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BALMER DECREMENTS IN HYDROGEN EMISSION LINES I

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ABSTRACT

An extension of Sobolev's dynamical treatment on the radiation field of extended stellar envelope is examined. The cyclic equations are solved in connection with the escape probability of photon. A medium of hydrogen atoms with seven levels is considered. The numerical results give reasonable values of Balmer decrements for higher series member, when compared with the observed data on B_e stars. However, the dilution factor for the extended envelope of these objects derived by fitting the computed Balmer decrements to the observed values is smaller than the values obtained from other method. A more detailed consideration on the equation of radiative transfer seems to be required.

1. Introduction

The radiation field of the extended envelopes of early type stars, such as B_e stars, has been treated by various approaches. While the method initiated by Menzel and Baker (cf. Menzel (1)) was applied successfully to the radiation field of planetary nebulae, it was found to be unsatisfactory for B_e stars, since in the envelopes of these stars the ionization from excited states may occur and there seems to exist the self absorption of spectral lines (Burbidge and Burbidge (2)) due to the insufficient geometrical dilution. Indeed, the observed Balmer decrements of B_e stars, especially, the ratio of the total intensity of H_α emission line to that of H_β , show considerable differences among stars (cf. Rojas and Herman (3) and Pottasch (4)) and are not equal to the theoretical value, which is nearly independent of the temperatures of the stars and of the dilution factor.

To overcome this discrepancy, one should solve the appropriate system of equations, by assuming a steady state of these objects. The equations governing the physical states in these objects are composed of the so-called cyclic equations which describes the balance between the gain and loss of the population of atoms in a fixed energy level, and of the system of equations of radiative transfer connected to the atomic transition between each energy level. The change of population of the atoms in a given energy level is governed by radiative and collisional processes. Though the latter process is significant in some physical conditions (Pottasch (4)), here we consider the purely radiative process alone. Even for this limited problem, it is difficult to solve exactly the system of equations for level

population and radiation transfer. There are two types of approach to deal with them. The one, which has static character, is the treatments given by Miyamoto (5) and Kogure (6), (7), and (8). They aimed to deal with the problem of self absorption by solving the equation of transfer, with assumption that the atoms have finite numbers of energy levels. On the other hand, the observational evidence that there should be differences of velocity in the envelopes of these objects, leads to the formulation given by Sobolev (9), where the equation of transfer is approximated by some parametrical representation. Recently, Doazan (10) and Lacoarret (11) applied the above mentioned two sorts of approaches to the real B_e stars. However, their arguments do not lead to satisfactory decision which approach is better.

In this paper, we shall examine the theory given by Sobolev. The fundamental point of this procedure lies in that we can define an escape probability of photon from the envelope due to the Doppler shift caused by the motions of the absorbing matter in the medium. A simple formulation of the escape probability is given in section 2 for pure absorbing medium. The resultant expression for the escape probability differs from those with which Doazan (10) analyzed real B_e stars. The difference between these two formulation gives rise to differences in Balmer decrements. An illustrative example with the approximation of 7-level atoms are considered (section 3). Some comments on the comparison between observational results and theoretical are given in section 4.

2. Fundamental equations

The following derivation of the escape probability in a moving medium is essentially the same as the derivation in Sobolev (9) and also in Ambarzumian (12). Consider a pure hydrogen medium where only radiative process occurs. In a steady state the number of hydrogen atom N_i in the i -th state per cubic centimeter and the electron concentration N_e can be defined by the cyclic equation,

$$\sum_{k=1}^{i-1} (N_i A_{ik} - N_k B_{ki} J_{ki}) = \sum_{k=i+1}^{\infty} (N_k A_{ki} - N_i B_{ik} J_{ik}) + (N_e N_+ C_i - N_i B_{ic} J_{ic}),$$

$$i = 1, 2, \dots, \dots\dots\dots(1)$$

and

$$\sum_{k=1}^{\infty} (N_e N_+ C_k - N_k B_{kc} J_{kc}) = 0, \dots\dots\dots(2)$$

where N_+ denotes the number of hydrogen ion per cubic centimeter and J_{ik} , the mean intensity of radiation for the $i-k$ transition, and the A 's and B 's are usual Einstein's coefficients for spontaneous emission and for absorption, respectively, and C_k is the recombination coefficient to the level k . The suffix c denotes the continuum state.

To solve the system of equation, we must refer to the equation of transfer for determining the J 's. Consider a one dimensional medium bounded by $x=0$ and $x=x_1$, where the surface $x=0$ faces to the central star. We can write the equation for radiation flux H_{ik} , as

$$\frac{2}{h\nu_{ik}} \frac{dH_{ik}}{dx} = N_k A_{ki} - N_i B_{ik} J_{ik}. \dots\dots\dots(3)$$

Now, if we substitute the equations (3) into equation (1), and integrate with respect to x over $(0, x_1)$, we have, assuming J_{ie} is constant throughout the medium,

$$\sum_{k=1}^{i-1} \frac{2}{h\nu_{ki}} [H_{ki}(x_1) - H_{ki}(0)] = \sum_{k=i+1}^{\infty} \frac{2}{h\nu_{ik}} [H_{ik}(x_1) - H_{ik}(0)] + x_1 [\widetilde{N_e N_+} C_i - \widetilde{N_i} B_{ic} J_{ic}], \quad i=1, 2, \dots, \quad (4)$$

where

$$\widetilde{N_i} = \frac{1}{x_1} \int_0^{x_1} N_i dx, \quad (5)$$

and

$$\widetilde{N_e N_+} = \frac{1}{x_1} \int_0^{x_1} N_e N_+ dx. \quad (6)$$

In a pure absorbing medium, we introduce the quantities defined as

$$\widetilde{\beta}_{ik} = \frac{2}{h\nu_{ik}} [H_{ik}(x_1) - H_{ik}(0)] / A_{ki} \widetilde{N_k} x_1. \quad (7)$$

In equation (7), the numerator represents the number of photons which emerges from the medium, and the denominator is the number of photons emitted in the medium. Then $\widetilde{\beta}$'s represent the mean escape probabilities of photons emitted in this medium.

With the aid of these probabilities, the cyclic equations become

$$\sum_{k=1}^{i-1} \widetilde{N_k} A_{ik} \widetilde{\beta}_{ki} = \sum_{k=i+1}^{\infty} \widetilde{N_k} A_{ki} \widetilde{\beta}_{ik} + \widetilde{N_e N_+} C_i - \widetilde{N_i} B_{ic} J_{ic}, \quad i=1, 2, \dots, \quad (8)$$

It should be noted that N 's are replaced here by \widetilde{N} 's, the mean value over the medium. If we have any relations between \widetilde{N} 's and $\widetilde{\beta}$'s, we can solve these equations either for \widetilde{N} 's or for $\widetilde{\beta}$'s and can obtain an overall image about the physical states of the medium. The Balmer decrements can be written in these notations as

$$\frac{H_i}{H_\beta} = \frac{H_{2i}(x_1)}{H_{2i}(x_1)} = \frac{\widetilde{N_i} A_{i2} \widetilde{\beta}_{2i}}{\widetilde{N_4} A_{42} \widetilde{\beta}_{24}} \frac{h\nu_{2i}}{h\nu_{24}}, \quad i=3, 4, 5, \dots, \quad (9)$$

where we have neglected the incident flux of $i-2$ radiation, $H_{2i}(0)$.

In order to have an explicit expression for the relation between \widetilde{N} 's and $\widetilde{\beta}$'s, we trace the behavior of a photon emitted at some point in the medium. For simplicity we assume the absorption coefficient has a rectangular profile, that is,

$$\alpha(\nu) = \alpha, \quad \text{if } |\nu - \nu_0| \leq \frac{\Delta\nu}{2}, \\ = 0, \quad \text{if } |\nu - \nu_0| > \frac{\Delta\nu}{2}, \quad (10)$$

where ν_0 denotes the frequency at the line center and $\Delta\nu$ is the line width defined by thermal motion of atoms. Then if there is a velocity gradient in the medium, a photon with frequency ν has chance to be absorbed by the medium where the original frequency ν falls in the range of $(\nu_0 - \Delta\nu/2, \nu_0 + \Delta\nu/2)$ for the local standard of frequency, shifted by the Doppler effect. If we write $|dv/ds|$ for the velocity

gradient in the medium and $s(\nu)$ for the geometrical distance from the emitted point to the point where the photon with frequency ν escapes freely from the medium, we can write the escape probability for this photon as

$$\beta_\nu = 1 - \int_0^{s(\nu)} e^{-\int_0^{s'} \alpha ds''} \cdot \alpha ds', \tag{11}$$

where

$$s(\nu) = \frac{1}{\left| \frac{dv}{ds} \right| \frac{\nu_0}{c}} \left[\nu - \left(\nu_0 - \frac{\Delta\nu}{2} \right) \right], \tag{12}$$

denoting the light velocity by c . For the total line emitted with rectangular profile as

$$\begin{aligned} E(\nu) &= E, & \text{if } |\nu - \nu_0| \leq \frac{\Delta\nu}{2}, \\ &= 0, & \text{if } |\nu - \nu_0| > \frac{\Delta\nu}{2}, \end{aligned} \tag{13}$$

the escape probability has the form,

$$\begin{aligned} \beta &= \frac{1}{E \cdot \Delta\nu} \int_{\nu_0 - \frac{\Delta\nu}{2}}^{\nu_0 + \frac{\Delta\nu}{2}} E(\nu) \beta_\nu d\nu \\ &= 1 - \frac{1}{\Delta\nu} \int_{\nu_0 - \frac{\Delta\nu}{2}}^{\nu_0 + \frac{\Delta\nu}{2}} d\nu \int_0^{s(\nu)} e^{-\int_0^{s'} \alpha ds''} \cdot \alpha ds'. \end{aligned} \tag{14}$$

If we assume that α is constant on the appropriate range in the medium, we finally obtain

$$\beta = \beta_0 \left[1 - \exp\left(-\frac{1}{\beta_0}\right) \right], \tag{15}$$

where

$$\beta_0 = \frac{1}{2u\alpha} \left| \frac{dv}{ds} \right|, \tag{16}$$

and

$$u = \frac{\Delta\nu}{\nu_0} \frac{c}{2}, \tag{17}$$

(cf. Ambarzumian (12)). As $\beta_0 \rightarrow 0$, it results that

$$\beta = \beta_0 \tag{18}$$

The equation (18) is the original expression obtained by Sobolev (9) and applied by Doazan (10) to the analysis of HD 50138. It should be noted that the equation (18) holds only for small β_0 , or when the total optical depth of the medium is large, since $1/\beta_0$ is a measure of the optical thickness of the medium. We can solve the equation (8) and fix self-consistently the values of β 's, without any assumption about it. The original expression for β 's is not satisfactory for this point. An assumption is necessarily made on some of the values of β 's before solving the equations (8).

3. Numerical computations for seven level atoms

It is difficult to solve equation (8) for infinite levels. Here we present some numerical results for the case where hydrogen atoms are assumed to have 6 disc-

rete levels and 1 continuum level. It would be sufficient with this rather crude assumption to see the effect of the different definition of the escape probability on the Balmer decrements.

Reformulating the basic equation given in the last section for the 7-level atoms, we have,

$$\sum_{k=1}^{i-1} A_{ik} E_i \beta_{ki} + B_{ic} J_{ic} E_i = \sum_{k=i+1}^6 A_{ki} E_k \beta_{ik} + E_+ C_i, \quad i=2, 3, \dots, 6. \quad \dots\dots\dots(19)$$

$$E_+ \sum_{i=1}^6 C_i = \sum_{i=1}^6 B_{ic} J_{ic} E_i, \quad \dots\dots\dots(20)$$

and

$$\beta_{ik} = \beta^0_{ik} \left[1 - \exp\left(-\frac{1}{\beta^0_{ik}}\right) \right], \quad (k > i), \quad \dots\dots\dots(21)$$

where

$$E_i = \frac{\tilde{N}_i}{N_1}, \quad \dots\dots\dots(22)$$

$$E_+ = \frac{\widetilde{N_0 N_+}}{N_1}, \quad \dots\dots\dots(23)$$

and

$$\beta^0_{ik} = \left(\frac{\nu_{ik}}{\nu_{12}}\right)^3 \frac{A_{21}}{A_{ki}} \cdot \frac{\left(\frac{g_2}{g_1}\right) - E_2}{\left(\frac{g_k}{g_i}\right) E_i - E_k} \cdot \beta^0_{12}. \quad \dots\dots\dots(24)$$

The negative absorption is taken into account in the last expression, where g 's denote the statistical weights. For the ionizing radiation from central star, J_{ic} , we assume that it suffers only geometrical dilution and the medium is optically thin for this radiation. Hence, with dilution factor W , we have

$$J_{ic} = W \cdot J_{ic}^*(T^*), \quad \dots\dots\dots(25)$$

where $J_{ic}^*(T^*)$ is the Planck function for the stellar temperature T^* . The electron temperature of the medium is taken to be equal to T^* , which defines the recombination coefficient.

Now the system of equations (19), (20) and (21) should be solved for three free parameters, the temperature T , dilution factor W , and the escape probability of Lyman alpha radiation β_{12} or β^0_{12} . We have computed nearly 800 cases with $10^4 K \leq T \leq 5.10^4 K$, $10^{-6} \leq \beta^0_{12} \leq 10^1$, and $W \leq 10^0$. The iterative processes are carried out. If we have a set of approximate values of E 's we can compute the β 's through equations (21) and (24). The β 's will define the E 's through equations (19) and (20). Except a few cases, we have obtained the solutions in 3 digits accuracy within 10 times of iterations. The computations are executed on the electronic computer KDC II, installed at Kyoto University.

The numerical results are given in the Appendix, and some illustrative examples are shown in Figures 1 through 10 for the case with $T=2.10^4 K$.

Figure 1 shows the variation of E_+ , a measure of ionization degree, against the dilution factor W . The branching of curves at large W is due to the difference in β^0_{12} , which is caused by that the ionization from higher levels occurs there. As W becomes smaller, the ion population is governed wholly by the ionization

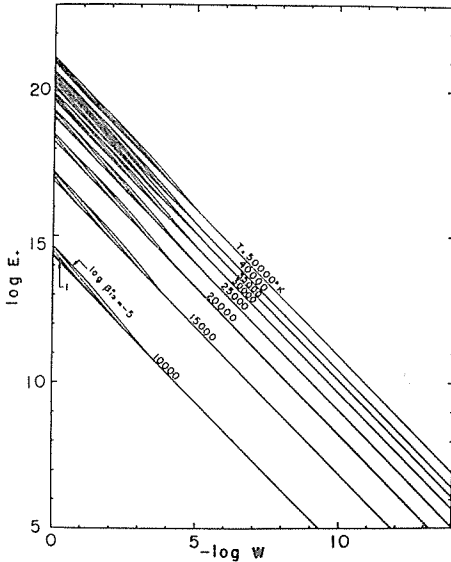


Fig. 1. $\log E_+$ vs. $-\log W$ for various temperature T . The branching of each curve at the left hand side is due to different values of β^0_{12} .

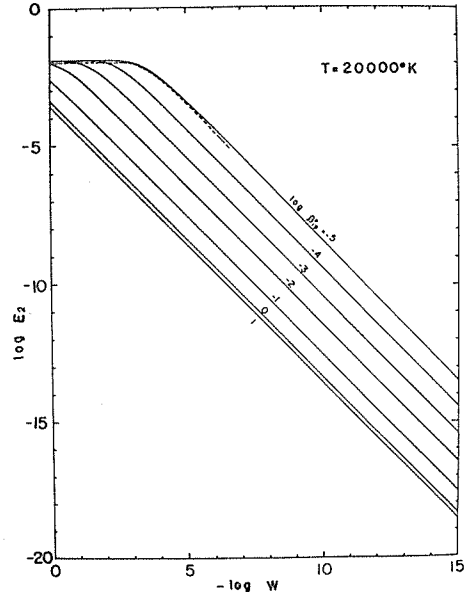


Fig. 2. $\log E_2$ vs. $-\log W$ for temperature $T=20,000^\circ K$, and for various β^0_{12} . Dashed line, reproduced from Doazan (10), is fitted to the curve with $\beta^0_{12}=10^{-5}$.

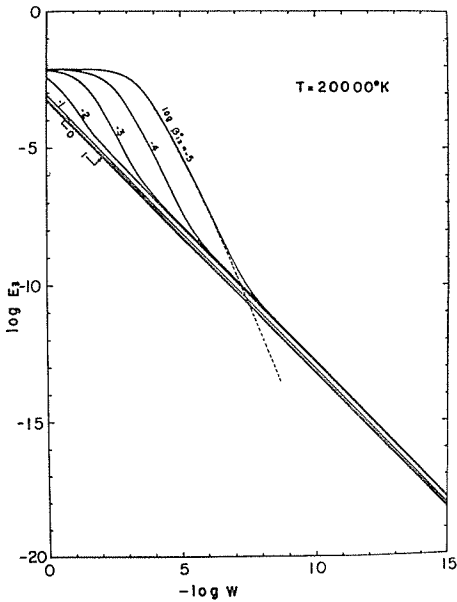


Fig. 3. $\log E_3$ vs. $-\log W$ for temperature $T=20,000^\circ K$, and for various β^0_{12} . Dashed line, reproduced from Doazan (10), is fitted to the curve with $\beta^0_{12}=10^{-5}$.

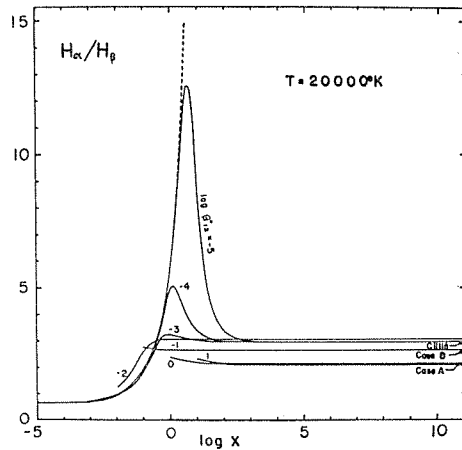


Fig. 4. H_α/H_β vs. $\log X$ for temperature $T=20,000^\circ K$, and for various β^0_{12} . Dashed line is reproduced from Doazan (10).

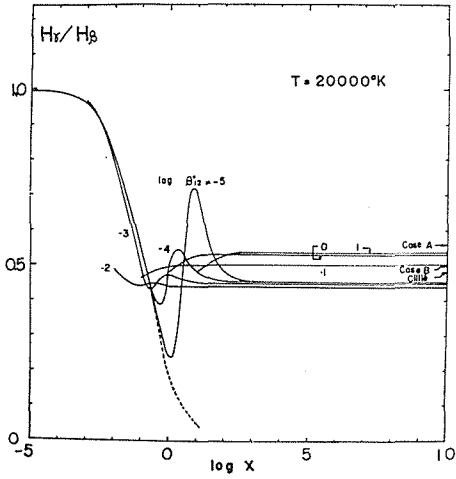


Fig. 5. H_7/H_β vs. $\log X$ for temperature $T=20,000^\circ K$, and for various β_{12}^0 . Dashed line is reproduced from Doazan (10).

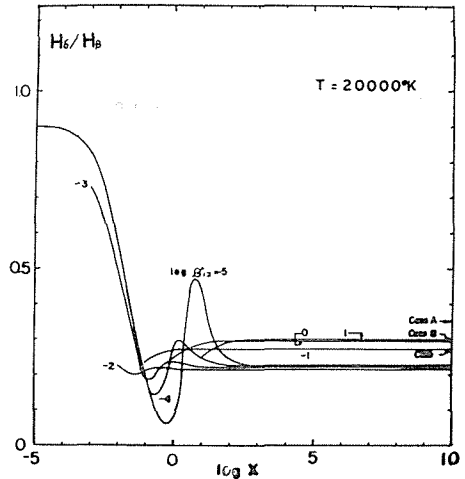


Fig. 6. H_δ/H_β vs. $\log X$ for temperature $T=20,000^\circ K$, and for various β_{12}^0 .

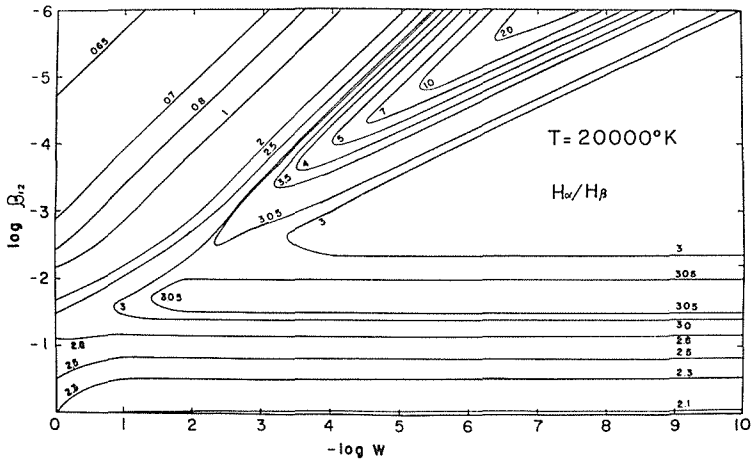


Fig. 7. Loci of the constant H_α/H_β in $(-\log W, \log \beta_{12})$ plane for temperature $T=20,000^\circ K$.

from ground level and is independent of β_{12}^0 . In Figures 2 and 3 similar curves for E_2 and E_3 are shown respectively. (The populations of the higher levels have similar trends as E_3). The ionization from higher levels has an effect on the curve at large W , or at the neighbor of the central star. At small W , the behavior of E_2 -curve is different from that of E_3 . While E_3 becomes proportional to W as W goes to 0, E_2 tends to be proportional to β_{12}^0/W for small β_{12}^0 and W , because the population of the higher level is governed mainly by recombination and subsequent cascade transitions, but the optical thickness of Lyman α radiation has effect on the population of the second level. The dashed lines in Figures 2 and 3 represent the results with equation (18) (Doazan (10)), which are adjusted to fit the curve with

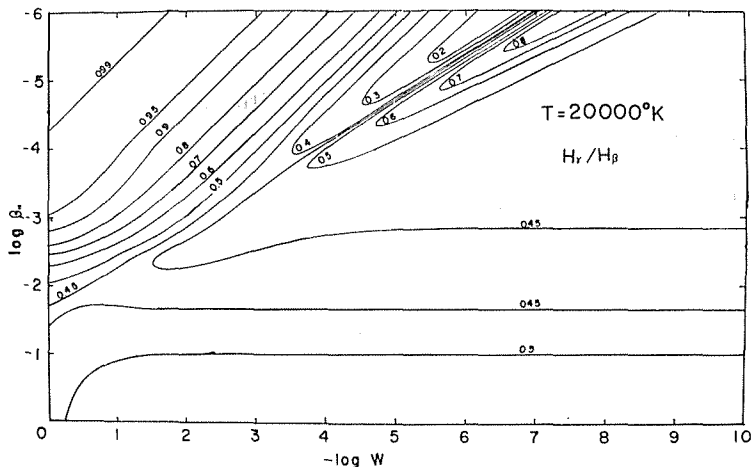


Fig. 8. Loci of the constant H_7/H_β in $(-\log W, \log \beta_{12})$ plane for temperature $T=20,000^\circ K$.

$\beta_{12}^0=10^{-5}$. Departure at small W is clearly seen for E_3 , where β^0 's tend to be large. The values of Balmer decrements, H_α/H_β , H_7/H_β , and H_8/H_β are plotted against $\log X \equiv \log \beta_{12}^0/W$, in Figures 4 through 6. The curves given by Doazan (10) are shown by dashed lines and in the right side of the figures, the corresponding values for nebular case are shown (cf. Menzel (1)). Characteristic differences can be seen in that there are a maximum for H_α/H_β , and minima for H_7/H_β and H_8/H_β in present results, while the curves are monotonic in Doazan's. This is due to the fact that the exact escape probability can not become greater than 1. In Figures 7 and 8, the relations between β_{12} and W are shown for constant H_α/H_β and H_7/H_β , respectively. There seems to exist loci for each maxima and minima nearly along the line $\log \beta_{12}/\log W = \text{constant}$. These are the region where β 's deviate from β^0 's.

4. Discussions

If we limit ourselves to the problem of radiative recombination spectra, the success of the theory depends on the treatment of equation of transfer. Kogure's works ((6), (7), and (8)) mainly consist of detailed solution of equation of transfer, while Sobolev (9) introduced a new idea of escape probability, without solving the equation directly. In applying to numerical work, both authors assumed the transparency or the opaqueness of the medium for radiation arising from the transition between higher energy levels. Without this assumption, Kogure's treatment becomes awfully cumbersome, and if one use the equation (18) for the escape probability, one cannot have logical consistency. In the present treatment, this rather artificial assumption is automatically avoided. A consistent measure of transparency for spectral lines is given by the escape probability with given parameter, T , W , and β_{12} . With β 's defined in the equation (15), one can obtain the Balmer decrements in nebular cases (cf. Menzel (1)). Indeed in Figures 4 through 6, we have a relevant value of Balmer decrements, when W goes to zero and $\beta_{12}=1$ for the case A, $\beta_{12} \ll 1$ for the case B.

Comparing with the observation, we may obtain following results. When we compare the results with observed H_α/H_β , we find that the dilution factor derived to fit is too small, which was criticized by Kogure (8). As β_{12}^0 becomes small, the Balmer decrements computed here coincide with those given by Doazan, and the latter forms an envelope of our curves with various values of β_{12}^0 .

Hence the defect that for observed H_α/H_β the theory tends to give smaller value of dilution factor remains even with this exact expression of β 's.

Next we consider the higher member of Balmer series. In figures 9 and 10, H_α/H_β and H_δ/H_β are plotted against H_γ/H_β , respectively. The observed values given by various authors ((2), (3), (4), (10), (13), (14), and (15)) are plotted by filled circles (later type B_e) and by open circles (early type). The theoretical curves are shown for temperature $T \simeq 2.10^4 K$ by various approaches. (Hence the direct comparison with observation should be done for later type B_e stars.) In Figure 9, the curve labeled by I_a is the result given by Kogure (7) with the assumption that the envelope is opaque for line radiation. The curve V is the result from the solution of the equation of transfer for Balmer lines with transparent Paschen and higher lines (6). These are the representatives of the static approach to the problem. The difficulty with this approach is to interpret the observed H_α/H_β , and H_γ/H_β consistently. To overcome this point, Kogure revised rather empirically the case V and I_a to give better coincidence with the observed results (the curve labeled by VII) (7). From the figure, it is obvious that the treatment after Sobolev (unlabeled curves) has better coincidence with the observation (espe-

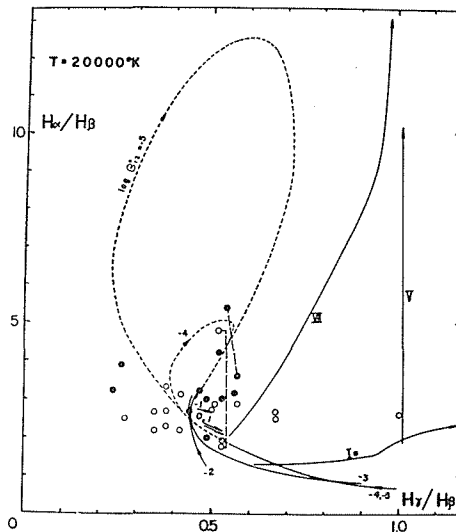


Fig. 9. Comparison of the various theoretical curves with observed values in $\alpha-\gamma$ plane ($T=20,000^\circ K$). The observed values are represented by filled circles (for late type B_e) and by open circles (for early type B_e). The pairs connected by broken line represent that for these stars different observers have given different results. Theoretical curves with I_a , V , and VII are reproduced from Kogure (6 and 7), unlabeled curves are the results in the present computation. The arrows indicate the direction of decreasing W . The dashed portions represent for $W < 10^{-3}$.

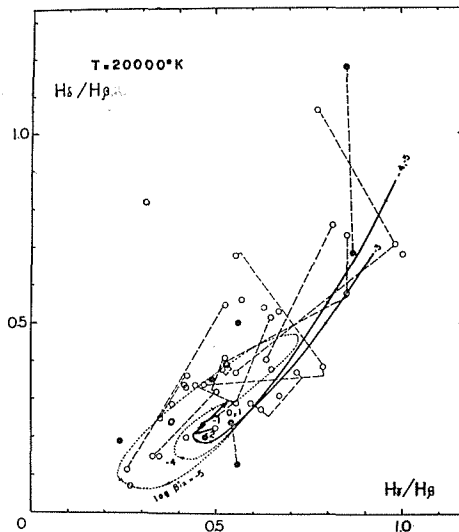


Fig. 10. Comparison between theoretical curves with various β_{12}^0 and observed values in $\delta-\gamma$ plane ($T=20,000^\circ K$). The observed values are shown as in Fig. 9. The theoretical curves are shown for $1 \geq W \geq 10^{-3}$ by continuous curves and for $W < 10^{-3}$ by dotted curves.

cially in Figure 10). ($H_\gamma-H_\delta$ relations obtained for $T=30,000^\circ K$ nearly coincide with those for $T=20,000^\circ K$ if β_{12}^0 in the latter raised by order 1. Hence, the observed values for early type stars may compared with the curves shown in the figure.) This might come from the fact that this treatment takes automatically the problem of radiation transfer into account and does not require any assumption on the transparency or opaqueness for the higher series line radiation.

The conclusions given in this paper are as follows:

1. With the concept of the escape probability given by Sobolev, we can formulate a consistent system of equations which governs the radiation recombination spectra. This treatment gives Balmer decrements which fit the case A and Case B given by Menzel and Baker for planetary nebulae, with suitable limiting processes.

2. The observed H_γ/H_β and H_δ/H_β may be reproduced by dynamical approach. It may be due to the circumstances that here the transfer problem is considered for higher series member.

3. To interpret the observed Balmer decrement in B_e stars, Sobolev's treatment gives rather smaller value of dilution factor (in the present computation, W falls in $10^{-4} \sim 10^{-2}$), which seems to be inconsistent with the radius of emitting regions obtained by Boyarchuk (16) considering the rotational velocity and the conservation of angular momentum.

The above difficulty suggests that it is desirable to treat the equation of transfer more exactly, or in higher approximation. For example, we might have to formulate the escape probability for scattering mechanism.

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APPENDIX

The computational results are tabulated in the following tables. The parameters T and β_{012} are given in the first line. The dilution factor $\log W$ and $\log X$ are given in 2nd and 3rd lines, respectively. For these parameters, the relative populations of atoms in the i -th level, the usual b_n factors, the escape probability β_{ij} , and the Balmer decrements are given. 7 entries in the block LOG E(I), $\log E_i$, $i=1, \dots, 6$, and $\log E_+$ are arranged in order. The second block labeled LOG BN(I), contains $\log b_i$, $i=1, \dots, 6$, in their order. $\log \beta$'s are given in 5 blocks under the heading LOG BETA (I, J). The first block gives $\log \beta_{i0}$, $i=1, \dots, 5$, the second block, $\log \beta_{i5}$, $i=1, \dots, 4$, and so on. The Balmer decrements, $\log H_\alpha/H_\beta$, $\log H_\beta/H_\gamma$, $\log H_\gamma/H_\delta$, and $\log H_\delta/H_\epsilon$ are given in the last block after the heading LOG F(I)/F(4).

T = 10000	LOG BETA0(1,2) = 1.00			LOG BETA0(1,2) = 0.00			LOG BETA0(1,2) = -1.00		
-LOG W	0.00	5.00	10.00	0.00	5.00	10.00	0.00	5.00	10.00
LOG X	1.00	6.00	11.00	0.00	5.00	10.00	-1.00	4.00	9.00
LOG E(I)									
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	92.7580	87.7603	82.7603	92.9398	87.9427	82.9427	93.7736	88.7832	83.7832
3	93.1112	88.1247	83.1247	93.1289	88.1426	83.1426	93.2614	88.2760	83.2760
4	93.3797	88.4132	83.4132	93.3844	88.4181	83.4181	93.4282	88.4613	83.4613
5	93.5707	88.6283	83.6282	93.5727	88.6302	83.6302	93.5926	88.6483	83.6483
6	93.6976	88.7769	83.7769	93.6986	88.7778	83.7778	93.7100	88.7864	83.7864
+	14.3313	9.3182	4.3182	14.3316	9.3182	4.3182	14.3360	9.3182	4.3182
LOG BN(I)									
I=1	0.1984	5.2115	10.2115	0.1981	5.2115	10.2115	0.1937	5.2115	10.2115
2	97.4941	97.5096	97.5096	97.6756	97.6920	97.6920	98.5050	98.5325	98.5325
3	98.4471	98.4737	98.4737	98.4645	98.4916	98.4916	98.5926	98.6250	98.6250
4	98.7989	98.8456	98.8456	98.8034	98.8504	98.8504	98.8427	98.8936	98.8936
5	98.9503	99.0210	99.0210	98.9520	99.0229	99.0229	98.9675	99.0410	99.0410
6	99.0026	99.0950	99.0950	99.0033	99.0959	99.0959	99.0103	99.1045	99.1045
LOG BETA(I, J)									
I=1 J=6	99.9997	99.9997	99.9997	99.9969	99.9969	99.9969	99.9689	99.9689	99.9689
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9445	99.9445	99.9445
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	99.9988	99.9988	99.9988	99.9880	99.9880	99.9880	99.8849	99.8849	99.8849
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	99.9965	99.9965	99.9965	99.9656	99.9656	99.9656	99.6973	99.6973	99.6973
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=2	99.9785	99.9785	99.9785	99.8008	99.8008	99.8008	99.0000	99.0000	99.0000
LOG F(I)/F(4)									
I=3	0.3209	0.3008	0.3008	0.3338	0.3138	0.3138	0.4225	0.4041	0.4041
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.7189	99.7429	99.7429	99.7161	99.7399	99.7399	99.6922	99.7148	99.7148
6	99.4548	99.5006	99.5006	99.4511	99.4966	99.4966	99.4187	99.4620	99.4620

T = 10000										LOG BETA0(1,2) = -2.00										LOG BETA0(1,2) = -3.00															
-LOG W		0.00		1.00		5.00		10.00		0.00		1.00		2.00		3.00		5.00		10.00		0.00		1.00		2.00		3.00		5.00		10.00			
LOG X		-2.00		-1.00		3.00		8.00		-3.00		-2.00		-1.00		0.00		2.00		7.00		-3.00		-2.00		-1.00		0.00		2.00		7.00			
LOG E(I)																																			
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T = 10000																																			
LOG BETA0(1,2) = -4.00																																			
-LOG W		0.00		0.30		0.70		1.00		1.30		1.70		2.00		2.50		3.00		4.00		5.00		10.00		0.00		1.00		6.00					
LOG X		-4.00		-3.70		-3.30		-3.00		-2.70		-2.30		-2.00		-1.50		-1.00		0.00		1.00		6.00		0.00		1.00		6.00					
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LOG F(I)/F(4)																																			
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BALMER DECREMENTS

T = 10000 LOG BETA0(1,2) = -5.00

-LOG W	0.00	0.50	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.30	3.70
LOG X	-5.00	-4.50	-4.00	-3.75	-3.50	-3.25	-3.00	-2.75	-2.50	-2.25	-2.00	-1.70	-1.30
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	95.7067	95.7843	95.8242	95.8173	95.7845	95.7194	95.6170	95.4763	95.3014	95.0998	94.8795	94.5996	94.2122
3	94.8564	94.7429	94.4989	94.5092	94.0661	93.7536	93.3737	92.9337	92.4519	91.9481	91.4380	90.8412	90.1444
4	94.5349	94.2818	93.8433	93.5408	93.1527	92.7015	92.2542	91.8525	91.4881	91.1476	90.8283	90.4720	90.0316
5	94.4285	94.0933	93.5580	93.2112	92.8396	92.4838	92.1497	91.8242	91.5062	91.2008	90.9106	90.5799	90.1590
6	94.3385	93.9216	93.3704	93.0793	92.7868	92.4897	92.1854	91.8770	91.5721	91.2774	90.9951	90.6707	90.2542
+	14.6607	14.1564	13.6421	13.3768	13.1027	12.8181	12.5239	12.2250	11.9286	11.6407	11.3632	11.0424	10.6282
LOG BH(I)													
I=1	99.8690	0.3733	0.8876	1.1529	1.4270	1.7116	2.0058	2.3047	2.6011	2.8890	3.1665	3.4873	3.9014
2	0.1135	0.6954	1.2495	1.5080	1.7493	1.9688	2.1605	2.3188	2.4402	2.5266	2.5837	2.6247	2.6514
3	99.8629	0.2537	0.5239	0.5996	0.6286	0.6027	0.5170	0.3759	0.1905	99.9746	99.7419	99.4660	99.1834
4	99.6247	99.8759	99.9576	99.9145	99.8005	99.6339	99.4808	99.3781	99.3100	99.2574	99.2156	99.1801	99.1538
5	99.4787	99.6478	99.6268	99.5453	99.4478	99.3766	99.3367	99.3101	99.2885	99.2710	99.2583	99.2484	99.2417
6	99.3141	99.4016	99.3645	99.3388	99.3204	99.3079	99.2978	99.2883	99.2798	99.2730	99.2682	99.2646	99.2622
LOG BTA(I,J)													
I=1 J=6	96.8382	96.8382	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.8126	99.7847	99.7660	99.7692	99.7844	99.8119	99.8488	99.8886	99.9244	99.9519	99.9708	99.9846	99.9937
3	99.8379	99.8682	99.9215	99.9485	99.9704	99.9855	99.9939	99.9978	99.9993	99.9998	99.9999	0.0000	0.0000
4	99.5947	99.7253	99.8841	99.9420	99.9770	99.9926	99.9978	99.9992	99.9997	99.9999	0.0000	0.0000	0.0000
5	99.6177	99.7653	99.9240	99.9691	99.9895	99.9964	99.9986	99.9994	99.9998	99.9999	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	99.6456	99.5888	99.5574	99.5627	99.5876	99.6344	99.7000	99.7743	99.8439	99.8994	99.9384	99.9673	99.9865
3	99.5824	99.6448	99.7733	99.8463	99.9094	99.9547	99.9810	99.9971	99.9997	99.9999	0.0000	0.0000	0.0000
4	98.8475	99.0313	99.3950	99.6326	99.8353	99.9456	99.9840	99.9949	99.9982	99.9993	99.9997	99.9999	0.0000
I=1 J=4	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	99.2425	99.1619	99.1200	99.1263	99.1586	99.2229	99.3224	99.4524	99.5950	99.7252	99.8259	99.9053	99.9603
3	98.7854	98.8571	99.0656	99.2393	99.4578	99.6851	99.8557	99.9457	99.9821	99.9945	99.9984	99.9996	99.9999
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	98.4007	98.3128	98.2642	98.2679	98.2984	98.3619	98.4633	98.6034	98.7780	98.9795	99.1989	99.4635	99.7379
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.0690	0.2013	0.3832	0.4994	0.6405	0.7805	0.8498	0.8216	0.7362	0.6441	0.5721	0.5168	0.4798
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.8246	99.7662	99.6740	99.6346	99.6438	99.7217	99.8010	99.8214	99.7949	99.7553	99.7227	99.6978	99.6815
6	99.5157	99.3995	99.3040	99.3184	99.3968	99.5141	99.5945	99.5976	99.5503	99.4934	99.4487	99.4149	99.3929

T = 10000 LOG BETA0(1,2) = -5.00 (Continued)

-LOG W	4.00	5.00	6.00	7.00	10.00
LOG X	-1.00	0.00	1.00	2.00	5.00
LOG E(I)					
I=1	0.0000	0.0000	0.0000	0.0000	0.0000
2	89.9165	92.9203	91.9207	90.9207	87.9208
3	89.7152	88.5820	87.5677	86.5663	83.5662
4	89.7170	88.7031	87.7017	86.7016	83.7016
5	89.8517	88.8449	87.8442	86.8441	83.8441
6	89.9484	88.9430	87.9425	86.9424	83.9424
+	10.3233	9.3187	8.3182	7.3182	4.3182
LOG BH(I)					
I=1	4.2064	5.2110	6.2115	7.2115	10.2115
2	2.6606	2.6691	2.6699	2.6700	2.6700
3	99.0591	98.9305	98.9167	98.9153	98.9152
4	99.1442	99.1350	99.1340	99.1339	99.1339
5	99.2393	99.2371	99.2369	99.2368	99.2368
6	99.2614	99.2606	99.2605	99.2605	99.2605
LOG BTA(I,J)					
I=1 J=6	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.9968	99.9997	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825
2	99.9931	99.9993	99.9999	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2553	96.2553	96.2553	96.2553	96.2553
2	99.9798	99.9979	99.9998	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947
2	99.8592	99.9850	99.9985	99.9998	0.0000
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)					
I=3	0.4671	0.4553	0.4541	0.4540	0.4539
4	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6760	99.6710	99.6705	99.6704	99.6704
6	99.3854	99.3785	99.3778	99.3777	99.3777

BALMER DECREMENTS

T = 15000 LOG BETA(1,2) = -3.00													
-LOG W	0.00	0.50	1.00	1.25	1.50	1.75	2.00	2.50	3.00	4.00	5.00	6.00	10.00
-LOG X	-3.00	-2.50	-2.00	-1.75	-1.50	-1.25	-1.00	-0.50	0.00	1.00	2.00	3.00	7.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	97.3150	97.2861	97.1035	96.9457	96.7539	96.5386	96.3086	95.8264	95.3320	94.3344	93.3346	92.3347	88.3347
3	96.7558	96.5214	96.0047	95.6282	95.1930	94.7387	94.3098	93.5928	93.0096	91.9726	90.9688	89.9684	85.9684
4	96.5513	96.1898	95.5350	95.1320	94.7578	94.4341	94.1440	93.6092	93.0980	92.0933	91.0929	90.0928	86.0928
5	96.5364	96.1380	95.4791	95.1280	94.8137	94.5267	94.2549	93.7345	93.2278	92.2249	91.2246	90.2246	86.2246
6	96.5183	96.0806	95.4276	95.1705	94.8822	94.6058	94.3389	93.8222	93.3166	92.3142	91.3139	90.3139	86.3139
+	17.1621	16.6083	16.0180	15.7229	15.4365	15.1606	14.8937	14.3771	13.8715	12.8690	11.8688	10.8688	6.8688
LOG BN(I)													
I=1	99.9163	0.4701	1.0604	1.3555	1.6419	1.9179	2.1848	2.7014	3.2070	4.2094	5.2097	6.2097	10.2097
2	0.0557	0.5806	0.9882	1.1256	1.2202	1.2808	1.3178	1.3521	1.3634	1.3682	1.3687	1.3687	1.3687
3	99.7790	0.0983	0.1719	0.0906	99.9417	99.7634	99.6013	99.4010	99.3234	99.2888	99.2853	99.2849	99.2849
4	99.5467	99.7390	99.6745	99.5665	99.4787	99.4310	99.4077	99.3896	99.3840	99.3817	99.3815	99.3815	99.3815
5	99.4406	99.5960	99.5274	99.4713	99.4435	99.4324	99.4275	99.4238	99.4227	99.4221	99.4221	99.4221	99.4221
6	99.3201	99.4361	99.4185	99.4114	99.4095	99.4091	99.4090	99.4090	99.4090	99.4090	99.4090	99.4090	99.4090
LOG BETA(I,J)													
I=1 J=6	98.8379	98.8379	98.8380	98.8381	98.8381	98.8381	98.8381	98.8381	98.8382	98.8382	98.8382	98.8382	98.8382
2	99.9234	99.9274	99.9516	99.9662	99.9781	99.9866	99.9921	99.9974	99.9992	99.9999	0.0000	0.0000	0.0000
3	99.8787	99.9233	99.9757	99.9899	99.9964	99.9988	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.6439	99.8114	99.9581	99.9860	99.9953	99.9981	99.9991	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000
5	99.6229	99.8046	99.9630	99.9877	99.9952	99.9978	99.9989	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=5	98.5823	98.5823	98.5824	98.5824	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825
2	99.8433	99.8505	99.8990	99.9287	99.9537	99.9716	99.9832	99.9944	99.9982	99.9998	0.0000	0.0000	0.0000
3	99.6815	99.7865	99.9274	99.9692	99.9891	99.9965	99.9988	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
4	98.9474	99.2535	99.7570	99.9134	99.9722	99.9898	99.9956	99.9989	99.9997	0.0000	0.0000	0.0000	0.0000
I=1 J=4	98.2551	98.2551	98.2551	98.2552	98.2552	98.2552	98.2552	98.2553	98.2553	98.2553	98.2553	98.2553	98.2553
2	99.5990	99.6125	99.7247	99.8004	99.8674	99.9174	99.9507	99.9835	99.9917	99.9995	0.0000	0.0000	0.0000
3	98.9380	99.1161	99.5579	99.7890	99.9189	99.9735	99.9915	99.9989	99.9998	0.0000	0.0000	0.0000	0.0000
I=1 J=3	97.7945	97.7945	97.7946	97.7946	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947
2	98.8208	98.8274	98.9912	99.1424	99.3265	99.5180	99.6837	99.8846	99.9618	99.9961	99.9996	0.0000	0.0000
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000
LOG F(I)/F(4)													
I=3	0.0157	0.1359	0.3255	0.4276	0.4835	0.4945	0.4882	0.4740	0.4680	0.4652	0.4649	0.4649	0.4649
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.7572	99.7141	99.6462	99.6521	99.6699	99.6746	99.6712	99.6641	99.6611	99.6598	99.6596	99.6596	99.6596
6	99.4283	99.3426	99.3014	99.3411	99.3719	99.3778	99.3732	99.3638	99.3599	99.3582	99.3580	99.3580	99.3580
T = 15000 LOG BETA(1,2) = -4.00													
-LOG W	0.00	1.00	1.50	2.00	2.25	2.50	2.75	3.00	3.30	3.70	4.00	5.00	6.00
-LOG X	-4.00	-3.00	-2.50	-2.00	-1.75	-1.50	-1.25	-1.00	-0.70	-0.30	0.00	1.00	2.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	97.2605	97.3324	97.2959	97.1090	96.9499	96.7575	96.5421	96.3124	96.0256	95.6337	95.3363	94.3386	93.3389
3	96.8755	96.7622	96.5277	96.0146	95.6448	95.2213	94.7607	94.2693	93.6615	92.8605	92.3199	91.0150	89.9791
4	96.7873	96.5388	96.1487	95.4345	94.9505	94.4033	93.8366	93.3686	92.9364	92.4576	92.1302	91.1040	90.1013
5	96.7734	96.4326	95.9719	95.1409	94.6016	94.0706	93.6489	93.3229	92.9795	92.5531	92.2441	91.2358	90.2349
6	96.7715	96.3357	95.7590	94.8065	94.3361	93.9665	93.6562	93.3727	93.0503	92.6360	92.3312	91.3267	90.3263
+	17.1899	16.1618	15.6077	15.0175	14.7225	14.4363	14.1604	13.8935	13.5817	13.1740	12.8714	11.8690	10.8688
LOG BN(I)													
I=1	99.8886	0.9167	1.4707	2.0610	2.3559	2.6422	2.9181	3.1849	3.4968	3.9044	4.2070	5.2094	6.2097
2	99.9734	1.0734	1.5920	1.9943	2.1302	2.2248	2.2845	2.3217	2.3467	2.3625	2.3677	2.3724	2.3729
3	99.8709	0.7856	1.1052	1.1824	1.1075	0.9703	0.7856	0.5610	0.2651	99.8717	99.6337	99.3312	99.2956
4	99.7548	0.5285	0.6984	0.5744	0.3894	0.1245	99.8336	99.6325	99.5122	99.4410	99.4162	99.3924	99.3899
5	99.6499	0.3431	0.4305	0.1897	99.9454	99.7007	99.5548	99.4957	99.4642	99.4453	99.4390	99.4331	99.4325
6	99.5455	0.1377	0.1151	99.7528	99.5774	99.4940	99.4596	99.4430	99.4325	99.4258	99.4236	99.4215	99.4213
LOG BETA(I,J)													
I=1 J=6	97.8380	97.8379	97.8379	97.8380	97.8381	97.8381	97.8381	97.8381	97.8381	97.8382	97.8382	97.8382	97.8382
2	99.4628	99.4091	99.4380	99.5919	99.6983	99.7962	99.8714	99.9225	99.9594	99.9834	99.9916	99.9991	99.9999
3	99.1383	99.1986	99.4012	99.7605	99.8909	99.9578	99.9853	99.9953	99.9989	99.9998	0.0000	0.0000	0.0000
4	98.4874	98.6427	98.9695	99.5973	99.8491	99.9579	99.9902	99.9974	99.9993	99.9998	99.9999	0.0000	0.0000
5	98.4775	98.6465	99.0086	99.6809	99.9054	99.9791	99.9948	99.9982	99.9993	99.9998	99.9999	0.0000	0.0000
I=1 J=5	97.5823	97.5823	97.5823	97.5824	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825
2	99.1784	99.0926	99.1223	99.3047	99.4521	99.6076	99.7417	99.8402	99.9147	99.9647	99.9821	99.9982	99.9998
3	98.6882	98.7375	98.9364	99.4149	99.6932	99.8725	99.9544	99.9853	99.9965	99.9995	99.9999	0.0000	0.0000
4	97.7131	97.8618	98.1265	98.8165	99.2739	99.7177	99.9296	99.9822	99.9954	99.9989	99.9996	0.0000	0.0000
I=1 J=4	97.2551	97.2551	97.2551	97.2551	97.2552	97.2552	97.2552	97.2552	97.2553	97.2553	97.2553	97.2553	97.2553
2	98.7208	98.6283	98.6539	98.8364	98.9943	99.1856	99.3970	99.5869	99.7637	99.8979	99.9474	99.9946	99.9995
3	97.8972	97.9187	98.0946	98.5609	98.9136	99.3197	99.6855	99.8882	99.9725	99.9962	99.9991	0.0000	0.0000
I=1 J=3	96.7964	96.7945	96.7945	96.7946	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947
2	97.9064	97.8020	97.8162	97.9859	98.1388	98.3273	98.5402	98.7685	99.0543	99.4336	99.6652	99.9611	99.9961
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.8633	99.9924	0.1306	0.3189	0.4281	0.5491	0.6607	0.6717	0.6051	0.5279	0.4968	0.4668	0.4638
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9716	99.8979	99.8194	99.7026	99.6367	99.6172	99.6389	99.7354	99.7420	99.6901	99.6764	99.6632	99.6619
6	99.8831	99.7206	99.5313	99.2843	99.2265	99.3107	99.4349	99.4767	99.4825	99.4008	99.3820	99.3641	99.3623

(Continued)
T = 15000

LOG BETA0(1,2) = -4.00				LOG BETA0(1,2) = -5.00								
-LOG W	7.00	8.00	10.00	0.00	1.00	2.00	2.50	3.00	3.25	3.50	3.75	4.00
LOG X	3.00	4.00	6.00	-5.00	-4.00	-3.00	-2.50	-2.00	-1.75	-1.50	-1.25	-1.00
LOG E(I)												
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	92.3389	91.3389	89.3389	97.2296	97.2608	97.3325	97.2970	97.1089	96.9498	96.7573	96.5420	96.3123
3	88.9755	87.9751	85.9751	96.8877	96.8755	96.7621	96.5277	96.0174	95.6532	95.2384	94.7903	94.3200
4	89.1010	88.1010	86.1010	96.8277	96.7873	96.5328	96.1484	95.4325	94.9467	94.3967	93.7980	93.1557
5	89.2349	88.2348	86.2348	96.8301	96.7734	96.4383	95.9710	95.1339	94.5695	93.9189	93.2112	92.6014
6	89.3262	88.3262	86.3262	96.8482	96.7695	96.3324	95.7524	94.7276	94.0358	93.3246	92.8224	92.4740
+	9.8688	8.8688	6.8688	17.1927	16.1899	15.1618	14.6077	14.0175	13.7225	13.4363	13.1604	12.8935
LOG BN(I)												
I=1	7.2097	8.2097	10.2097	99.8857	0.8886	1.9167	2.4707	3.0610	3.3559	3.6422	3.9180	4.1849
2	2.3729	2.3729	2.3729	99.9397	0.9737	2.0736	2.5921	2.9943	3.1301	3.2239	3.2844	3.3216
3	99.2919	99.2916	99.2915	99.8802	0.8709	1.7856	2.1053	2.1851	2.1159	1.9874	1.8151	1.6117
4	99.3897	99.3897	99.3897	99.7924	0.7549	1.5284	1.6981	1.5724	1.3816	1.1179	0.7951	0.4196
5	99.4324	99.4324	99.4324	99.7036	0.6448	1.3428	1.4296	1.1827	0.9132	0.5489	0.1171	99.7742
6	99.4213	99.4213	99.4213	99.6193	0.5435	1.1344	1.1086	0.6740	0.2771	99.8521	99.6259	99.5443
LOG BETA(I,J)												
I=1 J=6	97.8382	97.8382	97.8382	96.8380	96.8380	96.8379	96.8379	96.8380	96.8381	96.8381	96.8381	96.8381
2	0.0000	0.0000	0.0000	98.5373	98.5014	98.4186	98.4506	98.6376	98.7966	98.9891	99.2036	99.4230
3	0.0000	0.0000	0.0000	98.1439	98.1381	98.1992	98.4099	98.9071	99.2665	99.6240	99.8489	99.9467
4	0.0000	0.0000	0.0000	97.4762	97.4858	97.6415	97.9684	98.6391	99.1089	99.6023	99.8847	99.9740
5	0.0000	0.0000	0.0000	97.4694	97.4732	97.6431	98.0054	98.7442	99.2677	99.7578	99.9548	99.9924
I=1 J=5	97.5825	97.5825	97.5825	96.5824	96.5823	96.5823	96.5823	96.5824	96.5824	96.5825	96.5825	96.5825
2	0.0000	0.0000	0.0000	98.2152	98.1786	98.0926	98.1224	98.3080	98.4667	98.6590	98.8743	99.1038
3	0.0000	0.0000	0.0000	97.6952	97.6882	97.7375	97.9363	98.4218	98.7783	99.1868	99.5879	99.9394
4	0.0000	0.0000	0.0000	96.7004	96.7130	96.8616	97.1723	97.8167	98.2691	98.7878	99.3552	99.8050
I=1 J=4	97.2553	97.2553	97.2553	96.2551	96.2551	96.2551	96.2551	96.2551	96.2552	96.2552	96.2552	96.2552
2	99.9999	99.9999	99.9999	97.7589	97.7205	97.6281	97.6538	97.8365	97.9944	98.1864	98.4014	98.6310
3	0.0000	0.0000	0.0000	96.9107	96.8972	96.9188	97.0945	97.5571	97.9037	98.3042	98.7413	99.2022
I=1 J=3	96.7947	96.7947	96.7947	95.7944	95.7944	95.7944	95.7944	95.7944	95.7944	95.7944	95.7944	95.7944
2	99.9996	99.9996	99.9996	96.9476	96.9061	96.8018	96.8161	96.9860	97.1392	97.3277	97.5406	97.7688
I=1 J=2	96.0000	96.0000	96.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)												
I=3	0.4635	0.4634	0.4634	99.8380	99.8632	99.9923	0.1310	0.3238	0.4405	0.5724	0.7207	0.8915
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6617	99.6617	99.6617	99.9865	99.9721	99.8978	99.8190	99.7008	99.6228	99.5226	99.4139	99.4464
6	99.3621	99.3621	99.3621	99.9358	99.9001	99.7270	99.5378	99.2332	99.0282	98.8675	98.9635	99.2472

(Continued)
T = 15000

LOG BETA0(1,2) = -5.00				LOG BETA0(1,2) = -5.00							
-LOG W	4.25	4.50	4.75	5.00	5.30	5.70	6.00	7.00	8.00	9.00	10.00
LOG X	-0.75	-0.50	-0.25	0.00	0.30	0.70	1.00	2.00	3.00	4.00	5.00
LOG E(I)											
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.0741	95.8307	95.5845	95.3366	95.0380	94.6388	94.3391	93.3393	92.3393	91.3393	90.3393
3	93.8329	93.3284	92.8131	92.2929	91.6704	90.8629	90.3206	89.0155	87.9798	86.9761	85.9758
4	92.5036	91.9956	91.6159	91.2849	90.8129	90.4525	90.1284	89.1046	88.1018	87.1018	86.1018
5	92.1909	91.8723	91.5769	91.2936	90.9674	90.5491	90.2426	89.2366	88.2360	87.2359	86.2359
6	92.1744	91.8909	91.6171	91.3512	91.0399	90.6326	90.3300	89.3277	88.3275	87.3275	86.3275
+	12.6332	12.3770	12.1235	11.8714	11.5701	11.1693	10.8690	9.8688	8.8688	7.8688	6.8688
LOG BN(I)											
I=1	4.4453	4.7014	4.9550	5.2070	5.5083	5.9091	6.2094	7.2097	8.2097	9.2097	10.2097
2	3.3437	3.2565	3.3639	3.3680	3.3707	3.3723	3.3728	3.3733	3.3734	3.3734	3.3734
3	1.3850	1.1367	0.8749	0.6067	0.2855	99.8788	99.6369	99.3320	99.2962	99.2926	99.2923
4	0.0278	99.7760	99.6499	99.5709	99.5002	99.4406	99.4168	99.3932	99.3908	99.3905	99.3905
5	99.6241	99.5616	99.5188	99.4885	99.4636	99.4461	99.4309	99.4341	99.4325	99.4324	99.4324
6	99.5051	99.4777	99.4575	99.4436	99.4336	99.4271	99.4248	99.4227	99.4225	99.4225	99.4225
LOG BETA(I,J)											
I=1 J=6	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.6172	99.7627	99.8500	99.9182	99.9582	99.9832	99.9915	99.9991	99.9999	0.0000	0.0000
3	99.9824	99.9945	99.9983	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9949	99.9987	99.9995	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9980	99.9992	99.9996	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	99.3376	99.5519	99.7187	99.8317	99.9123	99.9643	99.9819	99.9982	99.9998	0.0000	0.0000
3	99.9453	99.9827	99.9947	99.9984	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9610	99.9908	99.9969	99.9988	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.8692	99.1123	99.3533	99.5684	99.7576	99.8967	99.9471	99.9946	99.9996	99.9999	99.9999
3	99.6259	99.8671	99.9582	99.9875	99.9971	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	98.0062	98.2490	98.4950	98.7427	99.0412	99.4287	99.6633	99.9611	99.9960	99.9996	0.0000
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)											
I=3	1.0557	1.0589	0.9283	0.7717	0.6305	0.5317	0.4978	0.4667	0.4636	0.4633	0.4633
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6836	99.8442	99.8543	99.7999	99.7370	99.6920	99.6769	99.6634	99.6621	99.6619	99.6619
6	99.5558	99.6826	99.6438	99.5531	99.4616	99.4034	99.3829	99.3646	99.3627	99.3626	99.3625

BALMER DECREMENTS

T = 20000		LOG BETA0(1,2) = 1.00				LOG BETA0(1,2) = 0.00			
-LOG W	0.00	5.00	10.00		0.00	1.00	5.00	10.00	
LOG X	1.00	6.00	11.00		0.00	1.00	5.00	10.00	
LOG E(I)									
I=1	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
2	96.4239	91.4388	86.4388		96.6009	95.6187	91.6208	86.6208	
3	96.7290	91.7806	86.7806		96.7474	95.7928	91.7984	86.7984	
4	96.9533	92.0502	87.0502		96.9597	96.0441	92.0551	87.0551	
5	97.1088	92.2501	87.2501		97.1129	96.2353	92.2520	87.2520	
6	97.2100	92.3860	87.3861		97.2133	96.3653	92.3869	87.3869	
+	18.2495	13.2158	8.2158		18.2522	17.2204	13.2158	8.2158	
LOG BN(I)									
I=1	0.1584	5.1921	10.1921		0.1557	1.1875	5.1921	10.1921	
2	98.5502	98.5988	98.5988		98.7246	98.7742	98.7809	98.7809	
3	98.9291	99.0644	99.0644		98.9942	99.0719	99.0822	99.0822	
4	99.1199	99.2506	99.2506		99.1237	99.2399	99.2555	99.2555	
5	99.1588	99.3338	99.3338		99.1603	99.3144	99.3358	99.3358	
6	99.1435	99.3533	99.3533		99.1441	99.3280	99.3542	99.3542	
LOG BETA(I,J)									
I=1 J=6	99.9997	99.9997	99.9997		99.9969	99.9969	99.9969	99.9969	
2	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
3	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
4	0.0000	0.0000	0.0000		99.9996	0.0000	0.0000	0.0000	
5	99.9999	0.0000	0.0000		99.9994	0.0000	0.0000	0.0000	
I=1 J=5	99.9994	99.9994	99.9994		99.9943	99.9943	99.9943	99.9943	
2	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
3	0.0000	0.0000	0.0000		99.9999	0.0000	0.0000	0.0000	
4	99.9999	0.0000	0.0000		99.9985	0.0000	0.0000	0.0000	
I=1 J=4	99.9988	99.9988	99.9988		99.9880	99.9880	99.9880	99.9880	
2	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
3	0.0000	0.0000	0.0000		99.9997	0.0000	0.0000	0.0000	
I=1 J=3	99.9965	99.9965	99.9965		99.9656	99.9656	99.9656	99.9656	
2	0.0000	0.0000	0.0000		99.9997	0.0000	0.0000	0.0000	
I=1 J=2	99.9785	99.9785	99.9785		99.8008	99.8008	99.8008	99.8008	
LOG F(I)/F(4)									
I=3	0.3651	0.3197	0.3197		0.3768	0.3380	0.3327	0.3327	
4	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
5	99.6833	99.7277	99.7277		99.6811	99.7190	99.7248	99.7248	
6	99.3936	99.4727	99.4727		99.3906	99.4581	99.4688	99.4688	

T = 20000		LOG BETA0(1,2) = -1.00							
-LOG W	0.00	0.50	1.00	2.00	3.00	5.00	10.00		
LOG X	-1.00	-0.50	0.00	1.00	2.00	4.00	9.00		
LOG E(I)									
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	97.3672	96.9281	96.4491	95.4581	94.4590	92.4591	87.4591		
3	96.9120	96.4274	95.9304	94.9313	93.9314	91.9314	86.9314		
4	97.0302	96.5752	96.0908	95.0974	94.0981	92.0982	87.0982		
5	97.1641	96.7320	96.2574	95.2688	94.2700	92.2701	87.2701		
6	97.2552	96.8438	96.3782	95.3938	94.3954	92.3956	87.3956		
+	18.2871	17.7428	17.2249	16.2167	15.2158	13.2158	8.2158		
LOG BN(I)									
I=1	0.1208	0.6651	1.1830	2.1912	3.1920	5.1921	10.1921		
2	99.4559	99.5611	99.6000	99.6173	99.6190	99.6192	99.6192		
3	99.1245	99.1842	99.2051	99.2142	99.2151	99.2152	99.2152		
4	99.1592	99.2486	99.2820	99.2969	99.2984	99.2986	99.2986		
5	99.1765	99.2887	99.3320	99.3516	99.3536	99.3538	99.3538		
6	99.1510	99.2840	99.3363	99.3601	99.3625	99.3628	99.3628		
LOG BETA(I,J)									
I=1 J=6	99.9688	99.9689	99.9689	99.9689	99.9689	99.9689	99.9689		
2	99.9992	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000		
3	99.9990	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000		
4	99.9945	99.9987	99.9996	0.0000	0.0000	0.0000	0.0000		
5	99.9917	99.9978	99.9994	99.9999	0.0000	0.0000	0.0000		
I=1 J=5	99.9444	99.9444	99.9444	99.9445	99.9445	99.9445	99.9445		
2	99.9983	99.9994	99.9998	0.0000	0.0000	0.0000	0.0000		
3	99.9976	99.9994	99.9998	0.0000	0.0000	0.0000	0.0000		
4	99.9753	99.9945	99.9987	99.9999	0.0000	0.0000	0.0000		
I=1 J=4	99.8849	99.8849	99.8849	99.8849	99.8849	99.8849	99.8849		
2	99.9949	99.9981	99.9994	99.9999	0.0000	0.0000	0.0000		
3	99.9856	99.9962	99.9989	99.9999	0.0000	0.0000	0.0000		
I=1 J=3	99.6971	99.6972	99.6972	99.6973	99.6973	99.6973	99.6973		
2	99.9649	99.9869	99.9956	99.9995	0.0000	0.0000	0.0000		
I=1 J=2	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000		
LOG F(I)/F(4)									
I=3	0.4412	0.4302	0.4252	0.4228	0.4226	0.4225	0.4225		
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
5	99.6651	99.6858	99.6949	99.6992	99.6997	99.6997	99.6997		
6	99.3661	99.4070	99.4248	99.4333	99.4342	99.4343	99.4343		

T = 20000 LOG BETA0(1,2) = -2.00									
-LOG W	0.00	1.00	1.50	2.00	3.00	4.00	5.00	10.00	
LOG X	-2.00	-1.00	-0.50	0.00	1.00	2.00	3.00	8.00	
LOG E(I)									
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	97.9836	97.4578	97.0206	96.5408	95.5492	94.5500	93.5501	88.5501	
3	97.5662	96.5212	95.8215	95.2137	94.1593	93.1541	92.1536	87.1535	
4	97.4470	96.3624	95.7889	95.2676	94.2596	93.2588	92.2587	87.2587	
5	97.4799	96.4356	95.8925	95.3791	94.3734	93.3729	92.3728	87.3728	
6	97.4949	96.4919	95.9692	95.4607	94.4569	93.4565	92.4565	87.4565	
+	18.4285	17.2706	16.7354	16.2223	15.2164	14.2158	13.2158	8.2158	
LOG BH(I)									
I=1	99.9794	1.1373	1.6725	2.1856	3.1915	4.1921	5.1921	10.1921	
2	99.9309	0.5631	0.6611	0.6944	0.7086	0.7101	0.7102	0.7102	
3	99.6372	99.7502	99.5857	99.4910	99.4430	99.4379	99.4374	99.4373	
4	99.4346	99.5079	99.4696	99.4615	99.4593	99.4591	99.4591	99.4591	
5	99.3508	99.4645	99.4566	99.4563	99.4565	99.4565	99.4566	99.4566	
6	99.2493	99.4043	99.4167	99.4214	99.4235	99.4237	99.4237	99.4237	
LOG BETA(I,J)									
I=1 J=6	99.7217	99.7221	99.7222	99.7222	99.7223	99.7223	99.7223	99.7223	
2	99.9643	99.9890	99.9960	99.9987	99.9999	0.0000	0.0000	0.0000	
3	99.9216	99.9933	99.9989	99.9998	0.0000	0.0000	0.0000	0.0000	
4	99.7456	99.9815	99.9959	99.9989	99.9999	0.0000	0.0000	0.0000	
5	99.7067	99.9776	99.9947	99.9985	99.9998	0.0000	0.0000	0.0000	
I=1 J=5	99.5487	99.5493	99.5494	99.5495	99.5495	99.5495	99.5495	99.5495	
2	99.9259	99.9767	99.9914	99.9971	99.9997	0.0000	0.0000	0.0000	
3	99.8021	99.9807	99.9968	99.9994	0.0000	0.0000	0.0000	0.0000	
4	99.1414	99.9032	99.9793	99.9942	99.9995	99.9999	0.0000	0.0000	
I=1 J=4	99.2526	99.2533	99.2535	99.2536	99.2536	99.2536	99.2536	99.2536	
2	99.7972	99.9322	99.9747	99.9915	99.9991	99.9999	0.0000	0.0000	
3	99.1805	99.8699	99.9787	99.9960	99.9997	0.0000	0.0000	0.0000	
I=1 J=3	98.7939	98.7944	98.7946	98.7947	98.7947	98.7947	98.7947	98.7947	
2	99.1750	99.5966	99.8285	99.9399	99.9937	99.9994	99.9999	0.0000	
I=1 J=2	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	
LOG F(I)/F(4)									
I=3	0.0864	0.4126	0.4758	0.4837	0.4842	0.4842	0.4842	0.4842	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.6895	99.6456	99.6482	99.6449	99.6423	99.6420	99.6420	99.6420	
6	99.3519	99.3232	99.3385	99.3371	99.3350	99.3347	99.3347	99.3347	

T = 20000 LOG BETA0(1,2) = -3.00									
-LOG W	0.00	1.00	2.00	2.30	2.70	3.00	3.50	4.00	10.00
LOG X	-3.00	-2.00	-1.00	-0.70	-0.30	0.00	0.50	1.00	7.00
LOG E(I)									
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.0806	98.0147	97.4850	97.2317	96.8627	96.5733	96.0802	95.5822	94.5830
3	97.8325	97.5750	96.5043	96.0170	95.2932	94.7289	93.9128	93.2784	92.2169
4	97.7870	97.3841	95.9977	95.4400	94.7730	94.3900	93.8454	93.3331	92.3281
5	97.7904	97.3054	95.8302	95.3264	94.8021	94.4752	93.9603	93.4560	92.4542
6	97.8029	97.2770	95.6986	95.3037	94.8607	94.5491	94.0415	93.5391	92.5381
+	18.5121	17.4274	16.2701	15.9455	15.5283	15.2222	14.7178	14.2164	13.2158
LOG BH(I)									
I=1	99.8958	0.9805	2.1378	2.4624	2.8796	3.1857	3.6901	4.1915	5.1921
2	99.9443	0.9632	1.5907	1.6620	1.7103	1.7270	1.7382	1.7416	1.7432
3	99.8199	0.6472	0.7338	0.5710	0.2645	0.0062	99.6945	99.5616	99.5007
4	99.6910	0.3728	0.1438	99.9107	99.6608	99.5840	99.5437	99.5328	99.5280
5	99.5778	0.1775	99.8596	99.6804	99.5733	99.5525	99.5420	99.5391	99.5379
6	99.4737	99.9927	99.6115	99.5412	99.5154	99.5099	99.5067	99.5057	99.5053
LOG BETA(I,J)									
I=1 J=6	98.8369	98.8371	98.8378	98.8380	98.8381	98.8381	98.8381	98.8382	98.8382
2	99.6303	99.6624	99.8866	99.9354	99.9720	99.9855	99.9953	99.9985	99.9998
3	99.2002	99.3879	99.9221	99.9743	99.9953	99.9988	99.9999	0.0000	0.0000
4	98.5119	98.8118	99.8531	99.9630	99.9946	99.9982	99.9996	99.9999	0.0000
5	98.4934	98.8247	99.8764	99.9717	99.9949	99.9979	99.9994	99.9998	0.0000
I=1 J=5	98.5813	98.5814	98.5822	98.5823	98.5824	98.5825	98.5825	98.5825	98.5825
2	99.3655	99.4050	99.7708	99.8660	99.9408	99.9692	99.9900	99.9968	99.9997
3	98.7567	98.9355	99.7781	99.9226	99.9857	99.9965	99.9996	99.9999	0.0000
4	97.7421	98.0266	99.3259	99.7720	99.9667	99.9902	99.9979	99.9994	99.9999
I=1 J=4	98.2541	98.2542	98.2548	98.2551	98.2552	98.2552	98.2553	98.2553	98.2553
2	98.9206	98.9537	99.4475	99.6454	99.8323	99.9108	99.9706	99.9906	99.9999
3	97.9792	98.1251	99.0850	99.5305	99.8942	99.9734	99.9971	99.9995	0.0000
I=1 J=3	97.7937	97.7938	97.7944	97.7945	97.7946	97.7947	97.7947	97.7947	97.7947
2	98.11230	98.11400	98.6145	98.8592	99.2205	99.4886	99.8009	99.9328	99.9931
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000
LOG F(I)/F(4)									
I=3	99.8372	99.9665	0.2629	0.3801	0.4978	0.5060	0.4871	0.4769	0.4722
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9762	99.9005	99.6836	99.6347	99.6655	99.6715	99.6622	99.6570	99.6545
6	99.8625	99.6986	99.2768	99.2905	99.3643	99.3707	99.3577	99.3508	99.3477

BALMER DECREMENTS

T = 20000 LOG BETAO(1,2) = -4.00

-LOG W	0.00	1.00	2.00	2.50	3.00	3.30	3.70	3.80	3.90	3.95	4.00	4.05	4.10
LOG X	-4.00	-3.00	-2.00	-1.50	-1.00	-0.70	-0.30	-0.20	-0.10	-0.05	0.00	0.05	0.10
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.0725	98.0815	98.0163	97.8256	97.4867	97.2336	96.8649	96.7694	96.6730	96.6246	96.5759	96.5272	96.4783
3	97.8643	97.8325	97.5745	97.1669	96.5101	96.0294	95.3226	95.1377	94.9494	94.8539	94.7564	94.6592	94.5605
4	97.8449	97.7871	97.3859	96.8184	95.9722	95.3702	94.4866	94.2517	94.0185	93.9059	93.7978	93.6948	93.5973
5	97.8644	97.7899	97.3003	96.6521	95.7011	95.0196	94.1031	93.9111	93.7432	93.6676	93.5964	93.5289	93.4643
6	97.8911	97.7965	97.2088	96.4548	95.3438	94.6159	93.9530	93.8281	93.7104	93.6534	93.5974	93.5421	93.4875
+	18.5245	17.5121	16.4274	15.8409	15.2701	14.9455	14.5283	14.4258	14.3238	14.2729	14.2222	14.1715	14.1209
LOG BN(I)													
I=1	99.8834	0.8958	1.9805	2.5670	3.1378	3.4624	3.8796	3.9821	4.0841	4.1350	4.1857	4.2364	4.2870
2	99.9239	0.9452	1.9648	2.3606	2.5925	2.6639	2.7124	2.7194	2.7251	2.7275	2.7296	2.7315	2.7333
3	99.8394	0.8199	1.6467	1.8255	1.7396	1.5834	1.2939	1.2115	1.1251	1.0803	1.0343	0.9872	0.9392
4	99.7366	0.6911	1.3727	1.3937	1.1183	0.8408	0.3744	0.2421	0.1108	0.0491	99.9917	99.9395	99.8926
5	99.6394	0.5772	1.1724	1.1108	0.7305	0.3736	99.8743	99.7848	99.7189	99.6941	99.6737	99.6569	99.6429
6	99.5497	0.4673	0.9644	0.7969	0.2567	99.8534	99.6076	99.5853	99.5696	99.5635	99.5582	99.5536	99.5497
LOG BETA(I,J)													
I=1 J=6	97.8370	97.8369	97.8370	97.8374	97.8378	97.8380	97.8381	97.8381	97.8381	97.8381	97.8381	97.8381	97.8381
2	98.7058	98.6895	98.7366	98.8222	99.2579	99.4622	99.7455	99.7910	99.8295	99.8463	99.8525	99.8575	99.8625
3	98.1898	98.1899	98.3931	98.7732	99.4067	99.7518	99.9467	99.9650	99.9772	99.9818	99.9854	99.9883	99.9907
4	97.4816	97.5062	97.7997	98.3052	99.1066	99.6343	99.9473	99.9703	99.9836	99.9878	99.9909	99.9931	99.9948
5	97.4575	97.4796	97.7979	98.3398	99.1962	99.7340	99.9748	99.9864	99.9922	99.9940	99.9953	99.9962	99.9969
I=1 J=5	97.5814	97.5813	97.5814	97.5818	97.5822	97.5823	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825
2	98.3880	98.3706	98.4124	98.5947	98.9304	99.1824	99.5245	99.5988	99.6654	99.6955	99.7235	99.7495	99.7734
3	97.7468	97.7562	97.9353	98.3016	98.9330	99.3959	99.8407	99.8934	99.9299	99.9435	99.9547	99.9637	99.9711
4	96.7148	96.7406	97.0214	97.5102	98.2898	98.8561	99.6549	99.7916	99.8816	99.9116	99.9341	99.9507	99.9628
I=1 J=4	97.2542	97.2541	97.2542	97.2546	97.2549	97.2551	97.2552	97.2552	97.2552	97.2552	97.2552	97.2552	97.2552
2	97.9392	97.9194	97.9519	98.1277	98.4595	98.7110	99.0786	99.1736	99.2684	99.3153	99.3615	99.4067	99.4507
3	96.9758	96.9791	97.1262	97.4647	98.0730	98.5335	99.2194	99.3929	99.5524	99.6832	99.6864	99.7417	99.7892
I=1 J=3	96.7938	96.7937	96.7938	96.7941	96.7944	96.7945	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947
2	97.1453	97.1216	97.1378	97.2974	97.6130	97.8577	98.2198	98.3143	98.4098	98.4579	98.5061	98.5546	98.6032
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.8149	99.8370	99.9659	0.1074	0.2807	0.3952	0.5665	0.6160	0.6616	0.6797	0.6932	0.7016	0.7050
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9961	99.9818	99.9048	99.8285	99.7276	99.6487	99.5902	99.6124	99.6496	99.6697	99.6885	99.7047	99.7175
6	99.9497	99.9163	99.7465	99.5678	99.3069	99.1638	99.2702	99.3307	99.3899	99.4154	99.4367	99.4530	99.4645

(Continued)

T = 20000 LOG BETAO(1,2) = -4.00

-LOG W	4.15	4.20	4.30	4.70	5.00	5.50	6.00	7.00	8.00	9.00	10.00
LOG X	0.15	0.20	0.30	0.70	1.00	1.50	2.00	3.00	4.00	5.00	6.00
LOG E(I)											
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.4293	96.3802	96.1696	95.8851	95.5862	95.0869	94.5871	93.5872	92.5872	91.5872	90.5872
3	94.4611	94.3610	94.1593	93.7468	92.7540	91.9233	91.2859	90.2236	89.2172	88.2165	87.2165
4	93.5053	93.4184	93.2579	92.7260	92.3825	91.8511	91.3406	90.3362	89.3358	88.3357	87.3357
5	93.4021	93.3417	93.2251	92.7885	92.4765	91.9682	91.4655	90.4644	89.4643	88.4643	87.4643
6	93.4335	93.3799	93.2739	92.8598	92.5551	92.0518	91.5508	90.5504	89.5503	88.5503	87.5503
+	14.0703	14.0198	13.9190	13.5171	13.2164	12.7160	12.2158	11.2158	10.2158	9.2158	8.2158
LOG BN(I)											
I=1	4.3376	4.3881	4.4889	4.8908	5.1915	5.6919	6.1921	7.1921	8.1921	9.1921	10.1921
2	2.7348	2.7362	2.7385	2.7439	2.7456	2.7468	2.7471	2.7472	2.7473	2.7473	2.7473
3	0.8903	0.8407	0.7399	0.3283	0.0372	99.7068	99.5697	99.5074	99.5010	99.5003	99.5003
4	99.8511	99.8147	99.7551	99.6251	99.5823	99.5512	99.5410	99.5366	99.5361	99.5361	99.5361
5	99.6313	99.6214	99.6056	99.5710	99.5596	99.5517	99.5492	99.5481	99.5480	99.5480	99.5480
6	99.5461	99.5430	99.5379	99.5258	99.5217	99.5189	99.5180	99.5176	99.5175	99.5175	99.5175
LOG BETA(I,J)											
I=1 J=6	97.8381	97.8381	97.8381	97.8381	97.8381	97.8382	97.8382	97.8382	97.8382	97.8382	97.8382
2	99.8996	99.9099	99.9277	99.9705	99.9851	99.9953	99.9985	99.9998	0.0000	0.0000	0.0000
3	99.9926	99.9942	99.9954	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9960	99.9969	99.9980	99.9996	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9975	99.9979	99.9985	99.9996	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825
2	99.7953	99.8154	99.8504	99.9377	99.9683	99.9899	99.9968	99.9997	0.0000	0.0000	0.0000
3	99.9770	99.9818	99.9886	99.9984	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9717	99.9783	99.9868	99.9975	99.9991	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=4	97.2552	97.2552	97.2552	97.2553	97.2553	97.2553	97.2553	97.2553	97.2553	97.2553	97.2553
2	99.4942	99.5340	99.6095	99.8239	99.9081	99.9701	99.9905	99.9990	99.9999	0.0000	0.0000
3	99.8292	99.8626	99.9123	99.9871	99.9971	99.9997	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947
2	98.6520	98.7009	98.7990	99.1939	99.4754	99.7976	99.9320	99.9930	99.9993	99.9999	0.0000
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)											
I=3	0.7039	0.6988	0.6801	0.5792	0.5282	0.4890	0.4761	0.4707	0.4702	0.4701	0.4701
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.7267	99.7326	99.7359	99.7041	99.6821	99.6647	99.6590	99.6566	99.6564	99.6564	99.6564
6	99.4714	99.4743	99.4710	99.4173	99.3865	99.3628	99.3551	99.3519	99.3515	99.3515	99.3515

T = 20000 LOG BETA(1,2) = -5.00

-LOG W	0.00	1.00	2.00	3.00	4.00	4.30	4.70	5.00	5.15	5.20	5.25	5.30	5.35
LOG X	-5.00	-4.00	-3.00	-2.00	-1.00	-0.70	-0.30	0.00	0.15	0.20	0.25	0.30	0.35
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.0708	98.0725	98.0815	98.0163	97.4867	97.2335	96.8647	96.5758	96.4292	96.3801	96.3309	96.2816	96.2323
3	97.8676	97.8643	97.8325	97.5745	96.5103	96.0318	95.3367	94.7856	94.5020	94.4064	94.3104	94.2159	94.1168
4	97.8512	97.8449	97.7871	97.3839	95.9722	95.3690	94.4822	93.7609	93.5814	93.2507	93.1180	92.9841	92.8505
5	97.8725	97.8644	97.7899	97.3003	95.7007	95.0184	93.9945	93.1467	92.7648	92.6543	92.5532	92.4609	92.3764
6	97.9017	97.8911	97.7965	97.2088	95.3405	94.5281	93.3554	92.7584	92.5516	92.4886	92.4274	92.3676	92.3089
+	18.5257	17.5245	16.5121	15.4274	14.2701	13.9455	13.5283	13.2222	13.0703	13.0198	12.9694	12.9190	12.8687
LOG BH(I)													
I=1	99.8822	0.8834	1.8958	2.9805	4.1378	4.4624	4.8796	5.1857	5.3376	5.3881	5.4385	5.4889	5.5392
2	99.9209	0.9239	1.9452	2.9648	3.5925	3.6638	3.7123	3.7295	3.7347	3.7361	3.7373	3.7385	3.7395
3	99.8414	0.8394	1.8199	2.6467	2.7397	2.5858	2.3080	2.0630	1.9312	1.8862	1.8406	1.7945	1.7477
4	99.7416	0.7366	1.6911	2.3727	2.1182	1.8396	1.3700	0.9549	0.7272	0.6470	0.5647	0.4812	0.3980
5	99.6463	0.6394	1.5772	2.1724	1.7301	1.3724	0.7657	0.2240	99.9940	99.9340	99.8833	99.8414	99.8072
6	99.5590	0.5497	1.4673	1.9644	1.2534	0.7656	0.0101	99.7192	99.6642	99.6517	99.6410	99.6316	99.6233
LOG BETA(I,J)													
I=1 J=6	96.8370	96.8370	96.8369	96.8370	96.8378	96.8380	96.8381	96.8381	96.8381	96.8381	96.8381	96.8381	96.8381
2	97.7085	97.7058	97.6895	97.7366	98.2597	98.5129	98.8817	99.1701	99.3137	99.3604	99.4061	99.4505	99.4933
3	97.1872	97.1878	97.1989	97.3931	98.4158	98.8905	99.5502	99.8504	99.9198	99.9352	99.9478	99.9580	99.9663
4	96.4796	96.4816	96.5062	96.7997	98.1068	98.6911	99.5346	99.8934	99.9554	99.9672	99.9752	99.9827	99.9876
5	96.4561	96.4575	96.4796	96.7979	98.1960	98.8324	99.7128	99.9610	99.9869	99.9907	99.9932	99.9950	99.9962
I=1 J=5	96.5814	96.5814	96.5813	96.5814	96.5822	96.5823	96.5824	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	97.3908	97.3880	97.3706	97.4124	97.9304	98.1831	98.5516	98.8405	98.9871	99.0362	99.0853	99.1344	99.1834
3	96.7463	96.7468	96.7562	96.9353	97.9327	98.4019	99.0887	99.5910	99.7645	99.8069	99.8425	99.8722	99.8967
4	95.7124	95.7148	95.7406	96.0214	97.2902	97.8570	98.6993	99.3851	99.6834	99.7582	99.8191	99.8669	99.9034
I=1 J=4	96.2542	96.2542	96.2541	96.2542	96.2549	96.2551	96.2552	96.2552	96.2552	96.2552	96.2552	96.2552	96.2552
2	96.9423	96.9392	96.9194	96.9519	97.4595	97.7111	98.0789	98.3675	98.5141	98.5632	98.6124	98.6617	98.7110
3	95.9760	95.9758	95.9791	96.1262	97.0725	97.5307	98.2048	98.7440	99.0229	99.1167	99.2106	99.3035	99.3942
I=1 J=3	95.7938	95.7938	95.7937	95.7938	95.7945	95.7946	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	96.1490	96.1453	96.1216	96.1378	96.6130	96.8578	97.2201	97.5065	97.6523	97.7011	97.7501	97.7992	97.8484
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	99.8124	99.8149	99.8370	99.9659	0.2810	0.3989	0.5851	0.7530	0.8480	0.8830	0.9195	0.9567	0.9930
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9977	99.9961	99.9818	99.9048	99.7272	99.6493	99.5129	99.3866	99.3842	99.4044	99.4359	99.4774	99.5261
6	99.9536	99.9497	99.9163	99.7465	99.3055	99.0979	98.8129	98.9370	99.1066	99.1720	99.2401	99.3093	99.3777

(Continued)

T = 20000 LOG BETA(1,2) = -5.00

-LOG W	5.40	5.50	5.60	5.70	6.00	6.30	6.70	7.00	7.50	8.00	9.00	10.00	11.00
LOG X	0.40	0.50	0.60	0.70	1.00	1.30	1.70	2.00	2.50	3.00	4.00	5.00	6.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.1828	96.0838	95.9846	95.8855	95.5864	95.2870	94.8874	94.5875	94.0876	93.5876	92.5876	91.5876	90.5876
3	94.0191	93.8215	93.6212	93.4186	92.8014	92.1774	91.3514	90.2566	89.9243	89.2867	88.2243	87.1278	86.2172
4	92.7191	92.4708	92.2500	92.0577	91.5958	91.2036	90.7193	90.3816	89.8516	89.3414	88.3370	87.3366	86.3365
5	92.2985	92.1571	92.0278	91.9049	91.5524	91.2155	90.7873	90.4767	89.9690	89.4665	88.4654	87.4653	86.4653
6	92.2510	92.1369	92.0245	91.9134	91.5873	91.2709	90.8597	90.5557	90.0529	89.5520	88.5516	87.5516	86.5516
+	12.8183	12.7178	12.6174	12.5171	11.9161	11.5159	11.2158	10.7158	10.2158	9.7158	8.7158	7.2158	6.2158
LOG BH(I)													
I=1	5.5896	5.6901	5.7905	5.8908	6.1915	6.4918	6.8920	7.1921	7.6921	8.1921	9.1921	10.1921	11.1921
2	3.7403	3.7419	3.7431	3.7400	3.7459	3.7468	3.7473	3.7475	3.7476	3.7477	3.7477	3.7477	3.7477
3	1.7003	1.6032	1.5033	1.4011	1.0845	0.7608	0.3351	0.0403	99.7081	99.5705	99.5081	99.5016	99.5010
4	0.3169	0.1692	0.0467	99.9568	99.7955	99.7037	99.6196	99.5819	99.5520	99.5418	99.5374	99.5370	99.5369
5	99.7798	99.7338	99.7100	99.6873	99.6555	99.5990	99.5709	99.5603	99.5527	99.5502	99.5492	99.5491	99.5490
6	99.6137	99.6021	99.5901	99.5793	99.5539	99.5378	99.5268	99.5229	99.5201	99.5192	99.5188	99.5188	99.5188
LOG BETA(I,J)													
I=1 J=6	96.8381	96.8381	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.5344	99.6102	99.6771	99.7349	99.8584	99.9268	99.9703	99.9850	99.9952	99.9985	99.9998	0.0000	0.0000
3	95.9731	99.9829	99.9892	99.9932	99.9984	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9911	99.9953	99.9974	99.9984	99.9996	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9970	99.9981	99.9987	99.9991	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	99.2322	99.3283	99.4208	99.5076	99.7176	99.8487	99.9373	99.9682	99.9899	99.9968	99.9997	0.0000	0.0000
3	99.9168	99.9466	99.9661	99.9787	99.9949	99.9988	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9304	99.9637	99.9804	99.9887	99.9970	99.9990	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.7604	98.8594	98.9586	99.0580	99.3514	99.6056	99.8230	99.9078	99.9701	99.9905	99.9990	99.9999	0.0000
3	99.4806	99.6335	99.7526	99.8382	99.9593	99.9904	99.9987	99.9997	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.8977	97.9864	98.0954	98.1946	98.4931	98.7923	99.1912	99.4741	99.7973	99.9319	99.9930	99.9993	99.9999
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	1.0265	1.0769	1.										

T = 25000											
LOG BETA(1,2) = 1.00					LOG BETA(1,2) = 0.00						
LOG W	0.00	5.00	10.00	0.00	1.00	5.00	10.00	0.00	1.00	5.00	10.00
LOG X	1.00	6.00	11.00	0.00	1.00	5.00	10.00	0.00	1.00	5.00	10.00
LOG E(I)											
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	97.1676	92.1923	87.1923	97.3406	96.3706	92.3743	87.3743	97.3406	96.3706	92.3743	87.3743
3	97.4536	92.5262	87.5262	97.4730	96.5359	92.5441	87.5441	97.4730	96.5359	92.5441	87.5441
4	97.6620	92.7896	87.7896	97.6696	96.7794	92.7944	87.7944	97.6696	96.7794	92.7944	87.7944
5	97.8055	92.9843	87.9843	97.8121	96.9641	92.9862	87.9862	97.8121	96.9641	92.9862	87.9862
6	97.8991	93.1167	88.1167	97.9045	97.0895	93.1176	88.1176	97.9045	97.0895	93.1176	88.1176
+	19.0882	14.0447	9.0447	19.0925	18.0511	14.0447	9.0447	19.0925	18.0511	14.0447	9.0447
LOG BN(I)											
I=1	0.1503	5.1938	10.1938	0.1460	1.1875	5.1938	10.1938	0.1460	1.1875	5.1938	10.1938
2	98.7719	98.8401	98.8401	98.9406	99.0120	99.0221	99.0221	98.9406	99.0120	99.0221	99.0221
3	99.0863	99.2025	99.2025	99.1014	99.2058	99.2203	99.2203	99.1014	99.2058	99.2203	99.2203
4	99.1781	99.3492	99.3492	99.1814	99.3527	99.3540	99.3540	99.1814	99.3527	99.3540	99.3540
5	99.1894	99.4117	99.4117	99.1917	99.3852	99.4137	99.4137	99.1917	99.3852	99.4137	99.4137
6	99.1582	99.4193	99.4193	99.1503	99.3858	99.4202	99.4202	99.1503	99.3858	99.4202	99.4202
LOG BETA(I,J)											
I=1 J=6	99.9997	99.9997	99.9997	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	99.9997	0.0000	0.0000	0.0000	99.9997	0.0000	0.0000	0.0000
4	99.9998	0.0000	0.0000	99.9978	99.9999	0.0000	0.0000	99.9978	99.9999	0.0000	0.0000
5	99.9996	0.0000	0.0000	99.9964	99.9997	0.0000	0.0000	99.9964	99.9997	0.0000	0.0000
I=1 J=5	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943
2	0.0000	0.0000	0.0000	99.9999	0.0000	0.0000	0.0000	99.9999	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	99.9995	0.0000	0.0000	0.0000	99.9995	0.0000	0.0000	0.0000
4	99.9991	0.0000	0.0000	99.9906	99.9998	0.0000	0.0000	99.9906	99.9998	0.0000	0.0000
I=1 J=4	99.9988	99.9988	99.9988	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880
2	0.0000	0.0000	0.0000	99.9997	0.0000	0.0000	0.0000	99.9997	0.0000	0.0000	0.0000
3	99.9998	0.0000	0.0000	99.9977	0.0000	0.0000	0.0000	99.9977	0.0000	0.0000	0.0000
I=1 J=3	99.9965	99.9965	99.9965	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656
2	0.0000	0.0000	0.0000	99.9984	99.9998	0.0000	0.0000	99.9984	99.9998	0.0000	0.0000
I=1 J=2	99.9785	99.9785	99.9785	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008
LOG E(I)/F(4)											
I=3	0.3809	0.3260	0.3260	0.3914	0.3457	0.3390	0.3390	0.3914	0.3457	0.3390	0.3390
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6713	99.7226	99.7226	99.6705	99.7125	99.7196	99.7196	99.6705	99.7125	99.7196	99.7196
6	99.3740	99.4640	99.4640	99.3720	99.4470	99.4601	99.4601	99.3720	99.4470	99.4601	99.4601

T = 25000											
LOG BETA(1,2) = -1.00											
-LOG W	0.00	0.50	1.00	2.00	3.00	4.00	5.00	10.00	0.00	0.50	1.00
LOG X	-1.00	-0.50	0.00	1.00	2.00	3.00	4.00	5.00	10.00	0.00	0.50
LOG E(I)											
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.0447	97.6519	97.1920	96.2098	95.2115	94.2118	93.2119	88.2119	96.0447	97.6519	97.1920
3	97.6875	97.1975	96.6865	95.6780	94.6770	93.6766	92.6768	87.6768	97.6875	97.1975	96.6865
4	97.7678	97.3162	96.8307	95.8368	94.8374	93.8374	92.8375	87.8375	97.7678	97.3162	96.8307
5	97.8931	97.4651	96.9910	96.0029	95.0041	94.0043	93.0043	88.0043	97.8931	97.4651	96.9910
6	97.9693	97.5679	97.1064	96.1242	95.1260	94.1262	93.1262	88.1262	97.9693	97.5679	97.1064
+	19.1441	18.5853	18.0589	17.0462	16.0449	15.0447	14.0447	9.0447	19.1441	18.5853	18.0589
LOG BN(I)											
I=1	0.0945	0.6532	1.1797	2.1924	3.1937	4.1938	5.1938	10.1938	0.0945	0.6532	1.1797
2	99.5931	99.7591	99.8257	99.8561	99.8593	99.8596	99.8596	99.8596	99.5931	99.7591	99.8257
3	99.2645	99.3332	99.3486	99.3528	99.3531	99.3531	99.3531	99.3531	99.2645	99.3332	99.3486
4	99.2280	99.3352	99.3762	99.3949	99.3969	99.3970	99.3971	99.3971	99.2280	99.3352	99.3762
5	99.2212	99.3520	99.4043	99.4289	99.4314	99.4317	99.4317	99.4317	99.2212	99.3520	99.4043
6	99.1726	99.3299	99.3948	99.4253	99.4285	99.4288	99.4288	99.4288	99.1726	99.3299	99.3948
LOG BETA(I,J)											
I=1 J=6	99.9688	99.9688	99.9688	99.9689	99.9689	99.9689	99.9689	99.9689	99.9688	99.9688	99.9688
2	99.9961	99.9984	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000	99.9961	99.9984	99.9995
3	99.9933	99.9983	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	99.9933	99.9983	99.9996
4	99.9657	99.9914	99.9978	99.9998	0.0000	0.0000	0.0000	0.0000	99.9657	99.9914	99.9978
5	99.9478	99.9862	99.9964	99.9997	0.0000	0.0000	0.0000	0.0000	99.9478	99.9862	99.9964
I=1 J=5	99.9443	99.9444	99.9444	99.9444	99.9445	99.9445	99.9445	99.9445	99.9443	99.9444	99.9444
2	99.9918	99.9967	99.9988	99.9999	0.0000	0.0000	0.0000	0.0000	99.9918	99.9967	99.9988
3	99.9830	99.9957	99.9989	99.9999	0.0000	0.0000	0.0000	0.0000	99.9830	99.9957	99.9989
4	99.8542	99.9639	99.9910	99.9992	99.9999	0.0000	0.0000	0.0000	99.8542	99.9639	99.9910
I=1 J=4	99.8847	99.8848	99.8849	99.8849	99.8849	99.8849	99.8849	99.8849	99.8847	99.8848	99.8849
2	99.9763	99.9902	99.9966	99.9996	0.0000	0.0000	0.0000	0.0000	99.9763	99.9902	99.9966
3	99.8974	99.9724	99.9929	99.9994	99.9999	0.0000	0.0000	0.0000	99.8974	99.9724	99.9929
I=1 J=3	99.6967	99.6970	99.6972	99.6972	99.6973	99.6973	99.6973	99.6973	99.6967	99.6970	99.6972
2	99.8481	99.9332	99.9760	99.9975	99.9997	0.0000	0.0000	0.0000	99.8481	99.9332	99.9760
I=1 J=2	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000
LOG F(I)/F(4)											
I=3	0.3809	0.4137	0.4246	0.4284	0.4287	0.4287	0.4287	0.4287	0.3809	0.4137	0.4246
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6687	99.6832	99.6904	99.6942	99.6946	99.6946	99.6946	99.6946	99.6687	99.6832	99.6904
6	99.3582	99.3968	99.4154	99.4246	99.4255	99.4256	99.4256	99.4256	99.3582	99.3968	99.4154

T = 25000 LOG BETA(1,2) = -2.00

-LOG W	0.00	1.00	1.50	2.00	2.50	3.00	4.00	5.00	6.00	10.00
LOG X	-2.00	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	8.00
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.4802	98.0918	97.7202	97.2751	96.7930	96.2984	95.3006	94.3009	93.3009	89.3009
3	98.2628	97.5573	96.9074	96.1621	95.4978	94.9315	93.9016	92.8985	91.8982	87.8982
4	98.2049	97.3371	96.6728	95.0450	95.5097	95.0012	93.9980	92.9977	91.9977	87.9977
5	98.2223	97.3431	96.7081	96.1326	95.6142	95.1092	94.1071	93.1069	92.1069	88.1069
6	98.2522	97.3291	96.7329	96.1999	95.6910	95.1885	94.1872	93.1871	92.1871	88.1871
+	19.2790	18.1270	17.5772	17.0559	16.5485	16.0459	15.0448	14.0447	13.0447	9.0447
LOG BN(I)										
I=1	99.9595	1.1115	1.6613	2.1827	2.6902	3.1927	4.1937	5.1938	6.1938	10.1938
2	99.8936	0.6573	0.8355	0.9118	0.9372	0.9451	0.9483	0.9486	0.9487	0.9487
3	99.7048	0.1512	0.0512	99.8272	99.6705	99.6066	99.5778	99.5748	99.5745	99.5745
4	99.5302	99.8144	99.7000	99.5935	99.5657	99.5596	99.5575	99.5573	99.5573	99.5573
5	99.4154	99.6882	99.6031	99.5488	99.5380	99.5355	99.5344	99.5344	99.5344	99.5344
6	99.3205	99.5494	99.5031	99.4913	99.4900	99.4898	99.4897	99.4897	99.4897	99.4897
LOG BETA(I,J)										
I=1 J=6	99.7206	99.7215	99.7220	99.7222	99.7222	99.7223	99.7223	99.7223	99.7223	99.7223
2	99.8940	99.9535	99.9799	99.9928	99.9976	99.9992	99.9999	0.0000	0.0000	0.0000
3	99.6850	99.9218	99.9825	99.9972	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000
4	99.1207	99.7752	99.9543	99.9919	99.9979	99.9994	0.0000	0.0000	0.0000	0.0000
5	99.1066	99.7448	99.9476	99.9899	99.9972	99.9992	0.0000	0.0000	0.0000	0.0000
I=1 J=5	99.5471	99.5485	99.5491	99.5494	99.5495	99.5495	99.5495	99.5495	99.5495	99.5495
2	99.7893	99.9036	99.9576	99.9846	99.9949	99.9984	99.9998	0.0000	0.0000	0.0000
3	99.3212	99.7869	99.9492	99.9920	99.9986	99.9997	0.0000	0.0000	0.0000	0.0000
4	98.3488	99.1956	99.7659	99.9573	99.9892	99.9967	99.9997	0.0000	0.0000	0.0000
I=1 J=4	99.2508	99.2523	99.2531	99.2534	99.2535	99.2536	99.2536	99.2536	99.2536	99.2536
2	99.4996	99.7393	99.8790	99.9548	99.9849	99.9951	99.9995	0.0000	0.0000	0.0000
3	98.5343	99.1269	99.6824	99.9451	99.9910	99.9980	99.9998	0.0000	0.0000	0.0000
I=1 J=3	98.7923	98.7935	98.7942	98.7945	98.7946	98.7947	98.7947	98.7947	98.7947	98.7947
2	98.7321	99.0463	99.3817	99.7114	99.8948	99.9652	99.9965	99.9996	0.0000	0.0000
I=1 J=2	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000
LOG F(I)/F(4)										
I=3	99.8797	0.1165	0.3267	0.4630	0.4873	0.4897	0.4899	0.4899	0.4899	0.4899
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.8349	99.6981	99.6481	99.6451	99.6423	99.6391	99.6373	99.6371	99.6371	99.6371
6	99.5786	99.3431	99.2979	99.3297	99.3309	99.3281	99.3265	99.3263	99.3263	99.3263

T = 25000 LOG BETA(1,2) = -3.00

-LOG W	0.00	1.00	2.00	2.50	3.00	3.30	3.70	4.00	4.50	5.00	6.00	7.00	8.00
LOG X	-3.00	-2.00	-1.00	-0.50	0.00	0.30	0.70	1.00	1.50	2.00	3.00	4.00	5.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.5477	98.4898	98.1111	97.7413	97.2997	97.0161	96.6267	96.3301	95.8321	95.3327	94.3329	93.3330	92.3330
3	98.4081	98.2621	97.5588	96.9071	96.1050	95.5702	94.8150	94.2874	93.5725	92.9928	91.9580	90.9544	89.9541
4	98.4065	98.2009	97.2651	96.4500	95.5156	94.9810	94.4336	94.0967	93.5754	93.0692	92.0666	91.0663	90.0663
5	98.4312	98.1853	97.1221	96.2538	95.3723	94.9540	94.5077	94.1971	93.6908	93.1888	92.1881	91.1880	90.1880
6	98.4583	98.1691	96.9769	96.0558	95.3251	94.9910	94.5766	94.2725	93.7699	93.2680	92.2687	91.2686	90.2686
+	19.3347	18.2781	17.1270	16.5773	16.0559	15.7505	15.3470	15.0459	14.5451	14.0448	13.0447	12.0447	11.0447
LOG BN(I)													
I=1	99.9039	0.9604	2.1115	2.6612	3.1826	3.4881	3.8915	4.1927	4.6935	5.1937	6.1938	7.1938	8.1938
2	99.9055	0.9041	1.6786	1.8565	1.9362	1.9581	1.9722	1.9767	1.9795	1.9804	1.9807	1.9807	1.9807
3	99.7944	0.7050	1.1528	1.0508	0.7700	0.5410	0.1890	99.9625	99.7484	99.6690	99.6342	99.6307	99.6303
4	99.6761	0.5271	0.7404	0.4771	0.0649	99.8349	99.6909	99.6552	99.6347	99.6286	99.6259	99.6259	99.6259
5	99.5686	0.3793	0.4673	0.1487	99.7885	99.6757	99.6328	99.6234	99.6179	99.6162	99.6156	99.6155	99.6155
6	99.4710	0.2383	0.1972	99.8259	99.6165	99.5879	99.5769	99.5740	99.5721	99.5715	99.5713	99.5713	99.5713
LOG BETA(I,J)													
I=1 J=6	98.8347	98.8350	98.8369	98.8376	98.8379	98.8380	98.8381	98.8381	98.8381	98.8382	98.8382	98.8382	98.8382
2	99.2350	99.2749	99.5918	99.8031	99.9247	99.9603	99.9836	99.9917	99.9974	99.9992	99.9999	0.0000	0.0000
3	98.6503	98.7516	99.3808	99.8118	99.9684	99.9909	99.9985	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000
4	97.9231	98.0589	98.8806	99.6134	99.9535	99.9895	99.9979	99.9992	99.9998	99.9999	0.0000	0.0000	0.0000
5	97.8893	98.0321	98.9156	99.6620	99.9653	99.9914	99.9976	99.9989	99.9997	99.9999	0.0000	0.0000	0.0000
I=1 J=5	98.5791	98.5704	98.5811	98.5819	98.5823	98.5824	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825
2	98.9216	98.9592	99.3077	99.6202	99.8447	99.9165	99.9653	99.9823	99.9944	99.9982	99.9998	0.0000	0.0000
3	98.2140	98.3090	98.9194	99.5207	99.9052	99.9722	99.9956	99.9989	99.9998	0.0000	0.0000	0.0000	0.0000
4	97.1614	97.2934	98.0854	98.8571	99.7181	99.9329	99.9823	99.9957	99.9989	99.9997	0.0000	0.0000	0.0000
I=1 J=4	98.2521	98.2523	98.2539	98.2547	98.2551	98.2552	98.2552	98.2552	98.2553	98.2553	98.2553	98.2553	98.2553
2	98.4784	98.5099	98.8464	99.2060	99.5975	99.7687	99.8996	99.9482	99.9833	99.9947	99.9995	0.0000	0.0000
3	97.4512	97.5318	98.0912	98.6931	99.4540	99.8022	99.9665	99.9917	99.9989	99.9998	0.0000	0.0000	0.0000
I=1 J=3	97.7921	97.7922	97.7935	97.7942	97.7945	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947
2	97.6968	97.7187	98.0245	98.3665	98.7918	99.0699	99.4421	99.6702	99.8831	99.9617	99.9961	99.9996	0.0000
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000
LOG F(I)/F(4)													
I=3	99.8093	99.8593	0.0631	0.2069	0.3721	0.4801	0.5133	0.5020	0.4862	0.4801	0.4774	0.4771	0.4771
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9957	99.9614	99.8481	99.7459	99.6308	99.6487	99.6676	99.6624	99.6543	99.6511	99.6496	99.6496	99.6496
6	99.9453	99.8700	99.5961	99.3398	99.2727	99.3385	99.3640	99.3562	99.3454	99.3412	99.3394	99.3393	99.3392

BALMER DECREMENTS

T = 25000 LOG BETA0(1,2) = -4.00

-LOG W	0.00	1.00	2.00	3.00	3.50	4.00	4.30	4.70	5.00	5.30	5.70	6.00	7.00
LOG X	-4.00	-3.00	-2.00	-1.00	-0.50	0.00	0.30	0.70	1.00	1.30	1.70	2.00	3.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.5525	98.5477	98.4898	98.1117	97.7425	97.3011	97.0179	96.6291	96.3331	96.0351	95.6363	95.3366	94.3369
3	98.4252	98.4081	98.2621	97.5583	96.9081	96.1168	95.5920	94.8480	94.2540	93.6443	92.8430	92.3029	91.0000
4	98.4312	98.4065	98.2009	97.2626	96.4419	95.4629	94.8125	93.8891	93.3218	92.8987	92.4261	92.1010	91.0771
5	98.4612	98.4312	98.1853	97.1187	96.2098	95.1129	94.4015	93.6460	93.2643	92.9312	92.5115	92.2050	91.1989
6	98.4945	98.4583	98.1686	96.9568	95.9163	94.6861	94.1301	93.6293	93.3049	92.9931	92.5858	92.2834	91.2812
+	19.3421	18.3347	17.2781	16.1270	15.5773	15.0559	14.7505	14.3470	14.0459	13.7453	13.3450	13.0448	12.0447
LOG BN(I)													
I=1	99.8965	0.9038	1.9604	3.1115	3.6612	4.1826	4.4881	4.8915	5.1927	5.4932	5.8936	6.1937	7.1938
2	99.9029	0.9055	1.9042	2.6772	2.8576	2.9377	2.9599	2.9746	2.9797	2.9823	2.9838	2.9843	2.9847
3	99.8041	0.7944	1.7050	2.1522	2.0517	1.7818	1.5625	1.2219	0.9291	0.6200	0.2191	99.9790	99.6763
4	99.6934	0.6762	1.5271	1.7399	1.4689	1.0113	0.6663	0.1464	99.8802	99.7577	99.6855	99.6605	99.6367
5	99.5913	0.5686	1.3793	1.4639	1.1046	0.5291	0.1232	99.7712	99.6906	99.6580	99.6387	99.6323	99.6264
6	99.4998	0.4709	1.2378	1.1771	0.6863	99.9774	99.7269	99.6296	99.6064	99.5951	99.5882	99.5859	99.5838
LOG BETA(I,J)													
I=1 J=6	97.8346	97.8347	97.8350	97.8367	97.8376	97.8379	97.8380	97.8381	97.8381	97.8381	97.8382	97.8382	97.8382
2	98.2347	98.2363	98.2770	98.6368	99.0041	99.4330	99.6557	99.8448	99.9189	99.9585	99.9833	99.9916	99.9992
3	97.6409	97.6503	97.7515	98.3873	99.0217	99.7040	99.9026	99.9820	99.9954	99.9989	99.9998	0.0000	0.0000
4	96.9104	96.9230	97.0585	97.8755	98.6508	99.5650	99.8864	99.9882	99.9976	99.9993	99.9998	99.9999	0.0000
5	96.8773	96.8892	97.0312	97.9030	98.7191	99.6746	99.9390	99.9942	99.9982	99.9993	99.9998	99.9999	0.0000
I=1 J=5	97.5791	97.5791	97.5794	97.5811	97.5819	97.5823	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825
2	97.9204	97.9216	97.9591	98.3103	98.6753	99.1152	99.3904	99.6927	99.8330	99.9129	99.9645	99.9821	99.9982
3	97.2050	97.2140	97.3089	97.9195	98.5424	99.3137	99.7214	99.9442	99.9858	99.9966	99.9995	99.9999	0.0000
4	96.1483	96.1614	96.2934	97.0835	97.8419	98.7637	99.3841	99.9143	99.9834	99.9956	99.9989	99.9996	0.0000
I=1 J=4	97.2521	97.2521	97.2523	97.2539	97.2547	97.2551	97.2552	97.2552	97.2552	97.2553	97.2553	97.2553	97.2553
2	97.4781	97.4784	97.5099	97.8458	98.2056	98.6435	98.9260	99.3109	99.5712	99.7550	99.8873	99.9474	99.9946
3	96.4400	96.4512	96.5312	97.0916	97.6902	98.4468	98.9566	99.6266	99.8914	99.9734	99.9963	99.9991	0.0000
I=1 J=3	96.7921	96.7921	96.7922	96.7935	96.7942	96.7945	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947	96.7947
2	96.6979	96.6968	96.7186	97.0238	97.3653	97.7906	98.0685	98.4532	98.7477	99.0448	99.4312	99.6650	99.9613
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.8032	99.8093	99.8593	0.0629	0.2152	0.3904	0.5114	0.6906	0.6980	0.6207	0.5402	0.5088	0.4789
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0002	99.9957	99.9614	99.8485	99.7654	99.6496	99.5814	99.6667	99.7322	99.7142	99.6804	99.6664	99.6532
6	99.9569	99.9465	99.8717	99.6220	99.4098	99.1496	99.1843	99.4110	99.4677	99.4308	99.3826	99.3637	99.3455

(Continued)
T = 25000

-LOG W	8.00	9.00	10.00	0.00	1.00	2.00	3.00	4.00	4.50	5.00	5.25	5.50
LOG X	4.00	5.00	6.00	-5.00	-4.00	-3.00	-2.00	-1.00	-0.50	0.00	0.25	0.50
LOG E(I)												
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	93.3369	92.3369	91.3369	98.5529	98.5525	98.5477	98.4898	98.1117	97.7425	97.3011	97.0656	96.8245
3	89.9646	88.9610	87.9606	98.4269	98.4252	98.4081	98.2621	97.5583	96.9081	96.1168	95.1185	95.2415
4	90.0747	89.0744	88.0744	98.4337	98.4312	98.4065	98.2009	97.2626	96.4419	95.4629	94.8125	94.3488
5	90.1983	89.1983	88.1983	98.4643	98.4612	98.4312	98.1853	97.1187	96.2098	95.1129	94.4015	93.8268
6	90.2810	89.2809	88.2809	98.4983	98.4945	98.4583	98.1686	96.9568	95.9163	94.6861	94.6268	93.8913
+	11.0447	10.0447	9.0447	19.3428	18.3421	17.3347	16.2781	15.1270	14.5773	14.0559	13.8012	13.5484
LOG BN(I)												
I=1	8.1938	9.1938	10.1938	99.8957	0.8965	1.9038	2.9604	4.1115	4.6612	5.1826	5.4374	5.6902
2	2.9847	2.9847	2.9847	99.9026	0.9029	1.9055	2.9042	3.6772	3.8576	3.9377	3.9569	3.9686
3	99.6408	99.6372	99.6369	99.8051	0.8041	1.7944	2.7050	3.1523	3.0517	2.7835	2.6084	2.4141
4	99.6343	99.6340	99.6340	99.6952	0.6934	1.6762	2.5271	2.7399	2.4689	2.0103	1.7246	1.4047
5	99.6258	99.6257	99.6257	99.5936	0.5913	1.5686	2.3793	2.4638	2.1047	1.5290	1.1691	0.7506
6	99.5836	99.5836	99.5835	99.5028	0.4998	1.4709	2.2378	2.1771	1.6863	0.9182	0.4374	99.9943
LOG BETA(I,J)												
I=1 J=6	97.8382	97.8382	97.8382	96.8346	96.8346	96.8347	96.8350	96.8367	96.8376	96.8379	96.8380	96.8381
2	99.9999	0.0000	0.0000	97.2346	97.2347	97.2363	97.2770	97.6367	98.0041	98.4452	98.6808	98.9219
3	0.0000	0.0000	0.0000	96.6400	96.6409	96.6503	96.7515	97.3875	98.0217	98.8039	99.2309	99.6215
4	0.0000	0.0000	0.0000	95.9091	95.9104	95.9230	96.0585	96.8754	97.6507	98.5986	99.1281	99.6342
5	0.0000	0.0000	0.0000	95.8762	95.8773	95.8892	96.0312	96.9028	97.7192	98.7392	99.3204	99.7967
I=1 J=5	97.5825	97.5825	97.5825	96.5791	96.5791	96.5791	96.5794	96.5811	96.5819	96.5823	96.5824	96.5825
2	99.9998	0.0000	0.0000	96.9204	96.9204	96.9216	96.9591	97.3103	97.6753	98.1152	98.3508	98.5918
3	0.0000	0.0000	0.0000	96.2041	96.2050	96.2140	96.3090	96.9197	97.5424	98.3155	98.7400	99.1823
4	0.0000	0.0000	0.0000	95.1470	95.1483	95.1614	95.2934	96.0836	96.8418	97.7647	98.2786	98.8245
I=1 J=4	96.2521	96.2521	96.2521	96.2521	96.2521	96.2523	96.2539	96.2547	96.2551	96.2551	96.2551	96.2551
2	99.9995	99.9999	99.0000	96.4781	96.4781	96.4784	96.5098	96.8458	97.2056	97.6435	97.8783	98.1191
3	0.0000	0.0000	0.0000	95.4433	95.4440	95.4512	95.5318	96.0919	96.6902	97.4449	97.8613	98.2968
I=1 J=3	96.7947	96.7947	96.7947	95.7921	95.7921	95.7921	95.7922	95.7935	95.7942	95.7945	95.7946	95.7946
2	99.9961	99.9996	99.0000	95.6981	95.6979	95.6967	95.7186	96.0237	96.3653	96.7907	97.0217	97.2597
I=1 J=2	96.0000	96.0000	96.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)												
I=3	0.4759	0.4755	0.4755	99.8026	99.8032	99.8093	99.8593	0.0630	0.2153	0.3931	0.4998	0.6227
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6519	99.6517	99.6517	0.0007	0.0002	99.9957	99.9614	99.8485	99.7654	99.6507	99.5770	99.4787
6	99.3437	99.3435	99.3435	99.9580	99.9569	99.9465	99.8717	99.6221	99.4098	99.1496	98.9092	98.7864

(Continued)													
T = 25000													
LOG BETA0(1,2) = -5.00													
-LOG W	5.75	6.00	6.25	6.50	6.75	7.00	7.30	7.70	8.00	9.00	10.00	11.00	12.00
LOG X	0.75	1.00	1.25	1.50	1.75	2.00	2.30	2.70	3.00	4.00	5.00	6.00	7.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.5798	96.3331	96.0849	95.8360	95.5866	95.3369	95.0872	94.8375	94.5878	93.3373	92.3373	91.3373	90.3373
3	94.7793	94.3035	93.8142	93.3092	92.7942	92.2745	91.7526	91.2245	90.6959	90.3045	89.0007	87.9652	86.9612
4	93.7436	93.0996	92.4537	91.9567	91.5833	91.2551	90.8846	90.4251	90.1014	89.0779	88.0755	87.0752	86.0752
5	93.1187	92.5305	92.1387	91.8278	91.5358	91.2544	90.9294	90.5119	90.2057	89.2000	88.1994	87.1993	86.1993
6	92.7323	92.4051	92.1161	91.8381	91.5675	91.3035	90.9933	90.5868	90.2845	89.2824	88.2822	87.2822	86.2822
+	13.2968	13.0459	12.7954	12.5451	12.2949	12.0448	11.7448	11.3447	11.0447	10.0447	9.0447	8.0447	7.0447
LOG BN(I)													
I=1	5.9418	6.1927	6.4432	6.6935	6.9436	7.1937	7.4938	7.8938	8.1938	9.1938	10.1938	11.1938	12.1938
2	3.9756	3.9797	3.9820	3.9834	3.9842	3.9846	3.9849	3.9850	3.9851	3.9851	3.9851	3.9851	3.9851
3	2.2035	1.9786	1.7398	1.4851	1.2202	0.9506	0.6288	0.2222	99.9807	99.6770	99.6415	99.6379	99.6375
4	1.0512	0.6580	0.2627	0.0160	99.8927	99.8146	99.7441	99.6847	99.6610	99.6375	99.6351	99.6348	99.6348
5	0.2941	99.9568	99.8155	99.7549	99.7131	99.6817	99.6568	99.6394	99.6332	99.6274	99.6268	99.6267	99.6267
6	99.7829	99.7066	99.6681	99.6404	99.6199	99.6059	99.5959	99.5894	99.5871	99.5850	99.5848	99.5848	99.5848
LOG BETA(I,J)													
I=1 J=6	96.8381	96.8381	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.1661	99.4041	99.6094	99.7601	99.8584	99.9182	99.9583	99.9832	99.9992	99.9999	99.9999	99.9999	99.9999
3	99.8524	99.9486	99.9831	99.9947	99.9984	99.9995	99.9999	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.8973	99.9771	99.9954	99.9988	99.9996	99.9998	99.9999	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9634	99.9936	99.9982	99.9992	99.9997	99.9998	99.9999	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	98.8364	99.0831	99.3273	99.5478	99.7175	99.8316	99.9125	99.9644	99.9820	99.9982	99.9998	99.9998	99.9998
3	99.5955	99.8448	99.9475	99.9834	99.9949	99.9985	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.3993	99.8257	99.9651	99.9915	99.9971	99.9988	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2552	96.2552	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.2625	98.6102	98.8583	99.1071	99.3513	99.5681	99.7580	99.8971	99.9473	99.9946	99.9995	99.9999	99.9999
3	98.7497	99.2170	99.6383	99.8723	99.9599	99.9880	99.9973	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.5023	97.7479	97.9953	98.2437	98.4929	98.7424	99.0421	99.4301	99.6644	99.9612	99.9961	99.9996	99.9999
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.7639	0.9310	1.0867	1.0785	0.9418	0.7830	0.6415	0.5432	0.5095	0.4788	0.4757	0.4754	0.4754
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.3759	99.4317	99.6818	99.8396	99.8466	99.7906	99.7271	99.6820	99.6669	99.6534	99.6521	99.6519	99.6519
6	98.9282	99.2364	99.5504	99.6714	99.6281	99.5353	99.4460	99.3847	99.3642	99.3459	99.3441	99.3439	99.3439
T = 30000													
LOG BETA0(1,2) = 1.00						LOG BETA0(1,2) = 0.00							
-LOG W	0.00	5.00	10.00										
LOG X	1.00	6.00	11.00	0.00	1.00	2.00	5.00	10.00					
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
2	97.6750	92.7111	87.7111	97.8430	96.8874	95.8924	92.8930	87.8930					
3	97.9445	93.0384	88.0384	97.9654	97.0455	96.0551	93.0562	88.0562					
4	98.1397	93.2964	88.2964	98.1487	97.2821	96.2993	93.3012	88.3012					
5	98.2748	93.4880	88.4880	98.2852	97.4625	96.4871	93.4899	88.4899					
6	98.3618	93.6169	88.6169	98.3699	97.5835	96.6142	93.6178	88.6178					
+	19.6797	14.6272	9.6272	19.6858	18.6354	17.6281	14.6272	9.6272					
LOG BN(I)													
I=1	0.1345	5.1870	10.1870	0.1284	1.1788	2.1861	5.1870	10.1870					
2	98.9207	99.0093	99.0093	99.0827	99.1775	99.1898	99.1912	99.1912					
3	99.1553	99.3017	99.3017	99.1701	99.3007	99.3176	99.3195	99.3195					
4	99.2118	99.4209	99.4209	99.2146	99.3985	99.4230	99.4258	99.4258					
5	99.2044	99.4701	99.4701	99.2087	99.4364	99.4683	99.4720	99.4720					
6	99.1610	99.4686	99.4686	99.1630	99.4270	99.4650	99.4695	99.4695					
LOG BETA(I,J)													
I=1 J=6	99.9997	99.9997	99.9997	99.9968	99.9969	99.9969	99.9969	99.9969					
2	0.0000	0.0000	0.0000	99.9998	0.0000	0.0000	0.0000	0.0000					
3	99.9999	0.0000	0.0000	99.9991	0.0000	0.0000	0.0000	0.0000					
4	99.9993	0.0000	0.0000	99.9926	99.9996	0.0000	0.0000	0.0000					
5	99.9989	0.0000	0.0000	99.9881	99.9991	99.9999	0.0000	0.0000					
I=1 J=5	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9943	99.9943					
2	0.0000	0.0000	0.0000	99.9997	0.0000	0.0000	0.0000	0.0000					
3	99.9998	0.0000	0.0000	99.9941	99.9999	0.0000	0.0000	0.0000					
4	99.9968	0.0000	0.0000	99.9689	99.9989	0.0000	0.0000	0.0000					
I=1 J=4	99.9988	99.9988	99.9988	99.9880	99.9880	99.9880	99.9880	99.9880					
2	0.0000	0.0000	0.0000	99.9991	99.9999	0.0000	0.0000	0.0000					
3	99.9993	0.0000	0.0000	99.9911	99.9998	0.0000	0.0000	0.0000					
I=1 J=3	99.9965	99.9965	99.9965	99.9656	99.9656	99.9656	99.9656	99.9656					
2	0.0000	0.0000	0.0000	99.9948	99.9995	0.0000	0.0000	0.0000					
I=1 J=2	99.9785	99.9785	99.9785	99.8008	99.8008	99.8008	99.8008	99.8008					
LOG F(I)/F(4)													
I=3	0.3940	0.3313	0.3313	0.4017	0.3523	0.3452	0.3443	0.3443					
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					
5	99.6629	99.7195	99.7195	99.6650	99.7083	99.7156	99.7165	99.7165					
6	99.3590	99.4574	99.4574	99.3589	99.4383	99.4519	99.4535	99.4535					

BALMER DECREMENTS

T = 30000 LOG BETA(1,2) = -1.00										
-LOG W	0.00	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	
LOG X	-1.00	0.00	0.50	1.00	1.50	2.00	3.00	4.00	9.00	
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	98.4759	97.6952	97.2186	96.7263	96.2288	95.7295	94.7299	93.7299	88.7299	
3	98.2249	97.2242	96.7024	96.1934	95.6903	95.1893	94.1889	93.1889	88.1889	
4	98.2833	97.3430	96.8437	96.3441	95.8442	95.3442	94.3443	93.3443	88.3443	
5	98.3984	97.4983	97.0047	96.5069	96.0076	95.5079	94.5079	93.5080	88.5080	
6	98.4621	97.6066	97.1199	96.6244	96.1258	95.6263	94.6264	93.6265	88.6265	
+	19.7496	18.6468	18.1337	17.6293	17.1279	16.6276	15.6272	14.6272	9.6272	
LOG BN(I)										
I=1	0.0646	1.1674	1.6805	2.1849	2.6863	3.1868	4.1870	5.1870	10.1870	
2	99.6518	99.9799	99.9114	99.8225	99.7264	99.6275	99.5281	99.4282	99.3282	
3	99.3659	99.4680	99.4562	99.4547	99.4530	99.4525	99.4522	99.4522	99.4522	
4	99.2854	99.4480	99.4617	99.4665	99.4681	99.4686	99.4688	99.4688	99.4688	
5	99.2581	99.4608	99.4803	99.4869	99.4890	99.4897	99.4900	99.4900	99.4900	
6	99.1914	99.4387	99.4651	99.4740	99.4768	99.4777	99.4781	99.4781	99.4781	
LOG BETA(I,J)										
I=1 J=6	99.9687	99.9688	99.9688	99.9689	99.9689	99.9689	99.9689	99.9689	99.9689	
2	99.9896	99.9982	99.9994	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	
3	99.9751	99.9983	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	
4	99.8777	99.9918	99.9977	99.9993	99.9998	99.9999	0.0000	0.0000	0.0000	
5	99.8197	99.9865	99.9962	99.9989	99.9996	99.9999	0.0000	0.0000	0.0000	
I=1 J=5	99.9441	99.9444	99.9444	99.9444	99.9444	99.9445	99.9445	99.9445	99.9445	
2	99.9784	99.9963	99.9988	99.9996	99.9999	0.0000	0.0000	0.0000	0.0000	
3	99.9367	99.9955	99.9988	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	
4	99.5422	99.9668	99.9909	99.9973	99.9991	99.9997	0.0000	0.0000	0.0000	
I=1 J=4	99.8842	99.8848	99.8849	99.8849	99.8849	99.8849	99.8849	99.8849	99.8849	
2	99.9389	99.9891	99.9963	99.9988	99.9996	99.9999	0.0000	0.0000	0.0000	
3	99.6539	99.9707	99.9925	99.9978	99.9993	99.9998	0.0000	0.0000	0.0000	
I=1 J=3	99.6958	99.6970	99.6972	99.6972	99.6972	99.6973	99.6973	99.6973	99.6973	
2	99.6531	99.9259	99.9744	99.9916	99.9973	99.9992	99.9999	0.0000	0.0000	
I=1 J=2	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	
LOG F(I)/F(4)										
I=3	0.2452	0.4074	0.4260	0.4315	0.4332	0.4337	0.4339	0.4340	0.4340	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.6826	99.6903	99.6913	99.6915	99.6915	99.6915	99.6915	99.6915	99.6915	
6	99.3664	99.4096	99.4162	99.4182	99.4188	99.4190	99.4191	99.4191	99.4191	
T = 30000 LOG BETA(1,2) = -2.00										
-LOG W	0.00	1.00	2.00	2.50	3.00	3.50	4.00	5.00	6.00	10.00
LOG X	-2.00	-1.00	0.00	0.50	1.00	1.50	2.00	3.00	4.00	8.00
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.8123	98.4932	97.7565	97.2980	96.8116	96.3156	95.8168	94.8173	93.8174	89.8174
3	98.6846	98.1520	96.9383	96.1916	95.5120	94.9438	94.4206	93.4107	92.4097	88.4096
4	98.6720	97.9897	96.6836	96.1506	95.5156	95.0075	94.5053	93.5044	92.5043	88.5043
5	98.6925	97.9732	96.7095	96.1337	95.6169	95.1125	94.6112	93.6106	92.6106	88.6105
6	98.7250	97.9729	96.7270	96.1972	95.6903	95.1883	94.6876	93.6876	92.6876	88.6874
+	19.8695	18.7308	17.6434	17.1326	16.6289	16.1278	15.6276	14.6272	13.6272	9.6272
LOG BN(I)										
I=1	99.9447	1.0834	2.1708	2.6816	3.1852	3.6864	4.1868	5.1870	6.1870	10.1870
2	99.8683	0.6879	1.0386	1.0909	1.1081	1.1133	1.1149	1.1155	1.1156	1.1156
3	99.7057	0.3118	0.1854	99.9396	99.7736	99.7066	99.6838	99.6741	99.6731	99.6730
4	99.5543	0.0107	99.7920	99.6697	99.6284	99.6215	99.6297	99.6289	99.6289	99.6289
5	99.4323	99.8517	99.6754	99.6104	99.5973	99.5940	99.5931	99.5927	99.5926	99.5926
6	99.3344	99.7210	99.5625	99.5435	99.5402	99.5394	99.5391	99.5390	99.5390	99.5390
LOG BETA(I,J)										
I=1 J=6	99.7187	99.7204	99.7219	99.7222	99.7222	99.7223	99.7223	99.7223	99.7223	99.7223
2	99.7873	99.8873	99.9782	99.9924	99.9975	99.9992	99.9997	0.0000	0.0000	0.0000
3	99.3608	99.7245	99.9809	99.9971	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000
4	98.6556	99.2785	99.9513	99.9915	99.9978	99.9993	99.9998	0.0000	0.0000	0.0000
5	98.6402	99.2760	99.9450	99.9895	99.9971	99.9991	99.9997	0.0000	0.0000	0.0000
I=1 J=5	99.5445	99.5470	99.5490	99.5493	99.5495	99.5495	99.5495	99.5495	99.5495	99.5495
2	99.6035	99.7749	99.9539	99.9837	99.9947	99.9983	99.9995	99.9999	0.0000	0.0000
3	98.9252	99.3745	99.9445	99.9915	99.9985	99.9997	99.9999	0.0000	0.0000	0.0000
4	97.8842	98.5030	99.7503	99.9552	99.9887	99.9966	99.9989	99.9999	0.0000	0.0000
I=1 J=4	99.2479	99.2505	99.2530	99.2534	99.2535	99.2536	99.2536	99.2536	99.2536	99.2536
2	99.2098	99.4657	99.8689	99.9524	99.9843	99.9949	99.9984	99.9998	0.0000	0.0000
3	98.1577	98.5632	99.6567	99.9413	99.9905	99.9979	99.9994	0.0000	0.0000	0.0000
I=1 J=3	98.7900	98.7920	98.7941	98.7945	98.7946	98.7947	98.7947	98.7947	98.7947	98.7947
2	98.4347	98.6809	99.3473	99.6980	99.8904	99.9638	99.9884	99.9988	99.9999	0.0000
I=1 J=2	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000
LOG F(I)/F(4)										
I=3	99.8269	99.9668	0.3224	0.4660	0.4919	0.4945	0.4947	0.4947	0.4947	0.4947
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9420	99.8205	99.6388	99.6423	99.6306	99.6362	99.6348	99.6341	99.6341	99.6341
6	99.7674	99.5416	99.2896	99.3235	99.3248	99.3219	99.3206	99.3200	99.3199	99.3199

T = 30000 LOG BETA0(1,2) = -3.00

-LOG W	0.00	1.00	2.00	2.50	3.00	3.30	3.70	4.00	4.50	5.00	6.00	7.00	10.00
LOG X	-3.00	-2.00	-1.00	-0.50	0.00	0.30	0.70	1.00	1.50	2.00	3.00	4.00	7.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.8684	98.8139	98.5023	98.1805	97.7755	97.5072	97.1309	96.8401	96.3464	95.8481	94.8487	93.8487	90.8487
3	98.7843	98.6836	98.1492	97.6191	96.9381	96.4657	95.7785	95.2191	94.3083	93.5875	92.4779	91.4663	88.4650
4	98.8020	98.6709	97.9810	97.3105	96.4742	95.9168	95.1643	94.6962	94.1038	93.5820	92.5736	91.5728	88.5727
5	98.8362	98.6827	97.8990	97.1600	96.2680	95.7198	95.0859	94.7260	94.2004	93.6942	92.6918	91.6916	88.6916
6	98.8692	98.6918	97.8134	96.9995	96.0564	95.5775	95.0965	94.7806	94.2723	93.7700	92.7690	91.7689	88.7689
+	19.9099	18.8685	17.7304	17.1721	16.6435	16.3357	15.9307	15.6290	15.1278	14.6274	13.6272	12.6272	9.6272
LOG BN(I)													
I=1	99.9043	0.9456	2.0838	2.6421	3.1706	3.4785	3.8835	4.1852	4.6864	5.1868	6.1870	7.1870	10.1870
2	99.8840	0.8708	1.6974	1.9339	2.0575	2.0970	2.1257	2.1366	2.1441	2.1462	2.1469	2.1470	2.1470
3	99.7649	0.7056	1.3093	1.3376	1.1851	1.0205	0.7384	0.4807	0.0711	99.8506	99.7412	99.7297	99.7284
4	99.6438	0.5541	1.0024	0.8902	0.5824	0.3328	99.9854	99.8190	99.7277	99.7053	99.6982	99.6974	99.6973
5	99.5356	0.4235	0.7779	0.5972	0.2338	99.9933	99.7645	99.7063	99.6819	99.6761	99.6739	99.6737	99.6736
6	99.4381	0.3022	0.5619	0.3062	99.8917	99.7207	99.6447	99.6305	99.6234	99.6214	99.6206	99.6206	99.6205
LOG BETA(I,J)													
I=1 J=6	98.8309	98.8316	98.8348	98.8365	98.8375	98.8378	98.8380	98.8381	98.8381	98.8381	98.8382	98.8382	98.8382
2	98.9213	98.9636	99.2892	99.5375	99.7884	99.8809	99.9485	99.9734	99.9914	99.9973	99.9997	99.9997	99.9997
3	98.2842	98.3562	98.8194	99.3212	99.7986	99.9281	99.9852	99.9961	99.9996	99.9999	0.0000	0.0000	0.0000
4	97.5394	97.6265	98.2033	98.8258	99.5921	99.8738	99.9819	99.9954	99.9991	99.9998	0.0000	0.0000	0.0000
5	97.4968	97.5870	98.2046	98.8627	99.6457	99.9007	99.9862	99.9955	99.9989	99.9997	0.0000	0.0000	0.0000
I=1 J=5	98.5756	98.5762	98.5792	98.5809	98.5819	98.5822	98.5824	98.5824	98.5824	98.5825	98.5825	98.5825	98.5825
2	98.6098	98.6500	98.9283	99.2394	99.5954	99.7598	99.8924	99.9437	99.9817	99.9942	99.9994	99.9999	99.9999
3	97.8922	97.9211	98.3637	98.8555	99.4935	99.7929	99.9547	99.9879	99.9988	99.9998	0.0000	0.0000	0.0000
4	96.7826	96.8680	97.4235	98.0298	98.8262	99.3820	99.8831	99.9721	99.9954	99.9988	99.9999	0.0000	0.0000
I=1 J=4	98.2489	98.2494	98.2521	98.2537	98.2546	98.2549	98.2551	98.2552	98.2552	98.2553	98.2553	98.2553	98.2553
2	98.1717	98.2084	98.4715	98.7760	99.1720	99.4270	99.7082	99.8402	99.9287	99.9983	99.9983	99.9998	0.0000
3	97.0966	97.1586	97.5620	98.0255	98.6604	99.1151	99.6951	99.9101	99.9911	99.9988	99.9999	0.0000	0.0000
I=1 J=3	97.7896	97.7899	97.7919	97.7933	97.7941	97.7944	97.7946	97.7946	97.7947	97.7947	97.7947	97.7947	97.7947
2	97.4008	97.4317	97.6689	97.9536	98.3320	98.5895	98.9568	99.2422	99.6596	99.8790	99.9873	99.9987	0.0000
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000
LOG F(I)/F(4)													
I=3	99.8008	99.8253	99.9548	0.0755	0.2132	0.3008	0.4521	0.5142	0.5072	0.4911	0.4826	0.4818	0.4817
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0001	99.9813	99.9026	99.8408	99.7451	99.6637	99.6336	99.6611	99.6599	99.6516	99.6472	99.6467	99.6467
6	99.9537	99.9130	99.7469	99.5874	99.3356	99.2515	99.3093	99.3544	99.3506	99.3394	99.3337	99.3331	99.3331

T = 30000 LOG BETA0(1,2) = -4.00

-LOG W	0.00	1.00	2.00	3.00	4.00	4.30	4.70	5.00	5.30	5.70	6.00	6.50	7.00
LOG X	-4.00	-3.00	-2.00	-1.00	0.00	0.30	0.70	1.00	1.30	1.70	2.00	2.50	3.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.8744	98.8684	98.8138	98.5023	97.7765	97.5083	97.1325	96.8420	96.5473	96.1506	95.8517	95.3524	94.8526
3	98.7956	98.7843	98.6835	98.1492	96.9390	96.4728	95.7953	95.2509	94.6759	93.8561	93.2324	91.5964	88.5964
4	98.8167	98.8020	98.6708	97.9811	96.4671	95.8938	95.0575	94.3777	93.6987	93.0411	92.6635	92.1083	91.5897
5	98.8536	98.8362	98.6826	97.8990	96.2306	95.5933	94.6542	93.9927	93.5156	93.0442	92.7232	92.2087	91.7040
6	98.8895	98.8692	98.6918	97.8129	95.9306	95.1920	94.2942	93.8641	93.5197	93.0966	92.7890	92.2837	91.7820
+	19.9149	18.9099	17.8685	16.7304	15.6435	15.3357	14.9307	14.6290	14.3281	13.9276	13.6274	13.1273	12.6272
LOG BN(I)													
I=1	99.8992	0.9043	1.9457	3.0838	4.1706	4.4785	4.8835	5.1852	5.4861	5.8866	6.1868	6.6869	7.1870
2	99.8849	0.8840	1.8708	2.6974	3.0584	3.0981	3.1273	3.1385	3.1446	3.1485	3.1498	3.1506	3.1508
3	99.7712	0.7649	1.7055	2.3094	2.1860	2.0276	1.7551	1.5124	1.2415	0.8399	0.5282	0.0875	99.8597
4	99.6535	0.6438	1.5540	2.0024	1.5753	1.3099	0.8786	0.5005	0.1223	99.8653	99.7878	99.7328	99.7142
5	99.5479	0.5356	1.4234	1.7779	1.1964	0.8669	0.3328	99.9730	99.7968	99.7259	99.7051	99.6907	99.6860
6	99.4534	0.4381	1.3021	1.5613	0.7659	0.3352	99.8423	99.7140	99.6704	99.6479	99.6405	99.6353	99.6336
LOG BETA(I,J)													
I=1 J=6	97.8309	97.8309	97.8316	97.8348	97.8375	97.8378	97.8380	97.8381	97.8381	97.8381	97.8381	97.8382	97.8382
2	97.9171	97.9213	97.9637	98.2506	98.9700	99.2367	99.5740	99.7571	99.8699	99.9461	99.9726	99.9913	99.9972
3	97.2767	97.2842	97.3563	97.8196	98.9903	99.4388	99.8480	99.9547	99.9878	99.9981	99.9996	0.0000	0.0000
4	96.5306	96.5394	96.6267	97.2031	98.6238	99.1771	99.8043	99.9590	99.9929	99.9989	99.9996	99.9999	0.0000
5	96.4881	96.4968	96.5871	97.2039	98.6947	99.2842	99.8818	99.9814	99.9961	99.9991	99.9996	99.9999	0.0000
I=1 J=5	97.5756	97.5756	97.5762	97.5792	97.5819	97.5822	97.5824	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825
2	97.6057	97.6098	97.6501	97.9282	98.6412	98.9085	99.2815	99.5430	99.7390	99.8875	99.9422	99.9814	99.9941
3	96.8449	96.8522	96.9213	97.3640	98.5106	98.9664	99.5896	99.8633	99.9620	99.9941	99.9986	99.9999	0.0000
4	95.7737	95.7826	95.8681	96.4236	97.8139	98.3540	99.1487	99.7207	99.9488	99.9930	99.9978	99.9996	99.9999
I=1 J=4	97.2889	97.2889	97.2894	97.2914	97.2946	97.2949	97.2951	97.2952	97.2952	97.2953	97.2953	97.2953	97.2953
2	97.1681	97.1717	97.2085	97.4714	98.1715	98.4372	98.8115	99.1014	99.3882	99.6960	99.8360	99.9455	99.9825
3	96.0900	96.0966	96.1587	96.5624	97.6579	98.1025	98.7578	99.2866	99.7305	99.9542	99.9893	99.9991	99.9999
I=1 J=3	96.7895	96.7896	96.7899	96.7919	96.7941	96.7944	96.7946	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947
2	96.3979	96.4008	96.4318	96.6687	97.3311	97.5887	97.9595	98.2421	98.5345	98.9296	99.2268	99.6547	99.8775
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.7980	99.8008	99.8253										

BALMER DECREMENTS

(Continued)
T = 30000

LOG BETA(1,2) = -4.00 LOG BETA(1,2) = -5.00

-LOG W	8.00	9.00	10.00	0.00	1.00	2.00	3.00	4.00	5.00	5.50	6.00	6.25
LOG X	4.00	5.00	6.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	0.50	1.00	1.25
LOG E(I)												
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	93.8526	92.8526	91.8526	98.8750	98.8744	98.8684	98.8138	98.5023	97.7765	97.3224	96.8419	96.5965
3	90.4846	89.4728	88.4716	98.7968	98.7956	98.7883	98.6835	98.1493	96.3300	96.1430	95.2656	94.8037
4	90.5817	89.5809	88.5808	98.8182	98.8167	98.8020	98.6708	97.9811	96.4671	95.4851	94.3740	93.7700
5	90.7020	89.7018	88.7018	98.8554	98.8536	98.8362	98.6827	97.8990	96.2307	95.1338	93.8520	93.1424
6	90.7813	89.7812	88.7812	98.8915	98.8895	98.8692	98.6918	97.8129	95.9306	94.6442	93.2087	92.7374
+	11.6272	10.6272	9.6272	19.9155	18.9149	17.9099	16.8685	15.7304	14.6436	14.1327	13.6290	13.3782
LOG BN(I)												
I=1	8.1870	9.1870	10.1870	99.8987	0.8992	1.9043	2.9457	4.0838	5.1716	5.6815	6.1852	6.4360
2	3.1509	3.1509	3.1509	99.8850	0.8849	1.8840	2.8708	3.6794	4.0584	4.1152	4.1384	4.1438
3	99.7479	99.7361	99.7350	99.7719	0.7712	1.7649	2.7055	3.3094	3.1860	2.9009	2.5271	2.3161
4	99.7062	99.7054	99.7053	99.6545	0.6535	1.6438	2.5540	3.0024	2.5753	2.1042	1.4968	1.1435
5	99.6641	99.6839	99.6839	99.5442	0.5479	1.5356	2.4234	2.7779	2.1964	1.6104	0.8323	0.3734
6	99.6329	99.6329	99.6328	99.4549	0.4534	1.4381	2.3021	2.5613	1.7659	0.9904	0.0586	99.8380
LOG BETA(I,J)												
I=1 J=6	97.8382	97.8382	97.8382	96.8309	96.8309	96.8309	96.8316	96.8348	96.8375	96.8379	96.8381	96.8381
2	99.9907	0.0000	0.0000	96.0167	96.0171	96.0213	96.0637	97.2506	97.9700	98.4239	98.9045	99.1496
3	0.0000	0.0000	0.0000	96.2760	96.2767	96.2841	96.3563	96.8197	97.9903	98.7793	99.6042	99.8444
4	0.0000	0.0000	0.0000	95.5297	95.5306	95.5394	95.6266	96.2031	97.6238	98.5750	99.6163	99.8910
5	0.0000	0.0000	0.0000	95.4873	95.4881	95.4968	95.5871	96.2039	97.6948	98.7171	99.7847	99.9608
I=1 J=5	97.5825	97.5825	97.5825	96.5755	96.5756	96.5756	96.5762	96.5792	96.5819	96.5823	96.5824	96.5825
2	99.9994	99.9999	0.0000	96.6293	96.6297	96.6298	96.6301	96.6282	96.6282	96.6282	96.6282	96.6282
3	0.0000	0.0000	0.0000	95.8442	95.8449	95.8522	95.9212	96.3624	97.5106	98.2908	99.1584	99.5772
4	0.0000	0.0000	0.0000	94.7728	94.7737	94.7826	94.8681	95.4236	96.8139	97.7406	98.7992	99.3744
I=1 J=4	97.2553	97.2553	97.2553	96.2488	96.2489	96.2489	96.2494	96.2521	96.2546	96.2551	96.2552	96.2552
2	99.9982	99.9998	0.0000	96.1677	96.1681	96.1717	96.2085	96.4714	97.1715	97.6222	98.1017	98.3469
3	0.0000	0.0000	0.0000	95.0894	95.0900	95.0966	95.1587	95.5624	96.6579	97.4201	98.2729	98.7254
4	0.0000	0.0000	0.0000	95.7895	95.7895	95.7896	95.7896	95.7919	95.7941	95.7945	95.7946	95.7947
I=1 J=3	96.7947	96.7947	96.7947	95.3976	95.3979	95.4008	95.4318	95.6687	96.3311	96.7695	97.2424	97.4858
2	99.9872	99.9987	99.9999	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
I=1 J=2	96.0000	96.0000	96.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)												
I=3	0.4812	0.4802	0.4801	99.7978	99.7980	99.8008	99.8253	99.9548	0.2208	0.3945	0.6216	0.7620
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6493	99.6489	99.6488	0.0026	0.0024	0.0001	99.9813	99.9025	99.7610	99.6485	99.4786	99.3732
6	99.3380	99.3374	99.3373	99.9591	99.9586	99.9537	99.9130	99.7479	99.3989	99.0977	98.7745	98.9070

(Continued)
T = 30000

LOG BETA(1,2) = -5.00

-LOG W	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.56	9.00	10.00	11.00	12.00
LOG X	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50	4.00	5.00	6.00	7.00
LOG E(I)												
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.3492	96.1009	95.8519	95.6024	95.3527	95.1028	94.8529	94.2530	93.8530	92.8530	91.8530	90.8530
3	94.3283	93.8907	93.3356	92.8211	92.2017	91.7831	91.2700	90.3258	89.5973	88.1852	87.4735	86.4723
4	93.1277	92.4776	91.9721	91.5949	91.2655	90.9544	90.6588	90.1087	89.5905	88.5825	87.5817	86.5816
5	92.5445	92.1463	91.8339	91.5415	91.2595	90.9873	90.7231	90.2095	89.7050	88.7030	87.7028	86.7028
6	92.4075	92.1180	91.8397	91.5687	91.3044	91.0453	90.7899	90.2848	89.7832	88.7825	87.7825	86.7824
+	13.1278	12.8775	12.6274	12.3773	12.1273	11.8772	11.6272	11.1272	10.6272	9.6272	8.6272	7.6272
LOG BN(I)												
I=1	6.6864	6.9367	7.1868	7.4369	7.6869	7.9369	8.1870	8.6870	9.1870	10.1870	11.1870	12.1870
2	4.1470	4.1488	4.1499	4.1505	4.1509	4.1511	4.1512	4.1513	4.1513	4.1513	4.1513	4.1513
3	2.0911	1.8527	1.5987	1.3344	1.0650	0.7964	0.5333	0.0892	99.8606	99.7486	99.7368	99.7356
4	0.7517	0.3518	0.0965	99.9693	99.8900	99.8289	99.7833	99.7332	99.7150	99.7070	99.7062	99.7061
5	0.0260	99.8781	99.8158	99.7735	99.7415	99.7193	99.7052	99.6916	99.6870	99.6851	99.6849	99.6849
6	99.7586	99.7193	99.6912	99.6702	99.6559	99.6469	99.6415	99.6365	99.6349	99.6342	99.6341	99.6341
LOG BETA(I,J)												
I=1 J=6	96.8381	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.3892	99.5978	99.7522	99.8534	99.9153	99.9516	99.9725	99.9913	99.9972	99.9997	0.0000	0.0000
3	99.9456	99.9821	99.9944	99.9983	99.9995	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9754	99.9951	99.9987	99.9995	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9932	99.9981	99.9992	99.9996	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	99.0670	99.3120	99.5350	99.7085	99.8259	99.8988	99.9420	99.9814	99.9941	99.9994	99.9999	99.9999
3	99.8363	99.9444	99.9824	99.9946	99.9984	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.8138	99.9625	99.9910	99.9969	99.9988	99.9995	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2552	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.5940	98.8424	99.0913	99.3363	99.5559	99.7235	99.8355	99.9454	99.9825	99.9982	99.9998	0.0000
3	99.1926	99.6205	99.9774	99.9872	99.9962	99.9989	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.7317	97.9793	98.2279	98.4771	98.7267	98.9764	99.2252	99.6542	99.8774	99.9872	99.9987	99.9999
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)												
I=3	0.9276	1.0884	1.0894	0.9564	0.7963	0.6709	0.5902	0.5152	0.4911	0.4810	0.4800	0.4799
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.4176	99.6661	99.8334	99.8467	99.7918	99.7360	99.6987	99.6646	99.6539	99.6496	99.6491	99.6491
6	99.2119	99.5327	99.6655	99.6279	99.5351	99.4559	99.4050	99.3589	99.3444	99.3384	99.3378	99.3378

T = 35000		LOG BETA0(1,2) = 1.00				LOG BETA(1,2) = 0.00				
-LOG W	0.00	1.00	5.00	10.00	0.00	1.00	2.00	5.00	10.00	
LOG X	1.00	2.00	6.00	11.00	0.00	1.00	2.00	5.00	10.00	
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	98.0410	97.0841	93.0897	88.0897	98.2035	97.2638	96.2707	93.2715	88.2715	
3	98.2965	97.3974	93.4114	88.4114	98.3193	97.4161	96.4279	93.4292	88.4292	
4	98.4811	97.6415	93.6655	88.6655	98.4917	97.6470	96.6679	93.6703	88.6703	
5	98.6085	97.8195	93.8533	88.8533	98.6240	97.8228	96.8518	93.8552	88.8552	
6	98.6907	97.9383	93.9801	88.9801	98.7023	97.9406	96.9767	93.9809	88.9810	
+	20.1217	19.0699	15.0609	10.0609	20.1295	19.0709	18.0620	15.0609	10.0609	
LOG BN(I)										
I=1	0.1194	1.1712	5.1801	10.1801	0.1116	1.1702	2.1791	5.1801	10.1801	
2	99.0269	99.1218	99.1363	99.1363	99.1815	99.3005	99.3163	99.3181	99.3181	
3	99.2021	99.3549	99.3779	99.3779	99.2172	99.3726	99.3933	99.3957	99.3957	
4	99.2319	99.4442	99.4771	99.4771	99.2348	99.4486	99.4785	99.4819	99.4819	
5	99.2096	99.4723	99.5151	99.5151	99.2172	99.4746	99.5126	99.5170	99.5170	
6	99.1573	99.4567	99.5074	99.5074	99.1611	99.4580	99.5030	99.5083	99.5083	
LOG BETA(I,J)										
I=1 J=6	99.9997	99.9997	99.9997	99.9997	99.9968	99.9969	99.9969	99.9969	99.9969	
2	0.0000	0.0000	0.0000	0.0000	99.9996	0.0000	0.0000	0.0000	0.0000	
3	99.9998	0.0000	0.0000	0.0000	99.9978	99.9999	0.0000	0.0000	0.0000	
4	99.9983	99.9999	0.0000	0.0000	99.9826	99.9989	99.9999	0.0000	0.0000	
5	99.9974	99.9998	0.0000	0.0000	99.9722	99.9977	99.9998	0.0000	0.0000	
I=1 J=5	99.9994	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9943	99.9943	
2	0.0000	0.0000	0.0000	0.0000	99.9992	99.9999	0.0000	0.0000	0.0000	
3	99.9996	0.0000	0.0000	0.0000	99.9953	99.9998	0.0000	0.0000	0.0000	
4	99.9923	99.9997	0.0000	0.0000	99.9278	99.9967	99.9998	0.0000	0.0000	
I=1 J=4	99.9988	99.9988	99.9988	99.9988	99.9880	99.9880	99.9880	99.9880	99.9880	
2	99.9999	0.0000	0.0000	0.0000	99.9980	99.9998	0.0000	0.0000	0.0000	
3	99.9981	0.0000	0.0000	0.0000	99.9770	99.9993	0.0000	0.0000	0.0000	
I=1 J=3	99.9965	99.9965	99.9965	99.9965	99.9656	99.9656	99.9656	99.9656	99.9656	
2	99.9996	0.0000	0.0000	0.0000	99.9879	99.9988	99.9999	0.0000	0.0000	
I=1 J=2	99.99785	99.99785	99.99785	99.99785	99.8008	99.8008	99.8008	99.8008	99.8008	
LOG F(I)/F(4)										
I=3	0.4044	0.3452	0.3353	0.3353	0.4068	0.3574	0.3492	0.3483	0.3483	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.6553	99.7058	99.7157	99.7157	99.6614	99.7037	99.7117	99.7128	99.7128	
6	99.3466	99.4336	99.4515	99.4515	99.3491	99.4306	99.4457	99.4475	99.4475	

T = 35000		LOG BETA0(1,2) = -1.00								
-LOG W	0.00	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	
LOG X	-1.00	0.00	0.50	1.00	1.50	2.00	3.00	4.00	9.00	
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	98.7711	98.0528	97.5895	97.1020	96.6060	96.1073	95.1079	94.1079	89.1079	
3	98.6001	97.6349	97.0933	96.5729	96.0654	95.5630	94.5619	93.5618	88.5618	
4	98.6524	97.7257	97.2168	96.7142	96.2136	95.7134	94.7133	93.7133	88.7133	
5	98.7543	97.8743	97.3733	96.8732	96.3732	95.8733	94.8733	93.8733	88.8733	
6	98.8177	97.9738	97.4841	96.9878	96.4890	95.9894	94.9896	93.9896	88.9896	
+	20.2009	19.0861	18.5694	18.0636	17.5618	17.0612	16.0609	15.0609	10.0609	
LOG BN(I)										
I=1	0.0401	1.1550	1.6717	2.1774	2.6793	3.1799	4.1801	5.1801	10.1801	
2	99.6777	0.0782	0.1276	0.1459	0.1518	0.1537	0.1545	0.1546	0.1546	
3	99.4265	99.5761	99.5513	99.5366	99.5310	99.5291	99.5283	99.5283	99.5282	
4	99.3240	99.5121	99.5199	99.5231	99.5243	99.5247	99.5249	99.5249	99.5249	
5	99.2762	99.5110	99.5266	99.5323	99.5342	99.5348	99.5350	99.5351	99.5351	
6	99.2050	99.4760	99.5030	99.5125	99.5155	99.5165	99.5169	99.5170	99.5170	
LOG BETA(I,J)										
I=1 J=6	99.9685	99.9688	99.9688	99.9689	99.9689	99.9689	99.9689	99.9689	99.9689	
2	99.9797	99.9960	99.9986	99.9995	99.9999	0.0000	0.0000	0.0000	0.0000	
3	99.9394	99.9949	99.9987	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	
4	99.7171	99.9772	99.9941	99.9983	99.9995	99.9998	0.0000	0.0000	0.0000	
5	99.6269	99.9630	99.9904	99.9972	99.9991	99.9997	0.0000	0.0000	0.0000	
I=1 J=5	99.9438	99.9443	99.9444	99.9444	99.9444	99.9444	99.9445	99.9445	99.9445	
2	99.9585	99.9916	99.9971	99.9991	99.9997	99.9999	0.0000	0.0000	0.0000	
3	99.8472	99.9866	99.9968	99.9991	99.9997	99.9999	0.0000	0.0000	0.0000	
4	99.1405	99.9079	99.9757	99.9928	99.9978	99.9993	99.9999	0.0000	0.0000	
I=1 J=4	99.8836	99.8847	99.8848	99.8849	99.8849	99.8849	99.8849	99.8849	99.8849	
2	99.8855	99.9755	99.9914	99.9972	99.9991	99.9997	0.0000	0.0000	0.0000	
3	99.3324	99.9133	99.9789	99.9944	99.9984	99.9995	0.0000	0.0000	0.0000	
I=1 J=3	99.6945	99.6966	99.6970	99.6972	99.6972	99.6972	99.6973	99.6973	99.6973	
2	99.4430	99.8409	99.9410	99.9803	99.9937	99.9980	99.9998	0.0000	0.0000	
I=1 J=2	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	
LOG F(I)/F(4)										
I=3	0.0945	0.3639	0.4155	0.4311	0.4358	0.4372	0.4378	0.4378	0.4378	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.7028	99.6926	99.6900	99.6887	99.6881	99.6879	99.6878	99.6878	99.6878	
6	99.3964	99.4054	99.4115	99.4129	99.4131	99.4132	99.4132	99.4132	99.4132	

T = 35000 LOG BETA0(1,2) = -2.00													
-LOG W	0.00	1.00	2.00	2.50	3.00	3.50	4.00	5.00	6.00	7.00	10.00		
LOG X	-2.00	-1.00	0.00	0.50	1.00	1.50	2.00	3.00	4.00	5.00	8.00		
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.0476	98.7719	98.0903	97.6541	97.1819	96.6904	96.1930	95.1940	94.1941	93.1941	90.1941		
3	98.9712	98.5345	97.4724	96.7518	96.0001	95.3604	94.8078	93.7847	92.7823	91.7821	88.7821		
4	98.9817	98.4340	97.2010	96.5060	95.9041	95.3809	94.8754	93.8734	92.8732	91.8732	88.8732		
5	99.0096	98.4122	97.1873	96.5433	95.9914	95.4802	94.9772	93.9760	92.9758	91.9758	88.9758		
6	99.0436	98.4232	97.1562	96.5748	96.0566	95.5523	95.0511	94.0505	93.0505	92.0505	89.0505		
+	20.3057	19.1806	18.0820	17.5681	17.0633	16.5617	16.0611	15.0609	14.0609	13.0609	10.0609		
LOG BH(I)													
I=1	99.9353	1.0605	2.1590	2.6729	3.1778	3.6794	4.1799	5.1801	6.1801	7.1801	10.1801		
2	99.8494	0.6989	1.1158	1.1935	1.2262	1.2363	1.2394	1.2406	1.2407	1.2407	1.2407		
3	99.6928	0.3813	0.4177	0.2110	99.9641	99.8261	99.7740	99.7511	99.7488	99.7486	99.7485		
4	99.5485	0.1259	99.9915	99.8103	99.7134	99.6918	99.6868	99.6860	99.6848	99.6848	99.6848		
5	99.4266	99.9544	99.8279	99.6978	99.6508	99.6413	99.6387	99.6387	99.6376	99.6376	99.6376		
6	99.3261	99.8308	99.6624	99.5950	99.5816	99.5789	99.5782	99.5779	99.5779	99.5779	99.5779		
LOG BETA(I, J)													
I=1 J=6	99.7161	99.7188	99.7215	99.7220	99.7222	99.7222	99.7223	99.7223	99.7223	99.7223	99.7223		
2	99.6615	99.7967	99.9534	99.9827	99.9941	99.9981	99.9994	99.9999	99.9999	99.9999	99.9999		
3	99.0876	99.4561	99.9333	99.9877	99.9981	99.9996	99.9999	99.9999	99.9999	99.9999	99.9999		
4	98.3498	98.8376	99.8214	99.9693	99.9940	99.9984	99.9995	99.9995	99.9995	99.9995	99.9995		
5	98.3224	98.8618	99.8024	99.9655	99.9926	99.9978	99.9993	99.9999	99.9999	99.9999	99.9999		
I=1 J=5	99.5411	99.5447	99.5485	99.5491	99.5494	99.5495	99.5495	99.5495	99.5495	99.5495	99.5495		
2	99.4151	99.6151	99.9031	99.9634	99.9875	99.9960	99.9987	99.9999	99.9999	99.9999	99.9999		
3	98.6521	99.0149	99.8148	99.9641	99.9946	99.9990	99.9998	99.9999	99.9999	99.9999	99.9999		
4	97.5847	98.0472	99.2951	99.8367	99.9688	99.9915	99.9974	99.9997	99.9999	99.9999	99.9999		
I=1 J=4	99.2441	99.2480	99.2523	99.2531	99.2534	99.2535	99.2536	99.2536	99.2536	99.2536	99.2536		
2	98.9885	99.2169	99.7373	99.8949	99.9634	99.9881	99.9962	99.9996	99.9996	99.9996	99.9996		
3	97.8955	98.2215	99.1873	99.7652	99.9633	99.9936	99.9985	99.9999	99.9999	99.9999	99.9999		
I=1 J=3	98.7870	98.7899	98.7935	98.7943	98.7946	98.7947	98.7947	98.7947	98.7947	98.7947	98.7947		
2	98.2220	98.4301	99.0367	99.4369	99.7599	99.9160	99.9726	99.9972	99.9997	99.9997	99.9997		
I=1 J=2	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000		
LOG F(I)/F(4)													
I=3	99.8123	99.9031	0.1601	0.3777	0.4818	0.4967	0.4981	0.4982	0.4982	0.4982	0.4982		
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
5	99.9824	99.9043	99.6799	99.6337	99.6392	99.6350	99.6321	99.6307	99.6305	99.6305	99.6305		
6	99.8718	99.7059	99.3082	99.2936	99.3201	99.3183	99.3157	99.3144	99.3142	99.3142	99.3142		
T = 35000 LOG BETA0(1,2) = -3.00													
-LOG W	0.00	1.00	2.00	3.00	3.50	4.00	4.30	4.70	5.00	5.50	6.00	7.00	10.00
LOG X	-3.00	-2.00	-1.00	0.00	0.50	1.00	1.30	1.70	2.00	2.50	3.00	4.00	7.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.0946	99.0472	98.7744	98.1055	97.6729	97.2058	96.9154	96.5216	96.2234	95.7248	95.2248	94.2249	91.2249
3	99.0462	98.7903	98.5319	97.4727	96.7481	95.9114	95.3601	94.6082	94.1068	93.4204	92.8674	91.8402	88.8371
4	99.0756	98.9806	98.4316	97.1173	96.2412	95.2929	94.7951	94.2901	93.9640	93.4483	92.9435	91.9416	88.9414
5	99.1145	99.0045	98.3828	96.9426	96.0255	95.1783	94.7996	94.3703	94.0632	93.5874	92.0568	89.0568	
6	99.1506	99.0250	98.3330	96.7543	95.8242	95.1654	94.8456	94.4369	94.1344	93.6328	93.1323	92.1320	89.1320
+	20.3367	19.3049	18.1798	17.0822	16.5682	16.0633	15.7621	15.3614	15.0611	14.5610	14.0609	13.0609	10.0609
LOG BH(I)													
I=1	99.9044	0.9362	2.0613	3.1588	3.6728	4.1777	4.4789	4.8797	5.1799	5.6801	6.1801	7.1801	10.1801
2	99.8654	0.8499	1.7021	2.1308	2.2122	2.2500	2.2608	2.2678	2.2698	2.2710	2.2714	2.2715	2.2715
3	99.7369	0.6927	1.3794	1.4178	1.2072	0.8755	0.6253	0.2741	0.0730	99.8967	99.8338	99.8066	99.8036
4	99.6115	0.5483	1.1243	0.9076	0.5455	0.1021	99.9055	99.8032	99.7753	99.7598	99.7551	99.7532	99.7530
5	99.5006	0.4223	0.9257	0.5831	0.1800	99.8378	99.7602	99.7316	99.7247	99.7205	99.7192	99.7187	99.7186
6	99.4022	0.3084	0.7415	0.2603	99.8442	99.6904	99.6717	99.6638	99.6615	99.6600	99.6596	99.6594	99.6594
LOG BETA(I, J)													
I=1 J=6	98.8262	98.8271	98.8319	98.8368	98.8376	98.8380	98.8381	98.8381	98.8381	98.8382	98.8382	98.8382	98.8382
2	98.6970	98.7355	98.9834	99.5950	99.8296	99.9390	99.9684	99.9871	99.9935	99.9979	99.9993	99.9999	0.0000
3	98.0255	98.0815	98.4556	99.4517	99.8654	99.9798	99.9945	99.9991	99.9999	99.9999	99.9999	99.9999	0.0000
4	97.2686	97.3332	97.7835	99.0060	99.7401	99.9738	99.9937	99.9985	99.9994	99.9998	99.9999	99.9999	0.0000
5	97.2223	97.2891	97.7705	99.0563	99.7850	99.9807	99.9943	99.9982	99.9992	99.9997	99.9999	99.9999	0.0000
I=1 J=5	98.5711	98.5720	98.5764	98.5811	98.5820	98.5823	98.5824	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825
2	98.3878	98.4249	98.6646	99.3109	99.6661	99.8732	99.9333	99.9727	99.9862	99.9956	99.9986	99.9999	99.9999
3	97.5962	97.6503	98.0082	98.9930	99.6368	99.9384	99.9830	99.9973	99.9993	99.9999	99.9999	99.9999	0.0000
4	96.5140	96.5772	97.0109	98.2043	99.0533	99.8321	99.9609	99.9919	99.9967	99.9991	99.9997	99.9997	0.0000
I=1 J=4	98.2448	98.2456	98.2495	98.2539	98.2548	98.2551	98.2552	98.2552	98.2552	98.2553	98.2553	98.2553	98.2553
2	97.9539	97.9887	98.2147	98.8477	99.2718	99.6623	99.8124	99.9205	99.9593	99.9870	99.9959	99.9996	0.0000
3	96.8463	96.8963	97.2246	98.1556	98.8409	99.6066	99.8752	99.9801	99.9949	99.9993	99.9998	99.9998	0.0000
I=1 J=3	97.7864	97.7870	97.7899	97.7935	97.7942	97.7946	97.7946	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947
2	97.1911	97.2220	97.4257	98.0198	98.4298	98.8832	99.1686	99.5314	99.7327	99.9078	99.9700	99.9970	0.0000
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000
LOG F(I)/F(4)													
I=3	99.7972	99.8123	99.9006	0.1168	0.2538	0.4287	0.5104	0.5183	0.5055	0.4923	0.4874	0.4853	0.4851
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0006	99.9880	99.9290	99.8163	99.7065	99.6242	99.6533	99.6602	99.6539	99.6470	99.6444	99.6434	99.6432
6	99.9550	99.9281	99.8070	99.5211	99.2777	99.2861	99.3433	99.3503	99.3415	99.3324	99.3291	99.3277	99.3275

T = 35000 LOG BETA0(1,2) = -4.00

-LOG W	0.00	1.00	2.00	3.00	4.00	4.50	5.00	5.30	5.70	6.00	6.30	6.70	7.00
LOG X	-4.00	-3.00	-2.00	-1.00	0.00	0.50	1.00	1.30	1.70	2.00	2.30	2.70	3.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.0998	99.0946	99.0472	98.7743	98.1059	97.6738	97.2072	96.9172	96.5240	96.2265	95.9277	95.5284	95.2286
3	99.0545	99.0462	98.9703	98.5319	97.4722	96.7510	95.9258	95.3875	94.6279	94.0254	93.4149	92.6300	92.1199
4	99.0860	99.0756	98.9806	98.4316	97.1165	96.2302	95.2147	94.5463	93.6418	93.1396	92.7468	92.2900	91.9702
5	99.1266	99.1145	99.0045	98.3828	96.9387	95.9631	94.8227	94.1324	93.4728	93.1173	92.7924	92.3772	92.0722
6	99.1645	99.1506	99.0250	98.3331	96.7327	95.6156	94.4162	93.9463	93.4803	93.1624	92.8535	92.4480	92.1462
+	20.3404	19.3367	18.3049	17.1798	16.0822	15.5682	15.0633	14.7621	14.3614	14.0611	13.7610	13.3610	13.0609
LOG BH(I)													
I=1	99.9007	99.9044	99.9362	99.0613	4.1588	4.6728	5.1777	5.4789	5.8797	6.1799	6.4800	6.8801	7.1801
2	99.8670	99.8655	99.8499	99.2702	3.1312	3.2131	3.2514	3.2626	3.2702	3.2729	3.2742	3.2750	3.2752
3	99.7415	99.7369	99.6927	99.2395	2.4174	2.2101	1.8898	1.6527	1.2938	0.9916	0.6812	0.2964	0.0863
4	99.6182	99.6115	99.5483	99.1243	1.9068	1.5345	1.0239	0.6567	0.1529	0.9509	99.8583	99.8015	99.7818
5	99.5090	99.5006	99.4223	99.1925	1.5792	1.1176	0.4821	0.0930	99.8341	99.7789	99.7541	99.7390	99.7339
6	99.4424	99.4022	99.3084	99.1741	1.2387	0.6356	99.9411	99.7724	99.7072	99.6895	99.6807	99.6753	99.6735
LOG BETA(I,J)													
I=1 J=6	97.8260	97.8262	97.8271	97.8319	97.8368	97.8376	97.8380	97.8381	97.8381	97.8381	97.8381	97.8382	97.8382
2	97.6920	97.6970	97.7355	97.9834	98.6413	99.0725	99.5143	99.7173	99.8764	99.9361	99.9675	99.9869	99.9934
3	97.0196	97.0255	97.0815	97.4557	98.4655	99.1751	99.7993	99.9382	99.9891	99.9973	99.9994	99.9999	0.0000
4	96.2621	96.2686	96.3331	96.7836	98.0020	98.8604	99.7270	99.9384	99.9939	99.9985	99.9995	99.9999	99.9999
5	96.2157	96.2223	96.2890	96.7705	98.0464	98.9391	99.8230	99.9710	99.9965	99.9988	99.9995	99.9998	99.9999
I=1 J=5	97.5710	97.5711	97.5720	97.5764	97.5811	97.5820	97.5823	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825
2	97.3828	97.3878	97.4249	97.6646	98.3138	98.7433	99.2083	99.4805	99.7511	99.8673	99.9314	99.9722	99.9860
3	96.5905	96.5962	96.6503	97.0083	97.9929	98.6933	99.4855	99.8168	99.9622	99.9916	99.9980	99.9992	99.9999
4	95.5074	95.5140	95.5772	96.0109	97.2028	98.0338	98.9956	99.6063	99.9560	99.9903	99.9971	99.9992	99.9997
I=1 J=4	97.2447	97.2448	97.2456	97.2495	97.2539	97.2548	97.2551	97.2552	97.2552	97.2552	97.2553	97.2553	97.2553
2	96.9502	96.9539	96.9886	97.2147	97.8473	98.2728	98.7370	99.0264	99.4096	99.6479	99.8072	99.9191	99.9588
3	95.8409	95.8463	95.8963	96.2247	97.1559	97.8353	98.6304	99.1547	99.7570	99.9352	99.9846	99.9978	99.9995
I=1 J=3	96.7863	96.7864	96.7870	96.7899	96.7935	96.7942	96.7946	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947
2	96.1878	96.1911	96.2220	96.4256	97.0193	97.4285	97.8820	98.1676	98.5576	98.8539	99.1517	99.5241	99.7292
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.7955	99.7972	99.8123	99.9006	0.1171	0.2658	0.4455	0.5718	0.7234	0.6811	0.6019	0.5343	0.5094
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0021	0.0006	99.9880	99.9290	99.8165	99.7312	99.6071	99.5680	99.7004	99.7249	99.6976	99.6681	99.6570
6	99.9581	99.9550	99.9281	99.8071	99.5471	99.3219	99.1157	99.2278	99.4422	99.4479	99.4038	99.3627	99.3475

(Continued)

T = 35000 LOG BETA0(1,2) = -4.00 LOG BETA0(1,2) = -5.00

-LOG W	8.00	9.00	10.00	11.00	0.00	1.00	2.00	3.00	4.00	5.00	5.50	6.00
LOG X	4.00	5.00	6.00	7.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	0.50	1.00
LOG E(I)												
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	94.2287	93.2287	92.2287	91.2287	99.1003	99.0998	99.0946	99.0471	98.7743	98.1059	97.6738	97.2071
3	90.8744	89.8846	88.8439	87.8436	99.0554	99.0545	99.0462	98.9702	98.5318	97.4722	96.7510	95.9258
4	90.9515	89.9496	88.9494	87.9494	99.0871	99.0860	99.0756	98.9805	98.4316	97.1165	96.2302	95.2147
5	91.0675	90.0670	89.0670	88.0670	99.1278	99.1266	99.1145	99.0044	98.3828	96.9387	95.9631	94.8227
6	91.1445	90.1443	89.1443	88.1443	99.1659	99.1645	99.1506	99.0249	98.3330	96.7327	95.6156	94.2668
+	12.0609	11.0609	10.0609	9.0609	20.3407	19.3404	18.3367	17.3048	16.1798	15.0822	14.0633	13.0633
LOG BH(I)												
I=1	8.1801	9.1801	10.1801	11.1801	99.9903	0.9907	1.9044	2.9362	4.0613	5.1588	5.6728	6.1777
2	3.2753	3.2754	3.2754	3.2754	99.8671	0.8670	1.8655	2.8199	3.7021	4.1312	4.2131	4.2514
3	99.8408	99.8131	99.8103	99.8100	99.7420	0.7415	1.7369	2.6927	3.3794	3.4174	3.2101	2.8929
4	99.7631	99.7612	99.7610	99.7610	99.6188	0.6182	1.6115	2.5482	3.1243	2.9068	2.5344	2.0229
5	99.7293	99.7288	99.7288	99.7288	99.5098	0.5090	1.5006	2.4223	2.9257	2.5791	2.1176	1.4814
6	99.6719	99.6717	99.6717	99.6717	99.4434	0.4424	1.4402	2.3083	2.7415	2.2387	1.6354	0.7917
LOG BETA(I,J)												
I=1 J=6	97.8382	97.8382	97.8382	97.8382	96.8260	96.8260	96.8262	96.8272	96.8319	96.8368	96.8376	96.8380
2	99.9993	99.9999	0.0000	0.0000	96.6925	96.6929	96.6970	96.7356	96.9835	97.6413	98.0726	98.5392
3	0.0000	0.0000	0.0000	0.0000	96.0190	96.0196	96.0255	96.0816	96.4554	97.4655	98.1757	98.9924
4	0.0000	0.0000	0.0000	0.0000	95.2614	95.2621	95.2686	95.3333	95.7834	97.0020	97.8503	98.8401
5	0.0000	0.0000	0.0000	0.0000	95.2150	95.2157	95.2223	95.2892	95.7704	97.0462	97.9392	99.0117
I=1 J=5	97.5825	97.5825	97.5825	97.5825	96.5710	96.5710	96.5711	96.5720	96.5764	96.5811	96.5820	96.5823
2	99.9986	99.9999	0.0000	0.0000	96.3834	96.3838	96.3878	96.4251	96.6647	97.3138	97.7433	98.2093
3	0.0000	0.0000	0.0000	0.0000	95.5899	95.5905	95.5962	95.6505	96.0081	96.9929	97.6933	98.5018
4	0.0000	0.0000	0.0000	0.0000	94.5067	94.5074	94.5140	94.5774	95.0108	96.2028	97.0338	97.9969
I=1 J=4	97.2553	97.2553	97.2553	97.2553	96.2447	96.2447	96.2448	96.2456	96.2495	96.2539	96.2548	96.2551
2	99.9958	99.9996	0.0000	0.0000	95.9498	95.9502	95.9539	95.9888	96.2148	96.8473	97.2728	97.7371
3	0.0000	0.0000	0.0000	0.0000	94.8404	94.8409	94.8463	94.8964	95.2245	96.1558	96.8353	97.6268
I=1 J=3	96.7947	96.7947	96.7947	96.7947	95.7863	95.7863	95.7864	95.7870	95.7899	95.7935	95.7942	95.7946
2	99.9697	99.9969	99.9997	0.0000	95.1875	95.1878	95.1911	95.2221	95.4258	96.0193	96.4285	96.8822
I=1 J=2	96.0000	96.0000	96.0000	96.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)												
I=3	0.4861	0.4837	0.4835	0.4835	99.7953	99.7955	99.7972	99.8123	99.9007	0.1171	0.2658	0.4497
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6466	99.6455	99.6454	99.6454	0.0022	0.0021	0.0006	99.9880	99.9289	99.8165	99.7312	99.6084
6	99.3334	99.3320	99.3318	99.3318	99.9584	99.9581	99.9550	99.9281	99.8071	99.5471	99.3218	98.9921

BALMER DECREMENTS

(Continued)													
T = 35000 LOG BETA0(1,2) = -5.00													
-LOG W	6.25	6.50	6.75	7.00	7.25	7.50	7.75	8.00	8.50	9.00	10.00	11.00	13.00
LOG X	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50	4.00	5.00	6.00	8.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.9658	96.7212	96.4745	96.2265	95.9776	95.7283	95.4787	95.2289	94.9790	94.7291	93.2291	92.2291	90.2291
3	95.4892	95.0344	94.5650	94.0835	93.5867	93.0768	92.5593	92.0398	91.5167	90.9812	88.8751	87.8473	85.8442
4	94.6175	94.0686	93.4475	92.7852	92.1954	91.7668	91.4208	91.1018	90.8104	89.9709	88.9523	87.9504	85.9502
5	94.1832	93.4829	92.8042	92.3156	91.9757	91.6765	91.4125	91.1125	90.8535	90.0731	89.0685	88.0681	86.0680
6	93.5205	92.9308	92.5508	92.2485	91.9660	91.6915	91.4239	91.1624	90.6512	90.1474	89.1458	88.1456	86.1456
+	13.8123	13.5617	13.3113	13.0611	12.8110	12.5610	12.3109	12.0609	11.5609	11.0609	10.0609	9.0609	7.0609
LOG BN(I)													
I=1	6.4288	6.6794	6.9297	7.1799	7.4300	7.6801	7.9301	8.1801	8.6801	9.1801	10.1801	11.1801	13.1801
2	4.2610	4.2670	4.2707	4.2729	4.2741	4.2749	4.2753	4.2755	4.2757	4.2757	4.2757	4.2757	4.2757
3	2.7043	2.5000	2.2810	2.0496	1.8030	1.5431	1.2757	1.0062	0.4831	0.0877	99.8415	99.8138	99.8107
4	1.7177	1.3795	1.0087	0.5965	0.2569	0.0783	99.9823	99.9134	99.8220	99.7825	99.7639	99.7620	99.7618
5	1.0936	0.6440	0.2156	99.9772	99.8874	99.8383	99.8012	99.7743	99.7453	99.7349	99.7303	99.7299	99.7298
6	0.2965	99.9574	99.8277	99.7756	99.7432	99.7188	99.7012	99.6898	99.6785	99.6747	99.6731	99.6730	99.6729
LOG BETA(I,J)													
I=1 J=6	96.8380	96.8381	96.8381	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	98.7806	99.0252	99.2699	99.4983	99.6815	99.8083	99.8880	99.9357	99.9793	99.9934	99.9993	99.9999	0.0000
3	99.4202	99.7476	99.9077	99.9688	99.9900	99.9959	99.9991	99.9997	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.3809	99.7910	99.9477	99.9883	99.9977	99.9993	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.5850	99.9070	99.9847	99.9967	99.9988	99.9995	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5824	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	98.4506	98.6951	98.9418	99.1891	99.4271	99.6282	99.7732	99.8666	99.9561	99.9860	99.9986	99.9999	99.9999
3	98.9369	99.3811	99.7321	99.9040	99.9687	99.9903	99.9971	99.9991	99.9999	0.0000	0.0000	0.0000	0.0000
4	98.5276	99.0902	99.6372	99.9167	99.9827	99.9949	99.9981	99.9992	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2552	96.2552	96.2552	96.2552	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	97.9779	98.2223	98.4688	98.7168	98.9656	99.2140	99.4503	99.6463	99.8741	99.9587	99.9988	99.9996	0.0000
3	98.0543	98.4989	98.9600	99.4238	99.7693	99.9238	99.9767	99.9931	99.9994	99.9999	0.0000	0.0000	0.0000
I=1 J=3	95.7946	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.1198	97.3619	97.6070	97.8541	98.1023	98.3513	98.6007	98.8504	99.3452	99.7289	99.9697	99.9969	0.0000
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.5629	0.6947	0.8451	1.0249	1.1173	1.0367	0.8784	0.7315	0.5666	0.5098	0.4860	0.4836	0.4833
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.5261	99.4150	99.3575	99.5307	99.7697	99.8519	99.8194	99.7588	99.6829	99.6573	99.6468	99.6456	99.6456
6	98.8026	98.8019	99.0412	99.3816	99.6233	99.6559	99.5778	99.4870	99.3828	99.3481	99.3338	99.3324	99.3323
T = 40000 LOG BETA0(1,2) = 1.00													
-LOG W	0.00	1.00	5.00	10.00									
LOG X	1.00	2.00	6.00	11.00	0.00	1.00	2.00	3.00	5.00	10.00			
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.3156	97.3703	93.3775	88.3775	98.4720	97.5492	96.5582	95.5592	93.5592	88.5592	88.5592	88.5592	88.5592
3	98.5585	97.6771	93.6840	88.6840	98.5856	97.6628	96.6702	95.6712	93.6712	88.6712	88.6712	88.6712	88.6712
4	98.7344	97.9165	93.9448	88.9448	98.7473	97.8221	96.8468	95.8494	93.8497	88.8497	88.8497	88.8497	88.8497
5	98.8559	98.0904	94.1299	89.1299	98.8767	98.0946	97.1278	96.1314	94.1318	89.1318	89.1318	89.1318	89.1318
6	98.9339	98.2064	94.2547	89.2547	98.9493	98.2095	97.2507	96.2551	94.2556	89.2556	89.2556	89.2556	89.2556
+	20.4656	19.4078	15.3973	10.3973	20.4750	19.4091	18.3986	17.3975	15.3973	10.3973	10.3973	10.3973	10.3973
LOG BN(I)													
I=1	0.1072	1.1649	5.1754	10.1754	0.0978	1.1636	2.1742	3.1753	5.1754	10.1754			
2	99.1055	99.2180	99.2356	99.2356	99.2525	99.3956	99.4151	99.4172	99.4174	99.4174			
3	99.2344	99.4107	99.4381	99.4381	99.2501	99.4286	99.4531	99.4557	99.4559	99.4559			
4	99.2436	99.4835	99.5223	99.5223	99.2471	99.4878	99.5230	99.5267	99.5271	99.5271			
5	99.2099	99.5022	99.5520	99.5521	99.2212	99.5050	99.5488	99.5535	99.5540	99.5540			
6	99.1505	99.4807	99.5395	99.5395	99.1565	99.4825	99.5342	99.5398	99.5404	99.5404			
LOG BETA(I,J)													
I=1 J=6	99.9997	99.9997	99.9997	99.9997	99.9968	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969
2	0.0000	0.0000	0.0000	0.0000	99.9982	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.9996	0.0000	0.0000	0.0000	99.9958	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9967	99.9998	0.0000	0.0000	99.9672	99.9977	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9952	99.9995	0.0000	0.0000	99.9474	99.9953	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	99.9994	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943
2	99.9999	0.0000	0.0000	0.0000	99.9985	99.9994	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.9991	0.0000	0.0000	0.0000	99.9907	99.9986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9950	99.9993	0.0000	0.0000	99.8674	99.9928	99.9995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	99.9988	99.9988	99.9988	99.9988	99.9879	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880
2	99.9998	0.0000	0.0000	0.0000	99.9961	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.9961	99.9999	0.0000	0.0000	99.9538	99.9982	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	99.9965	99.9965	99.9965	99.9965	99.9655	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656
2	99.9992	0.0000	0.0000	0.0000	99.9772	99.9976	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=2	99.9785	99.9785	99.9785	99.9785	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008
LOG F(I)/F(4)													
I=3	0.4128	0.3499	0.3385	0.3385	0.4067	0.3614	0.3526	0.3516	0.3515	0.3515	0.3515	0.3515	0.3515
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6495	99.7018	99.7129	99.7129	99.6597	99.7005	99.7089	99.7098	99.7100	99.7100	99.7100	99.7100	99.7100
6	99.3365	99.4268	99.4468	99.4468	99.3420	99.4245	99.4408	99.4408	99.4426	99.4428	99.4428	99.4428	99.4428

T = 40000 LOG BETA0(1,2) = -1.00

-LOG W	0.00	0.50	1.00	1.50	2.00	3.00	4.00	5.00	10.00
LOG X	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	9.00
LOG E(I)									
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.4857	98.7004	98.3159	97.8673	97.3861	96.3943	95.3951	94.3952	89.3952
3	98.8673	98.4745	97.9563	97.4005	96.8054	95.8466	94.8445	93.8443	88.8443
4	98.9200	98.5305	98.0266	97.5037	96.9955	95.9929	94.9927	93.9926	88.9926
5	99.0124	98.6533	98.1685	97.6558	97.1516	96.1500	95.1498	94.1498	89.1498
6	99.0777	98.7294	98.2579	97.7614	97.2632	96.2641	95.2642	94.2642	89.2642
+	20.5503	19.9758	19.4281	18.9078	18.4007	17.3977	16.3974	15.3973	10.3973
LOG EN(I)									
I=1	0.0225	0.5969	1.1447	1.6649	2.1720	3.1751	4.1754	5.1754	10.1754
2	99.6910	99.9801	0.1434	0.2150	0.2409	0.2521	0.2533	0.2534	0.2534
3	99.4585	99.6402	99.6697	99.6341	99.6061	99.5904	99.5886	99.5884	99.5884
4	99.3445	99.5295	99.5732	99.5707	99.5696	99.5700	99.5701	99.5701	99.5701
5	99.2817	99.4990	99.5599	99.5676	99.5704	99.5718	99.5720	99.5720	99.5720
6	99.2095	99.4358	99.5120	99.5357	99.5446	99.5486	99.5490	99.5490	99.5490
LOG BETA(I,J)									
I=1 J=6	99.9682	99.9675	99.9687	99.9688	99.9688	99.9689	99.9689	99.9689	99.9689
2	99.9671	99.9827	99.9927	99.9974	99.9991	99.9999	0.0000	0.0000	0.0000
3	99.8878	99.9572	99.9882	99.9972	99.9993	99.9999	0.0000	0.0000	0.0000
4	99.5178	99.8099	99.9487	99.9874	99.9965	99.9997	0.0000	0.0000	0.0000
5	99.4208	99.7204	99.9170	99.9795	99.9943	99.9995	0.0000	0.0000	0.0000
I=1 J=5	99.9433	99.9439	99.9442	99.9444	99.9444	99.9444	99.9445	99.9445	99.9445
2	99.9333	99.9643	99.9847	99.9945	99.9982	99.9998	0.0000	0.0000	0.0000
3	99.7254	99.8913	99.9693	99.9927	99.9982	99.9998	0.0000	0.0000	0.0000
4	98.8311	99.3690	99.8009	99.9485	99.9852	99.9986	99.9999	0.0000	0.0000
I=1 J=4	99.8828	99.8838	99.8844	99.8848	99.8849	99.8849	99.8849	99.8849	99.8849
2	99.8214	99.8997	99.9559	99.9838	99.9946	99.9995	99.9999	0.0000	0.0000
3	99.0654	99.4548	99.8080	99.9520	99.9881	99.9990	99.9999	0.0000	0.0000
I=1 J=3	99.6930	99.6948	99.6962	99.6968	99.6971	99.6972	99.6973	99.6973	99.6973
2	99.2603	99.4869	99.7314	99.8916	99.9624	99.9961	99.9996	0.0000	0.0000
3	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000
LOG F(I)/F(4)									
I=3	99.9756	0.1205	0.2946	0.3939	0.4271	0.4397	0.4409	0.4410	0.4410
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.7321	99.7172	99.6986	99.6906	99.6874	99.6853	99.6851	99.6850	99.6850
6	99.4403	99.4188	99.4051	99.4081	99.4091	99.4086	99.4085	99.4085	99.4085

T = 40000 LOG BETA0(1,2) = -2.00

-LOG W	0.00	1.00	2.00	2.50	3.00	3.50	4.00	5.00	6.00	7.00	10.00
LOG X	-2.00	-1.00	0.00	0.50	1.00	1.50	2.00	3.00	4.00	5.00	8.00
LOG E(I)											
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.2204	98.9770	98.3361	97.9149	97.4578	96.9736	96.4782	95.4800	94.4802	93.4802	90.4802
3	99.1765	98.8040	97.8424	97.1765	96.4192	95.7074	95.1131	94.0692	93.0647	92.0643	89.0642
4	99.2005	98.7422	97.5908	96.8953	96.2245	95.6687	95.1568	94.1528	93.1524	92.1524	89.1524
5	99.2338	98.7284	97.5559	96.8934	96.2867	95.7609	95.2549	94.2526	93.2523	92.2523	89.2523
6	99.2696	98.7437	97.5196	96.8807	96.3371	95.8284	95.3261	94.3252	93.3251	92.3251	89.3251
+	20.6420	19.5293	18.4231	17.9064	17.4003	16.8983	16.3976	15.3974	14.3973	13.3973	10.3973
LOG EN(I)											
I=1	99.9307	1.0434	2.1496	2.6664	3.1724	3.6744	4.1751	5.1754	6.1754	7.1754	10.1754
2	99.8339	0.7031	1.1685	1.2640	1.3129	1.3308	1.3361	1.3382	1.3384	1.3384	1.3384
3	99.6759	0.4162	0.5607	0.4116	0.1603	99.9505	99.8569	99.8133	99.8088	99.8084	99.8083
4	99.5332	0.1876	0.1424	99.9637	99.7939	99.7452	99.7339	99.7302	99.7298	99.7298	99.7298
5	99.4113	0.0186	99.9523	99.8066	99.7059	99.6821	99.6768	99.6747	99.6745	99.6745	99.6745
6	99.3097	99.8965	99.7786	99.6565	99.6189	99.6122	99.6106	99.6100	99.6099	99.6099	99.6099
LOG BETA(I,J)											
I=1 J=6	99.7132	99.7168	99.7210	99.7218	99.7221	99.7222	99.7222	99.7223	99.7223	99.7223	99.7223
2	99.5359	99.6933	99.9192	99.9686	99.9890	99.9964	99.9988	99.9999	0.0000	0.0000	0.0000
3	98.8854	99.2102	99.8487	99.9661	99.9946	99.9991	99.9998	0.0000	0.0000	0.0000	0.0000
4	98.1327	98.5355	99.5968	99.9125	99.9857	99.9966	99.9990	99.9999	0.0000	0.0000	0.0000
5	98.0977	98.5531	99.5816	99.9032	99.9833	99.9957	99.9987	99.9999	0.0000	0.0000	0.0000
I=1 J=5	99.5372	99.5419	99.5477	99.5488	99.5493	99.5494	99.5495	99.5495	99.5495	99.5495	99.5495
2	99.2542	99.4551	99.8352	99.9342	99.9766	99.9923	99.9975	99.9998	0.0000	0.0000	0.0000
3	98.4534	98.7603	99.6106	99.9026	99.9841	99.9975	99.9995	0.0000	0.0000	0.0000	0.0000
4	97.3717	97.7480	98.8752	99.5817	99.9230	99.9826	99.9949	99.9995	0.0000	0.0000	0.0000
I=1 J=4	99.2398	99.2449	99.2514	99.2527	99.2533	99.2535	99.2536	99.2536	99.2536	99.2536	99.2536
2	98.8230	99.0241	99.5822	99.8161	99.9319	99.9772	99.9927	99.9993	99.9999	0.0000	0.0000
3	97.7032	97.9820	98.8256	99.4639	99.8910	99.9833	99.9967	99.9997	0.0000	0.0000	0.0000
I=1 J=3	98.7836	98.7874	98.7927	98.7939	98.7944	98.7946	98.7947	98.7947	98.7947	98.7947	98.7947
2	98.0635	98.2457	98.8075	99.1993	99.5930	99.8443	99.9477	99.9946	99.9995	99.9999	0.0000
3	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000
LOG F(I)/F(4)											
I=3	99.8058	99.8728	0.0663	0.2538	0.4452	0.4951	0.5007	0.5012	0.5012	0.5012	0.5012
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9924	99.9450	99.7460	99.6441	99.6347	99.6351	99.6308	99.6281	99.6278	99.6278	99.6278
6	99.9189	99.8077	99.4027	99.2749	99.3066	99.3157	99.3124	99.3100	99.3097	99.3097	99.3097

BALMER DECREMENTS

T = 40000 LOG BETA(1,2) = -3.00													
-LOG W	0.00	1.00	2.00	3.00	4.00	4.50	5.00	6.00	7.00	8.00	9.00	10.00	
LOG X	-3.00	-2.00	-1.00	0.00	1.00	1.50	2.00	3.00	4.00	5.00	6.00	7.00	
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	99.2598	99.2197	98.9764	98.7467	97.4779	96.9995	96.5078	95.5103	94.5105	93.5106	92.5106	91.5106	
3	99.2359	99.1757	98.8018	97.8398	96.3983	95.5177	94.5786	93.1768	92.1249	91.1196	90.1190	89.1190	
4	99.2756	99.1996	98.7398	97.5619	95.8297	94.9172	94.2671	93.2246	92.2208	91.2205	90.2204	89.2204	
5	99.3153	99.2299	98.7105	97.4206	95.6275	94.8896	94.3461	93.3344	92.3334	91.3333	90.3332	89.3332	
6	99.3531	99.2561	98.6804	97.2705	95.4958	94.9234	94.4412	93.4071	92.4067	91.4067	90.4067	89.4067	
+	20.6666	19.6413	18.5283	17.4233	16.4004	15.8983	15.3977	14.3974	13.3973	12.3973	11.3973	10.3973	
LOG BH(I)													
I=1	99.9062	0.9314	2.0445	3.1495	4.1724	4.6744	5.1751	6.1754	7.1754	8.1754	9.1754	10.1754	
2	99.8487	0.8339	2.1707	2.1789	2.3330	2.3367	2.3654	2.3685	2.3687	2.3687	2.3687	2.3687	
3	99.7108	0.6758	1.4150	1.5580	1.1394	0.7609	0.3224	99.9209	99.8690	99.8637	99.8632	99.8631	
4	99.5818	0.5330	1.1863	1.1135	0.4041	99.9937	99.8442	99.8020	99.7983	99.7979	99.7979	99.7979	
5	99.4682	0.4081	1.0018	0.8168	0.0466	99.8108	99.7680	99.7566	99.7556	99.7554	99.7554	99.7554	
6	99.3687	0.2970	0.8343	0.5294	99.7775	99.7072	99.6957	99.6919	99.6915	99.6915	99.6915	99.6915	
LOG BETA(I,J)													
I=1 J=6	98.8207	98.8219	98.8283	98.8398	98.8378	98.8380	98.8381	98.8382	98.8382	98.8382	98.8382	98.8382	
2	98.5310	98.5643	98.7848	99.3932	99.8883	99.9617	99.9875	99.9987	99.9999	0.0000	0.0000	0.0000	
3	97.8355	97.8806	98.1977	99.1069	99.9381	99.9920	99.9992	0.0000	0.0000	0.0000	0.0000	0.0000	
4	97.0693	97.1203	97.4943	98.5792	99.8961	99.9909	99.9986	99.9999	0.0000	0.0000	0.0000	0.0000	
5	97.0207	97.0734	97.4726	98.6112	99.9210	99.9924	99.9983	99.9998	0.0000	0.0000	0.0000	0.0000	
I=1 J=5	98.5659	98.5671	98.5730	98.5801	98.5822	98.5824	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825	
2	98.2237	98.2560	98.4689	99.0755	99.7738	99.9196	99.9735	99.9973	99.9997	0.0000	0.0000	0.0000	
3	97.4083	97.4520	97.7559	98.6401	99.8196	99.9753	99.9973	99.9999	0.0000	0.0000	0.0000	0.0000	
4	96.3160	96.3659	96.7261	97.7853	99.4578	99.9417	99.9923	99.9995	0.0000	0.0000	0.0000	0.0000	
I=1 J=4	98.2402	98.2412	98.2464	98.2530	98.2549	98.2552	98.2552	98.2553	98.2553	98.2553	98.2553	98.2553	
2	97.7931	97.8236	98.0245	98.6124	99.4529	99.7764	99.9229	99.9920	99.9992	99.9999	0.0000	0.0000	
3	96.6630	96.7038	96.9841	97.8165	99.1783	99.8223	99.9815	99.9996	0.0000	0.0000	0.0000	0.0000	
I=1 J=3	97.7829	97.7836	97.7874	97.7926	97.7944	97.7946	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947	
2	97.0365	97.0641	97.2457	97.7948	98.6174	99.0859	99.5426	99.9428	99.9942	99.9994	99.9999	0.0000	
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	
LOG F(I)/F(4)													
I=3	99.7949	99.8060	99.8725	0.0496	0.3224	0.4993	0.5206	0.4924	0.4884	0.4880	0.4879	0.4879	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	0.0000	99.9905	99.9430	99.8496	99.6466	99.6434	99.6575	99.6430	99.6409	99.6407	99.6407	99.6407	
6	99.9543	99.9342	99.8378	99.6262	99.2384	99.3283	99.3456	99.3261	99.3235	99.3232	99.3232	99.3232	
T = 40000 LOG BETA(1,2) = -4.00													
-LOG W	0.00	1.00	2.00	3.00	4.00	5.00	5.30	5.70	6.00	6.50	7.00	8.00	9.00
LOG X	-4.00	-3.00	-2.00	-1.00	0.00	1.00	1.30	1.70	2.00	2.50	3.00	4.00	5.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.2642	99.2598	99.2197	98.9764	98.3468	97.4789	97.1944	96.8057	96.5100	96.0131	95.5140	94.5143	93.5143
3	99.2425	99.2359	99.1757	98.8018	97.8397	96.4061	95.8976	95.1722	94.5956	93.5850	92.5997	91.1842	90.1314
4	99.2817	99.2736	99.1996	98.7398	97.5619	95.8040	95.1765	94.2695	93.6057	92.8457	92.2677	91.2325	90.2288
5	99.3246	99.3153	99.2299	98.7105	97.4203	95.4846	94.7763	93.8962	93.4447	92.8742	92.3533	91.3444	90.3435
6	99.3637	99.3531	99.2561	98.6804	97.2670	95.0590	94.3747	93.7919	93.4235	92.9501	92.4225	91.4193	90.4190
+	20.6695	19.6666	18.6413	17.5282	16.4233	15.4004	15.0989	14.6980	14.3977	13.8974	13.3974	12.3973	11.3973
LOG BH(I)													
I=1	99.9033	0.9062	1.9314	3.0445	4.1495	5.1723	5.4739	5.8748	6.1751	6.6753	7.1754	8.1754	9.1754
2	99.8503	0.8487	1.8339	2.7036	3.1790	3.3340	3.3510	3.3633	3.3679	3.3712	3.3721	3.3725	3.3725
3	99.7144	0.7108	1.6758	2.4150	2.5579	2.1475	1.9402	1.6157	1.3393	0.8290	0.3438	99.9283	99.8755
4	99.5870	0.5818	1.5330	2.1863	2.1134	1.3783	1.0523	0.5463	0.1829	99.9231	99.8451	99.8100	99.8063
5	99.4746	0.4682	1.4081	2.0018	1.8165	0.9038	0.4969	0.0177	99.8066	99.7963	99.7755	99.7666	99.7657
6	99.3764	0.3687	1.2970	1.8343	1.5259	0.3408	99.9580	99.7761	99.7380	99.7148	99.7073	99.7041	99.7038
LOG BETA(I,J)													
I=1 J=6	97.8205	97.8207	97.8219	97.8283	97.8358	97.8378	97.8380	97.8381	97.8381	97.8382	97.8382	97.8382	97.8382
2	97.5273	97.5310	97.5643	97.7848	98.4013	99.2654	99.5249	99.7746	99.8801	99.9605	99.9874	99.9987	99.9999
3	96.8305	96.8355	96.8805	97.1979	98.1069	99.4960	99.8109	99.9621	99.9899	99.9991	99.9999	0.0000	0.0000
4	96.0639	96.0693	96.1203	96.4944	97.5783	99.2615	99.7481	99.9684	99.9944	99.9993	99.9999	0.0000	0.0000
5	96.0152	96.0207	96.0734	96.4728	97.6085	99.3795	99.8403	99.9860	99.9968	99.9994	99.9998	0.0000	0.0000
I=1 J=5	97.5658	97.5659	97.5671	97.5730	97.5801	97.5822	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825	97.5825
2	97.2200	97.2237	97.2559	97.4689	98.0754	98.9378	99.2209	99.5715	99.7581	99.9170	99.9731	99.9973	99.9997
3	96.4035	96.4083	96.4520	96.7561	97.6402	99.0308	99.5089	99.8848	99.9686	99.9970	99.9997	0.0000	0.0000
4	95.3106	95.3160	95.3659	95.7262	96.7852	98.4348	99.0311	99.7779	99.9600	99.9960	99.9993	0.0000	0.0000
I=1 J=4	97.2401	97.2402	97.2412	97.2464	97.2529	97.2549	97.2551	97.2552	97.2552	97.2553	97.2553	97.2553	97.2553
2	96.7896	96.7931	96.8236	97.0244	97.6123	98.4663	98.7497	99.1375	99.4223	99.7697	99.9217	99.9919	99.9992
3	95.6585	95.6630	95.7038	95.9843	96.8165	98.1651	98.6574	99.3596	99.7725	99.9768	99.9980	0.0000	0.0000
I=1 J=3	96.7828	96.7829	96.7836	96.7874	96.7926	96.7944	96.7946	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947
2	96.0332	96.0365	96.0641	96.2457	97.6166	97.8945	98.2779	98.5715	98.9667	99.3558	99.7422	99.9941	99.9941
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.7937	99.7949	99.8060	99.8725	0.0496	0.3421	0.4552	0.6325	0.7283	0.6256	0.5355	0.4913	0.4868
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0011	0.0000	99.9905	99.9430	99.8494	99.6800	99.5989	99.5885	99.7026	99.7036	99.6149	99.6451	99.6431
6	99.9566	99.9543	99.9342	99.8378	99.6311	99.1911	99.1103	99.2964	99.4425	99.4120	99.3574	99.3305	99.3278

(Continued)
 $T = 40000$

	LOG BETA0(1,2) = -4.00				LOG BETA0(1,2) = -5.00								
-LOG W	10.00	11.00			0.00	1.00	2.00	3.00	4.00	5.00	6.00	6.50	7.00
LOG X	6.00	7.00			-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	1.50	2.00
LOG E(I)													
I=1	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	92.5143	91.5143			99.2647	99.2642	99.2598	99.2197	98.9764	98.3468	97.4789	97.0010	96.5099
3	89.1260	88.1254			99.2431	99.2425	99.2359	99.1757	98.8018	97.8397	96.4000	95.5493	94.6200
4	89.2285	88.2284			99.2825	99.2817	99.2736	99.1996	98.7398	97.5619	95.8037	94.7310	93.5293
5	89.3434	88.3434			99.3255	99.3246	99.3153	99.2299	98.7105	97.4203	95.4841	94.2655	92.8786
6	89.4190	88.4190			99.3648	99.3637	99.3531	99.2561	98.6804	97.2670	95.0507	93.6059	92.5858
+	10.3973	9.3973			20.6698	19.6695	18.6666	17.6413	16.5282	15.4233	14.4004	13.8983	13.3977
LOG BN(I)													
I=1	10.1754	11.1754			99.9030	0.9033	1.9062	2.9314	4.0445	5.1495	6.1723	6.6744	7.1751
2	3.3725	3.3725			99.8504	0.8503	1.8487	2.8339	3.7036	4.41790	4.3340	4.3582	4.3678
3	99.8701	99.8695			99.7148	0.7144	1.7108	2.6758	3.4150	3.5579	3.1478	2.7925	2.3724
4	99.8059	99.8059			99.5875	0.5870	1.5818	2.5330	3.1863	3.1134	2.3781	1.8074	1.1064
5	99.7656	99.7656			99.4753	0.4746	1.4682	2.4081	3.0018	2.8165	1.9033	1.1867	0.3005
6	99.7038	99.7038			99.3772	0.3764	1.3687	2.2970	2.8343	2.5259	1.3324	0.3897	99.8703
LOG BETA(I,J)													
I=1 J=6	97.8382	97.8382			96.8205	96.8205	96.8207	96.8219	96.8283	96.8358	96.8378	96.8380	96.8381
2	0.0000	0.0000			96.5269	96.5273	96.5310	96.5643	96.7847	97.4013	98.2674	98.7454	99.2352
3	0.0000	0.0000			95.8301	95.8305	95.8355	95.8805	96.1979	97.1069	98.5167	99.3647	99.8937
4	0.0000	0.0000			95.0634	95.0639	95.0693	95.1203	95.4944	96.5783	98.2632	99.3118	99.9368
5	0.0000	0.0000			95.0146	95.0152	95.0207	95.0734	95.4728	96.6085	98.3841	99.5205	99.9809
I=1 J=5	97.5825	97.5825			96.5658	96.5658	96.5659	96.5671	96.5730	96.5801	96.5822	96.5824	96.5825
2	0.0000	0.0000			96.2196	96.2200	96.2237	96.2559	96.4689	97.0755	97.9378	98.4153	98.9064
3	0.0000	0.0000			95.4031	95.4035	95.4083	95.4520	95.7561	96.6401	98.0304	98.8772	99.6960
4	0.0000	0.0000			94.3100	94.3106	94.3160	94.3659	94.7262	95.7852	97.4355	98.4566	99.5771
I=1 J=4	97.2553	97.2553			96.2401	96.2401	96.2402	96.2412	96.2464	96.2529	96.2549	96.2552	96.2552
2	99.9999	99.9999			95.7893	95.7896	95.7931	95.8236	96.0244	96.6123	97.4663	97.9427	98.4334
3	0.0000	0.0000			94.6581	94.6585	94.6630	94.7038	94.9843	95.8165	97.1645	97.9953	98.8973
I=1 J=3	96.7947	96.7947			95.7828	95.7828	95.7829	95.7836	95.7874	95.7926	95.7944	95.7946	95.7947
2	99.9994	99.9999			95.0329	95.0332	95.0365	95.0641	95.2455	95.7947	96.6166	97.0850	97.5718
I=1 J=2	96.0000	96.0000			95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.4863	0.4863			99.7936	99.7937	99.7949	99.8060	99.8725	0.0496	0.3427	0.5500	0.8270
4	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6429	99.6429			0.0012	0.0011	0.0000	99.9905	99.9430	99.8494	99.6797	99.5350	99.3502
6	99.3275	99.3275			99.9568	99.9566	99.9543	99.9342	99.8378	99.6311	99.1849	98.8145	98.9953

(Continued)
 $T = 40000$

	LOG BETA0(1,2) = -5.00												
-LOG W	7.25	7.50	7.75	8.00	8.30	8.70	9.00	10.00	11.00	12.00	13.00		
LOG X	2.25	2.50	2.75	3.00	3.30	3.70	4.00	5.00	6.00	7.00	8.00		
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.2619	96.0132	95.7639	95.5142	95.2145	94.8146	94.5147	93.5147	92.5147	91.5147	90.5147	90.5147	90.5147
3	94.1486	93.6540	93.1456	92.6290	92.0058	91.1842	90.6019	89.1850	88.1320	87.1266	86.1261	86.1261	86.1261
4	92.8698	92.2599	91.8132	91.4608	91.0772	90.6007	90.2677	89.2333	88.2296	87.2293	86.2292	86.2292	86.2292
5	92.3619	92.0106	91.7090	91.4205	91.0876	90.6631	90.3541	89.3454	88.3446	87.3445	86.3445	86.3445	86.3445
6	92.2785	91.9946	91.7191	91.4506	91.1366	90.7270	90.4237	89.4206	88.4202	87.4202	86.4202	86.4202	86.4202
+	13.1475	12.8974	12.6474	12.3974	12.0974	11.6973	11.3973	10.3973	9.3973	8.3973	7.3973	7.3973	7.3973
LOG BN(I)													
I=1	7.4252	7.6753	7.9254	8.1754	8.4754	8.8754	9.1754	10.1754	11.1754	12.1754	13.1754	13.1754	13.1754
2	4.3699	4.3712	4.3720	4.3724	4.3726	4.3728	4.3728	4.3729	4.3729	4.3729	4.3729	4.3729	4.3729
3	2.1425	1.8980	1.6596	1.3731	1.0499	0.6285	0.3460	99.9291	99.8761	99.8707	99.8702	99.8702	99.8702
4	0.6971	0.3372	0.1406	0.0382	99.9546	99.8782	99.8451	99.8108	99.8071	99.8067	99.8067	99.8067	99.8067
5	0.0339	99.9327	99.8811	99.8427	99.8098	99.7853	99.7763	99.7676	99.7668	99.7667	99.7667	99.7667	99.7667
6	99.8131	99.7793	99.7539	99.7354	99.7213	99.7118	99.7085	99.7054	99.7050	99.7050	99.7050	99.7050	99.7050
LOG BETA(I,J)													
I=1 J=6	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.4678	99.6588	99.7934	99.8790	99.9378	99.9748	99.9873	99.9987	99.9999	0.0000	0.0000	0.0000	0.0000
3	99.9638	99.9883	99.9964	99.9989	99.9997	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9868	99.9972	99.9992	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9961	99.9987	99.9994	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	99.1539	99.3947	99.6028	99.7560	99.8707	99.9468	99.9731	99.9973	99.9997	0.0000	0.0000	0.0000	0.0000
3	99.8892	99.9635	99.9886	99.9966	99.9992	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.8972	99.9792	99.9942	99.9978	99.9993	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2552	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.6813	98.9301	99.1788	99.4184	99.6559	99.8485	99.9216	99.9919	99.9992	99.9999	0.0000	0.0000	0.0000
3	99.3643	99.7352	99.9110	99.9726	99.9936	99.9991	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.8187	98.0669	98.3158	98.5652	98.8648	99.2627	99.5351	99.9422	99.9941	99.9994	99.9999	99.9999	99.9999
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	1.0055	1.1202	1.0587	0.9044	0.7269	0.5871	0.5371	0.4912	0.4866	0.4862	0.4861	0.4861	0.4861
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.4925	99.7432	99.8476	99.8252	99.7531	99.6885	99.6657	99.6453	99.6433	99.6431	99.6431	99.6431	99.6431
6	99.3320	99.6004	99.6574	99.5873	99.4781	99.3895	99.3587	99.3309	99.3282	99.3279	99.3279	99.3279	99.3279

BALMER DECREMENTS

T = 45000										
LOG BETA0(1,2) = 1.00					LOG BETA0(1,2) = 0.00					
-LOG W	0.00	1.00	5.00	10.00	0.00	1.00	2.00	3.00	5.00	10.00
LOG X	1.00	2.00	6.00	11.00	0.00	1.00	2.00	3.00	5.00	10.00
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.5317	97.5985	93.6074	88.6074	98.6816	97.7765	96.7879	95.7891	93.7892	88.7892
3	98.7643	97.8999	93.9198	88.9198	98.7917	97.9197	96.9358	95.9374	93.9376	88.9376
4	98.9320	98.1345	94.1673	89.1673	98.9479	98.1404	97.1688	96.1718	94.1721	89.1721
5	99.0492	98.3052	94.3501	89.3501	99.0748	98.3105	97.3475	96.3516	94.3520	89.3520
6	99.1234	98.4184	94.4731	89.4731	99.1428	98.4225	97.4685	96.4734	94.4740	89.4740
+	20.7462	19.6830	15.6711	10.6711	20.7570	19.6846	18.6725	17.6712	15.6711	10.6711
LOG BN(I)										
I=1	0.0936	1.1567	5.1687	10.1687	0.0828	1.1552	2.1673	3.1686	5.1687	10.1687
2	99.1659	99.2955	99.3164	99.3164	99.3046	99.4719	99.4954	99.4979	99.4982	99.4982
3	99.2574	99.4561	99.4880	99.4880	99.2740	99.4744	99.5026	99.5055	99.5059	99.5059
4	99.2492	99.5148	99.5595	99.5595	99.2542	99.5191	99.5596	99.5639	99.5644	99.5644
5	99.2070	99.5260	99.5829	99.5829	99.2217	99.5298	99.5789	99.5842	99.5848	99.5849
6	99.1413	99.4994	99.5661	99.5661	99.1499	99.5020	99.5600	99.5663	99.5670	99.5670
LOG BETA(I,J)										
I=1 J=6	99.9997	99.9997	99.9997	99.9997	99.9968	99.9969	99.9969	99.9969	99.9969	99.9969
2	99.9999	0.0000	0.0000	0.0000	99.9987	99.9999	0.0000	0.0000	0.0000	0.0000
3	99.9993	0.0000	0.0000	0.0000	99.9928	99.9996	0.0000	0.0000	0.0000	0.0000
4	99.9946	99.9996	0.0000	0.0000	99.9461	99.9958	99.9997	0.0000	0.0000	0.0000
5	99.9922	99.9992	0.0000	0.0000	99.9139	99.9919	99.9993	99.9999	0.0000	0.0000
I=1 J=5	99.9994	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943
2	99.9999	0.0000	0.0000	0.0000	99.9976	99.9998	0.0000	0.0000	0.0000	0.0000
3	99.9985	99.9999	0.0000	0.0000	99.9840	99.9992	0.0000	0.0000	0.0000	0.0000
4	99.9751	99.9987	0.0000	0.0000	99.7890	99.9868	99.9991	99.9999	0.0000	0.0000
I=1 J=4	99.9988	99.9988	99.9988	99.9988	99.9879	99.9880	99.9880	99.9880	99.9880	99.9880
2	99.9997	0.0000	0.0000	0.0000	99.9935	99.9994	99.9999	0.0000	0.0000	0.0000
3	99.9932	99.9998	0.0000	0.0000	99.9202	99.9963	99.9998	0.0000	0.0000	0.0000
I=1 J=3	99.9965	99.9965	99.9965	99.9965	99.9655	99.9656	99.9656	99.9656	99.9656	99.9656
2	99.9985	99.9999	0.0000	0.0000	99.9629	99.9959	99.9996	0.0000	0.0000	0.0000
I=1 J=2	99.9785	99.9785	99.9785	99.9785	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008
LOG F(1)/F(4)										
I=3	0.4205	0.3546	0.3419	0.3419	0.4206	0.3652	0.3560	0.3550	0.3549	0.3549
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6452	99.6985	99.7107	99.7107	99.6588	99.6984	99.7066	99.7076	99.7078	99.7078
6	99.3285	99.4207	99.4427	99.4427	99.3370	99.4195	99.4366	99.4386	99.4388	99.4388

T = 45000										
LOG BETA0(1,2) = -1.00										
-LOG W	0.00	0.50	1.00	1.50	2.00	3.00	4.00	5.00	10.00	
LOG X	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	5.00	9.00
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.1505	98.8867	98.5200	98.0854	97.6116	96.6234	95.6246	94.6248	89.6248	89.6248
3	99.0685	98.7113	98.2146	97.6544	97.1045	96.0739	95.0704	94.0701	89.0700	89.0700
4	99.1243	98.7648	98.2726	97.7381	97.2213	96.2155	95.2151	94.2151	89.2150	89.2150
5	99.2108	98.8821	98.4091	97.8856	97.3746	96.3705	95.3701	94.3700	89.3700	89.3700
6	99.2757	98.9582	98.4910	97.9846	97.4828	96.4827	95.4827	94.4827	89.4827	89.4827
+	20.8339	20.2597	19.7073	19.1836	18.6752	17.6715	16.6711	15.6711	10.6711	10.6711
LOG BN(I)										
I=1	0.0059	0.5801	1.1325	1.6561	2.1646	3.1683	4.1687	5.1687	10.1687	
2	99.6966	0.0070	0.1927	0.2818	0.3165	0.3320	0.3336	0.3337	0.3337	
3	99.4739	99.6909	99.7466	99.7100	99.6686	99.6417	99.6386	99.6383	99.6383	
4	99.3537	99.5684	99.6287	99.6178	99.6094	99.6074	99.6073	99.6073	99.6073	
5	99.2808	99.5263	99.6055	99.6059	99.6033	99.6029	99.6029	99.6029	99.6029	
6	99.2059	99.4625	99.5478	99.5650	99.5718	99.5753	99.5756	99.5757	99.5757	
LOG BETA(I,J)										
I=1 J=6	99.9679	99.9683	99.9686	99.9688	99.9688	99.9689	99.9689	99.9689	99.9689	99.9689
2	99.9523	99.9737	99.9884	99.9957	99.9985	99.9998	0.0000	0.0000	0.0000	0.0000
3	99.8241	99.9256	99.9774	99.9945	99.9987	99.9999	0.0000	0.0000	0.0000	0.0000
4	99.3195	99.6835	99.9028	99.9763	99.9937	99.9994	99.9999	0.0000	0.0000	0.0000
5	99.2259	99.5719	99.8458	99.9616	99.9898	99.9991	99.9999	0.0000	0.0000	0.0000
I=1 J=5	99.9428	99.9436	99.9441	99.9443	99.9444	99.9444	99.9445	99.9445	99.9445	99.9445
2	99.9042	99.9461	99.9759	99.9909	99.9969	99.9997	0.0000	0.0000	0.0000	0.0000
3	99.5898	99.8130	99.9416	99.9856	99.9965	99.9997	0.0000	0.0000	0.0000	0.0000
4	98.5999	99.0997	99.6437	99.9041	99.9736	99.9975	99.9997	1.0000	0.0000	0.0000
I=1 J=4	99.8819	99.8832	99.8842	99.8846	99.8848	99.8849	99.8849	99.8849	99.8849	99.8849
2	99.7517	99.8518	99.9310	99.9734	99.9909	99.9991	99.9999	0.0000	0.0000	0.0000
3	98.8650	99.2241	99.6600	99.9062	99.9774	99.9982	99.9998	0.0000	0.0000	0.0000
I=1 J=3	99.6913	99.6937	99.6956	99.6966	99.6970	99.6972	99.6973	99.6973	99.6973	99.6973
2	99.1120	99.3326	99.6109	99.8284	99.9377	99.9934	99.9993	99.9999	99.9999	0.0000
I=1 J=2	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000
LOG F(1)/F(4)										
I=3	99.8939	0.0167	0.2112	0.3506	0.4194	0.4420	0.4441	0.4443	0.4443	0.4443
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.7668	99.7395	99.7090	99.6928	99.6872	99.6834	99.6829	99.6828	99.6828	99.6828
6	99.4889	99.4521	99.4126	99.4056	99.4061	99.4048	99.4045	99.4045	99.4045	99.4045

T = 45000 LOG BETA0(1,2) = -2.00													
-LOG W	0.00	1.00	2.00	2.50	3.00	3.50	4.00	5.00	6.00	7.00	10.00		
LOG X	-2.00	-1.00	0.00	0.50	1.00	1.50	2.00	3.00	4.00	5.00	8.00		
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.3530	99.1362	98.5282	98.1185	97.6728	97.1978	96.7056	95.7085	94.7088	93.7088	90.7088	90.7088	90.7088
3	99.3333	99.0089	98.1168	97.4952	96.7698	96.0137	95.3702	94.2980	93.2904	92.2896	89.2896	89.2896	89.2896
4	99.3655	98.9705	97.8986	97.2106	96.5110	95.9061	95.3824	94.3754	93.3747	92.3747	89.3747	89.3747	89.3747
5	99.4030	98.9668	97.8504	97.1863	96.5405	95.9879	95.4768	94.4729	93.4726	92.4725	89.4725	89.4725	89.4725
6	99.4405	98.9857	97.8223	97.1472	96.5663	96.0490	95.5452	94.5437	93.5435	92.5435	89.5435	89.5435	89.5435
+	20.9147	19.8130	18.7013	18.1819	17.6747	17.1723	16.6714	15.6711	14.6711	13.6711	10.6711	10.6711	10.6711
LOG BH(I)													
I=1	99.9251	1.0268	2.1384	2.6578	3.1651	3.6675	4.1683	5.1687	6.1687	7.1687	10.1687	10.1687	10.1687
2	99.8183	0.7032	1.2068	1.3166	1.3781	1.4056	1.4142	1.4175	1.4178	1.4178	1.4178	1.4178	1.4178
3	99.6579	0.4352	0.6547	0.5525	0.3544	0.0807	99.9381	99.8662	99.8586	99.8579	99.8578	99.8578	99.8578
4	99.5142	0.2209	0.2606	0.0920	99.8996	99.7972	99.7743	99.7676	99.7670	99.7669	99.7669	99.7669	99.7669
5	99.3923	0.0577	0.0529	99.9083	99.7697	99.7195	99.7093	99.7057	99.7054	99.7054	99.7054	99.7054	99.7054
6	99.2899	99.9369	99.8850	99.7294	99.6557	99.6409	99.6378	99.6367	99.6366	99.6366	99.6366	99.6366	99.6366
LOG BETA(I,J)													
I=1 J=6	99.7099	99.7144	99.7203	99.7215	99.7220	99.7222	99.7222	99.7223	99.7223	99.7223	99.7223	99.7223	99.7223
2	99.4210	99.5867	99.8768	99.9503	99.9819	99.9939	99.9980	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
3	98.7282	99.0125	99.7329	99.9292	99.9871	99.9980	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	97.9673	98.3138	99.3277	99.8131	99.9680	99.9938	99.9983	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
5	97.9266	98.3196	99.3380	99.7963	99.9643	99.9923	99.9978	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	99.5329	99.5387	99.5467	99.5484	99.5491	99.5494	99.5495	99.5495	99.5495	99.5495	99.5495	99.5495	99.5495
2	99.1239	99.3114	99.7546	99.8968	99.9618	99.9871	99.9958	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000
3	98.2987	98.5662	99.3846	99.8034	99.9621	99.9944	99.9989	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	97.2093	97.5319	98.5476	99.2703	99.8287	99.9673	99.9911	99.9991	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=4	99.2351	99.2413	99.2502	99.2522	99.2531	99.2534	99.2536	99.2536	99.2536	99.2536	99.2536	99.2536	99.2536
2	98.6944	98.8732	99.4262	99.7216	99.8904	99.9620	99.9876	99.9987	99.9999	0.0000	0.0000	0.0000	0.0000
3	97.5520	97.7962	98.5663	99.1589	99.7533	99.9614	99.9933	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	98.7801	98.7846	98.7917	98.7934	98.7942	98.7946	98.7947	98.7947	98.7947	98.7947	98.7947	98.7947	98.7947
2	97.9412	98.1028	98.6295	99.0078	99.4199	99.7519	99.9131	99.9909	99.9991	99.9999	0.0000	0.0000	0.0000
I=1 J=2	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000
LOG F(I)/F(4)													
I=3	99.8039	99.8573	0.0108	0.1601	0.3777	0.4868	0.5026	0.5042	0.5042	0.5042	0.5042	0.5042	0.5042
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9949	99.9623	99.8080	99.6787	99.6288	99.6346	99.6304	99.6263	99.6258	99.6257	99.6257	99.6257	99.6257
6	99.9384	99.8656	99.5112	99.3022	99.2838	99.3117	99.3100	99.3063	99.3058	99.3058	99.3058	99.3058	99.3058
T = 45000 LOG BETA0(1,2) = -3.00													
-LOG W	0.00	1.00	2.00	3.00	4.00	4.30	4.70	5.00	5.50	6.00	7.00	8.00	9.00
LOG X	-3.00	-2.00	-1.00	0.00	1.00	1.30	1.70	2.00	2.50	3.00	4.00	5.00	6.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.3867	99.3524	99.1346	98.5346	97.6905	97.4113	97.0273	96.7334	96.2374	95.7384	94.7387	93.7387	92.7387
3	99.3821	99.3326	99.0069	98.1134	96.7667	96.2757	95.5674	94.9987	94.1212	93.4401	92.4540	91.3451	90.3442
4	99.4252	99.3648	98.9682	97.8893	96.2556	95.6858	94.9555	94.5306	93.9588	93.4496	92.4433	91.4427	90.4426
5	99.4493	99.3998	98.9517	97.7726	96.0315	95.4941	94.9150	94.5772	94.0554	93.5536	92.5536	91.5534	90.5534
6	99.5083	99.4294	98.9334	97.6525	95.8203	95.3927	94.9429	94.6329	94.1274	93.6258	92.6252	91.6251	90.6251
+	20.9347	19.9140	18.8117	17.7014	16.6748	16.3730	15.9718	15.6715	15.1712	14.6711	13.6711	12.6711	11.6711
LOG BH(I)													
I=1	99.9051	0.9257	2.0280	3.1384	4.1650	4.4668	4.8680	5.1683	5.6686	6.1687	7.1687	8.1687	9.1687
2	99.8316	0.8183	1.7028	2.2133	2.3957	2.4184	2.4355	2.4420	2.4462	2.4473	2.4477	2.4477	2.4477
3	99.6867	0.6579	1.4344	1.6513	1.3312	1.1420	0.8349	0.5666	0.1893	0.0083	99.9223	99.9133	99.9124
4	99.5538	0.5141	1.2198	1.2512	0.6442	0.3762	0.0470	99.9225	99.8580	99.8419	99.8356	99.8349	99.8349
5	99.4385	0.3896	1.0439	0.9752	0.2606	0.0250	99.8471	99.8097	99.7926	99.7882	99.7864	99.7862	99.7862
6	99.3377	0.2795	0.8857	0.7152	99.9096	99.7838	99.7351	99.7256	99.7203	99.7188	99.7182	99.7181	99.7181
LOG BETA(I,J)													
I=1 J=6	98.8148	98.8163	98.8241	98.8345	98.8376	98.8379	98.8380	98.8381	98.8381	98.8382	98.8382	98.8382	98.8382
2	98.4022	98.4309	98.6283	99.2135	99.8230	99.9035	99.9592	99.9791	99.9933	99.9979	99.9998	0.0000	0.0000
3	97.6847	97.7241	98.0000	98.8414	99.8597	99.9531	99.9909	99.9977	99.9997	0.0000	0.0000	0.0000	0.0000
4	96.9149	96.9567	97.2776	98.2681	99.7304	99.9264	99.9897	99.9970	99.9993	99.9998	0.0000	0.0000	0.0000
5	96.8630	96.9065	97.2494	98.2887	99.7789	99.9457	99.9916	99.9969	99.9991	99.9997	0.0000	0.0000	0.0000
I=1 J=5	98.5604	98.5618	98.5690	98.5789	98.5820	98.5822	98.5824	98.5825	98.5825	98.5825	98.5825	98.5825	98.5825
2	98.0965	98.1243	98.3148	98.8001	99.6546	99.8031	99.9144	99.9558	99.9857	99.9955	99.9995	0.0000	0.0000
3	97.2612	97.2975	97.5620	98.3794	99.6232	99.8612	99.9722	99.9929	99.9993	99.9999	0.0000	0.0000	0.0000
4	96.1635	96.2043	96.5129	97.4792	99.0335	99.5819	99.9338	99.9825	99.9966	99.9991	99.9999	0.0000	0.0000
I=1 J=4	98.2353	98.2365	98.2427	98.2518	98.2547	98.2550	98.2552	98.2552	98.2552	98.2553	98.2553	98.2553	98.2553
2	97.6686	97.6950	97.8747	98.4301	99.2545	99.5098	99.7632	99.8731	99.9580	99.9865	99.9986	99.9999	0.0000
3	96.5184	96.5526	96.7978	97.5667	98.8213	99.2951	99.8019	99.9465	99.9991	99.9992	0.0000	0.0000	0.0000
I=1 J=3	97.7933	97.7801	97.7846	97.7916	97.7942	97.7944	97.7946	97.7947	97.7947	97.7947	97.7947	97.7947	97.7947
2	96.9178	96.9419	97.1043	97.6209	98.4118	98.6819	99.0585	99.3443	99.7251	99.9049	99.9901	99.9990	99.9999
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000
LOG F(I)/F(4)													
I=3	99.7954	99.8040	99.8576	0.0042	0.2477	0.3513	0.4965	0.5287	0.5118	0.4982			

BALMER DECREMENTS

T = 45000 LOG BETA(1,2) = -4.00

-LOG W	0.00	1.00	2.00	3.00	4.00	5.00	5.30	5.70	6.00	6.30	6.70	7.00	8.00
LOG X	-4.00	-3.00	-2.00	-1.00	0.00	1.00	1.30	1.70	2.00	2.30	2.70	3.00	4.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.3899	99.3863	99.3524	99.1345	98.5347	97.6914	97.4124	97.0288	96.7353	96.4389	96.0412	95.7419	94.7424
3	99.3873	99.3821	99.3326	99.0069	98.1134	96.7694	96.2853	95.5887	95.0341	94.4444	93.6390	93.0332	91.4444
4	99.4316	99.4252	99.3648	98.9682	97.8893	96.2456	95.6521	94.7908	94.0923	93.4657	92.8752	92.1353	91.4575
5	99.4768	99.4693	99.3998	98.9517	97.7726	95.9740	95.3110	94.3603	93.7823	93.3473	92.8663	92.5802	91.5653
6	99.5167	99.5083	99.4294	98.9333	97.6521	95.6213	94.8643	94.0799	93.6973	93.3666	92.9492	92.6433	91.6380
+	20.9370	19.9347	18.9140	17.8117	16.7014	15.6748	15.3730	14.9728	14.6715	14.3713	13.9711	13.6711	12.6711
LOG BN(I)													
I=1	99.9028	99.9051	99.9257	99.9280	99.91650	99.91650	99.91650	99.91650	99.91650	99.91650	99.91650	99.91650	99.91650
2	99.8329	99.8316	99.8183	99.8028	99.8133	99.8396	99.84195	99.84370	99.84439	99.84477	99.84500	99.84508	99.84514
3	99.6896	99.6867	99.6579	99.4344	99.26513	99.23339	99.21517	99.18561	99.16019	99.13174	99.09072	99.06014	99.01666
4	99.5579	99.5538	99.5141	99.2197	99.2512	99.16342	99.13424	99.08823	99.04842	99.01577	99.98674	99.9075	99.8497
5	99.4436	99.4385	99.3896	99.20438	99.19751	99.12031	99.08420	99.02924	99.99947	99.87999	99.82891	99.8130	99.7981
6	99.3438	99.3377	99.2795	99.18857	99.17148	99.07106	99.02555	99.8722	99.7900	99.7594	99.7421	99.7363	99.7310
LOG BETA(I,J)													
I=1 J=6	97.8147	97.8148	97.8163	97.8241	97.8345	97.8376	97.8379	97.8380	97.8381	97.8381	97.8381	97.8382	97.8382
2	97.3992	97.4022	97.4309	97.6283	97.82144	99.0549	99.3297	99.6484	99.8054	99.8974	99.9579	99.9787	99.9978
3	96.6828	96.6867	96.7841	97.0001	97.8844	99.1566	99.5919	99.9022	99.9723	99.9928	99.9989	99.9997	0.0000
4	95.9106	95.9149	95.9567	96.2777	97.2679	98.8338	99.4026	99.8910	99.9787	99.9962	99.9993	99.9997	0.0000
5	95.8586	95.8630	95.9065	96.2495	97.2883	98.9259	99.5259	99.9437	99.9908	99.9976	99.9993	99.9997	0.0000
I=1 J=5	97.5603	97.5604	97.5618	97.5690	97.5789	97.5820	97.5822	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825
2	97.0935	97.0965	97.1243	97.3149	97.8901	98.7257	99.0041	99.3802	99.6233	99.7912	99.9117	99.9549	99.9954
3	96.2574	96.2612	96.2975	96.5621	97.3794	98.6743	99.1494	99.7227	99.9151	99.9775	99.9966	99.9992	99.9994
4	95.1592	95.1635	95.2043	95.5130	96.4792	98.0161	98.5775	99.3983	99.8529	99.9753	99.9956	99.9985	99.9999
I=1 J=4	97.2352	97.2353	97.2365	97.2427	97.2518	97.2547	97.2550	97.2552	97.2552	97.2552	97.2552	97.2553	97.2553
2	96.6658	96.6686	96.6950	96.8748	97.4301	98.2553	98.5324	98.9149	99.2072	99.4850	99.7560	99.8706	99.9864
3	95.5149	95.5184	95.5526	96.5667	97.8162	98.2814	98.9580	99.4818	99.8328	99.9736	99.9936	99.9990	99.9999
I=1 J=3	96.7792	96.7793	96.7801	96.7846	96.7916	96.7942	96.7944	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947
2	95.9152	95.9178	95.9419	96.1043	96.6209	97.94110	97.6811	98.0573	98.3477	98.6422	99.0387	99.3333	99.9039
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000
LOG F(I)/F(4)													
I=3	99.7945	99.7954	99.8040	99.8576	0.0042	0.2689	0.3713	0.5296	0.6715	0.7303	0.6358	0.5699	0.4977
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0007	99.9999	99.9921	99.9515	99.8712	99.7267	99.6585	99.5626	99.4318	99.7156	99.7046	99.6770	99.6446
6	99.9554	99.9530	99.9374	99.8556	99.6840	99.3123	99.1464	99.1595	99.3401	99.4502	99.4127	99.3730	99.3288

(continued)
T = 45000 LOG BETA(1,2) = -4.00 LOG BETA(1,2) = -5.00

-LOG W	9.00	10.00	11.00	0.00	1.00	2.00	3.00	4.00	5.00	6.00	6.50	7.00
LOG X	5.00	6.00	7.00	-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	1.50	2.00
LOG E(I)												
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	93.7424	92.7424	91.7424	99.3903	99.3899	99.3863	99.3524	99.1345	98.5346	97.6914	97.2219	96.7352
3	90.3606	89.3514	88.3505	99.3879	99.3873	99.3821	99.3326	99.0069	98.1134	96.7694	95.9470	95.0527
4	90.4513	89.4506	88.4506	99.4322	99.4316	99.4252	99.3648	98.9682	97.8893	96.2456	95.2300	94.0860
5	90.5637	89.5636	88.5636	99.4775	99.4768	99.4693	99.3998	98.9517	97.7726	95.9740	94.8345	93.4966
6	90.6374	89.6374	88.6374	99.5176	99.5167	99.5083	99.4294	98.9334	97.6521	95.6212	94.2743	92.9301
+	11.6711	10.6711	9.6711	20.9372	19.9370	18.9347	17.9140	16.8117	15.7014	14.6748	14.1723	13.6715
LOG BN(I)												
I=1	9.1687	10.1678	11.1678	99.9025	99.9028	99.9051	99.9257	99.9280	99.9165	99.9165	99.9165	99.9165
2	3.4514	3.4514	3.4514	99.8331	99.8329	99.8316	99.8183	99.8028	99.8133	99.8396	99.84195	99.8437
3	99.9288	99.9197	99.9787	99.6899	99.6896	99.6867	99.6579	99.6286	99.5987	99.5696	99.5405	99.5114
4	99.8435	99.8429	99.8428	99.5583	99.5579	99.5538	99.5141	99.4744	99.4347	99.3950	99.3553	99.3156
5	99.7966	99.7964	99.7964	99.4442	99.4436	99.4385	99.4048	99.3651	99.3254	99.2857	99.2460	99.2063
6	99.7305	99.7304	99.7304	99.3444	99.3438	99.3377	99.2795	99.2213	99.1631	99.1049	99.0467	98.9885
LOG BETA(I,J)												
I=1 J=6	97.8382	97.8382	97.8382	96.8146	96.8147	96.8148	96.8163	96.8241	96.8345	96.8376	96.8379	96.8380
2	99.9998	99.9998	99.9998	96.3989	96.3992	96.4022	96.4308	96.6283	97.2144	98.0550	98.5244	99.0112
3	0.0000	0.0000	0.0000	95.6824	95.6828	95.6867	95.7241	96.0001	96.8414	98.1570	98.9742	99.7380
4	0.0000	0.0000	0.0000	94.9102	94.9106	94.9149	94.9567	95.2777	96.2679	97.8338	98.8233	99.7831
5	0.0000	0.0000	0.0000	94.8582	94.8586	94.8630	94.9065	95.2495	96.2883	97.9259	98.9979	99.9034
I=1 J=5	97.5825	97.5825	97.5825	96.5603	96.5603	96.5604	96.5618	96.5690	96.5789	96.5820	96.5822	96.5824
2	99.9995	99.9995	99.9995	96.0932	96.0935	96.0965	96.1243	96.3149	96.8901	97.7257	98.7257	99.8194
3	0.0000	0.0000	0.0000	95.2570	95.2574	95.2612	95.2975	95.5621	96.3795	97.6743	98.4835	99.3639
4	0.0000	0.0000	0.0000	94.1588	94.1592	94.1635	94.2043	94.5130	95.4792	97.0160	97.9793	99.0723
I=1 J=4	97.2553	97.2553	97.2553	96.2352	96.2352	96.2353	96.2365	96.2427	96.2518	96.2547	96.2550	96.2552
2	99.9986	99.9999	99.9999	95.6655	95.6658	95.6686	95.6950	95.8798	96.4301	97.2553	97.7222	98.2082
3	0.0000	0.0000	0.0000	94.5145	94.5149	94.5184	94.5525	94.7979	95.5668	96.8162	97.6085	98.4805
I=1 J=3	96.7947	96.7947	96.7947	95.7792	95.7792	95.7793	95.7801	95.7846	95.7916	95.7942	95.7945	95.7947
2	99.9900	99.9990	99.9999	94.9149	94.9152	94.9178	94.9418	95.1043	95.6208	96.4110	96.8674	97.3479
I=1 J=2	96.0000	96.0000	96.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)												
I=3	0.4900	0.4893	0.4892	99.7944	99.7945	99.7954	99.8040	99.8576	0.0042	0.2689	0.4515	0.6958
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6412	99.6409	99.6409	0.0008	0.0007	99.9999	99.9921	99.9515	99.8712	99.7267	99.6046	99.4113
6	99.3242	99.3237	99.3237	99.9556	99.9554	99.9536	99.9374	99.8556	99.6840	99.3122	98.9833	98.7840

(Continued)													
T = 45000													
LOG BETA0(1,2) = -5.00													
-LOG W	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	9.50	10.00	11.00	12.00	13.00
LOG X	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.50	5.00	6.00	7.00	8.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.4884	96.2403	95.9914	95.7420	95.4924	95.2426	94.9927	94.7428	94.2428	93.7428	92.7428	91.7428	90.7428
3	94.5836	94.1024	93.6063	93.0970	92.5801	92.0607	91.5443	91.0368	90.1358	89.4492	88.3612	87.3521	86.3512
4	93.4653	92.8028	92.2068	91.7733	91.4257	91.1061	90.8020	90.5132	89.9726	89.4583	88.4521	87.4514	86.4514
5	92.8128	92.3173	91.9749	91.6752	91.3877	91.1103	90.8419	90.5805	90.0698	89.5663	88.5648	87.5646	86.5646
6	92.5465	92.2132	91.9605	91.6856	91.4177	91.1560	90.8987	90.6444	90.1405	89.6392	88.6387	87.6386	86.6386
+	13.4213	13.1712	12.9211	12.6711	12.4211	12.1711	11.9211	11.6711	11.1711	10.6711	9.6711	8.6711	7.6711
LOG BN(I)													
I=1	7.4185	7.6686	7.9187	8.1687	8.4187	8.6687	8.9187	9.1687	9.6687	10.1687	11.1687	12.1687	13.1687
2	4.4471	4.4491	4.4503	4.4510	4.4513	4.4515	4.4517	4.4518	4.4518	4.4518	4.4518	4.4518	4.4518
3	2.4016	2.1705	1.9244	1.6652	1.3983	1.1290	0.8625	0.6051	0.2040	0.0175	99.9294	99.9203	99.9194
4	1.1073	0.6949	0.3490	0.1655	0.0679	99.9984	99.9442	99.9053	99.8649	99.8506	99.8443	99.8437	99.8436
5	0.2994	0.0500	99.9577	99.9080	99.8706	99.8431	99.8248	99.8134	99.8026	99.7991	99.7976	99.7974	99.7974
6	99.8893	99.8361	99.8034	99.7786	99.7607	99.7490	99.7417	99.7374	99.7355	99.7322	99.7317	99.7317	99.7317
LOG BETA(I,J)													
I=1 J=6	96.8381	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.2563	99.4865	99.6729	99.8026	99.8846	99.9337	99.9623	99.9787	99.9932	99.9978	99.9998	0.0000	0.0000
3	99.9038	99.9674	99.9895	99.9968	99.9990	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9454	99.9888	99.9976	99.9992	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9841	99.9966	99.9988	99.9995	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	98.9279	99.1755	99.4147	99.6186	99.7667	99.8625	99.9207	99.9548	99.9855	99.9954	99.9995	0.0000	0.0000
3	99.7219	99.8999	99.9672	99.9898	99.9969	99.9991	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.6238	99.9125	99.9820	99.9948	99.9980	99.9992	99.9997	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2552	96.2552	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.4549	99.7030	98.9519	99.2004	99.4381	99.6370	99.7792	99.8703	99.9374	99.9864	99.9986	99.9999	0.0000
3	98.9414	99.4066	99.7597	99.9202	99.9755	99.9927	99.9979	99.9994	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.5932	97.8403	98.0886	98.3376	98.5870	98.8367	99.0864	99.3321	99.7213	99.9037	99.9900	99.9999	99.9999
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.8459	1.0262	1.1255	1.0502	0.8927	0.7437	0.6390	0.5747	0.5163	0.4977	0.4899	0.4891	0.4890
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.3484	99.5148	99.7588	99.8480	99.8185	99.7576	99.7094	99.6796	99.6531	99.6448	99.6414	99.6411	99.6411
6	99.0195	99.3608	99.6116	99.6515	99.5755	99.4835	99.4168	99.3764	99.3405	99.3293	99.3246	99.3242	99.3241
T = 50000													
LOG BETA0(1,2) = 1.00													
LOG BETA0(1,2) = 0.00													
-LOG W	0.00	1.00	5.00	10.00									
LOG X	1.00	2.00	6.00	11.00	0.00	1.00	2.00	3.00	5.00	10.00			
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	98.7047	97.7839	95.7947	88.7947	98.8481	97.9609	96.9748	95.9762	93.9764	88.9764	88.9764	88.9764	88.9764
3	98.9281	98.0801	94.1030	89.1030	98.9579	98.1007	97.1188	96.1207	94.1208	89.1208	89.1208	89.1208	89.1208
4	99.0890	98.3106	94.3477	89.3477	99.1082	98.3167	97.3488	96.3522	94.3526	89.3526	89.3526	89.3526	89.3526
5	99.2023	98.4780	94.5283	89.5283	99.2319	98.4848	97.5253	96.5297	94.5302	89.5302	89.5302	89.5302	89.5302
6	99.2733	98.5890	94.6501	89.6501	99.2966	98.5944	97.6449	96.6504	94.6510	89.6510	89.6510	89.6510	89.6510
+	20.9793	19.9115	15.8980	10.8980	20.9914	19.9134	18.8997	17.8982	15.8980	10.8980	10.8980	10.8980	10.8980
LOG BN(I)													
I=1	0.0814	1.1492	5.1627	10.1627	0.0693	1.1473	2.1610	3.1625	5.1627	10.1627	10.1627	10.1627	10.1627
2	99.2121	99.3592	99.3833	99.3833	99.3434	99.5342	99.5618	99.5647	99.5650	99.5650	99.5650	99.5650	99.5650
3	99.2737	99.4935	99.5299	99.5299	99.2914	99.5122	99.5440	99.5474	99.5477	99.5477	99.5477	99.5477	99.5477
4	99.2512	99.5406	99.5912	99.5912	99.2583	99.5448	99.5905	99.5954	99.5960	99.5960	99.5960	99.5960	99.5960
5	99.2015	99.5451	99.6089	99.6089	99.2191	99.5501	99.6042	99.6101	99.6108	99.6108	99.6108	99.6108	99.6108
6	99.1310	99.5146	99.5891	99.5891	99.1422	99.5181	99.5822	99.5892	99.5900	99.5900	99.5900	99.5900	99.5900
LOG BETA(I,J)													
I=1 J=6	99.9997	99.9997	99.9997	99.9997	99.9968	99.9968	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969	99.9969
2	99.9999	0.0000	0.0000	0.0000	99.9981	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.9990	99.9999	0.0000	0.0000	99.9891	99.9992	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9920	99.9994	0.0000	0.0000	99.9884	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9884	99.9988	0.0000	0.0000	99.8737	99.9873	99.9989	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	99.9994	99.9994	99.9994	99.9994	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943	99.9943
2	99.9998	0.0000	0.0000	0.0000	99.9963	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.9977	99.9999	0.0000	0.0000	99.9755	99.9987	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.9626	99.9978	0.0000	0.0000	99.6949	99.9784	99.9984	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=4	99.9988	99.9988	99.9988	99.9988	99.9879	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880	99.9880
2	99.9995	0.0000	0.0000	0.0000	99.9904	99.9990	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	99.9893	99.9996	0.0000	0.0000	99.8781	99.9936	99.9996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=3	99.9965	99.9965	99.9965	99.9965	99.9654	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656	99.9656
2	99.9976	99.9999	0.0000	0.0000	99.9456	99.9936	99.9993	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=2	99.9785	99.9785	99.9785	99.9785	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008	99.8008
LOG F(I)/F(4)													
I=3	0.4265	0.3587	0.3447	0.3447	0.3942	0.3679	0.3588	0.3577	0.3576	0.3576	0.3576	0.3576	0.3576
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6414	99.6952	99.7084	99.7084	99.6575	99.6966	99.7044	99.7054	99.7055	99.7055	99.7055	99.7055	99.7055
6	99.3215	99.4153	99.4393	99.4393	99.3330	99.4154	99.4331	9					

BALMER DECREMENTS

T = 50000 LOG BETA(1,2) = -1.00										
-LOG W	0.00	0.50	1.00	1.50	2.00	3.00	4.00	5.00	10.00	
LOG X	-1.00	-0.50	0.00	0.50	1.00	2.00	3.00	4.00	9.00	
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	99.2792	99.0345	98.6822	98.2597	97.7936	96.8098	95.8114	94.8116	89.8116	
3	99.2230	98.8955	98.4218	97.8655	97.3034	96.2591	95.2538	94.2533	89.2532	
4	99.2833	98.9502	98.4737	97.9338	97.4064	96.3963	95.3956	94.3955	89.3955	
5	99.3648	99.0616	98.6057	98.0769	97.5569	96.5491	95.5483	94.5483	89.5482	
6	99.4284	99.1398	98.6844	98.1688	97.6617	96.6598	95.6597	94.6596	89.6596	
+	21.0681	20.4955	19.9394	19.4127	18.9028	17.8985	16.8981	15.8980	10.8980	
LOG BH(I)										
I=1	99.9926	0.5652	1.1213	1.6480	2.1579	3.1622	4.1626	5.1627	10.1627	
2	99.6978	0.0257	0.2295	0.3337	0.3775	0.3980	0.4001	0.4003	0.4003	
3	99.4798	99.7249	99.8072	99.7777	99.7254	99.6855	99.6806	99.6801	99.6801	
4	99.3566	99.5961	99.6757	99.6625	99.6450	99.6393	99.6390	99.6389	99.6389	
5	99.2753	99.5446	99.6445	99.6426	99.6327	99.6292	99.6289	99.6288	99.6288	
6	99.1973	99.4814	99.5819	99.5931	99.5959	99.5983	99.5986	99.5986	99.5986	
LOG BETA(I,J)										
I=1 J=6	99.9676	99.9681	99.9685	99.9687	99.9688	99.9689	99.9689	99.9689	99.9689	
2	99.9361	99.9633	99.9833	99.9935	99.9978	99.9998	0.0000	0.0000	0.0000	
3	99.7539	99.8867	99.9626	99.9904	99.9977	99.9998	0.0000	0.0000	0.0000	
4	99.1481	99.5433	99.8418	99.9595	99.9897	99.9991	99.9999	0.0000	0.0000	
5	99.0621	99.4275	99.7582	99.9348	99.9836	99.9986	99.9999	0.0000	0.0000	
I=1 J=5	99.9423	99.9432	99.9439	99.9442	99.9444	99.9444	99.9445	99.9445	99.9445	
2	99.8730	99.9254	99.9654	99.9865	99.9953	99.9995	0.0000	0.0000	0.0000	
3	99.4592	99.7216	99.9040	99.9749	99.9941	99.9996	0.0000	0.0000	0.0000	
4	98.4184	98.8810	99.4610	99.8391	99.9567	99.9959	99.9996	0.0000	0.0000	
I=1 J=4	99.8809	99.8825	99.8838	99.8845	99.8848	99.8849	99.8849	99.8849	99.8849	
2	99.6818	99.7995	99.9021	99.9607	99.9862	99.9986	99.9999	0.0000	0.0000	
3	98.7134	99.0398	99.4944	99.8406	99.9615	99.9972	99.9997	0.0000	0.0000	
I=1 J=3	99.6894	99.6924	99.6949	99.6963	99.6969	99.6972	99.6973	99.6973	99.6973	
2	98.9940	99.2012	99.4925	99.7566	99.9071	99.9898	99.9990	99.9999	0.0000	
I=1 J=2	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	99.0000	
LOG F(I)/F(4)										
I=3	99.8412	99.9363	0.1278	0.3169	0.4071	0.4434	0.4467	0.4470	0.4470	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.8006	99.7651	99.7228	99.6965	99.6874	99.6815	99.6807	99.6806	99.6806	
6	99.5363	99.4904	99.4287	99.4047	99.4037	99.4016	99.4011	99.4010	99.4010	
T = 50000 LOG BETA(1,2) = -2.00										
-LOG W	0.00	1.00	2.00	3.00	3.50	4.00	5.00	6.00	7.00	10.00
LOG X	-2.00	-1.00	0.00	1.00	1.50	2.00	3.00	4.00	5.00	8.00
LOG E(I)										
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	99.4566	99.2623	98.6820	97.8439	97.3781	96.8899	95.8943	94.8947	93.8948	90.8948
3	99.4546	99.1679	98.3279	97.0490	96.2833	95.5923	94.4894	93.4737	92.4725	89.4724
4	99.4931	99.1455	98.1424	96.7626	96.1100	95.5677	94.5561	93.5551	92.5550	89.5550
5	99.5330	99.1492	98.0871	96.7641	96.1765	95.6574	94.6514	93.6508	92.6507	89.6507
6	99.5718	99.1722	98.0663	96.7607	96.2292	95.7229	94.7208	93.7206	92.7205	89.7205
+	21.1397	20.0477	18.9325	17.9023	17.3994	16.8985	15.8981	14.8980	13.8980	10.8980
LOG BH(I)										
I=1	99.9210	1.0130	2.1282	3.1584	3.6613	4.1622	5.1626	6.1627	7.1627	10.1627
2	99.8036	0.7012	1.2363	1.4283	1.4653	1.4781	1.4830	1.4834	1.4835	1.4835
3	99.6398	0.4451	0.7203	0.4715	0.2087	0.0187	99.9122	99.9006	99.8994	99.8993
4	99.4949	0.2392	0.3514	0.0017	99.8520	99.8107	99.7994	99.7985	99.7984	99.7984
5	99.3719	0.0800	0.1332	99.8404	99.7557	99.7375	99.7319	99.7313	99.7313	99.7313
6	99.2691	99.9615	99.9709	99.6954	99.6668	99.6615	99.6597	99.6595	99.6595	99.6595
LOG BETA(I,J)										
I=1 J=6	99.7065	99.7118	99.7194	99.7218	99.7221	99.7222	99.7223	99.7223	99.7223	99.7223
2	99.3219	99.4854	99.8286	99.9733	99.9908	99.9970	99.9997	0.0000	0.0000	0.0000
3	98.6046	98.8571	99.6009	99.9747	99.9961	99.9993	0.0000	0.0000	0.0000	0.0000
4	97.8368	98.1436	99.0866	99.9364	99.9892	99.9973	99.9997	0.0000	0.0000	0.0000
5	97.7938	98.1431	99.1192	99.9304	99.9873	99.9966	99.9997	0.0000	0.0000	0.0000
I=1 J=5	99.5284	99.5352	99.5455	99.5489	99.5493	99.5495	99.5495	99.5495	99.5495	99.5495
2	99.0195	99.1901	99.6678	99.9438	99.9805	99.9936	99.9994	99.9999	0.0000	0.0000
3	98.1768	98.4137	99.1852	99.9266	99.9886	99.9981	99.9999	0.0000	0.0000	0.0000
4	97.0803	97.3615	98.2925	99.6786	99.9422	99.9859	99.9987	99.9999	0.0000	0.0000
I=1 J=4	99.2303	99.2374	99.2488	99.2529	99.2533	99.2535	99.2536	99.2536	99.2536	99.2536
2	98.5924	98.7526	99.2860	99.8415	99.9430	99.9812	99.9981	99.9998	0.0000	0.0000
3	97.4334	97.6494	98.3714	99.5675	99.9215	99.9876	99.9993	99.9999	0.0000	0.0000
I=1 J=3	98.7765	98.7816	98.7905	98.7940	98.7945	98.7946	98.7947	98.7947	98.7947	98.7947
2	97.8442	97.9887	98.4870	99.2646	99.6478	99.8699	99.9861	99.9986	99.9999	0.0000
I=1 J=2	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000	98.0000
LOG F(I)/F(4)										
I=3	99.8026	99.8479	99.9759	0.2989	0.4675	0.5027	0.5067	0.5067	0.5067	0.5067
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9949	99.9689	99.8543	99.6317	99.6318	99.6300	99.6244	99.6236	99.6236	99.6236
6	99.9450	99.8963	99.6034	99.2668	99.3039	99.3080	99.3032	99.3025	99.3024	99.3024

T = 50000		LOG BETA0(1,2) = -3.00												
-LOG W	0.00	1.00	2.00	3.00	4.00	4.30	4.70	5.00	5.50	6.00	7.00	8.00	9.00	
LOG X	-3.00	-2.00	-1.00	0.00	1.00	1.30	1.70	2.00	2.50	3.00	4.00	5.00	6.00	
LOG E(I)														
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	99.4850	99.4560	99.2604	98.6855	97.8601	97.5861	97.2072	96.9158	96.4221	95.9237	94.9243	93.9243	92.9243	
3	99.4957	99.4541	99.1661	98.3246	97.0494	96.5817	95.9022	95.3496	94.4214	93.6707	92.5419	91.5282	90.5269	
4	99.5432	99.4925	99.1433	98.1384	96.5904	96.0353	95.2717	94.7747	94.1599	93.6337	92.6239	91.6229	90.6228	
5	99.5887	99.5302	99.1351	98.0390	96.3700	95.8131	95.1499	94.7733	94.2418	93.7346	92.7318	91.7316	90.7316	
6	99.6286	99.5622	99.1248	97.9403	96.1383	95.6327	95.1335	94.8148	94.3056	93.8032	92.8022	91.8021	90.8021	
+	21.1564	20.1391	19.0465	17.9324	16.9024	16.6003	16.1989	15.8985	15.9982	14.8981	13.8980	12.8980	11.8980	
LOG BN(I)														
I=1	99.9043	0.9216	2.0142	3.1283	4.1583	4.4604	4.8618	5.1622	5.6625	6.1626	7.1627	8.1627	9.1627	
2	99.8153	0.8036	1.7006	2.2397	2.4444	2.4725	2.4950	2.5041	2.5107	2.5124	2.5130	2.5130	2.5130	
3	99.6642	0.6398	1.4445	1.7170	1.4719	1.3063	1.0282	0.7760	0.3481	0.0976	99.9688	99.9591	99.9537	
4	99.5282	0.4948	1.2383	1.3474	0.8295	0.5765	0.2142	0.0177	99.9031	99.8771	99.8673	99.8673	99.8663	
5	99.4109	0.3696	1.0673	1.0852	0.4470	0.1914	99.9295	99.8534	99.8222	99.8151	99.8124	99.8121	99.8121	
6	99.3092	0.2601	0.9154	0.8449	0.0729	99.8694	99.7716	99.7533	99.7445	99.7421	99.7412	99.7411	99.7411	
LOG BETA(I,J)														
I=1 J=6	98.8008	98.8104	98.8195	98.8330	98.8374	98.8377	98.8380	98.8381	98.8381	98.8381	98.8382	98.8382	98.8382	
2	98.3000	98.3248	98.5026	99.0645	99.7488	99.8585	99.9388	99.9683	99.9888	99.9967	99.9997	0.0000	0.0000	
3	97.5692	97.6009	97.8447	98.6363	99.7460	99.9065	99.9801	99.9946	99.9994	99.9999	0.0000	0.0000	0.0000	
4	96.7922	96.8276	97.1091	98.0316	99.4938	99.8318	99.9747	99.9939	99.9989	99.9997	0.0000	0.0000	0.0000	
5	96.5392	96.7761	97.0772	98.0460	99.5599	99.8683	99.9817	99.9945	99.9987	99.9996	0.0000	0.0000	0.0000	
I=1 J=5	98.5548	98.5563	98.5647	98.5774	98.5817	98.5821	98.5823	98.5824	98.5825	98.5825	98.5825	98.5825	98.5825	
2	97.9956	98.0196	98.1911	98.7416	99.5296	99.7132	99.8728	99.9333	99.9782	99.9930	99.9993	99.9999	0.0000	
3	97.1449	97.1757	97.4093	98.1780	99.3939	99.7362	99.9395	99.9833	99.9983	99.9998	0.0000	0.0000	0.0000	
4	96.0414	96.0759	96.3463	97.2457	98.7010	99.2530	99.8372	99.9617	99.9941	99.9985	99.9999	0.0000	0.0000	
I=1 J=4	98.2304	98.2316	98.2388	98.2504	98.2545	98.2549	98.2551	98.2552	98.2553	98.2553	98.2553	98.2553	98.2553	
2	97.5701	97.5929	97.7546	98.2845	99.0881	99.3542	99.6613	99.8122	99.9363	99.9794	99.9979	99.9998	0.0000	
3	96.4049	96.4339	96.6509	97.3741	98.5502	98.9995	99.6119	99.8775	99.9877	99.9985	99.9999	0.0000	0.0000	
I=1 J=3	97.7756	97.7765	97.7816	97.7905	97.7940	97.7943	97.7946	97.7946	97.7947	97.7947	97.7947	97.7947	97.7947	
2	96.8238	96.8448	96.9908	97.4820	98.2493	98.5122	98.8815	99.1680	99.6076	99.8573	99.9849	99.9985	99.9998	
I=1 J=2	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	97.0000	
LOG F(I)/F(4)														
I=3	99.7955	99.8027	99.8484	99.9730	0.2094	0.2937	0.4400	0.5200	0.5222	0.5043	0.4944	0.4933	0.4932	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.9988	99.9922	99.9562	99.8856	99.7496	99.6696	99.6176	99.6475	99.6517	99.6423	99.6372	99.6366	99.6366	
6	99.9522	99.9385	99.8665	99.7188	99.3447	99.2386	99.2762	99.3331	99.3361	99.3237	99.3169	99.3162	99.3161	

T = 50000		LOG BETA0(1,2) = -4.00												
-LOG W	0.00	1.00	2.00	3.00	4.00	5.00	5.50	6.00	6.30	6.70	7.00	7.50	8.00	
LOG X	-4.00	-3.00	-2.00	-1.00	0.00	1.00	1.50	2.00	2.30	2.70	3.00	3.50	4.00	
LOG E(I)														
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	99.4881	99.4850	99.4560	99.2604	98.6854	97.8608	97.3994	96.9175	96.6226	96.2259	95.9270	95.4277	94.9279	
3	99.5001	99.4957	99.4541	99.1661	98.3246	97.0498	96.2589	95.3770	94.8119	94.0135	93.4032	92.4391	91.6801	
4	99.5486	99.5432	99.4925	99.1433	98.1384	96.5859	95.6171	94.5232	93.8257	93.1194	92.7277	92.1632	91.6413	
5	99.5949	99.5887	99.5302	99.1352	98.0390	96.3472	95.2689	94.1000	93.5802	93.0917	92.7670	92.2498	91.7443	
6	99.6356	99.6286	99.5623	99.1249	97.9403	96.0503	94.8167	93.9139	93.5593	93.1323	92.8234	92.5173	91.8153	
+	21.1583	20.1564	19.1391	18.0465	16.9324	15.9024	15.3995	14.8985	14.5983	14.1981	13.8981	13.3980	12.8980	
LOG BN(I)														
I=1	99.9024	0.9043	1.9216	3.0142	4.1283	5.1583	5.6612	6.1622	6.4624	6.8626	7.1626	7.6627	8.1627	
2	99.8165	0.8153	1.8076	2.7006	3.2397	3.4451	3.4866	3.5077	3.5111	3.5145	3.5157	3.5164	3.5166	
3	99.6667	0.6642	1.6398	2.4445	2.7171	2.4723	2.1844	1.8034	1.5386	1.1403	0.8300	0.3660	0.1069	
4	99.5317	0.5283	1.4948	2.2383	2.3474	1.8249	1.3591	0.7662	0.3689	0.0628	99.9711	99.9066	99.8848	
5	99.4152	0.4109	1.3696	2.0673	2.0852	1.4234	0.8480	0.1801	99.9605	99.8722	99.8475	99.8304	99.8249	
6	99.3143	0.3092	1.2601	1.9154	1.8449	0.9849	0.2543	99.8524	99.7981	99.7712	99.7624	99.7563	99.7543	
LOG BETA(I,J)														
I=1 J=6	97.8086	97.8088	97.8104	97.8195	97.8330	97.8374	97.8377	97.8380	97.8381	97.8381	97.8381	97.8382	97.8382	
2	97.2975	97.3000	97.3248	97.5026	98.0645	98.8857	99.3421	99.7171	99.8469	99.9361	99.9675	99.9896	99.9967	
3	96.5659	96.5692	96.6009	96.8446	97.6365	98.8793	99.6111	99.9397	99.9834	99.9974	99.9994	99.9999	0.0000	
4	95.7886	95.7922	95.8275	96.1090	97.0317	98.5054	99.4335	99.9414	99.9898	99.9986	99.9995	99.9999	0.0000	
5	95.7355	95.7392	95.7760	96.0772	97.0460	98.5800	99.5583	99.9731	99.9949	99.9988	99.9995	99.9999	0.0000	
I=1 J=5	97.5547	97.5548	97.5563	97.5647	97.5774	97.5817	97.5822	97.5824	97.5825	97.5825	97.5825	97.5825	97.5825	
2	96.9930	96.9956	97.0196	97.1911	97.7415	98.5569	99.0171	99.4802	99.6967	99.8674	99.9315	99.9779	99.9930	
3	96.1417	96.1449	96.1756	96.4093	97.1783	98.3999	99.1750	99.8206	99.9485	99.9919	99.9981	99.9998	0.0000	
4	95.0379	95.0414	95.0759	95.3462	96.2458	97.6942	98.6096	99.6206	99.9254	99.9905	99.9971	99.9994	99.9998	
I=1 J=4	97.2302	97.2304	97.2316	97.2388	97.2504	97.2545	97.2550	97.2552	97.2552	97.2552	97.2553	97.2553	97.2553	
2	96.5677	96.5701	96.5929	96.7546	97.2845	98.0875	98.5454	99.0261	99.3171	99.6483	99.8075	99.9354	99.9792	
3	95.4019	95.4049	95.4339	95.6509	96.3743	97.5485	98.3065	99.1610	99.6501	99.9368	99.9850	99.9987	99.9998	
I=1 J=3	96.7755	96.7756	96.7816	96.7905	96.7940	96.7943	96.7946	96.7946	96.7947	96.7947	96.7947	96.7947	96.7947	
2	95.8216	95.8238	95.8448	95.9908	96.4819	97.2486	97.6937	98.1672	98.4595	98.8544	99.1523	99.6022	99.8557	
I=1 J=2	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	96.0000	
LOG F(I)/F(4)														
I=3	99.7948	99.7955	99.8027	99.8484	99.9730	0.2143	0.3795	0.5843	0.7180	0.6895	0.6096	0.5321	0.5046	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	99.9995	99.9988	99.9922	99.9562	99.8856	99.7586	99.6514	99.5587	99.6614	99.7192	99.6911	99.6570		

BALMER DECREMENTS

(Continued)
T = 50000

	LOG BETA0(1,2) = -4.00				LOG BETA0(1,2) = -5.00								
-LOG W	9.00	10.00	11.00		0.00	1.00	2.00	3.00	4.00	5.00	6.00	6.50	7.00
LOG X	5.00	6.00	7.00		-5.00	-4.00	-3.00	-2.00	-1.00	0.00	1.00	1.50	2.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	93.9230	92.9280	91.9280		99.4884	99.4881	99.4850	99.4560	99.2604	98.6854	97.8608	97.3994	96.9174
3	90.5485	89.5346	88.5332		99.5005	99.5001	99.4957	99.4541	99.1661	98.3246	97.0498	96.2597	95.3887
4	90.6319	89.6309	88.6308		99.5491	99.5486	99.5432	99.4925	99.1433	98.1384	96.5858	95.6166	94.5196
5	90.7420	89.7417	88.7417		99.5955	99.5949	99.5887	99.5302	99.1351	98.0390	96.3472	95.2688	94.0115
6	90.8145	89.8144	88.8144		99.6363	99.6356	99.6286	99.5623	99.1248	97.9403	96.5053	94.7899	93.3348
+	11.8980	10.8980	9.8980		21.1585	20.1583	19.1564	18.1591	17.0465	15.9324	14.9024	14.3995	13.8985
LOG BN(I)													
I=1	9.1627	10.1627	11.1627		99.9022	0.9024	1.9043	2.9215	4.0142	5.1283	6.1583	6.6612	7.1622
2	3.5167	3.5167	3.5167		99.8166	0.8165	1.8153	2.8036	3.7006	4.2397	4.4451	4.4866	4.5056
3	99.9754	99.9614	99.9600		99.6669	0.6667	1.6642	2.6398	3.4445	3.7171	3.4723	3.1852	2.8151
4	99.8753	99.8743	99.8742		99.5321	0.5317	1.5283	2.4948	3.2383	3.3474	2.8249	2.3585	1.7626
5	99.8226	99.8223	99.8223		99.4156	0.4152	1.4109	2.3696	3.0673	3.0852	2.4234	1.8479	1.0916
6	99.7534	99.7534	99.7534		99.3148	0.3143	1.3092	2.2601	2.9154	2.8449	1.9349	1.2275	0.2734
LOG BETA(I,J)													
I=1 J=6	97.8382	97.8382	97.8382		96.8086	96.8086	96.8088	96.8104	96.8195	96.8330	96.8374	96.8379	96.8381
2	99.9997	99.0000	0.0000		96.2972	96.2975	96.3000	96.3248	96.3626	97.0645	97.8857	98.3469	98.8290
3	0.0000	0.0000	0.0000		95.5656	95.5659	95.5692	95.6009	95.8447	96.6366	97.8795	98.6627	99.5078
4	0.0000	0.0000	0.0000		94.7883	94.7886	94.7922	94.8275	95.1091	96.0317	97.5052	98.4447	99.5073
5	0.0000	0.0000	0.0000		94.7351	94.7355	94.7392	94.7760	95.0775	96.0460	97.5798	98.5849	99.6987
I=1 J=5	97.5825	97.5825	97.5825		96.5546	96.5547	96.5548	96.5563	96.5647	96.5774	96.5817	96.5822	96.5824
2	99.9993	99.9999	0.0000		95.9928	95.9930	95.9956	96.0196	96.1911	96.7415	97.5569	98.0172	98.4989
3	0.0000	0.0000	0.0000		95.1414	95.1417	95.1449	95.1756	95.4094	96.1783	97.4000	98.1747	99.0362
4	0.0000	0.0000	0.0000		94.0376	94.0379	94.0414	94.0759	94.3464	95.2458	96.4939	97.6109	98.6570
I=1 J=4	97.2553	97.2553	97.2553		96.2302	96.2302	96.2304	96.2316	96.2388	96.2504	96.2545	96.2550	96.2552
2	99.9979	99.9998	0.0000		95.5674	95.5677	95.5701	95.5929	95.6516	96.2844	97.0875	97.5454	98.0262
3	0.0000	0.0000	0.0000		94.4016	94.4019	94.4049	94.4339	94.7540	95.3743	96.5487	97.3054	98.1516
I=1 J=3	96.7947	96.7947	96.7947		95.7755	95.7755	95.7756	95.7765	95.7816	95.7905	95.7940	95.7945	95.7946
2	99.9848	99.9985	99.9998		94.8214	94.8216	94.8238	94.8447	94.9908	95.4819	96.2485	96.6938	97.1675
I=1 J=2	96.0000	96.0000	96.0000		95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.4929	0.4917	0.4916		99.7947	99.7948	99.7955	99.8027	99.8483	99.9730	0.2144	0.3809	0.5996
4	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.6394	99.6388	99.6388		99.9996	99.9995	99.9988	99.9922	99.9562	99.8856	99.7586	99.6518	99.4924
6	99.3213	99.3206	99.3205		99.9538	99.9537	99.9522	99.9385	99.8665	99.7189	99.3995	99.1118	98.7549

(Continued)
T = 50000

	LOG BETA0(1,2) = -5.00												
-LOG W	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	9.50	10.00	11.00	12.00	13.00
LOG X	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.50	5.00	6.00	7.00	8.00
LOG E(I)													
I=1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	96.6718	96.4246	96.1762	95.9271	95.6777	95.4280	95.1782	94.9282	94.4283	93.9283	92.9283	91.9283	90.9283
3	94.9300	94.4574	93.9726	93.4725	92.9608	92.4428	91.9239	91.4096	90.4410	89.6810	88.5492	87.5352	86.5338
4	93.9222	93.2904	92.6268	92.0748	91.6730	91.3361	91.0208	90.7207	90.1639	89.6421	88.6327	87.6317	86.6316
5	93.3006	92.6533	92.2120	91.8483	91.5927	91.3078	91.0329	90.7666	90.2507	89.7453	88.7430	87.7428	86.7428
6	92.8065	92.4654	92.1606	91.8804	91.6073	91.3412	91.0807	90.8244	90.3185	89.8165	88.8157	87.8156	86.8156
+	13.6483	13.3982	13.1481	12.8981	12.6480	12.3980	12.1480	11.8980	11.3980	10.8980	9.8980	8.8980	7.8980
LOG BN(I)													
I=1	7.4124	7.6625	7.9126	8.1626	8.4126	8.6627	8.9127	9.1627	9.6627	10.1627	11.1627	12.1627	13.1627
2	4.5103	4.5131	4.5148	4.5158	4.5164	4.5167	4.5168	4.5169	4.5170	4.5170	4.5170	4.5170	4.5170
3	2.6066	2.3841	2.1494	1.8994	1.6377	1.3697	1.1008	0.8359	0.3678	0.1079	99.9761	99.9621	99.9607
4	1.4154	1.0336	0.6202	0.3182	0.1664	0.0795	0.0142	99.9641	99.9069	99.8855	99.8761	99.8751	99.8750
5	0.6309	0.2338	0.0425	99.9688	99.9232	99.8884	99.8634	99.8471	99.8312	99.8259	99.8236	99.8233	99.8233
6	99.9952	99.8942	99.8495	99.8193	99.7963	99.7801	99.7697	99.7634	99.7574	99.7555	99.7547	99.7546	99.7546
LOG BETA(I,J)													
I=1 J=6	96.8381	96.8381	96.8381	96.8381	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382	96.8382
2	99.0745	99.3182	99.5597	99.7116	99.8278	99.8999	99.9426	99.9674	99.9896	99.9997	0.0000	0.0000	0.0000
3	99.7965	99.9273	99.9758	99.9923	99.9976	99.9993	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.8471	99.9637	99.9928	99.9983	99.9994	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.9401	99.9901	99.9975	99.9990	99.9996	99.9998	99.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
I=1 J=5	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825	96.5825
2	98.7445	98.9917	99.2387	99.4718	99.6623	99.7959	99.8805	99.9313	99.9779	99.9999	0.0000	99.9999	0.0000
3	99.4744	99.7850	99.9250	99.9759	99.9926	99.9978	99.9993	99.9998	0.0000	0.0000	0.0000	0.0000	0.0000
4	99.2289	99.7339	99.9437	99.9875	99.9960	99.9984	99.9994	99.9997	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=4	96.2552	96.2552	96.2552	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553	96.2553
2	98.2716	98.5187	98.7671	99.0161	99.2636	99.4943	99.6792	99.8070	99.9353	99.9792	99.9979	99.9998	0.0000
3	98.6007	99.0654	99.5188	99.8182	99.9413	99.9822	99.9947	99.9985	99.9999	0.0000	0.0000	0.0000	0.0000
I=1 J=3	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947	95.7947
2	97.4108	97.6567	97.9042	98.1527	98.4019	98.6514	98.9011	99.1506	99.4012	99.8556	99.9847	99.9985	99.9998
I=1 J=2	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000	95.0000
LOG F(I)/F(4)													
I=3	0.7364	0.8943	1.0723	1.1237	1.0154	0.8532	0.7144	0.6213	0.5332	0.5046	0.4927	0.4915	0.4914
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	99.3791	99.3638	99.5847	99.7971	99.8462	99.8012	99.7413	99.6981	99.6575	99.6448	99.6396	99.6391	99.6390
6	98.8241	99.1013	99.4433	99.6380	99.6354	99.5476	99.4603	99.4010	99.3461	99.3288	99.3217	99.3210	99.3209