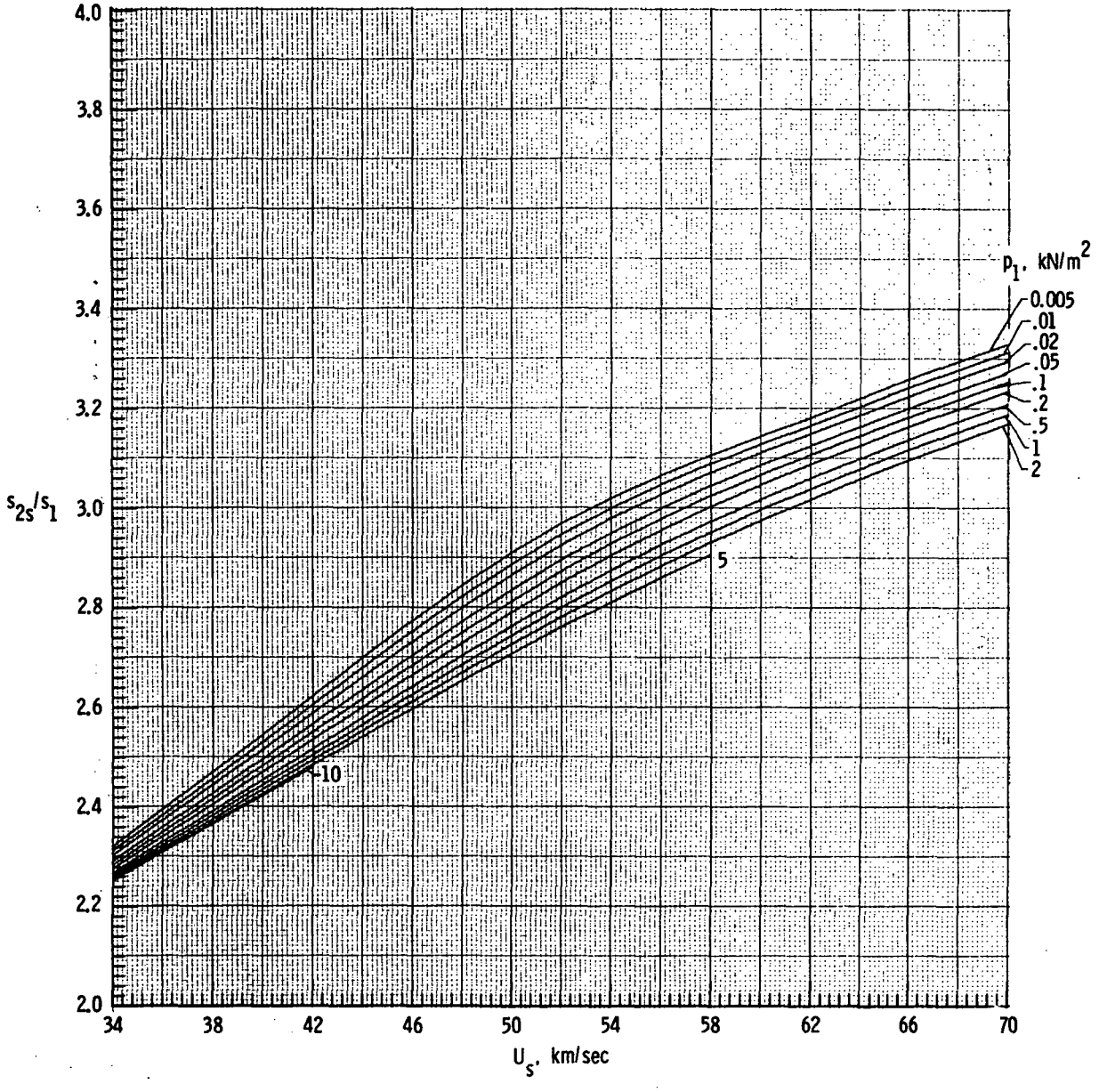


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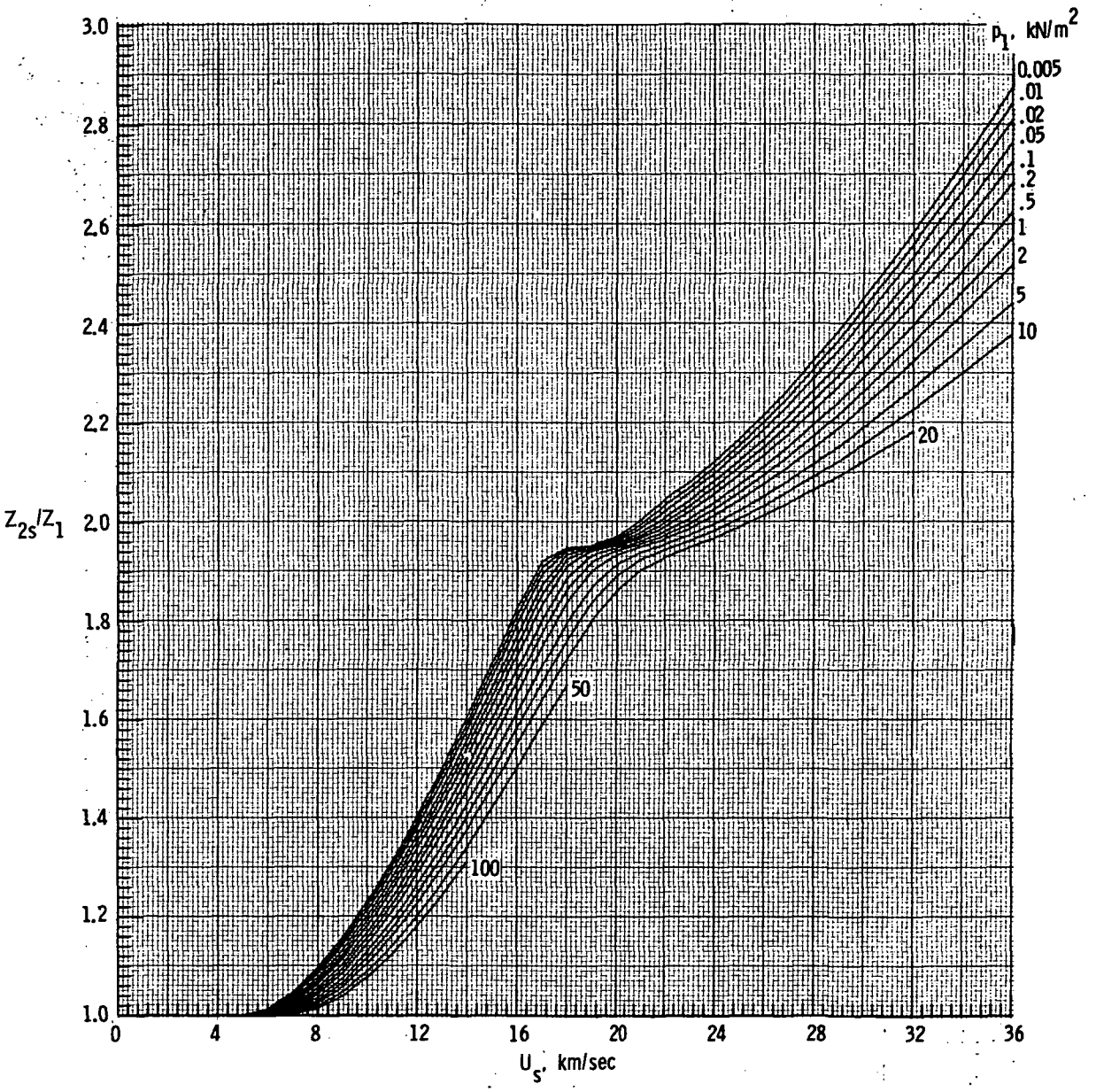
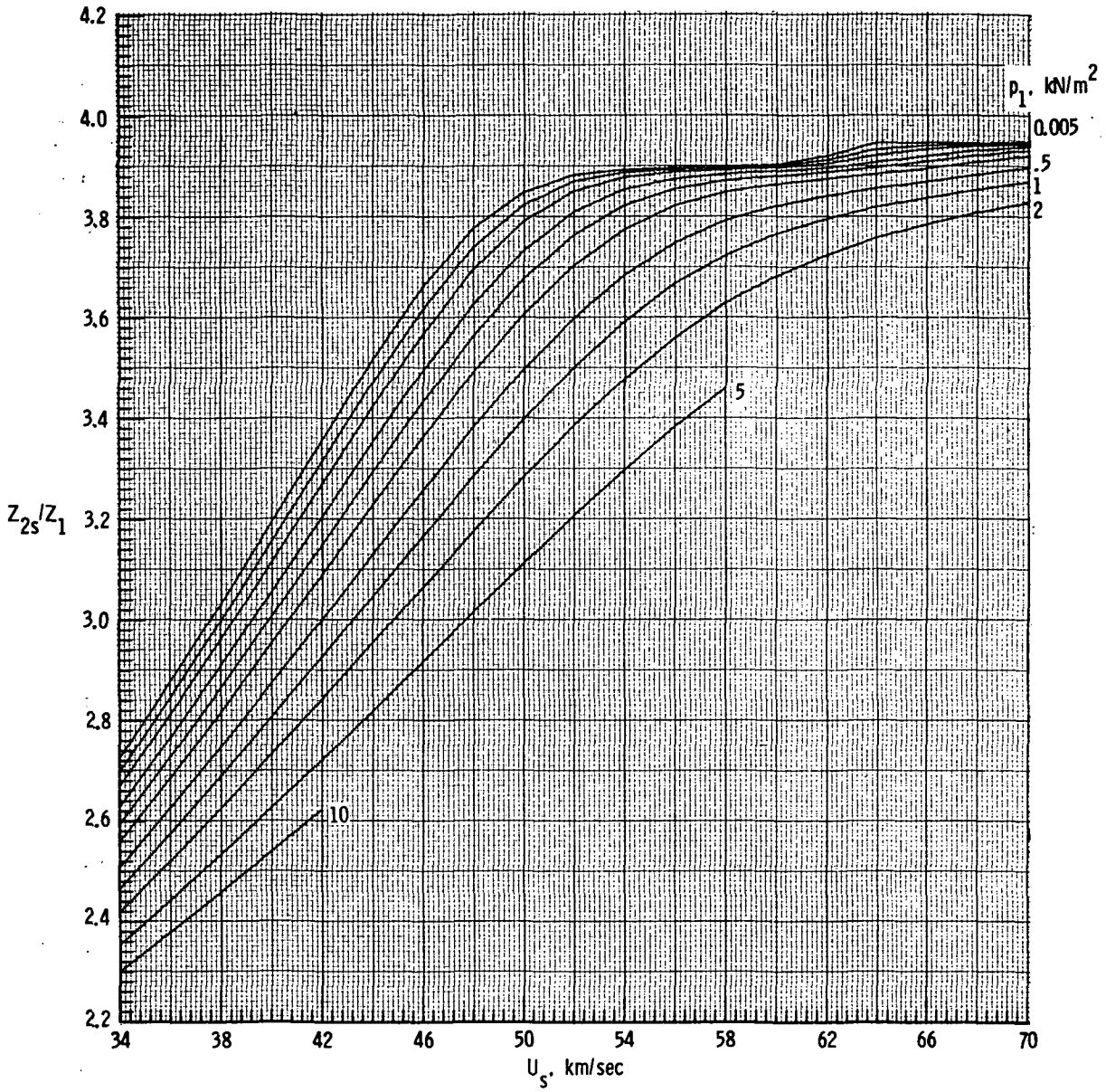
Figure 3.- Continued.



(g) Molecular-weight ratio Z_{2s}/Z_1.

Figure 3.- Continued.



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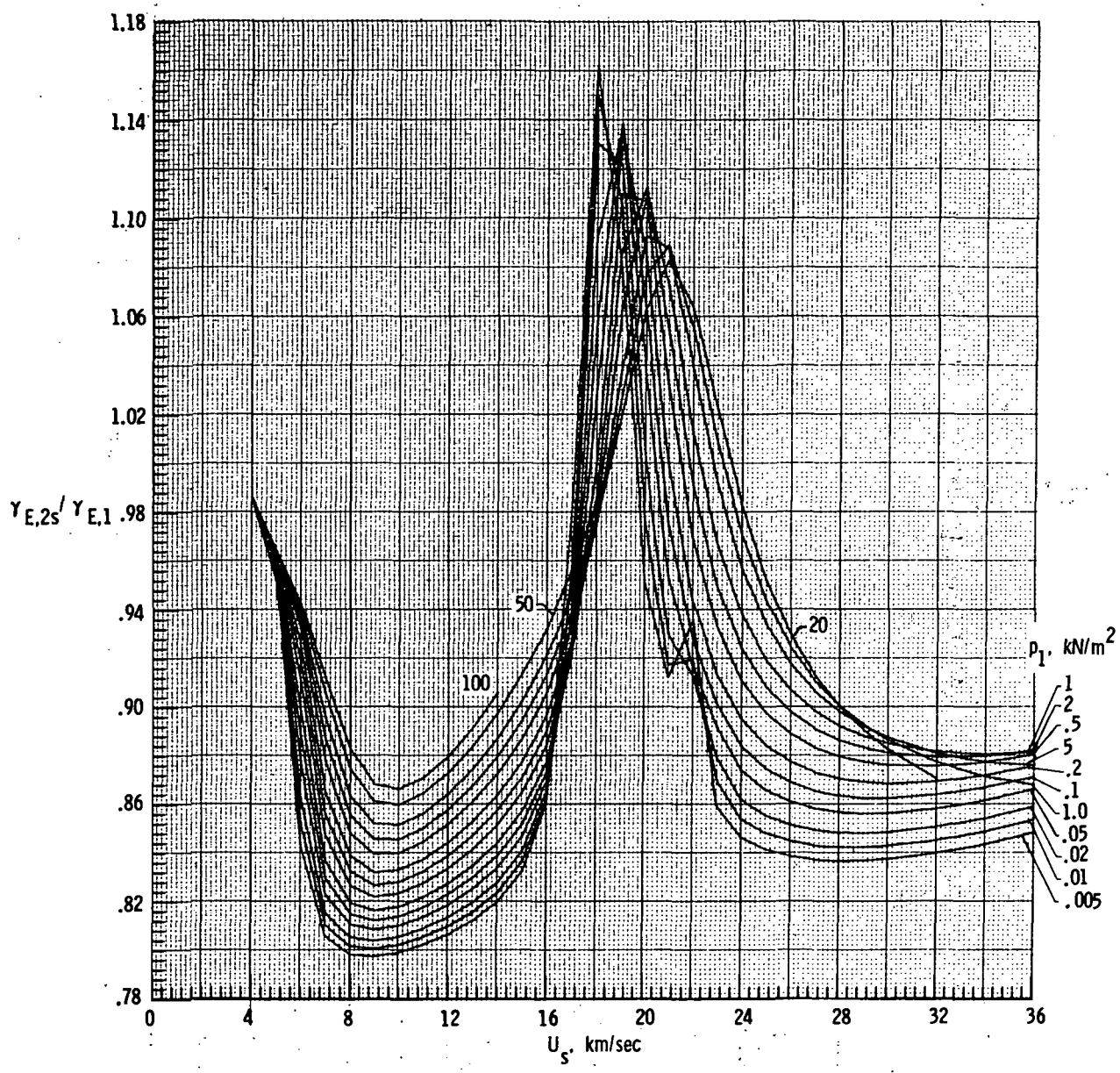

(h) Isentropic exponent $\gamma_{E,2s}/\gamma_1$.

Figure 3.- Continued.

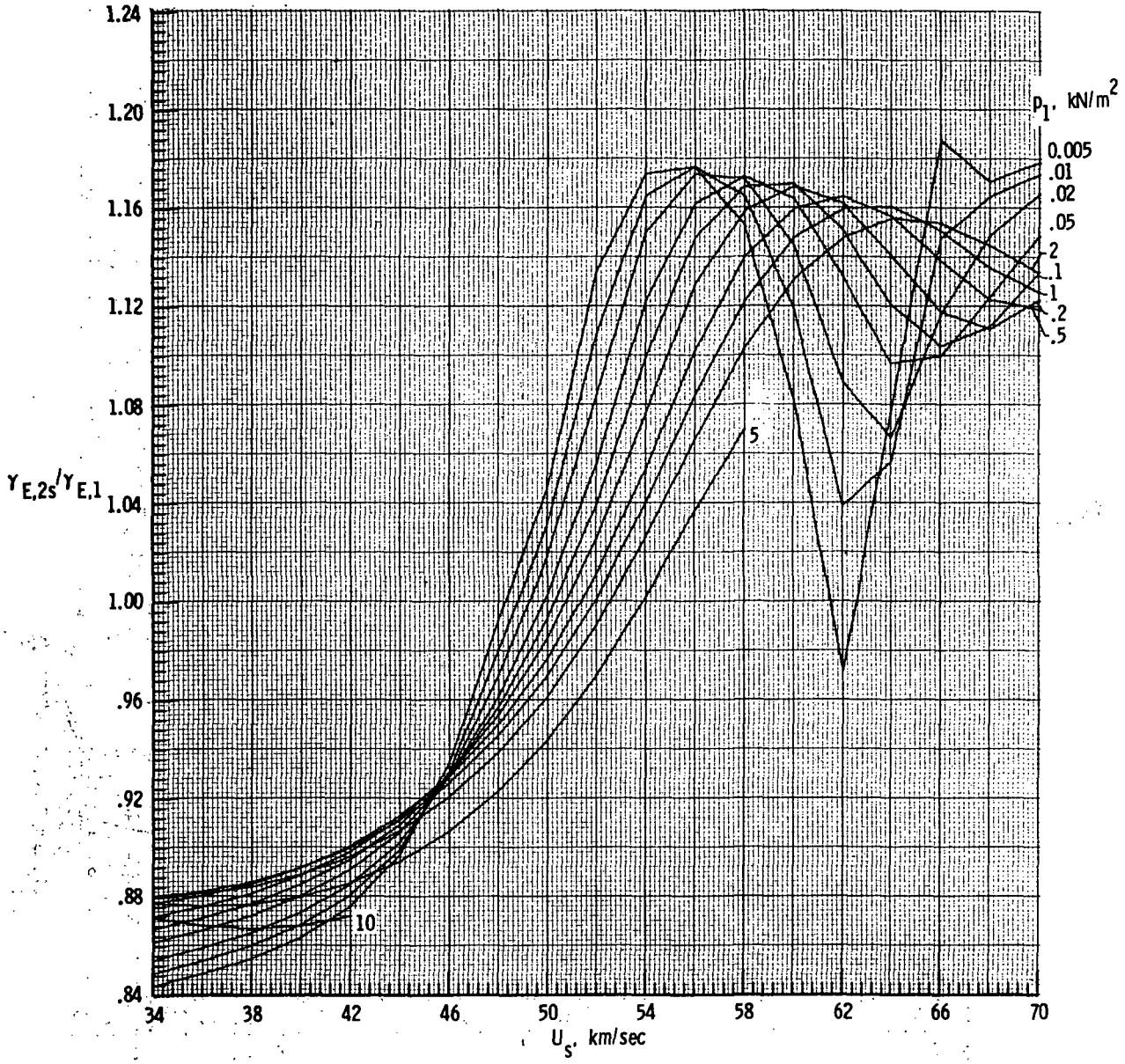

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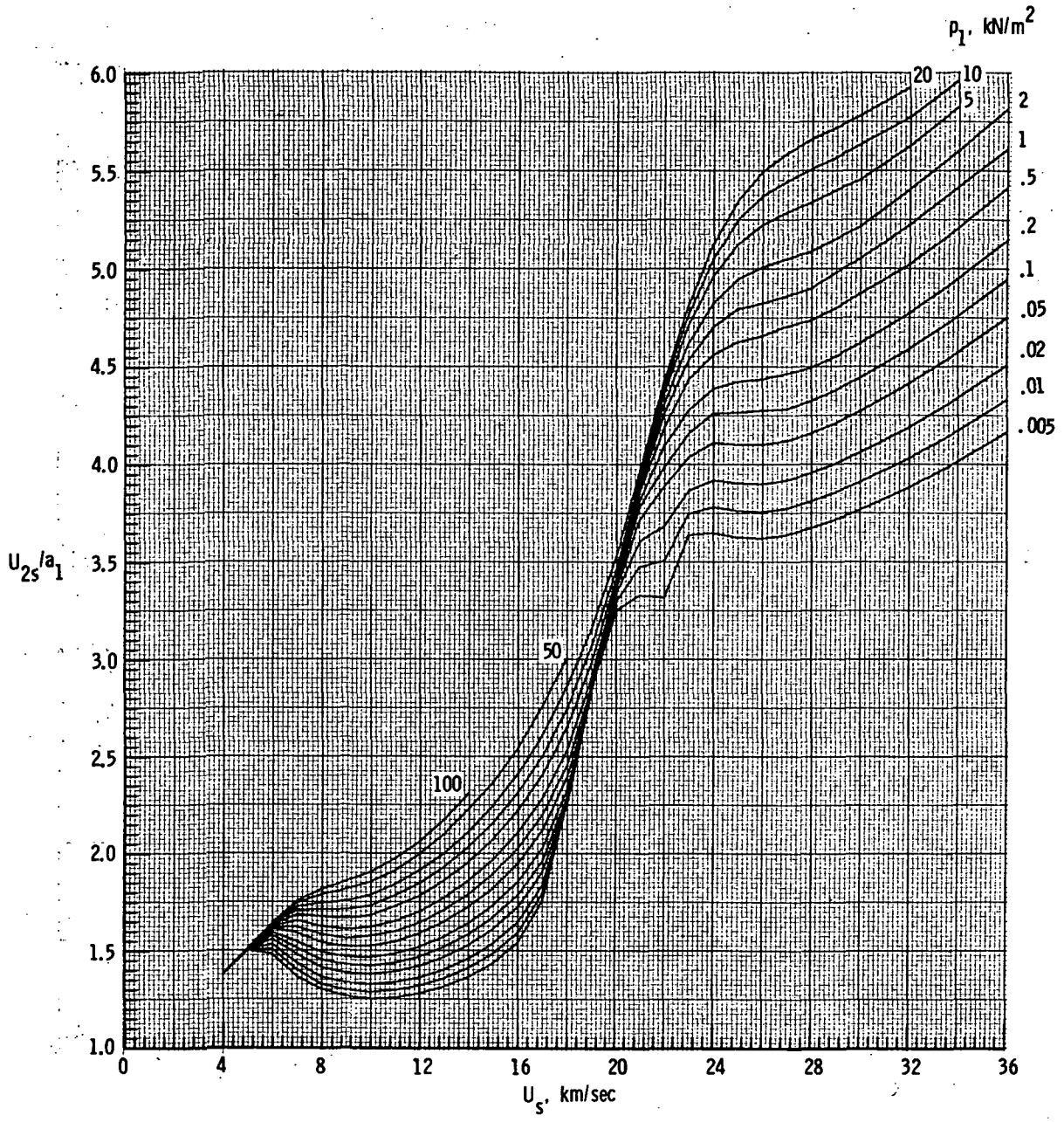
Figure 3.- Continued.



(i) Flow velocity U_{2s}/a_1.

Figure 3.- Continued.

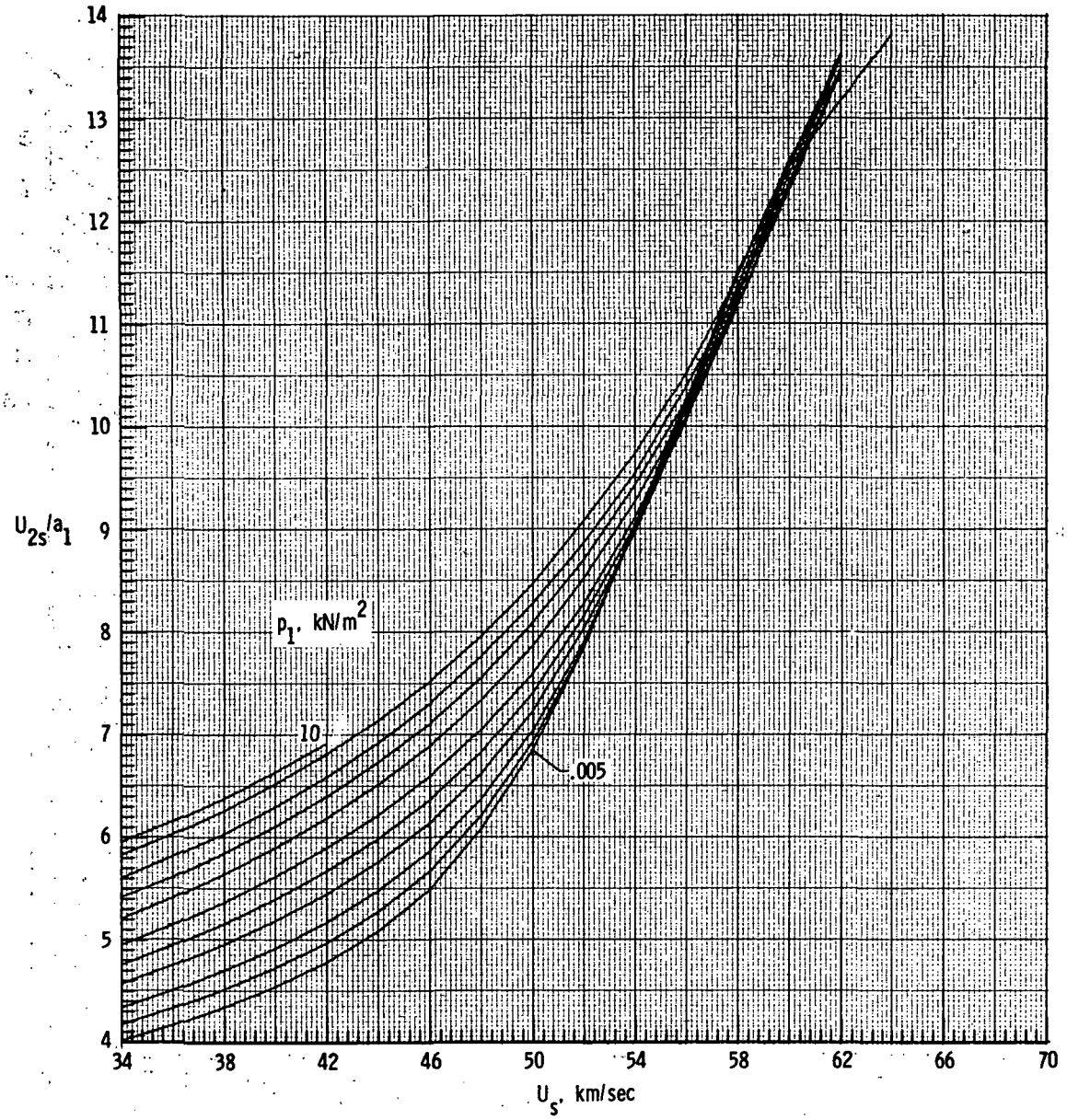


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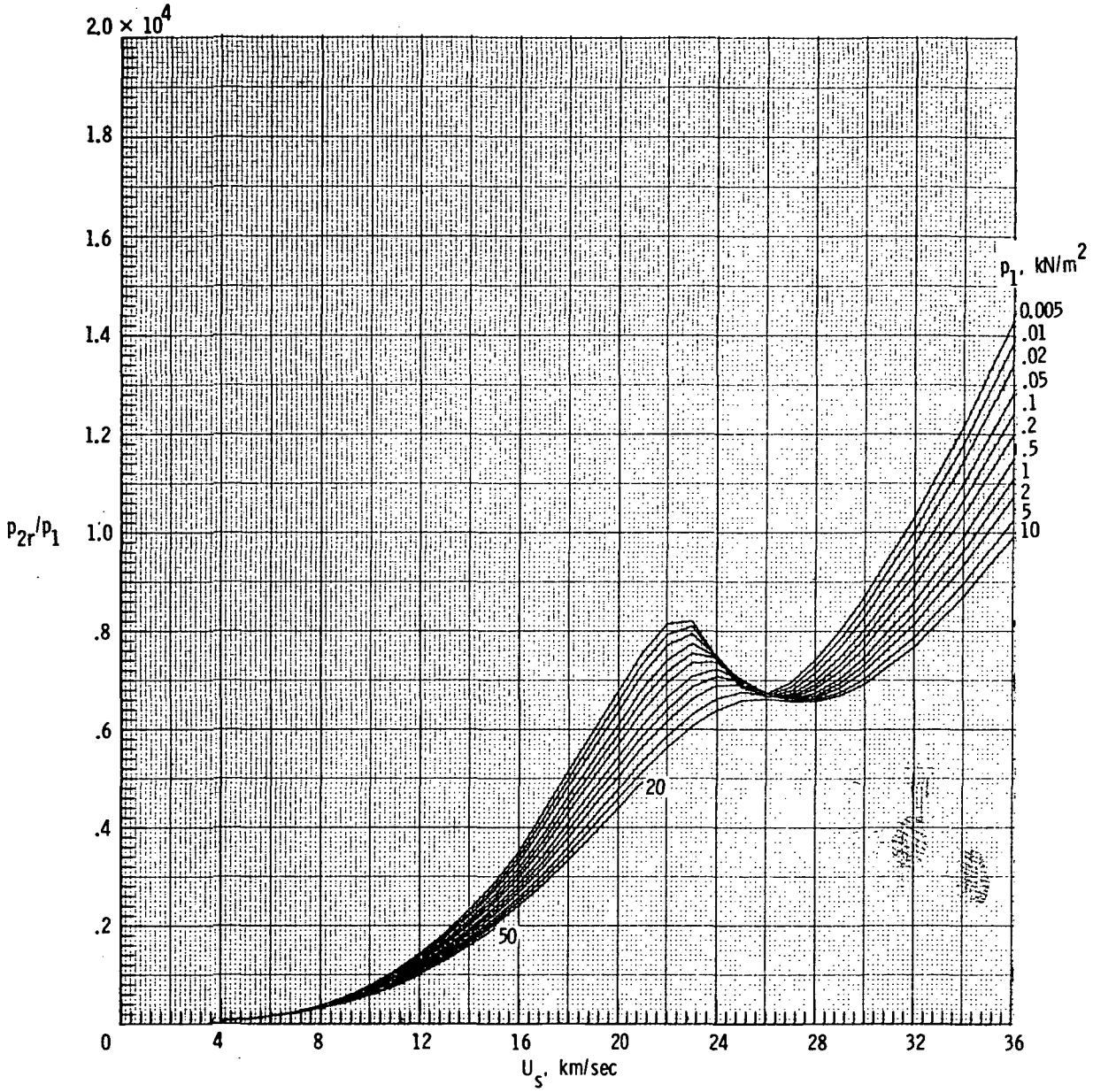
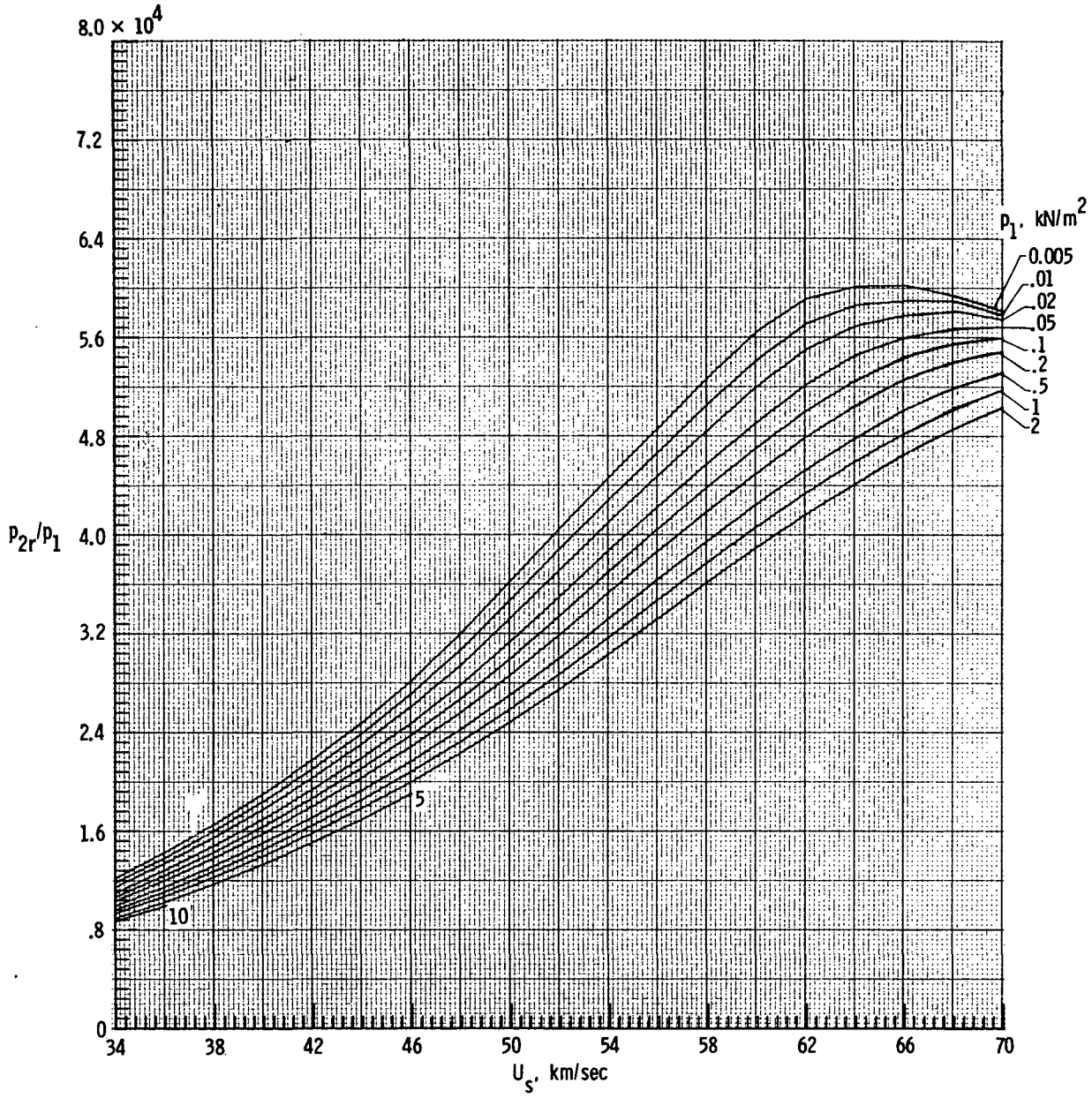
Figure 3.- Concluded.



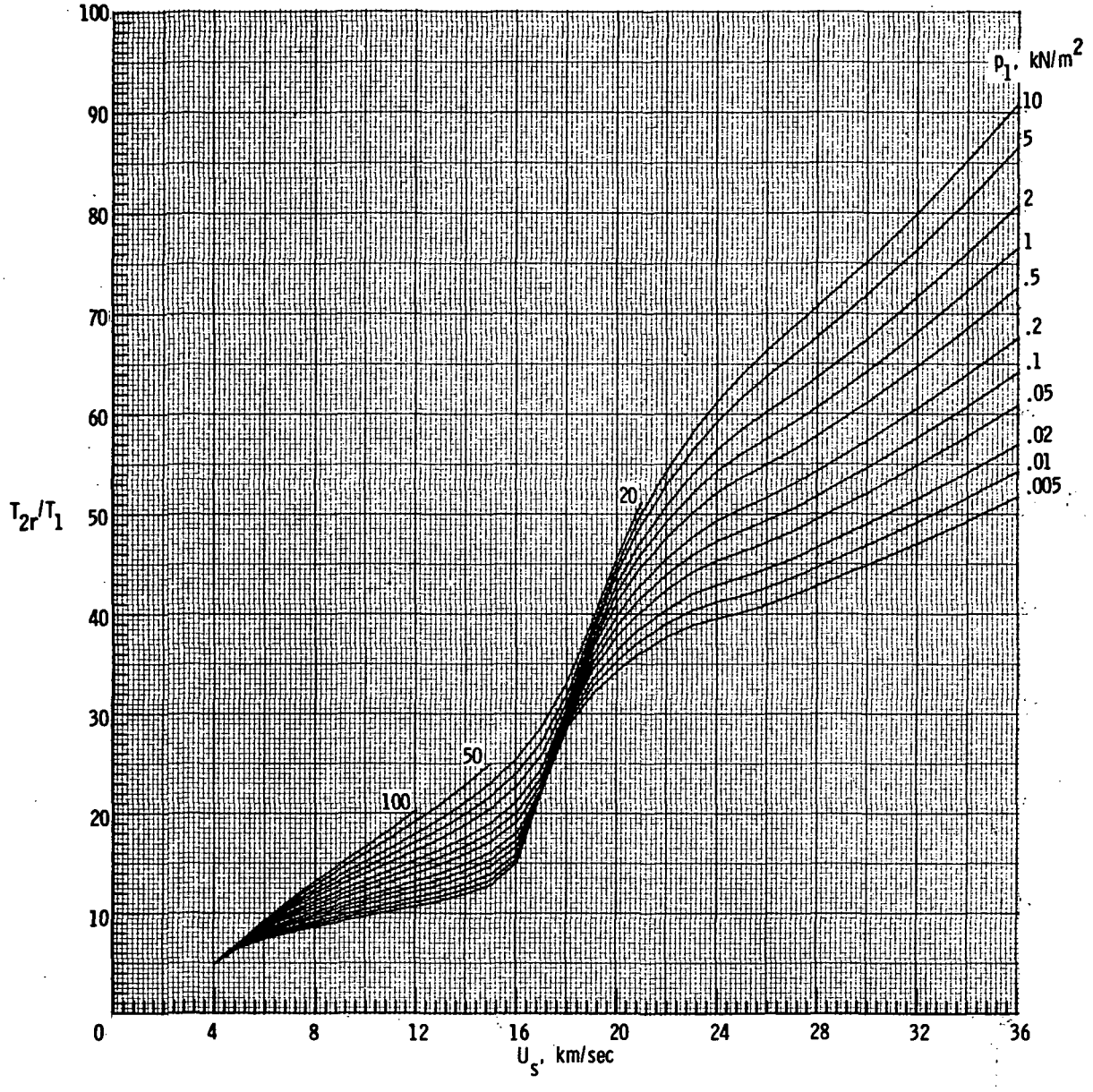
(a) Pressure p_{2r}/p_1.

Figure 4.- Thermodynamic properties behind a reflected normal shock and reflected shock velocity for a $0.95H_2$-0.05He mixture.



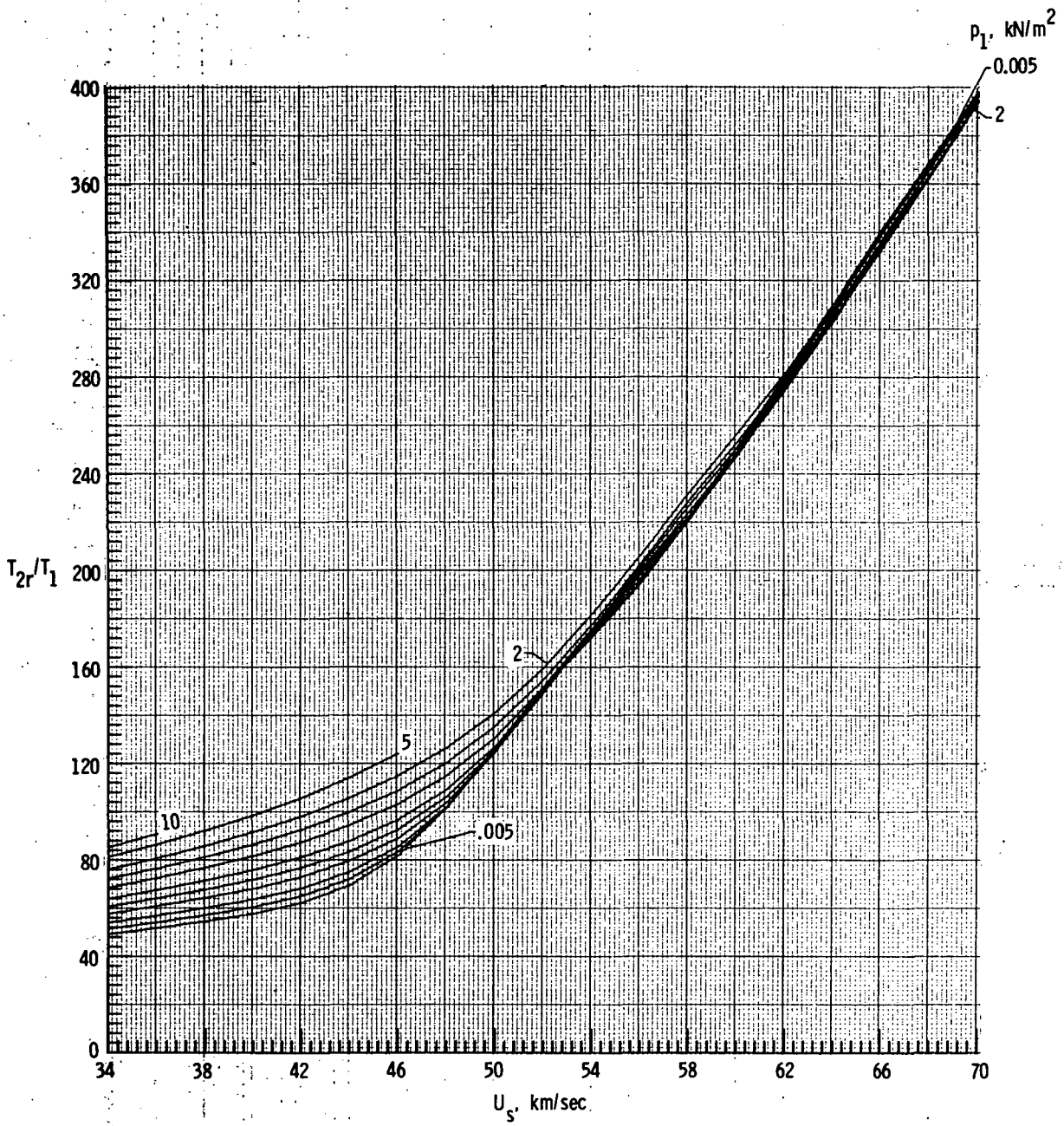
(a) Concluded.

Figure 4.- Continued.



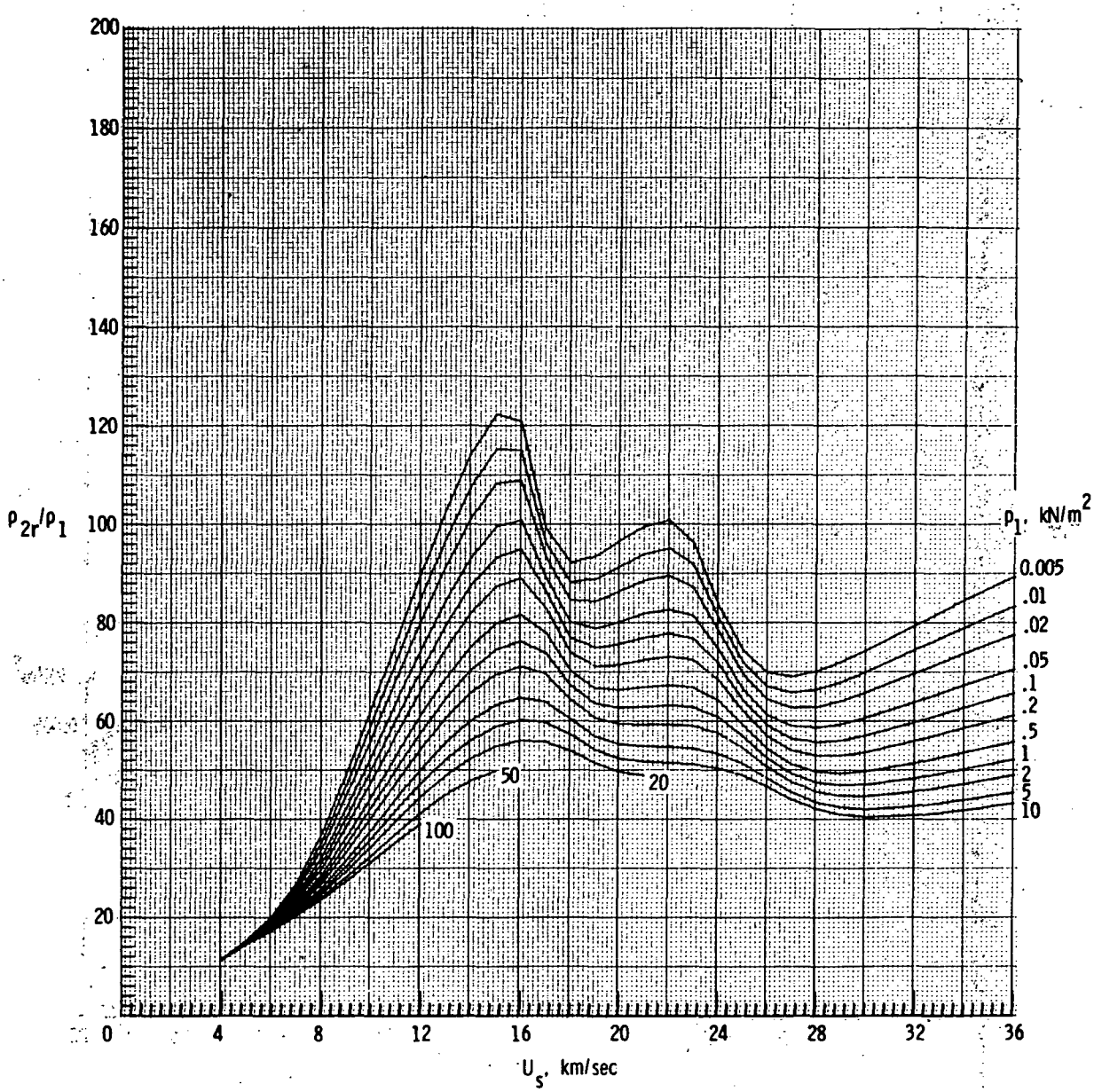
(b) Temperature T_{2r}/T_1.

Figure 4.- Continued.



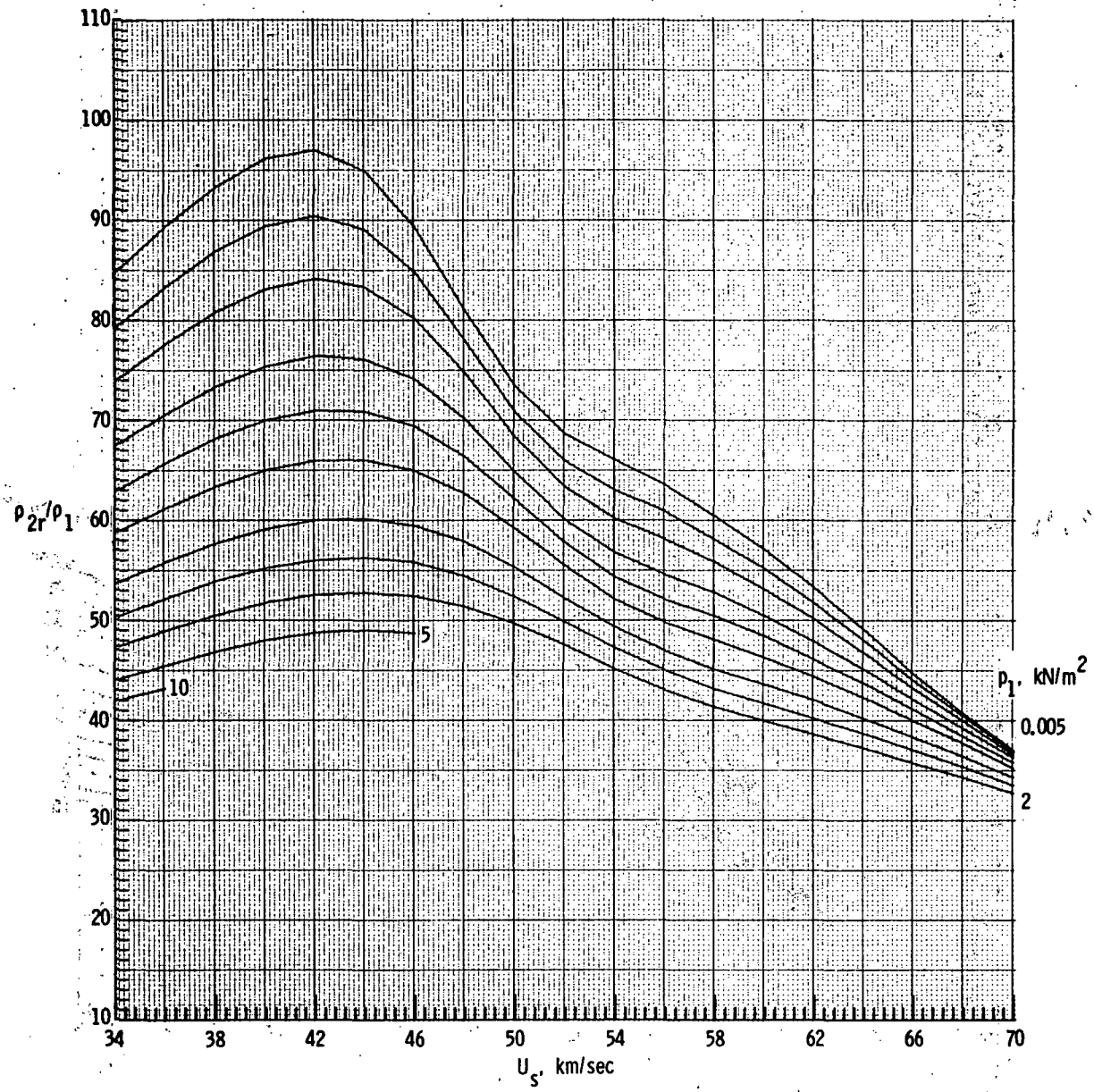
(b) Concluded.

Figure 4.- Continued.



(c) Density ρ_{2r}/ρ_1.

Figure 4.- Continued.



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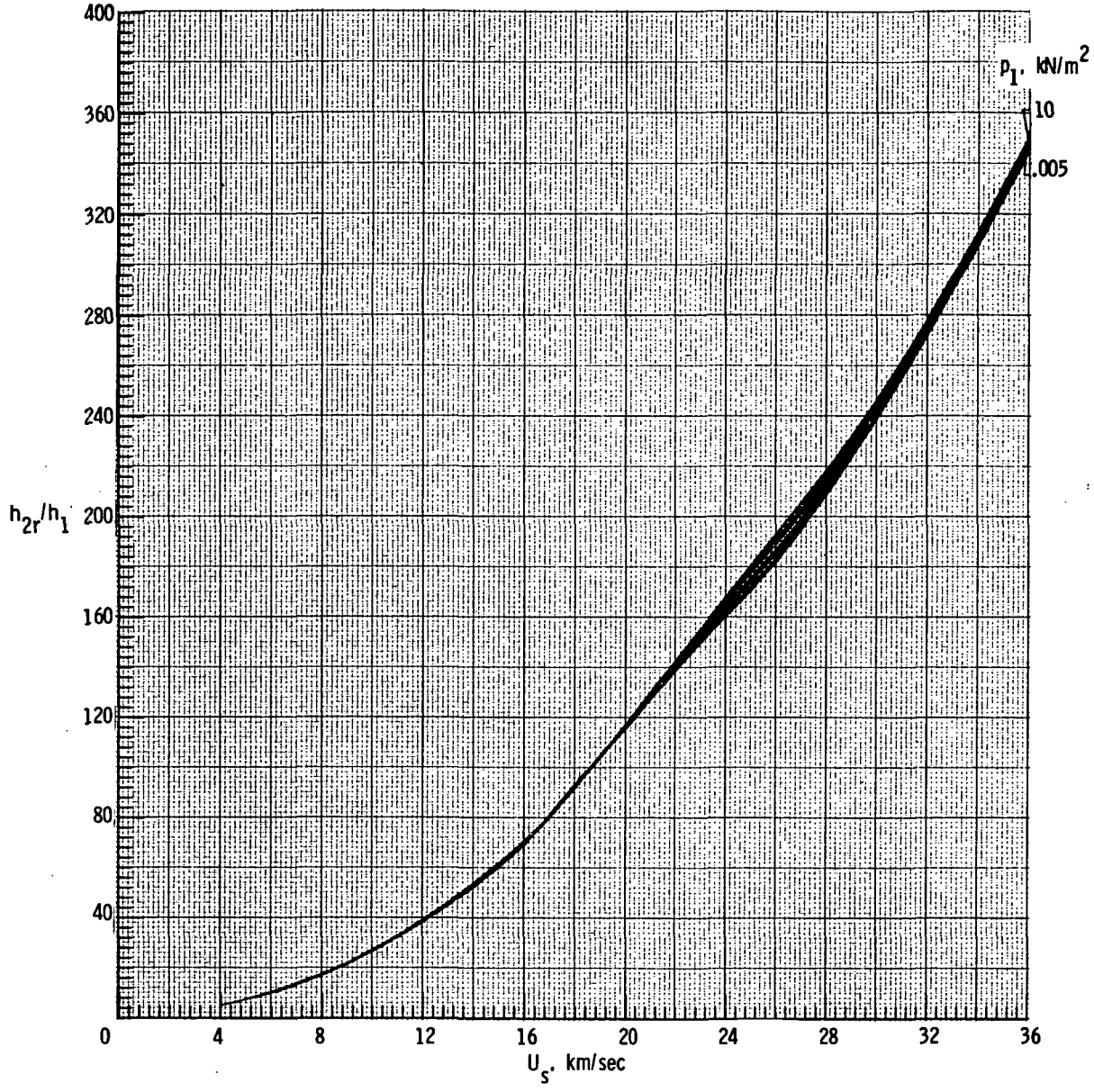

(d) Enthalpy h_{2r}/h_1.

Figure 4.- Continued.

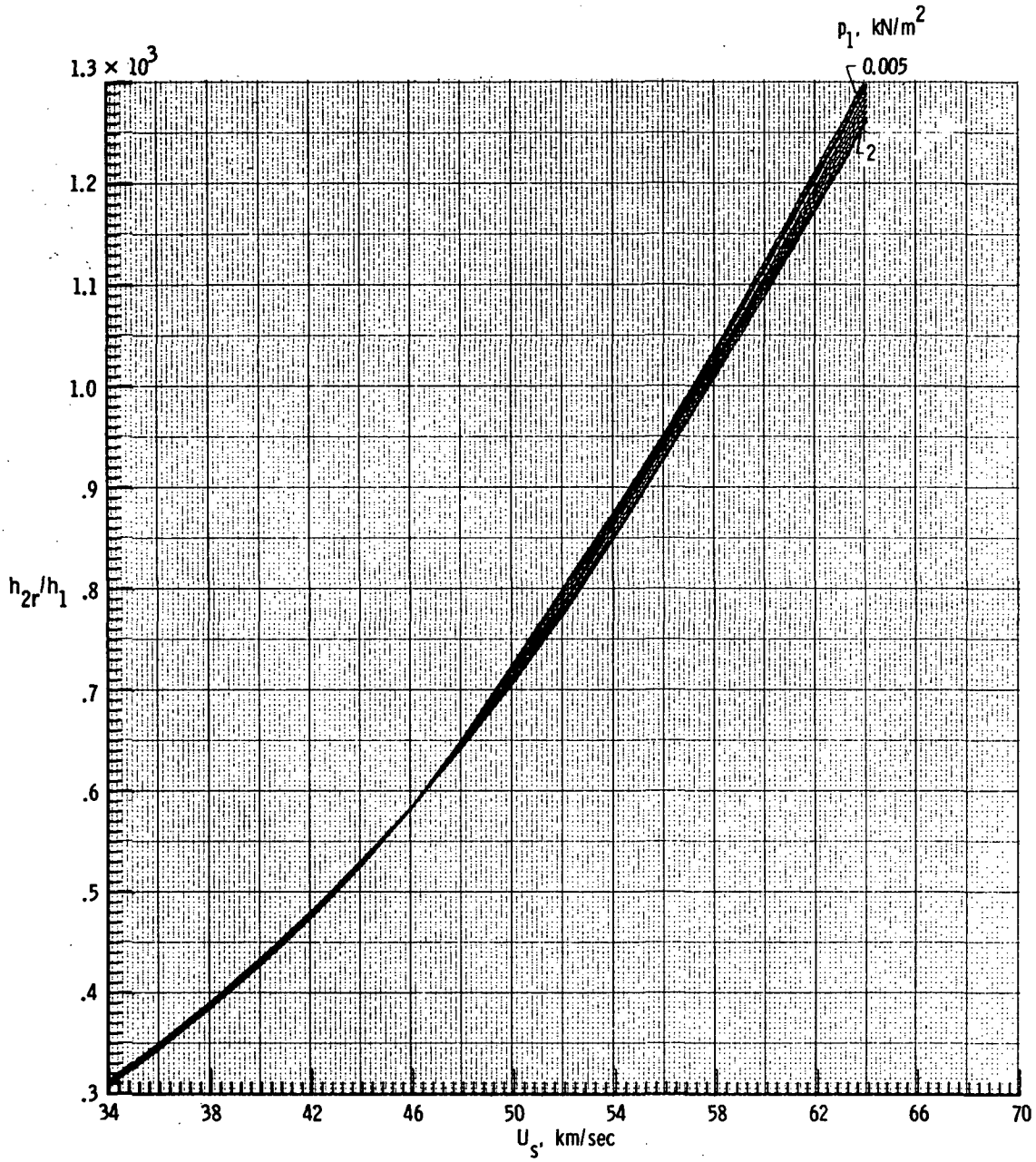

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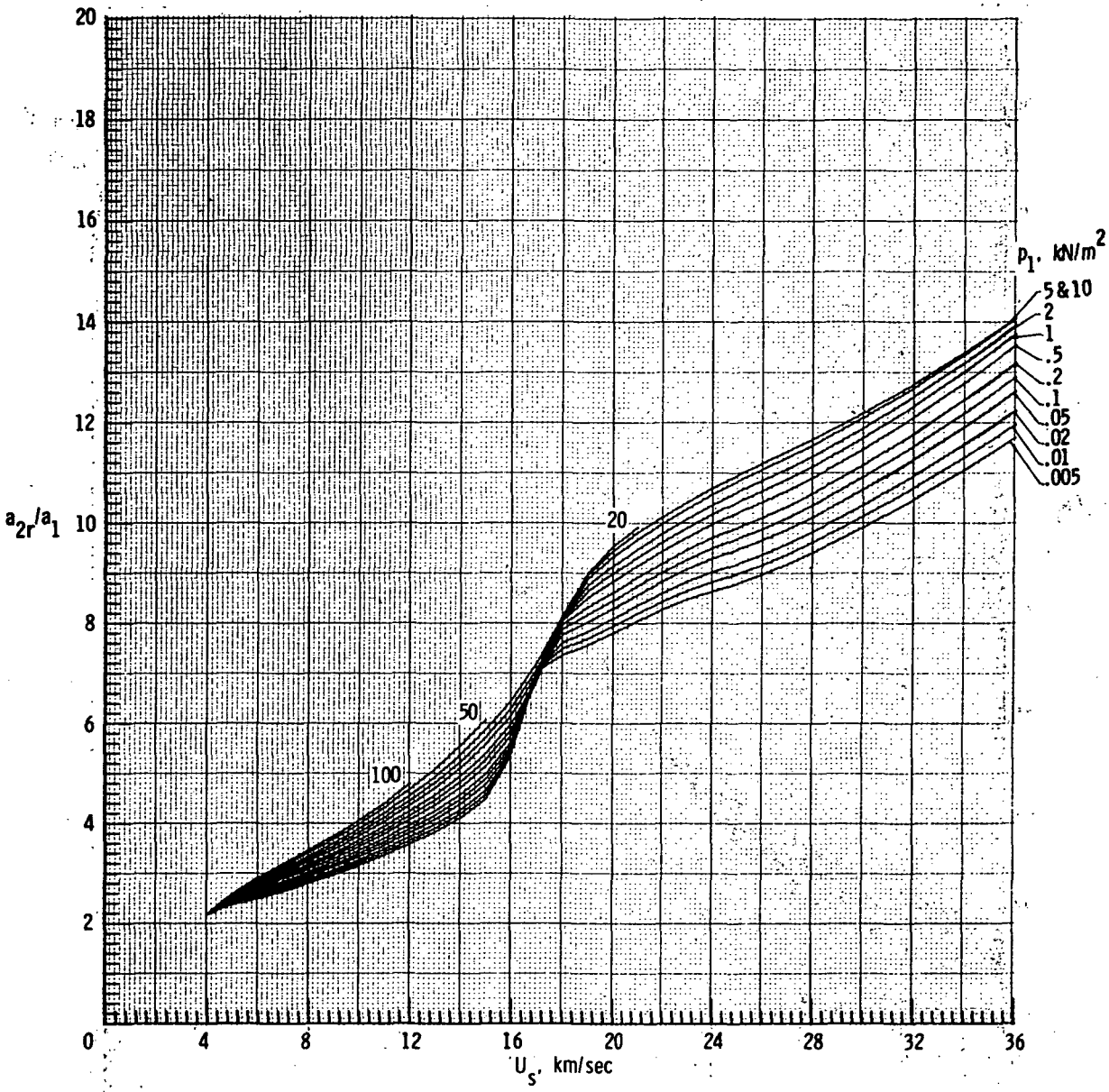
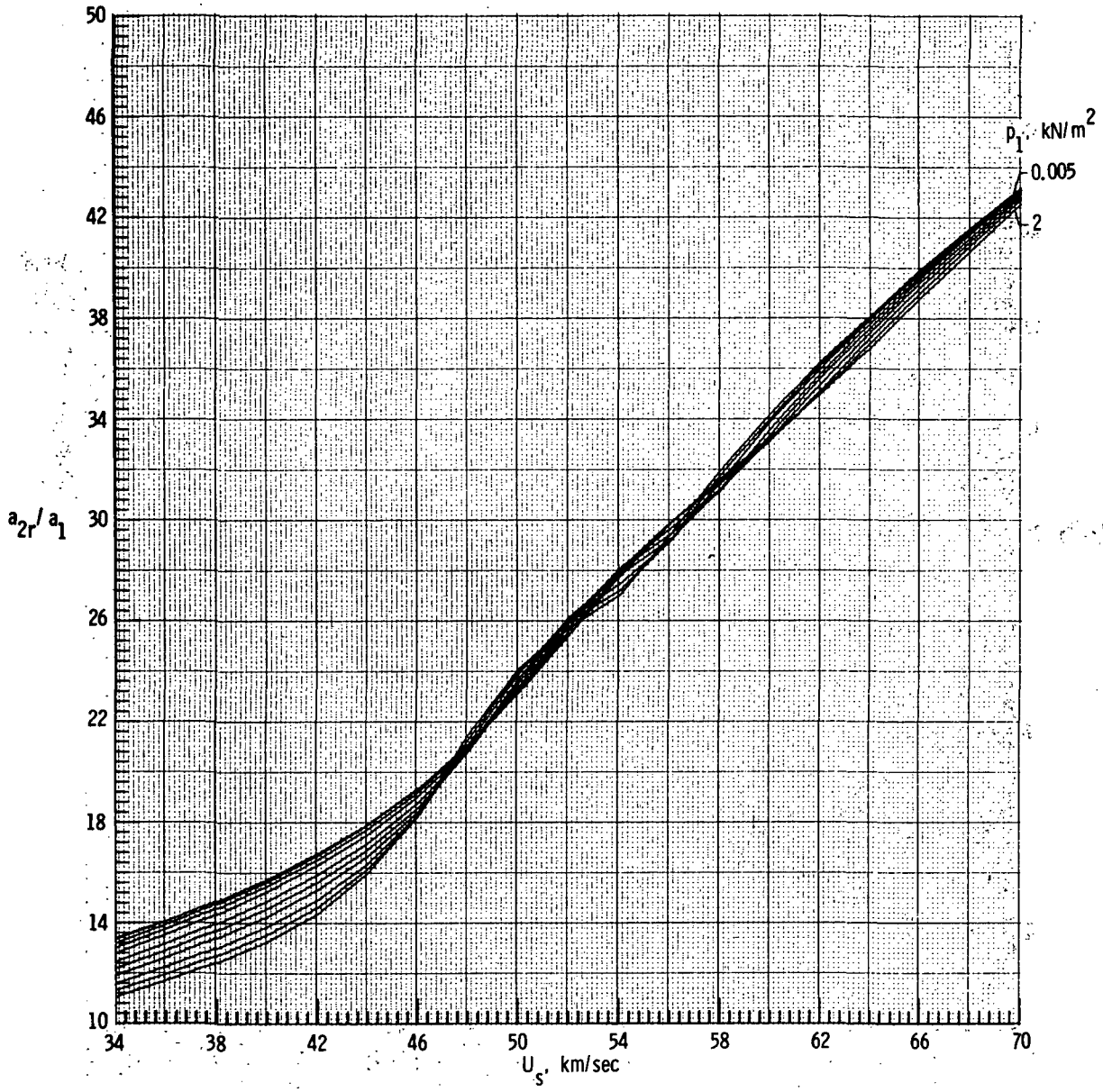
Figure 4.- Continued.



(e) Speed of sound a_{2r}/a_1.

Figure 4.- Continued.



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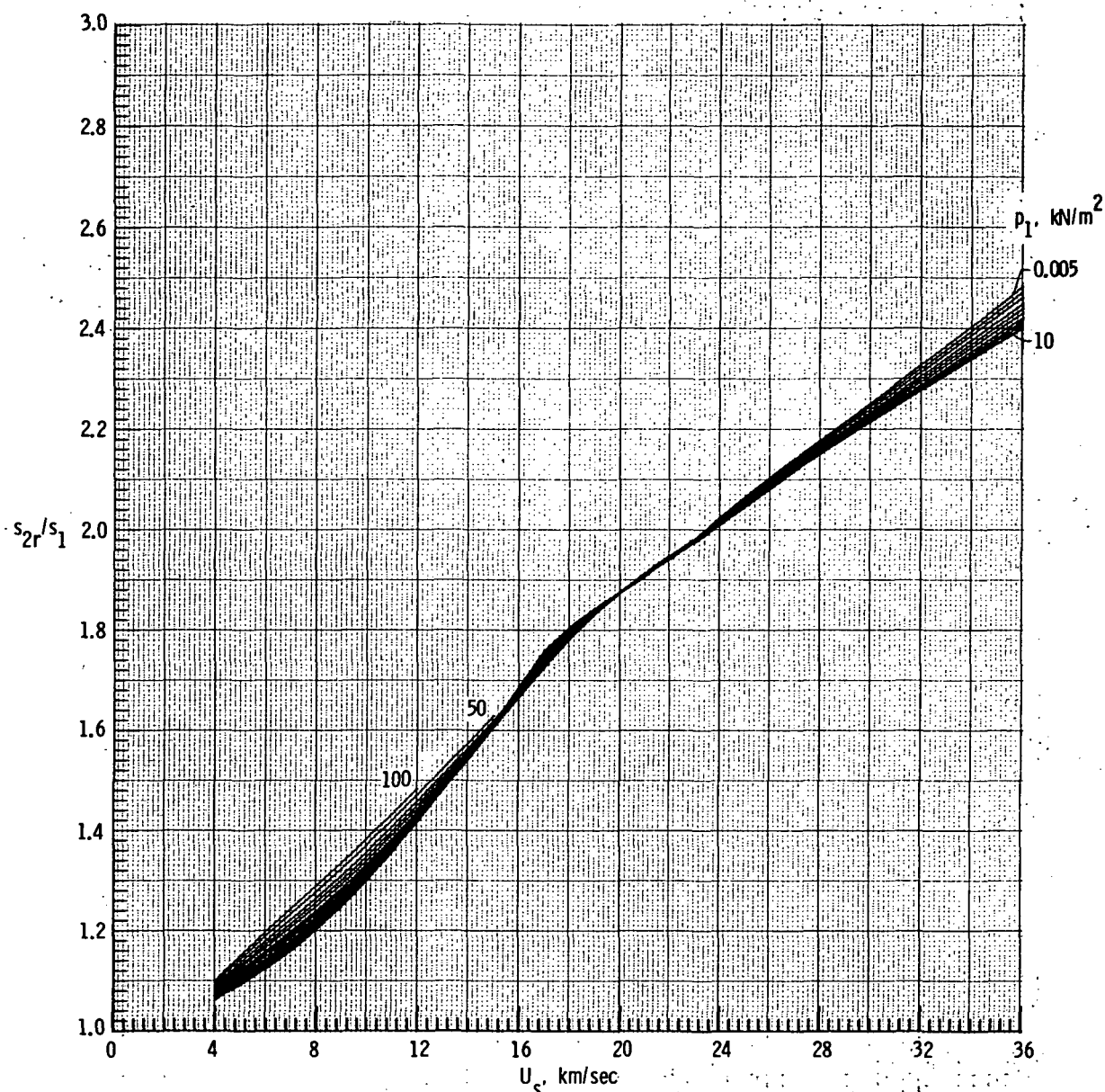
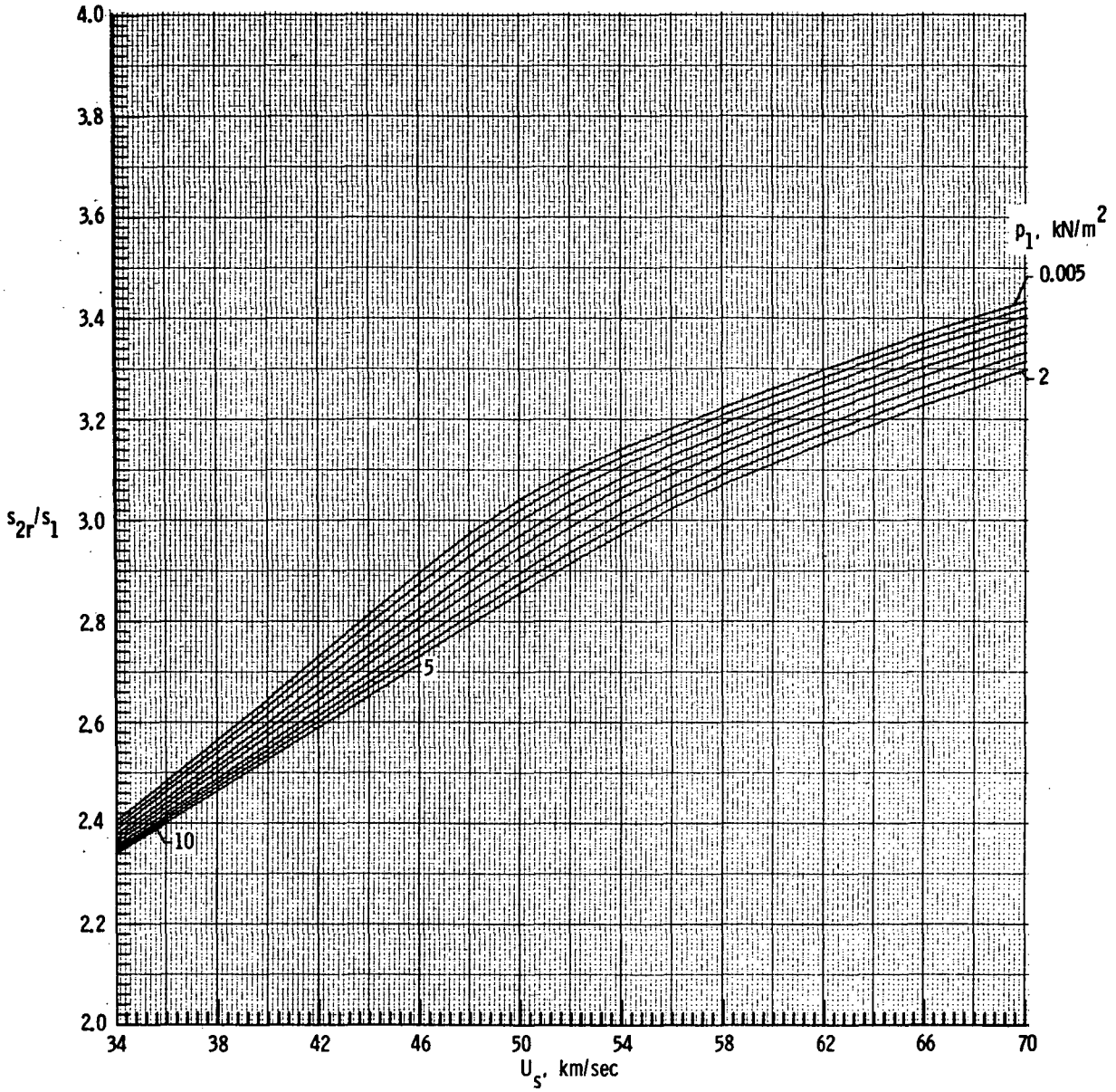


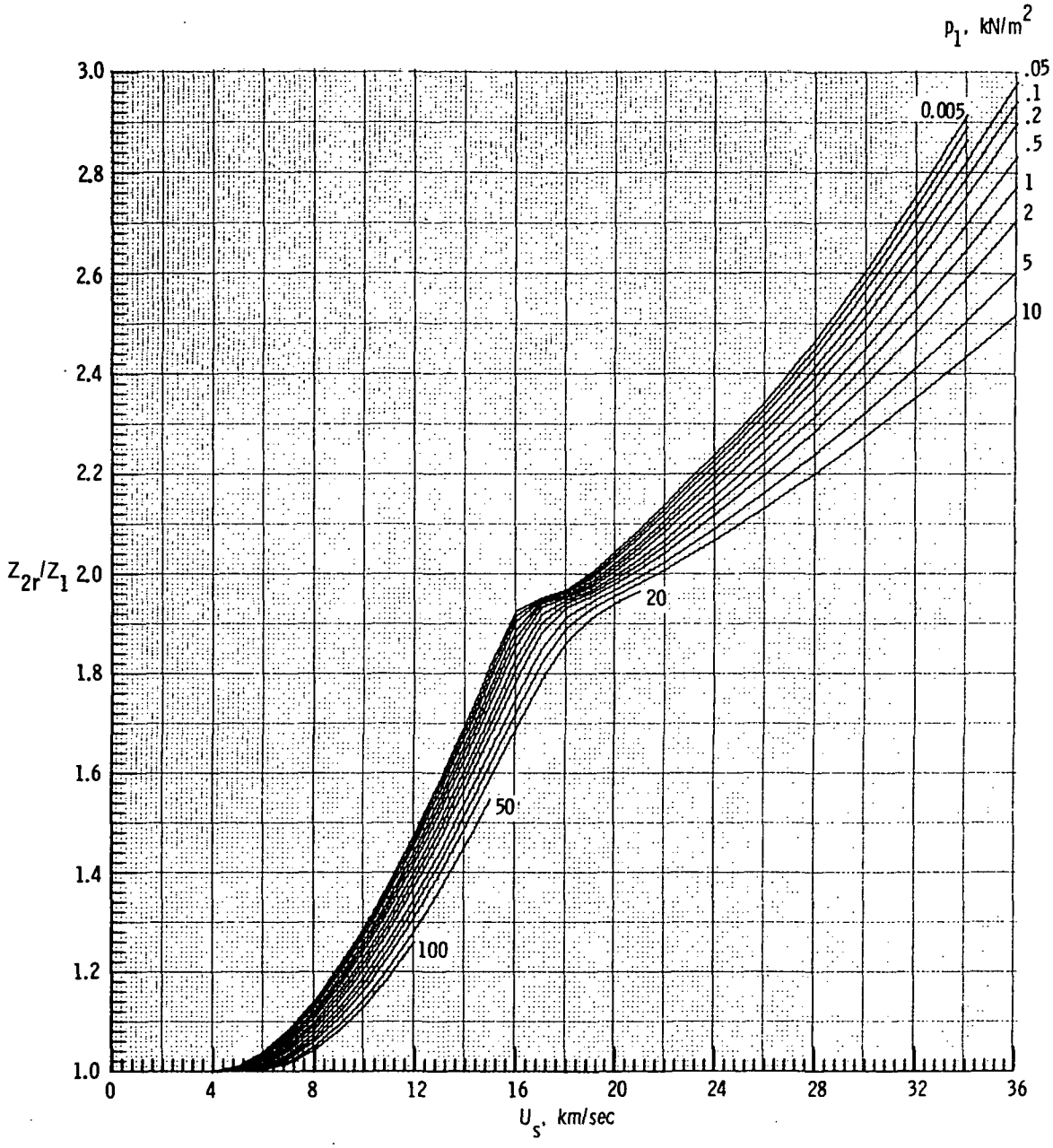
(f) Entropy s_{2r}/s_1.

Figure 4.- Continued.



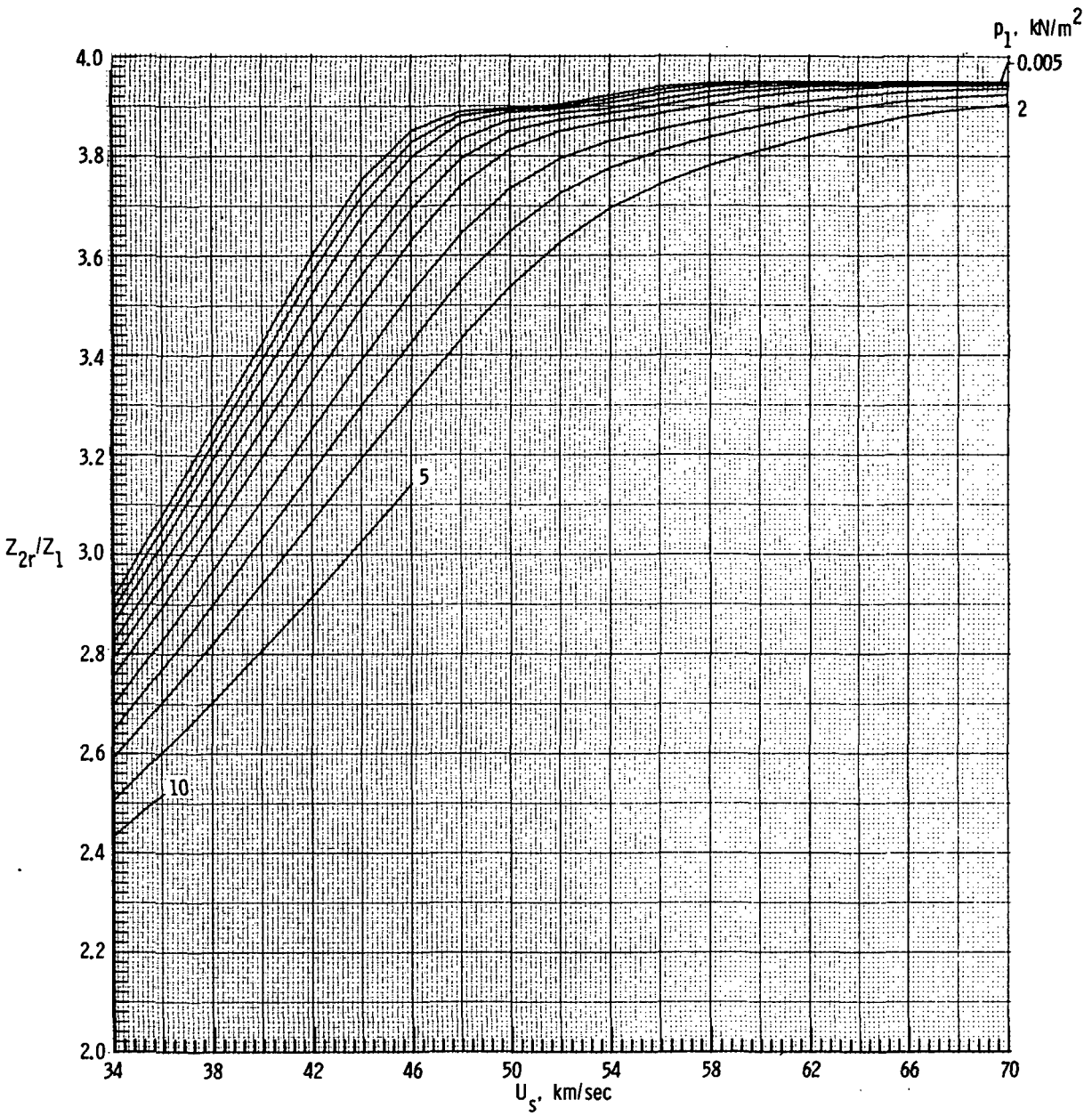
(f) Concluded.

Figure 4.- Continued.



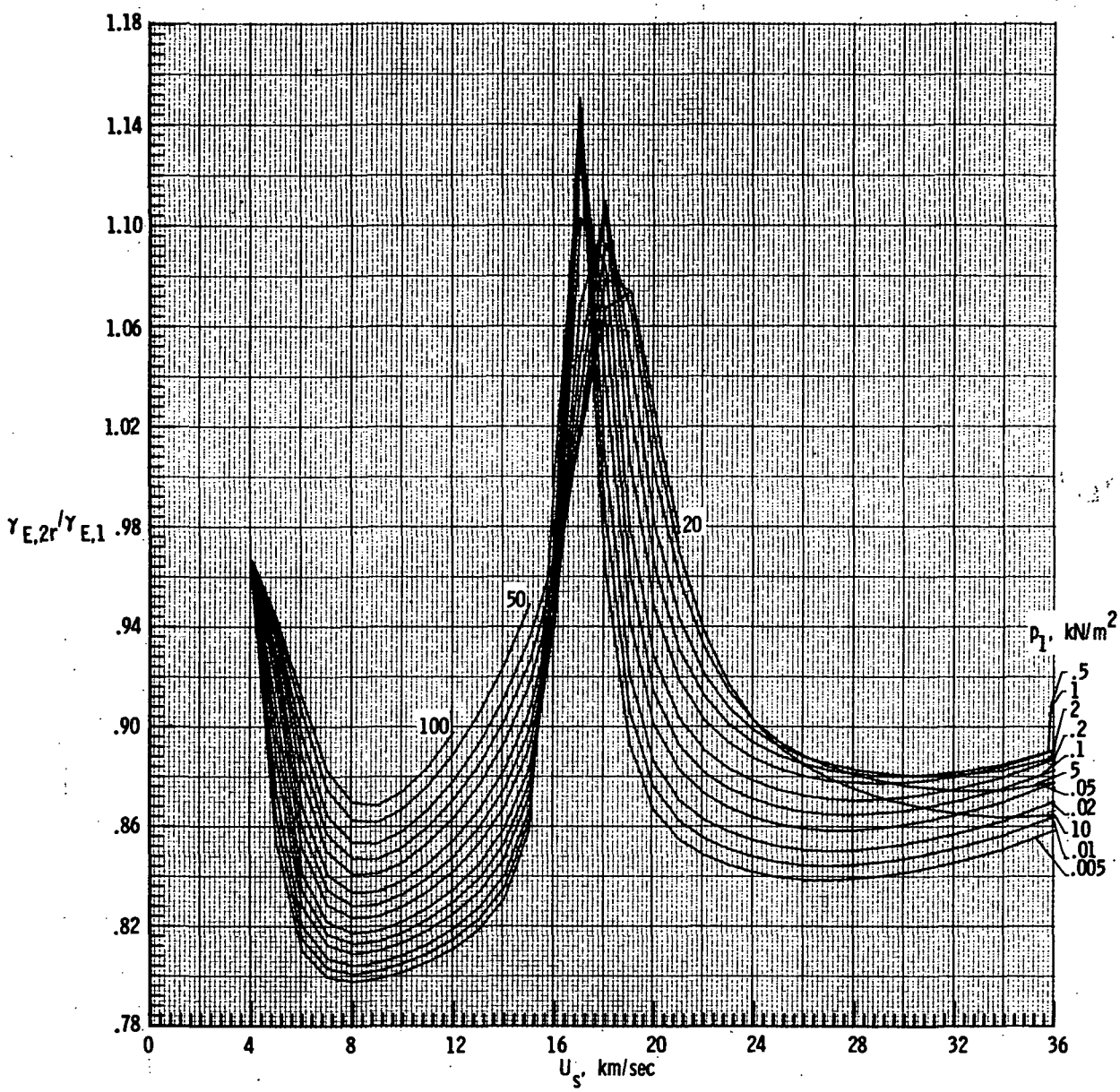
(g) Molecular-weight ratio Z_{2r}/Z_1.

Figure 4.- Continued.



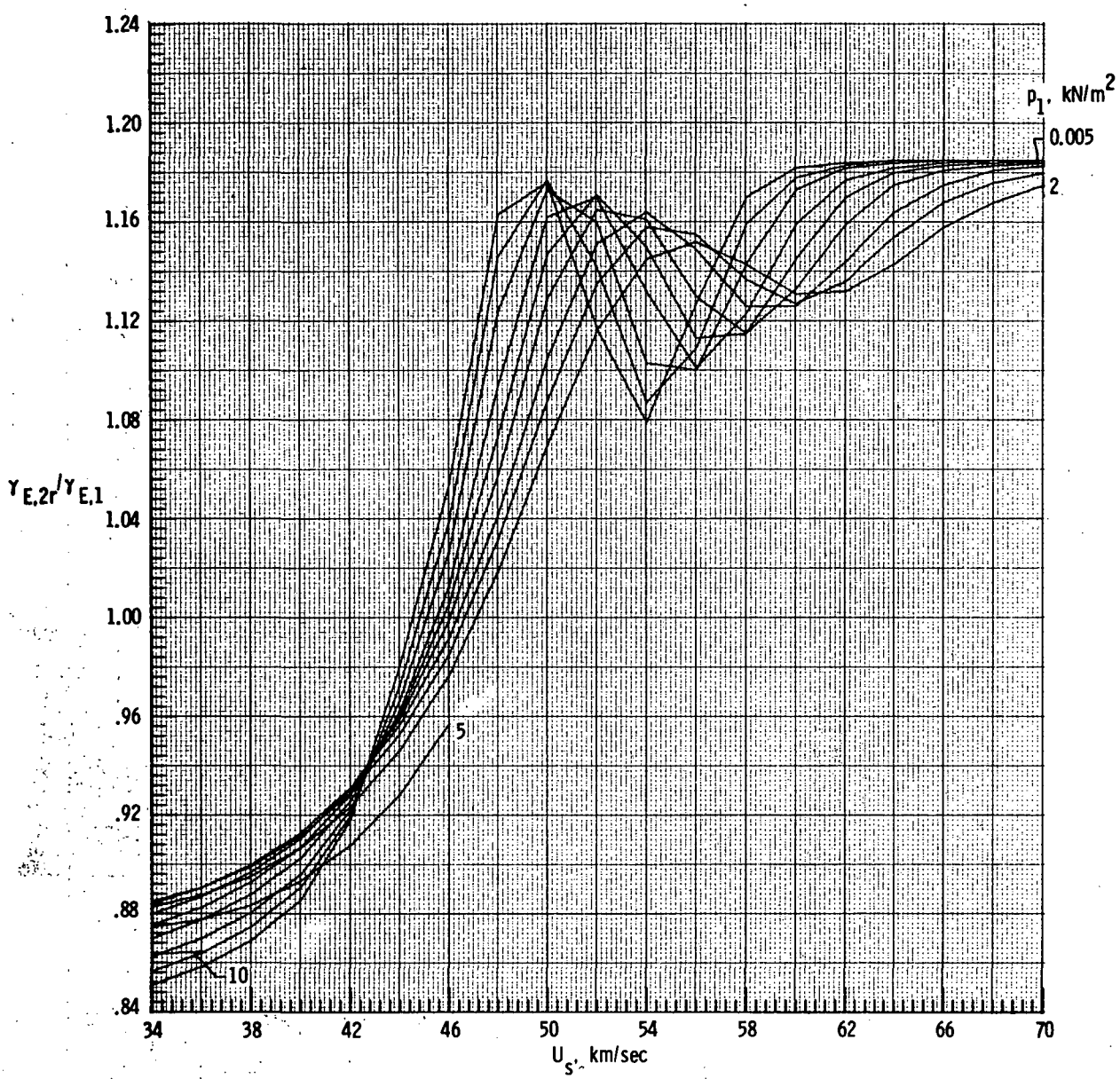
(g) Concluded.

Figure 4.- Continued.



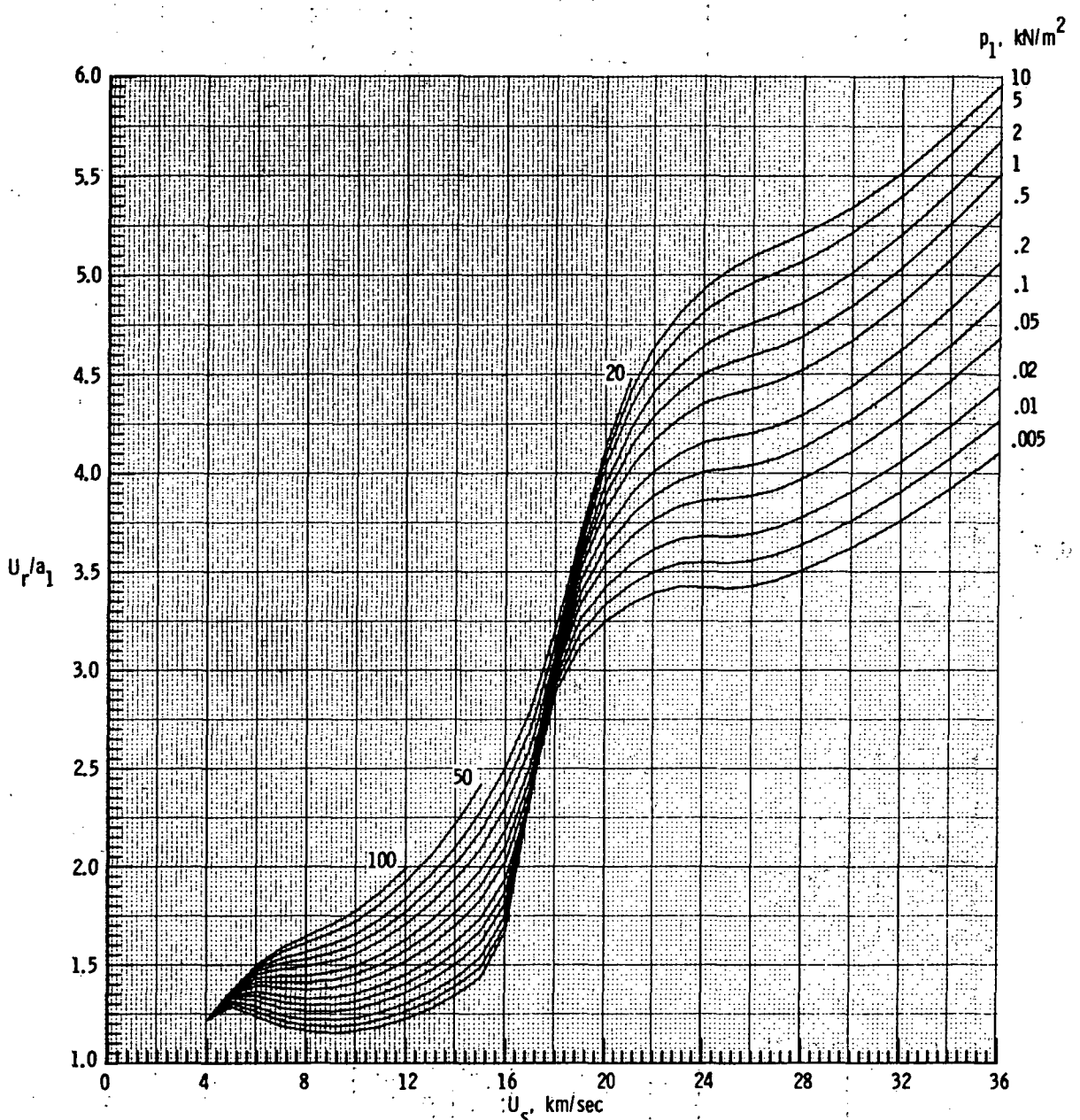
(h) Isentropic exponent $\gamma_{E,2r}/\gamma_{E,1}$.

Figure 4.- Continued.



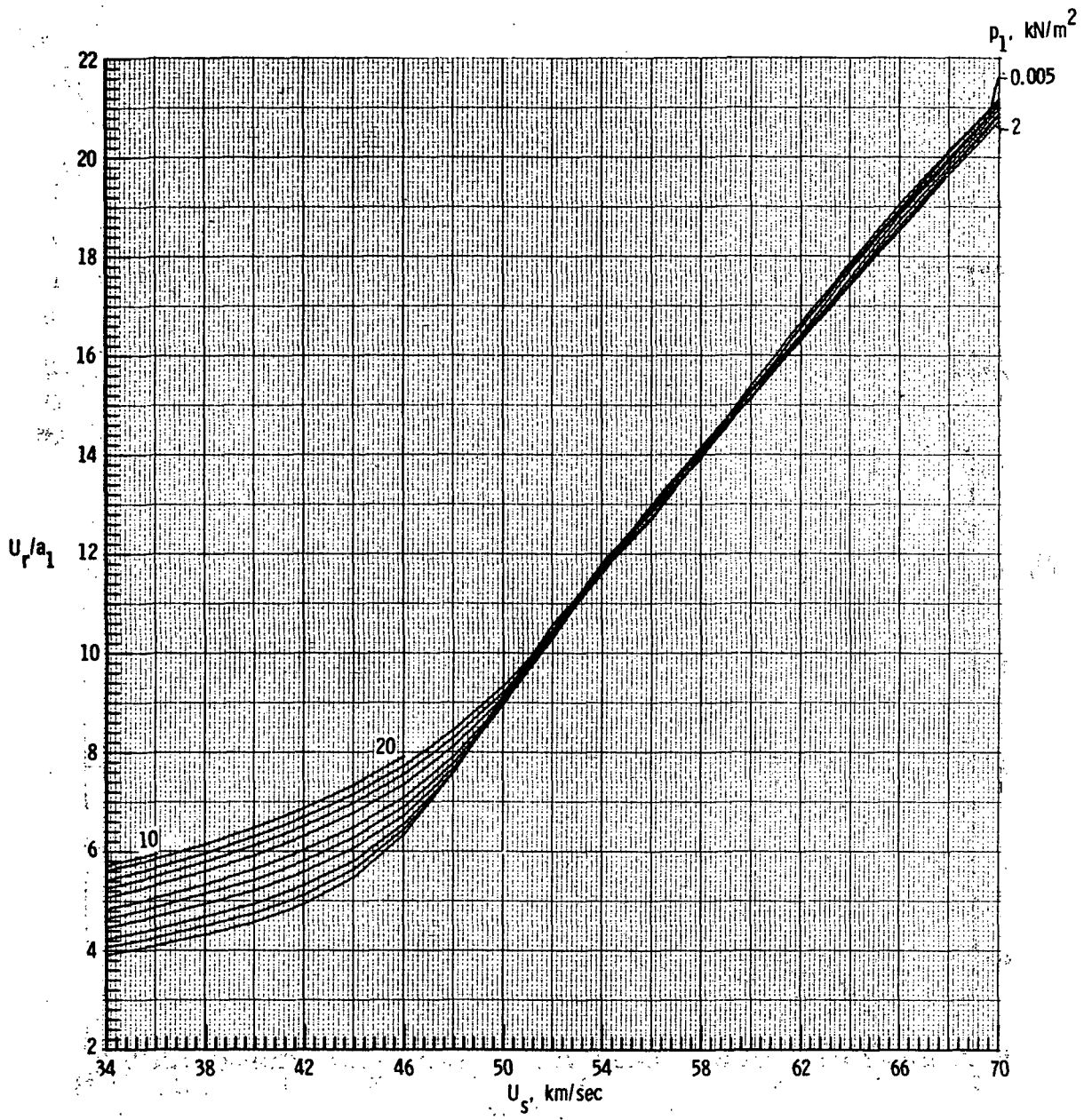
(h) Concluded.

Figure 4.- Continued.



(i) Reflected shock velocity U_r/a_1.

Figure 4.- Continued.



(i) Concluded.

Figure 4.- Concluded.

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