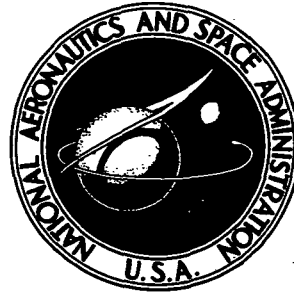


N73-11731

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**CALCULATION OF QUASI-STATIC HELIUM
TRIPLET DIFFUSE LINE PROFILES**

by Carl D. Scott

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1. Report No. NASA TN D-6954		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle CALCULATION OF QUASI-STATIC HELIUM TRIPLET DIFFUSE LINE PROFILES				5. Report Date September 1972	
				6. Performing Organization Code	
7. Author(s) Carl D. Scott, MSC				8. Performing Organization Report No. MSC S-312	
9. Performing Organization Name and Address Manned Spacecraft Center Houston, Texas 77058				10. Work Unit No. 908-42-02-00-72	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D. C. 20546				13. Type of Report and Period Covered Technical Note	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract Calculated spectral line profiles (intensity distributions) of the helium triplet diffuse series were obtained using the quasi-static approximation for ions and electrons. In these calculations, Doppler-broadening, although negligible in most of the cases, was included as a device to avoid singularities. Plots and tabulations of the calculated profiles are presented in addition to a discussion of the computational procedure and the validity of the calculations.					
17. Key Words (Suggested by Author(s)) Stark-Broadening Helium Quasi-Static Calculations				18. Distribution Statement	
19. Security Classif. (of this report) None		20. Security Classif. (of this page) None		21. No. of Pages 151	22. Price \$3.00

* For sale by the National Technical Information Service, Springfield, Virginia 22151

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CALCULATION OF QUASI-STATIC HELIUM TRIPLET

DIFFUSE LINE PROFILES

By Carl D. Scott
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SUMMARY

Stark-broadened line profiles of the helium triplet diffuse series were calculated using the quasi-static approximation for ions and electrons similar to the calculations of Pfennig and Trefftz. In these calculations, Doppler-broadening, although negligible in most of the cases, was included as a device to avoid singularities. An empirical correction to the theory was made that appears to extend the validity of the quasi-static theory for electrons into the impact approximation regime — toward the line cores. Calculations were made for series members having upper principal quantum numbers of 4 to 13. Plots and tabulations of the calculated profiles are presented in addition to a discussion of the computational procedure and the validity of the calculations.

INTRODUCTION

Calculated spectral line profiles (intensity distributions) of the helium triplet diffuse ($2^3P - n^3D$) series are presented. These profiles are calculated by using the quasi-static approximation for ions and electrons. In the past few years, the interest in measuring line profiles in the spectra of plasmas has increased because these profiles are potential sources of information about the state and composition of the plasma. For example, the electron density and the temperature of the plasma are important parameters in the formation of line profiles. Spectral lines are broadened as a result of perturbations in the energy levels of radiating atoms. These perturbations result from the presence of nearby particles in the plasma, particularly the ions and electrons; their proximity produces perturbing electric fields.

In addition to the number density of the perturbers and the plasma temperature, the ways in which these perturbing particles behave as a collection are important. The motions of the ions and electrons are correlated because of the long-range electric fields; the fields of more distant perturbers are shielded from the radiating atoms by closer perturbers. Therefore, the line profiles can yield information about the collective interactions, which is useful in developing and verifying theoretical models of the plasma interactions and line-profile formation. Knowledge of the electron density and temperature is basic for an understanding of the macroscopic state of the gas.

Considerable efforts have been applied to study line-broadening in hydrogen because of its simplicity and frequent occurrence in stellar atmospheres, in thermonuclear plasmas, and in basic plasma research. The technique of measuring hydrogen Balmer line widths and profiles is well established (ref. 1). Helium is also important in stellar and laboratory plasmas; therefore, the spectral lines are potential sources of diagnostic information similar to that obtainable from the line profiles of hydrogen. Helium line-broadening and comprehensive graphs and tables of helium line profiles calculated using the quasi-static theory for ions and electrons (including particle correlations and shielding) are presented in this report.

Extensive tables of hydrogen line profiles that can be used to compare measured profiles and to obtain electron densities are available. The tables of Edmonds et al. (ref. 2) for the hydrogen Lyman, Balmer, Paschen, and Brackett series are based on a quasi-static treatment of ions and electrons. Measured profiles of the Balmer series line wings by Schlüter (ref. 3) have been shown to give good agreement with the quasi-static theory. Other available tables include Kepple's tables (ref. 4) for the Lyman and Balmer series of hydrogen; the tables are based on a quasi-static treatment of the ions and an impact treatment of the electrons.

Helium has been studied to a lesser degree than hydrogen, and, until now, only a limited number of tables and profiles has been available. The most complete set of calculations for the singlet and triplet diffuse series of helium is contained in the tables of Pfennig and Trefftz (ref. 5). The lines of these series exhibit linear Stark effects like hydrogen because of the quasi-degeneracy of their energy levels. These calculations, which treated both the ions and electrons quasi-statically, were compared with the measured profiles of Vidal (ref. 6); the electron density in his experiments was $2.65 \times 10^{13} \text{ cm}^{-3}$, and the temperature was 1850 K. Agreement between the profiles was reasonably good in the far wings of the profiles; that is, far from the center of the line. Other calculations of helium line profiles, reported in references 7 to 9, treat electrons with the impact approximation and the ions with the quasi-static approximation. Barnard et al. (ref. 8) compare their calculation with the measurements of Wulff (ref. 10) at an electron density of $3 \times 10^{16} \text{ cm}^{-3}$. Although no comparative data are presented, Barnard et al. claim good agreement with Wulff's measurements.

This paper provides a more complete set of calculated helium line profiles, which can be used for experimental verification and which may be used to determine electron densities from measurements of line wing intensities. The theoretical approach used is a quasi-static treatment of both electrons and ions; it is similar to that used by Pfennig and Trefftz (ref. 5). Doppler-broadening is included in these calculations. An empirical correction, which may extend the range of applicability of the quasi-static approximation toward the core of the profile, is included. The present correction, patterned after that of Schlüter (ref. 3) and Edmonds et al. (ref. 2), makes the perturber density N a function of wavenumber $\Delta\nu$, tending from $N = N_e$ in the line core to $N = 2N_e$ in the far wings.

The theoretical approach and the numerical techniques used to program the calculations on a digital computer are discussed in a following section. The results of the theoretical calculations and a limited comparison with experimental data are also discussed. Reasonably good agreement is obtained in the far wings. Plots of the profiles

for electron densities of 10^{13} , 10^{14} , and 10^{15} cm^{-3} and temperatures of 3000 K, 10 000 K, and 30 000 K are given in appendix A. No empirical correction is used for these profiles. The data comprising those plots are tabulated in appendix B.

SYMBOLS¹

a	empirical constant
$a_{L\mu}$	eigenvector element
a_0	Bohr radius
b	empirical constant
$C_{M\mu}$	weight factor proportional to relative line component intensity
c	velocity of light
$D(\Delta\nu)$	normalized Doppler-broadening function
d	mean distance of perturbers
E	electric field strength
$E_{M\mu}(\Delta\nu)$	field strength corresponding to a displacement $\Delta\nu$ of the M, μ component
E_0	normal field strength
$E_{1,2}$	limits of integration in computer calculation
\bar{E}	mean field strength averaged over Stark components
ϵ_{μ}	eigenvalue = $\Delta\nu$
e	electronic charge
H_{LL}	unperturbed helium energy matrix element
$H_{LL'}$	perturbed helium energy matrix element

¹Unless otherwise noted, units are CGS.

$H_{L-1, L}$	matrix elements caused by Stark-effect perturbation
$H(\beta, y)$	electric field-strength probability distribution
$I_{M\mu}(\Delta\nu)$	intensity of the Stark component M, μ at $\Delta\nu$
$I(\Delta\nu)$	line-profile intensity function
J	total angular momentum quantum number
k	Boltzmann constant
L, ℓ	orbital quantum number
$L_{M\mu}$	relative line intensity of Stark component
M, m	azimuthal (magnetic) quantum number
M_{He}	mass of helium atom
m_e	electron mass
N	perturber density
N_e	electron density
n	principal quantum number
n_1	parabolic quantum number
$P(\Delta\nu)$	convolution of two broadening functions
r	impact parameter
T	temperature, K
T_e	electron temperature
T_o	gas temperature
v	perturber velocity
$W(E)$	electric field-strength distribution function
y	Debye shielding parameter

z	$(a \Delta\nu/\Delta\nu_L)^b$
z_1, z_2	coordinates of the electrons of helium atoms
β	relative field strength, E/E_0
$\Delta\nu$	wavenumber referenced to center of line (unperturbed n^3D level), cm^{-1}
$\Delta\nu_i$	wavenumbers at which profile is evaluated, cm^{-1}
$\Delta\nu_J$	splitting 2^3P level with J , cm^{-1}
$\Delta\nu_L$	minimum wavenumber for which the quasi-static theory is valid, cm^{-1}
$\Delta\nu_{M\mu}$	displacement of Stark component M, μ caused by field E , cm^{-1}
δ	reciprocal of number of intervals per decade at which program computes $I(\Delta\nu)$
ϵ	numerical integration convergence criterion
$\epsilon_{M\mu}$	error in computing integral for M, μ component
λ	wavelength, \AA
λ_D	Debye length
μ	quantum number related to parabolic quantum number
σ	measure of the width of the Gaussian function
τ	mean time between collisions of perturbers and radiating atoms
$\psi(n, L, \mu)$	Stark-effect helium wave function
$\psi_0(n, L, M)$	unperturbed helium eigenfunction

THEORETICAL TECHNIQUE

The theory of Stark-broadening of spectral lines may be approached from two opposing concepts: the impact theory and the quasi-static theory. The impact theory is applicable when, on the average, the phase of an emitted wave is only slightly changed

during the time necessary for a few collisions. This condition applies in two general cases. In the first case, the collisions are strong enough to disrupt the phase of the wave, are well separated in time from one another, and occur instantaneously. Here the collision time is effectively zero; whereas, the average correlation time is the mean time between collisions. In the second case, the impact approximation states that, if the collisions are so weak (although they may last for a significant length of time with the effects even overlapping), the combined effect on the wave is small in the characteristic collision time.

The quasi-static approximation is based on the assumption that the excited atoms are in a relatively constant perturbing field produced by randomly situated (slowly moving) perturbers. The resulting electric microfield perturbs the energy levels; this disturbs the emitted line frequency by an amount $\Delta\nu$ that depends on the strength of the interaction. Thus, the total line shape depends on the probability distribution for stationary perturbers to provide a given interaction with the atom. The slowly moving ions are particularly suited to this treatment; whereas the faster moving electrons may be treated more adequately by the impact approximation, especially in high-temperature plasmas. However, the quasi-static approximation has been used successfully for the line wings to describe the broadening caused by electrons and ions in low-density, low-temperature, radio-frequency-generated hydrogen and helium plasmas. This fact was true for the hydrogen case where the empirical correction of Schlüter (ref. 3) was used. The same type of correction was applied herein to the quasi-static broadening theory of helium.

The theory developed here is basically that of Pfennig and Trefftz (ref. 11), using data from their perturbation calculations. However, their theory is modified by including Doppler-broadening, and it is extended by including an empirical correction that permits the applicability of the quasi-static theory (as applied to the electrons) to be extended toward the center of the line.

Pfennig and Trefftz's (ref. 11) calculations shall be reviewed: They solved the first-order, energy-perturbation eigenvalue problem for the perturbed energy matrix elements resulting from a static, external electric field and their associated line strengths as functions of the electric field. A first-order perturbation calculation is possible because the helium energy levels exhibit degeneracy to a good approximation. Were this not the case, the first-order term in a perturbation expansion would vanish. The perturbation matrix elements were formed in parabolic coordinates by using essentially the same approximation as Foster (ref. 12). They formed the field-dependent, off-diagonal matrix elements

$$H_{L-1, L} = H_{L, L-1} = eE \langle n, L, M | z_1 + z_2 | n, L-1, M \rangle \quad (1)$$

where e is the charge of the electron; z_1 and z_2 are coordinates of the electrons; and n, L, M are quantum numbers.

These matrix elements form block-diagonal submatrices that are associated with each M . The elements on the principal diagonals are the unperturbed energy eigenvalues. For $L \geq 1$, the helium eigenstate $\psi_0(n, L, M)$ may be adequately described

by an unexcited 1s electron, which does not contribute to $H_{L-1, L}$, and by an excited electron $n\ell m$ ($\ell = L$, $m = M$) the eigenfunction of which is approximated by the hydrogen type. Thus, according to Bethe and Salpeter (ref. 13),

$$H_{L-1, L} = eE \langle n, \ell, m | z_2 | n, \ell-1, m \rangle = \frac{2}{3} eEa_0 n \left[\frac{(n^2 - \ell^2)(\ell^2 - m^2)}{(2\ell + 1)(2\ell - 1)} \right]^{1/2} \quad (2)$$

where a_0 is the Bohr radius.

Pfennig and Trefftz (ref. 5) used the values of Martin (ref. 14) for the diagonal elements H_{LL} and extrapolated them to extend the table. They expressed the Stark-effect eigenfunctions as linear combinations of the unperturbed helium functions $\psi_0(n, L, M)$.

$$\psi(n, M, \mu) = \sum_L a_{L\mu}(E) \psi_0(n, L, M) \quad (3)$$

Then, they solved the eigenvalue problem

$$\sum H_{LL'} a_{L'\mu} = a_{L\mu} \mathcal{E}_\mu \quad (4)$$

with the normalization condition

$$\sum_{L=M}^{n-1} a_{L\mu}^2 = 1 \quad (5)$$

($\mu = M, M+1, \dots, n-1$). The index μ is related to the parabolic quantum number n_1 — that is, $\mu = n_1 + M$. Pfennig and Trefftz (ref. 11) tabulated the Stark-effect splitting $\Delta\nu$ (perturbation energy) and relative line intensities $L_{M\mu}$. The splitting is relative to the unperturbed nD level, and perturbations in the 2P levels are neglected.

The equation for the perturbed relative line intensity of one component is given by

$$I_{M\mu}(\Delta\nu) = \int_{-\infty}^{\infty} \delta[\Delta\nu_{M\mu}(E) - \Delta\nu] L_{M\mu}(E) W(E) dE \quad (6)$$

where $L_{M\mu}(E)$ is the relative line intensity as a function of perturbing field strength and $W(E)dE$ is the probability of finding the atom in a perturbing field $E \leq E' \leq E + dE$. The total line profile will be formed by summing the contributions from all components M, μ of the line. The integration with the Dirac delta function $\delta[\Delta\nu_{M\mu}(E) - \Delta\nu]$ selects a particular field strength associated with a given wavenumber. Integration in equation (6) by the use of the theory of generalized functions yields

$$I_{M\mu}(\Delta\nu) = L_{M\mu}(E_{M\mu})W(E_{M\mu})\left|\frac{dE}{d\Delta\nu}\right|_{M\mu} \quad (7)$$

where $E_{M\mu}$ is the electric field that is required to produce a displacement $\Delta\nu$ in the M, μ component. A summation over all the components yields for the total line profile

$$I(\Delta\nu) = \sum_{M\mu} L_{M\mu}(E_{M\mu})W(E_{M\mu})\left|\frac{dE}{d\Delta\nu}\right|_{M\mu} \quad (8)$$

which is the expression used by Pfennig and Trefftz (ref. 5) in their calculation. However, this equation is not valid for certain values of $\Delta\nu$. In several of the components, $\left|\frac{dE}{d\Delta\nu}\right|_{M\mu}$ is singular for certain $\Delta\nu$. This occurrence is caused by a reversal or stoppage in the displacement $\Delta\nu$ with increasing field strength.

To avoid this mathematical difficulty in the present work, equation (6) was folded² with the Doppler-broadening function

$$D(\Delta\nu) = \left(\frac{M_{\text{He}}c^2}{2\pi kT}\right)^{1/2} e^{-\frac{M_{\text{He}}c^2\Delta\nu^2}{2kT}} = \frac{2}{\sqrt{\pi}} \frac{1}{\sigma} e^{-(\Delta\nu/\sigma)^2} \quad (9)$$

where σ is defined by this equation. One interesting feature of this function is that, in the limit $\sigma \rightarrow 0$, the Doppler function behaves like the delta function. However, in the physical situation, the Doppler function has a finite width; thus, the singularity encountered by using a delta function is eliminated.

²Folded = perform a convolution integral.

The general expression for the folding of two broadening functions is

$$P(\Delta\nu) = \int_{-\infty}^{\infty} I(\Delta\nu')T(\Delta\nu - \Delta\nu')d(\Delta\nu') \quad (10)$$

where $I(\Delta\nu)$ and $T(\Delta\nu)$ are any general independent broadening functions. Equations (6) and (9) are substituted into equation (10) to yield

$$P(\Delta\nu) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \delta[\Delta\nu_{M\mu}(E) - \Delta\nu']L_{M\mu}(E)W(E)D(\Delta\nu - \Delta\nu')d\Delta\nu'dE \quad (11)$$

The integration of equation (11) with respect to $\Delta\nu'$ yields

$$I_{M\mu}(\Delta\nu) = \int_{-\infty}^{\infty} W(E)L_{M\mu}(E)D[\Delta\nu - \Delta\nu_{M\mu}(E)]dE \quad (12)$$

where $P = I$ in the notation. Thus, the Doppler function has replaced the delta function in the integral. This integral may now be computed by numerical means. The desired equation for the triplet lines is obtained by restoring all components of the line and by considering the splitting in the 2^3P level. The fine structure splitting in the 3D states are neglected because degeneracy is assumed in that state. Therefore,

$$I(\Delta\nu) = \sum_{J=0}^2 \frac{2J+1}{9} \sum_{M\mu} \int_0^{\infty} W(E)L_{M\mu}(E)D[\Delta\nu - \Delta\nu_{M\mu J}(E)]dE \quad (13)$$

where $\Delta\nu_{M\mu J}(E) = \Delta\nu_{M\mu}(E) + \Delta\nu_J$, $\Delta\nu_J = 1.045$ for $J = 0$, $\Delta\nu_J = 0.049$ for $J = 1$, and $\Delta\nu_J = 0.029$ for $J = 2$ (ref. 11). Because the integrand is defined as zero for $E < 0$, the lower limit of the integration may be zero. If $W(E)$ and $D(\Delta\nu)$ are normalized and if $\sum_{M\mu} L_{M\mu}(E) = 1$, then

$$\int_{-\infty}^{\infty} I(\Delta\nu)d\Delta\nu = 1 \quad (14)$$

In the tables of Pfennig and Trefftz (ref. 11), $\sum L_{M\mu}(E) = 1$ when the sharp component of the line ($\mu = 0$ term) is omitted.

The field-strength distribution function $W(E)$ was obtained from the $H(\beta, y)$ tables of Baranger and Mozer (ref. 15) for the high-frequency component. In these tables, a two-body correlation approximation was used to account for shielding where β is the dimensionless field strength E/E_0 . Recently, Hooper (ref. 16) has calculated the field-strength distribution function. His calculations account for all the higher-order correlations; however, for small Debye shielding parameters y , the tables of Baranger and Mozer (ref. 15) differ very slightly from those of Hooper (ref. 16). They tabulated $H(\beta, y)$ for β from 0.2 to 10 and for y from 0 to 0.8 where $y = d/\lambda_D$. Here d is defined by Baranger and Mozer by the relationship

$$\frac{4}{15} (2\pi)^{3/2} d^3 N_e = 1 \quad (15)$$

where N_e is the perturber density. This value is numerically almost equal to

$$\frac{4\pi}{3} d^3 N_e = 1 \quad (16)$$

which associates d with the radius of the volume occupied by one perturber. The Debye length is $\lambda_D = (kT/4\pi N_e e^2)^{1/2}$. The normal field strength E_0 is defined by

$$E_0 = \frac{e}{d^2} \quad (17)$$

Equation (15) is solved for d and substituted into equation (17) to yield

$$E_0 = 3.748 \times 10^{-10} N_e^{2/3} \text{ kV/cm} \quad (18)$$

The function $W(E)$ was obtained from the tables of $H(\beta, y)$ by the relationship

$$W(E) = \frac{1}{E_0} H(\beta, y) \quad (19)$$

For $\beta > 10$, the asymptotic formula of Baranger and Mozer (ref. 15) was used.

$$H(\beta) \approx H_0 - y\beta^{-7/2} \left(0.5453y + 11.78\beta^{-1} + 114.6\beta^{-5/2} + \dots \right) \quad (20)$$

where $H_0 \approx 1.496\beta^{-5/2} + 7.639\beta^{-4} + 21.60\beta^{-11/2} + \dots$

An empirical correction to the line profile may be made by following the reasoning of Griem (ref. 17), Schlüter (ref. 3), and Edmonds et al. (ref. 2). The justification for this correction is based on Schlüter's measurements and calculations for hydrogen lines where his quasi-static calculations for electrons and ions $N = 2N_e$ overpredicts the profile intensity in the core and near-wings. An attempt was made to extend the basic quasi-static Stark-broadening theory toward the center of the lines by making the effective perturber density a function of the wavelength. Effectively, this extension makes the line core a function only of ions; whereas the wings become dependent on both electrons and ions in a smooth transition. In the present study of helium, a similar trend was noted, suggesting that the same type of empirical correction would apply. The empirical correction used is of the form

$$N = N_e \left[1.5 + 0.5 \left(\frac{z-1}{z+1} \right) \right] \quad (21)$$

and

$$z = \left(a \frac{\Delta\nu}{\Delta\nu_L} \right)^b \quad (22)$$

where a and b are constants to be chosen; $\Delta\nu < \Delta\nu_L$ is the displacement from the line center for which impact treatment of the electrons is appropriate, and $\Delta\nu > \Delta\nu_L$ is the range of validity of the quasi-static approximation.

The value of $\Delta\nu_L$ was calculated by the use of the asymptotic behavior of $W(E)$ and by averaging over Stark components. For the quasi-static approximation to be valid, the time between collisions $\tau = r/v$ must be long compared with the perturbation period $1/2\pi|\Delta\nu|c$. Here v is the velocity, and r is the distance of the perturbing particle that produces the electric field. Thus,

$$\tau \gg 1/2\pi|\Delta\nu|c \quad (23)$$

Because $E = e/r^2$ and $1/2m_e v^2 = 3/2kT$, the following condition exists.

$$\Delta\nu \gg \frac{1}{4\pi^2 c^2} \frac{3kT}{m_e} \frac{E}{\Delta\nu} \quad (24)$$

As a precise calculation of the theory shows, this condition is too strict. The following condition is sufficient (ref. 18).

$$\Delta\nu \gg \Delta\nu_L = 0.2 \frac{1}{4\pi^2 c^2} \frac{3kT}{m_e} \frac{E}{\Delta\nu} \quad (25)$$

Values were calculated for $E/\Delta\nu$ and were averaged over all the Stark components in the following manner (after Pfennig and Trefftz).

$$\bar{E} = \sum_{M\mu} E_{M\mu} \left[\frac{L_{M\mu}(E)W(E_{M\mu}) \left| \frac{dE}{d\Delta\nu} \right|_{M\mu}}{\sum_{M\mu} L_{M\mu}(E)W(E_{M\mu}) \left| \frac{dE}{d\Delta\nu} \right|_{M\mu}} \right] \quad (26)$$

where the factor in the parentheses is a weight factor that weights the components by the fractional intensity of the component. With the approximation that $\left| \frac{dE}{d\Delta\nu} \right|_{M\mu} \approx \frac{E_{M\mu}}{|\Delta\nu|}$ (justified in the linear Stark effect and therefore only slightly dependent on $\Delta\nu$), the asymptotic expression $W(E) \approx E^{-5/2}$ may be used to obtain the approximate expression for the average field strength

$$\bar{E} \approx \frac{\sum_{M\mu} L_{M\mu}(E) E_{M\mu}^{-1/2}}{\sum_{M\mu} L_{M\mu}(E) E_{M\mu}^{-3/2}} \quad (27)$$

Because \bar{E} is only slightly dependent on the value of $\Delta\nu$, $\bar{E}/\Delta\nu$ may be introduced into the expression for $\Delta\nu_L$ (eq. (25)). In the numerical calculation, a component was omitted if it did not contribute to the line profile in the range of interest — for example, the $S(\mu = 0)$ component was omitted.

The technique for extending the range for which the quasi-static theory applies is limited because the profiles are no longer automatically normalized if $W(E)$ has been

normalized by the use of a constant normal field strength E_0 . To avoid renormalization of the line profile, $W(E)$ was normalized in the following manner. Taking the normalization condition

$$\int_0^{\infty} H(\beta) d\beta = 1 \quad (28)$$

and transforming the variable of integration, the following is obtained

$$\int_0^{\infty} H\left(\frac{E}{E_0}\right) \left| \frac{\partial \beta}{\partial E} \right| dE = 1 \quad (29)$$

where $\left| \frac{\partial \beta}{\partial E} \right|$ is the absolute value of the Jacobian of the transformation:

$$\left| \frac{\partial \beta}{\partial E} \right| = \left| \frac{1}{E_0} - \frac{E}{E_0^2} \frac{\partial E_0}{\partial N} \frac{\partial N}{\partial z} \frac{\partial z}{\partial \Delta \nu} \frac{\partial \Delta \nu}{\partial E} \right| \quad (30)$$

Therefore,

$$\int_0^{\infty} \frac{1}{E_0} H\left(\frac{E}{E_0}\right) \left| 1 - \frac{E}{E_0} \frac{\partial E_0}{\partial N} \frac{\partial N}{\partial z} \frac{\partial z}{\partial \Delta \nu} \frac{\partial \Delta \nu}{\partial E} \right| dE = 1 \quad (31)$$

A modified, field-strength distribution may be defined as

$$W(E) = \frac{1}{E_0} H\left(\frac{E}{E_0}\right) \left| 1 - \frac{E}{E_0} \frac{\partial E_0}{\partial N} \frac{\partial N}{\partial z} \frac{\partial z}{\partial \Delta \nu} \frac{\partial \Delta \nu}{\partial E} \right| \quad (32)$$

This definition differs from the usual definition of $W(E)$ by the Jacobian factor. In this instance, the normalization is preserved.

NUMERICAL TECHNIQUE

The results of the theoretical analysis have been coded for computation by computer at the Manned Spacecraft Center. The language used is FORTRAN V, which is a commercially amplified version of FORTRAN IV. The present program will run using a compiler for either language.

The basic problem of the computer program used to calculate the line profile is to evaluate the integrals of equation (13) for a sufficient number of wavenumbers to define the profile. Equal log steps are used for the interval between successive $\Delta\nu_i$. This procedure is used because the wings of the profiles have essentially exponential decay ($\Delta\nu^{-5/2}$); therefore, the intervals between successive $\Delta\nu_i$ may increase with increasing $|\Delta\nu_i|$ and still adequately describe the profile. Near the core of the profile, finer resolution is required to define the profile than out on the wings. The set of $\Delta\nu_i$ for which the integrals are evaluated is determined by beginning with an initial wavenumber on each wing and computing successive $\Delta\nu_i$ by the recursion relationship

$$\Delta\nu_{i+1} = \Delta\nu_i 10^\delta \quad (33)$$

where $1/\delta$ equals the number of intervals per decade. Equation (33) results in equal log increments by taking the logarithm of equation (33) and solving for δ .

$$\delta = \log \Delta\nu_{i+1} - \log \Delta\nu_i \quad (34)$$

Because δ is constant, the intervals $\log \Delta\nu_{i+1} - \log \Delta\nu_i$ are equal.

The integrals in equation (13) are evaluated by Simpson's 1/3 rule over a large enough interval of the electric field E (range of integration) so that the integrand is less than approximately 10^{-18} at the end points of the interval. From calculated values of the integrand, it is estimated that, over a wide range of temperatures, the field strengths corresponding to an interval of wavenumbers equal to $\pm 2.5 \text{ cm}^{-1}$ will satisfy this minimum in the integrand end points ($\sim 10^{-18}$) without an underflow of the computer-storage capability. The smallest number greater than zero that the computer is capable of handling is approximately 10^{-37} . An underflow should be avoided because the computer will set the value stored equal to zero. This occurrence causes the integration subroutine to yield an integral of zero when the integrand is zero at both end points of the interval. The interval about the argument of the Doppler function $\Delta\nu - \Delta\nu_{M\mu}(E)$ is only $\pm 2.5 \text{ cm}^{-1}$ because the Doppler-broadening function is very narrow at the

temperatures considered in these calculations. For higher accuracy at higher or lower temperatures, the interval about $\Delta\nu - \Delta\nu_{M\mu}$ for which the integral is evaluated should be changed. The range of E defined by the above considerations is obtained by solving $E(\Delta\nu_{M\mu})$ and

$$\Delta\nu - \Delta\nu_{M\mu J} \pm 2.5 = 0 \quad (35)$$

for the lower integration limit E_1 and the upper integration limit E_2 . Thus,

$$\Delta\nu_{M\mu J} = \Delta\nu_{M\mu} + \Delta\nu_J \text{ where } \Delta\nu_J \text{ accounts for the splitting in the lower energy state}$$

2^3P (the broadening of which is neglected). From the tables of Pfennig and Trefftz (ref. 11), $\Delta\nu_{M\mu}$ is obtained. By interpolating between points in the table with a second-

degree Lagrangian interpolation, E is obtained. The interpolation subroutine requires that the independent variable be tabulated in ascending order. Because in this situation it is necessary to find E as a function of $\Delta\nu_{M\mu}$, then $\Delta\nu_{M\mu}(E)$ must be in ascending order in the table of values. In general, this situation does not obtain, because $\Delta\nu_{M\mu}$

may be an ascending, a descending, or even an ascending and a descending function of E . To solve for E_1 and E_2 , the computer program arranges each array of $\Delta\nu_{M\mu}$

into ascending order before calling the interpolation routine. In cases in which the function has a stationary point, the array is split into two arrays, each of which is treated separately. Likewise the corresponding array E is inverted and, when necessary, is split in two arrays. Thus, once the arrays are in the correct sequence for use in the interpolation subroutine, the limits of integration E_1 and E_2 are found. If

$\Delta\nu_{M\mu} = \Delta\nu + \Delta\nu_J \pm 2.5$ is not in the table of values, then that term in the sum is neglected. Physically, this technique means that, if an electric field strength

$0 \leq E \leq E_{\max}$ does not produce a line component with a contribution at

$\Delta\nu = \Delta\nu_{M\mu} - \Delta\nu_J \pm 2.5$, then the contribution to the line shape is negligible. The maximum field strength tabulated in the tables of Pfennig and Trefftz is E_{\max} . Neglecting

terms in which the interval $E_1 \leq E \leq E_2$ falls outside the tabulated range probably

amounts to an error of less than 1 percent in the line intensity at $\Delta\nu$, if the normal field strength E_0 is well within the tabulated interval. This situation may happen at

the lower electron densities and low quantum-numbered lines; that is, where the lowest tabulated value of E is 1.0 kV/cm and E_0 is less than 1.0. Large errors may occur

in the core of the line profile when this situation occurs. The calculated normalization of the profile will not be equal to unity in these cases.

The integration subroutine makes successive approximations to the integral by dividing the range of integration into a number of equal parts and then evaluates the integral by the Simpson's 1/3 rule for that number of intervals. This result is compared with the previous one to determine whether the change in the result is less than a given small number ϵ ; then the range of integration is split into twice as many

intervals, and Simpson's rule is again calculated. If the two successive results differ by less than ϵ , the integral is said to have converged. A maximum number of these iterations N_{\max} is set by the calling program; and, if the integral does not converge to within ϵ before N_{\max} iterations, the integration subroutine returns, and a statement that the integral did not converge is printed. In the case of the intensity integration, a relative error of 0.002 was preset so that the sum of the integrals may have an error less than $\sum_M \sum_\mu C_{M\mu} \epsilon_{M\mu}$ where $C_{M\mu}$ is a weighting factor proportional to the relative contributions of the $M\mu$ component of the line. The total integration error is usually less than 2 percent. Lines having more components — that is, the lines corresponding to high quantum numbers — have larger errors of this type than those corresponding to low quantum numbers.

To check the evaluation of the function $W(E)$ and to check the accuracy of the intensity calculation, the functions $W(E)$ and $I(\Delta\nu)$ are normalized by integration. The normalization integrals should equal unity. In all cases, $\int W(E)dE$ differed from 1 by less than 0.1 percent and the error in $\int I(\Delta\nu)d\Delta\nu$ was less than 3 percent. The larger errors are attributed to neglect of the extreme far wings in the normalization integral. Some error results because an interpolation is used to calculate $I(\Delta\nu)$ between points for which the profile was calculated.

A quadratic Lagrangian interpolation is used to evaluate the line strength $L_{M\mu}(E)$. To evaluate $W(E)$ at E , the following procedure was used. As earlier stated,

$$W(E) = \frac{1}{E_0} H\left(\frac{E}{E_0}, y\right) \left| 1 - \frac{E}{E_0} \frac{\partial E_0}{\partial N} \frac{\partial N}{\partial z} \frac{\partial z}{\partial \Delta\nu} \frac{\partial \Delta\nu}{\partial E} \right| \quad (36)$$

A table of $H(\beta, y)$ for the value of the Debye shielding parameter $y = d/\lambda_D$ is interpolated from Baranger and Mozer's tables where $d = (15/4)^{1/3} 2(\pi)^{-1/2} N^{-1/3}$ is the mean separation of perturbers and λ_D is the Debye length. All the partial derivatives except $\partial \Delta\nu/\partial E$ are determined analytically using equations (18), (21), and (22) and $\partial \Delta\nu/\partial E$ is calculated by fitting a parabola to three successive values of E and computing the derivative analytically. Values of $H(E/E_0, y)$ for $E/\beta = E_0$ not tabulated are interpolated by a Lagrangian interpolation of degree 2 for $E/E_0 < 10$. For larger values of E/E_0 , the series given in equation (20) is used.

In the calculation of the mean field strength \bar{E} , the value of $\Delta\nu = \pm 200 \text{ cm}^{-1}$ is chosen. This value is chosen because it is on the wing where the assumption that $W(E) \propto E^{-5/2}$ is valid.

DISCUSSION

Calculated Profiles

Several cases covering a range of temperatures and electron densities were calculated, and the results are plotted and tabulated in appendixes A and B, respectively.

The profiles are given for electron densities of 10^{13} , 10^{14} , and 10^{15} cm^{-3} and for temperatures of 3000 K, 10 000 K, and 30 000 K. These ranges of electron densities and temperatures are within the ranges for which the quasi-static approximation for electrons and ions is valid (ref. 18) for the line wings; therefore, no empirical correction was used in these calculations. The gas temperature, which gives rise to the Doppler-broadening, is assumed to be the same as the electron temperature. This assumption does not lead to difficulty because the Doppler-broadening contribution to the profiles at the temperatures of interest is very small, especially for higher lines at moderate- to high-electron densities. Nevertheless, to account for a difference in electron and gas temperatures, it would be possible to modify the calculation for use of the two temperatures. The gas (neutrals) temperature would be used when evaluating the Doppler function, and the electron temperature would be used when evaluating the Debye shielding parameter. To be more precise, the field-strength distribution function caused by ions must be calculated separately from the broadening caused by electrons, and these two functions must be folded together. The empirical correction technique would then have to be modified.

The calculated profiles for principal quantum numbers $n = 4$ to $n = 13$ are given in appendix A. In general, the profiles obey the expected $\Delta\nu^{-5/2}$ dependence in the wings, and the temperature, through the Debye shielding parameter y , has little effect on the profiles in the far wings for lower electron densities. At higher densities, shielding becomes more important in describing the wing profiles, especially for the higher lines. The profiles in appendix A for $n = 4$ show a deviation from the $\Delta\nu^{-5/2}$ dependence at approximately $\Delta\nu = 130 \text{ cm}^{-1}$ and $\Delta\nu = 50 \text{ cm}^{-1}$. This behavior results from the numerical approximation made in the calculation.

In components for which the calculations were made, the tables of Pfennig and Trefftz do not extend beyond these values of $\Delta\nu$. The program omits components where $\Delta\nu$ is essentially outside the range of these tables. This numerical approximation was not good in the case of $n = 4$ for the range of $\Delta\nu$. To correct this deficiency, the perturbation calculation must be made for higher values of the perturbing electric field E , and the table must be extended. Such an exercise is not necessary for practical use because the errors in the profiles occur in a region very far down on the curve where experimental measurements are impractical because of very small intensities and the uncertainty in the background continuum.

The utility of the profiles given in appendixes A and B is for comparison with experimentally measured wing profiles to obtain an approximate measure of electron density (subject to $T_e \approx T_0$). In the far wings, the intensity is approximately proportional to the perturber density; therefore, interpolation will give a good estimate of the electron density. For a more precise comparison of experimental data with calculated

profiles, the computer program should be used to generate a profile for which the electron density and temperature have been estimated or obtained by other means. The fact that impact-broadening has been neglected in the calculation is justified when correlating the far wings with the measured profiles because quasi-static broadening predominates in that instance. However, to use line widths as an electron-density probe, impact-broadening should be included or other more general broadening theories should be used.

A Comparison of Calculated Profiles With Experimental Data

Experimental line profiles of the helium triplet diffuse series were measured in an arc jet plasma flow (ref. 19). Because of gradients in the radial distribution of temperature and electron density, it was necessary to invert the radial intensity distribution at each wavenumber in the measured profile. An Abel inversion technique was used. The electron temperature at the centerline was 7800 K, and the electron density was $1.4 \times 10^{15} \text{ cm}^{-3}$. The inverted line profile at the jet centerline is compared with several calculated profiles for the violet wing of the $2^3\text{P}-8^3\text{D}$ line in figure 1. Five profiles were calculated; in four, the empirical corrections were used. The values of the parameters used in the empirical corrections are shown in figure 1. The perturber density in the uncorrected calculation was twice the electron density. The calculated profile for parameters $a = 14$ and $b = 1$ gives a somewhat better fit to the experimental data in the violet wing. This fact is consistent with the results of Schlüter (ref. 3) for hydrogen. An even better consistency with Schlüter's results is found if Unsöld's estimate (ref. 20) for the critical value for the transition between the quasi-static and impact domains of electron-broadening $\Delta\nu_L$ is used. The critical value used in these calculations — that of Traving (ref. 18) — is approximately twice Unsöld's estimate.

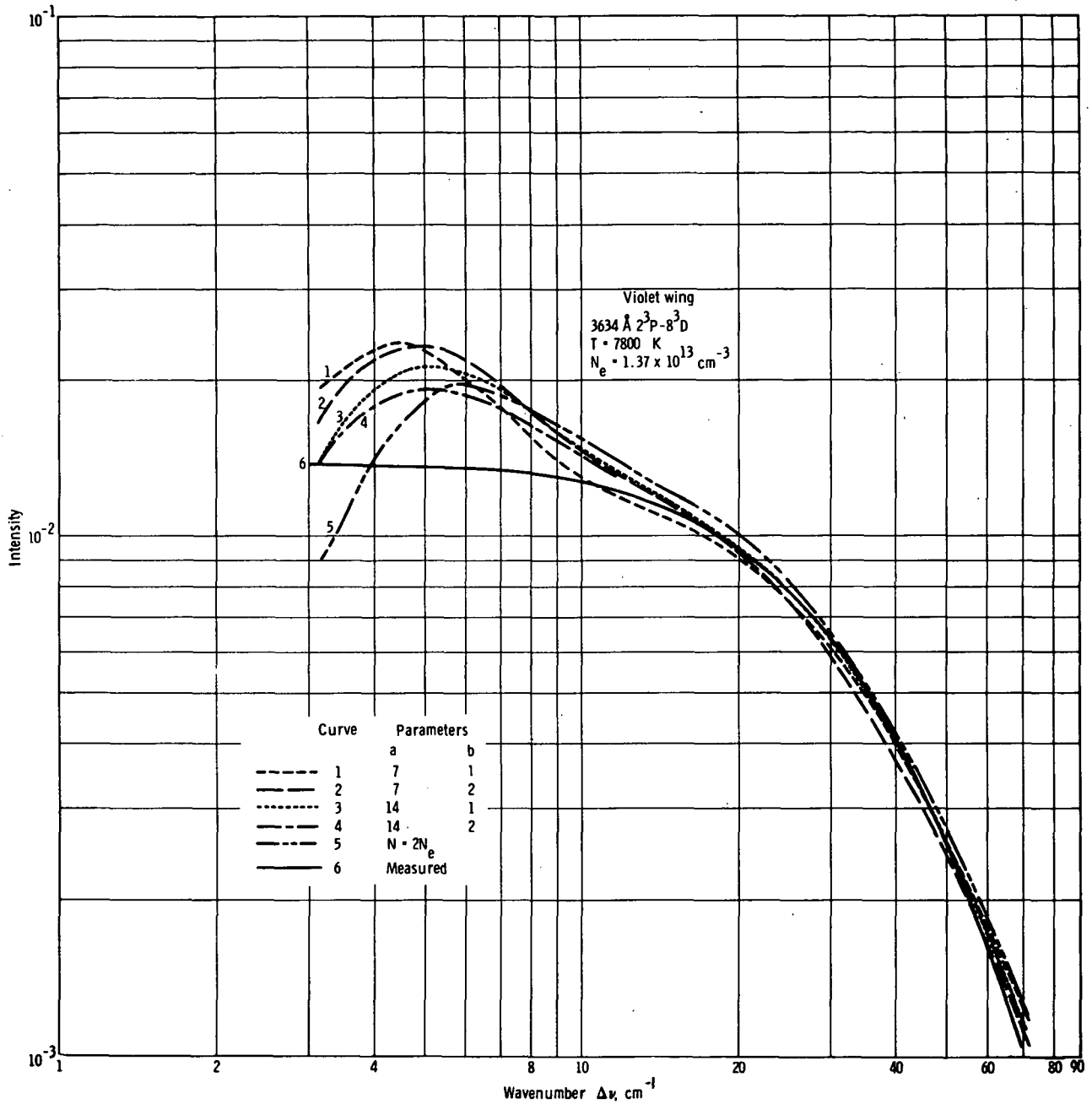


Figure 1. - A normalized Abel-inverted profile ($r = 0$) compared with calculated quasi-static profiles folded with the Doppler profile for the 2^3P-8^3D line.

CONCLUDING REMARKS

A computer program was written to obtain a set of helium triplet diffuse line profiles calculated over a range of electron densities and temperatures. These calculated profiles are useful for comparing the theoretical technique and approximations used with experimental measurements. These profiles yield more insight into the basic nature of the interactions of perturbing particles in the neighborhood of radiating atoms and give information as to what perturbing mechanisms are important; that is, average quasi-static electric fields or collisions. This question has been answered to some extent by previous investigators for the wings of helium line profiles in low-density plasmas. This agreement of measurements with theory also appears to be valid for medium electron densities based on the work reported here; however, the experimental verification is limited to only one spectral line.

The quasi-static theoretical line profiles for the helium triplet diffuse series ($2^3\text{P}-n^3\text{D}$), including Doppler-broadening, have been programmed for computation by a FORTRAN V computer program. These calculations give an estimated overall computational accuracy of better than 3 percent over most of the line wings; however, the theory is not applicable in the core of the lines because of neglecting the impact-broadening of electrons.

The computer code also includes an optional empirical correction to the perturber density, which appears to improve the agreement with experimental data over a limited range toward the line core. This correction makes the perturber density a function of wavenumber. The theoretical plausibility of the correction is based on work applied to hydrogen by Griem and Schlüter. This technique preserves the normalization of the profiles.

Good agreement was found between an experimentally measured profile of the $2^3\text{P}-8^3\text{D}$ line and the calculated profile in the line wings; however, the agreement was poor in the line core and in the region of the resolved, forbidden components. Further work is needed to put the calculations on firmer theoretical ground.

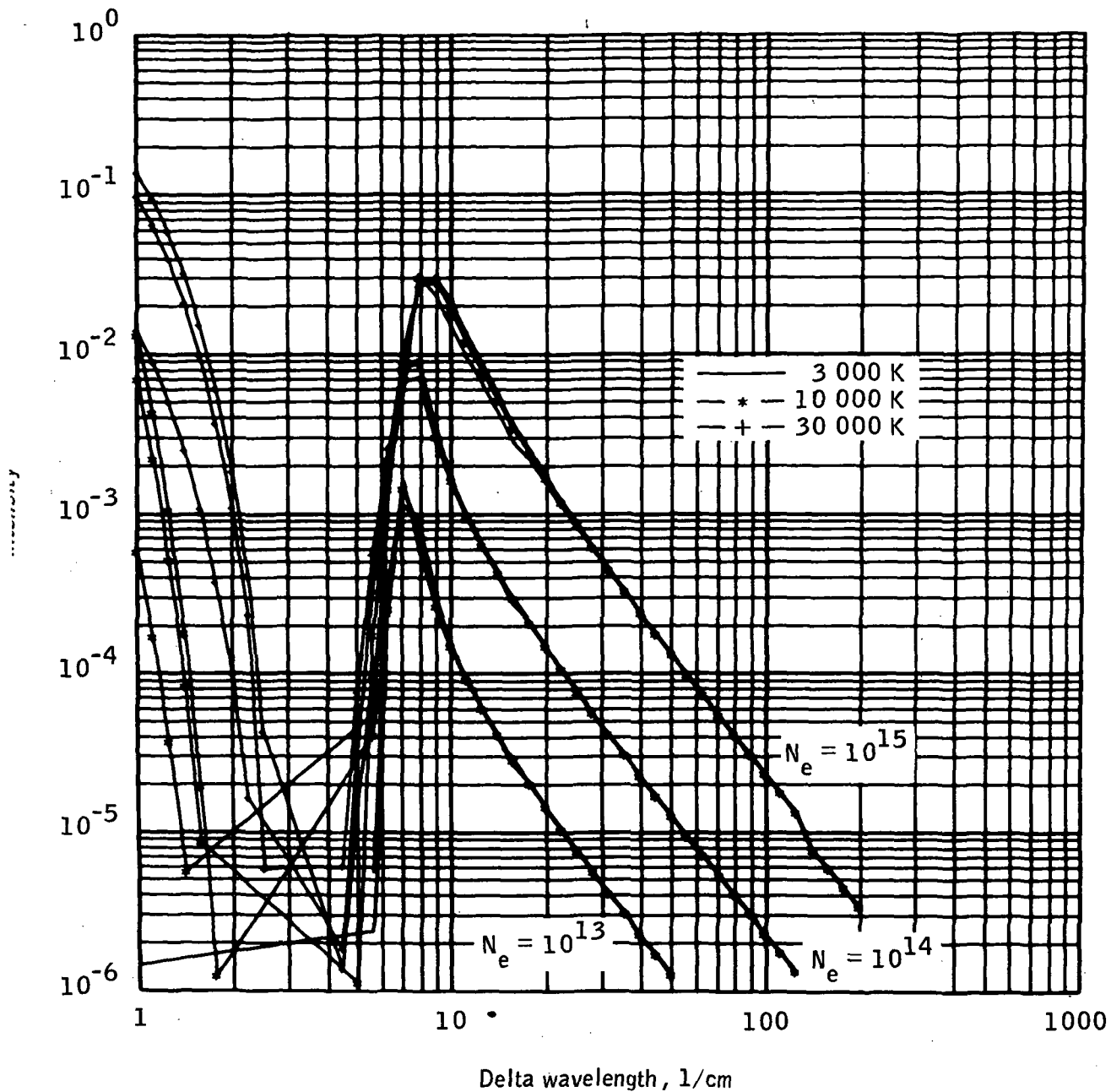
The curves and tables given in the appendixes may be used for determining the electron density of helium plasmas from measurement of the helium triplet diffuse line wing profiles over a range of electron densities of approximately 10^{13} to 10^{15} cm^{-3} . Further experimental measurements over this range should be made to verify this conclusion.

The profiles calculated here are seen to be fairly insensitive to temperature except those profiles for which the electron densities are in the region of 10^{15} cm^{-3} and higher for lines having a high principal quantum number. Even in these cases, less than 25-percent error will be incurred for an uncertainty in the temperature of an order of magnitude.

Manned Spacecraft Center
National Aeronautics and Space Administration
Houston, Texas, March 17, 1972
908-42-02-00-72

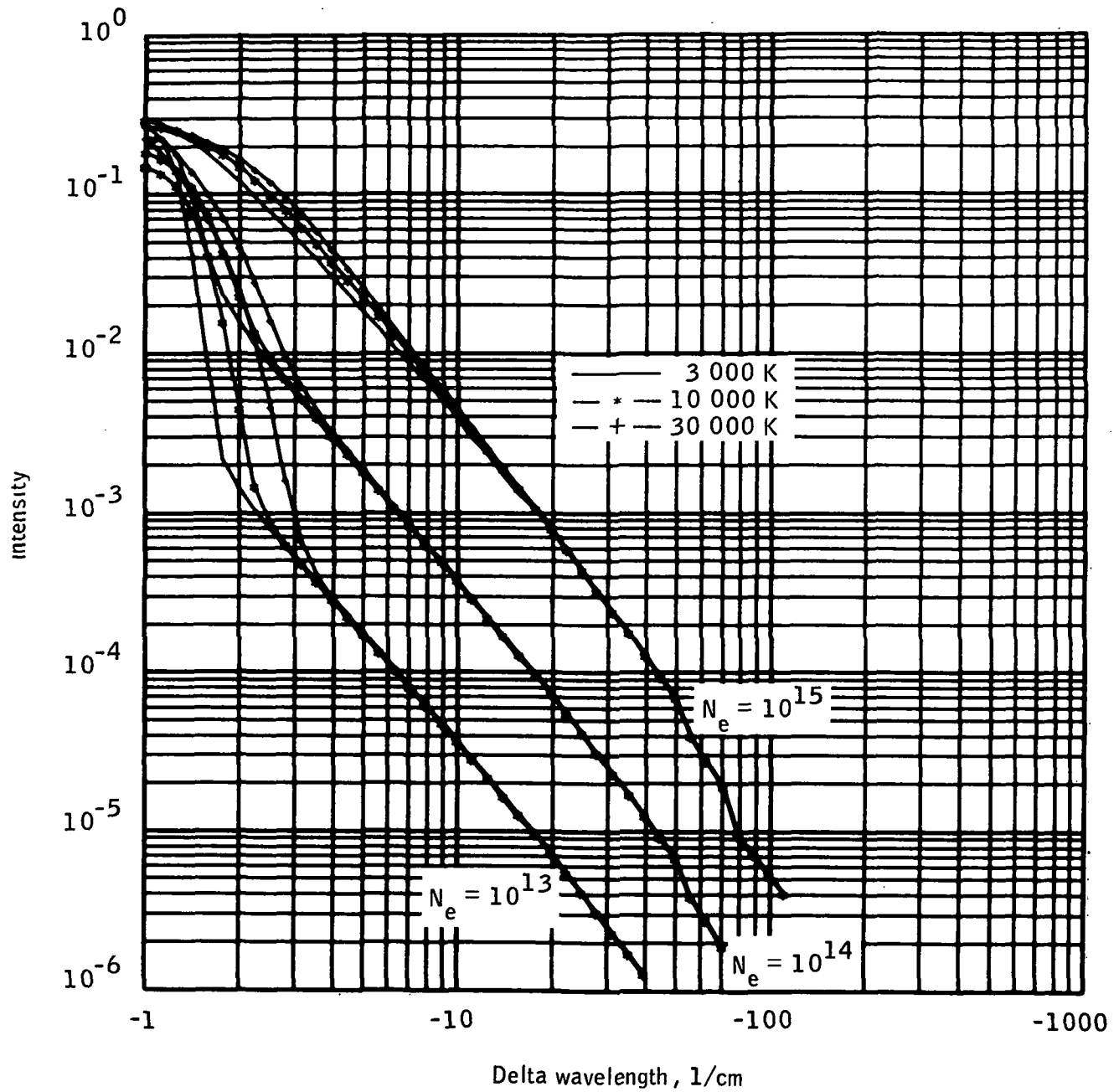
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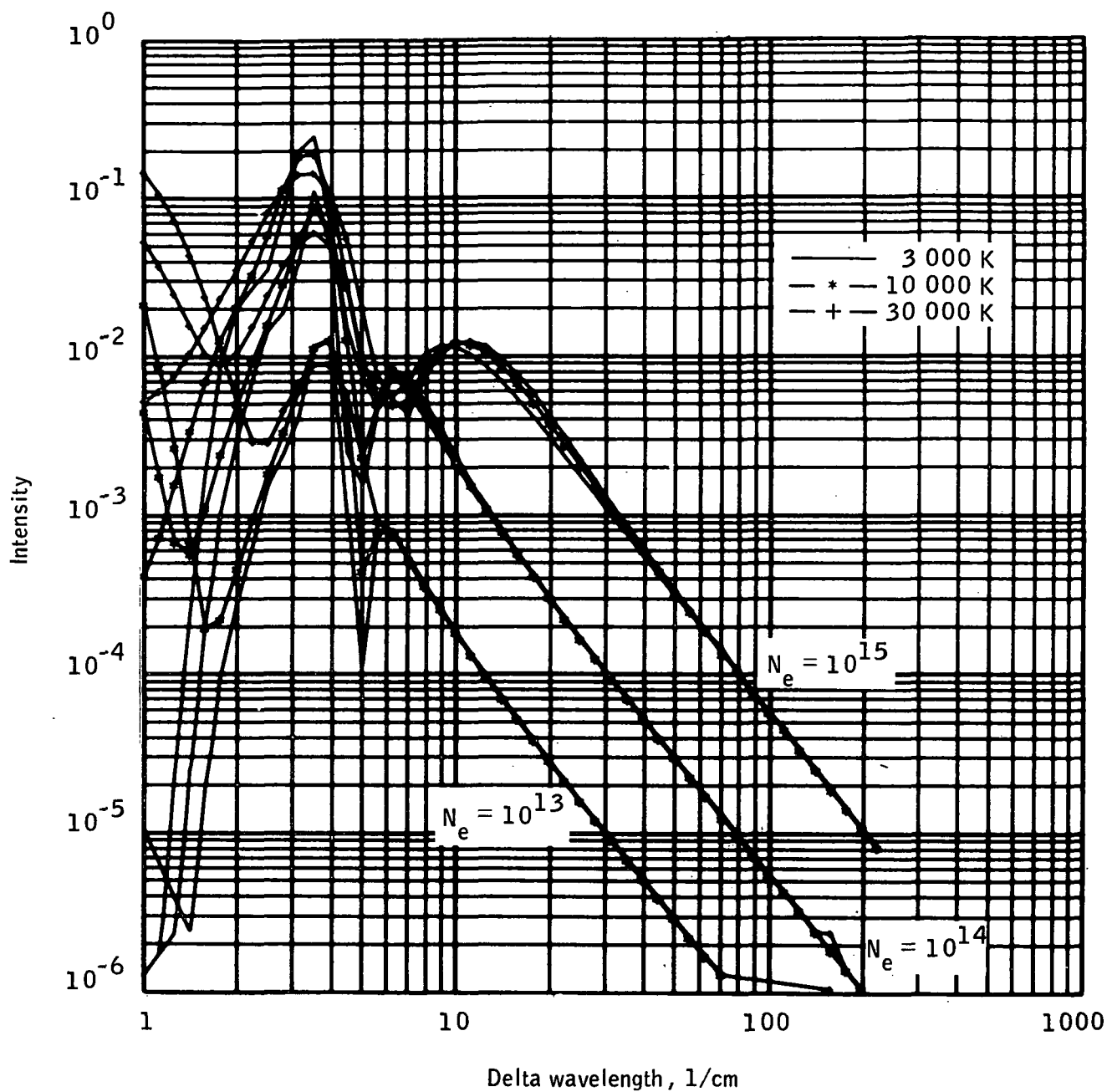
(a) Violet wing, triplet diffuse series (2P-4D).

Figure A-1. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 4471.00 Å). Parameters are temperature and electron density.



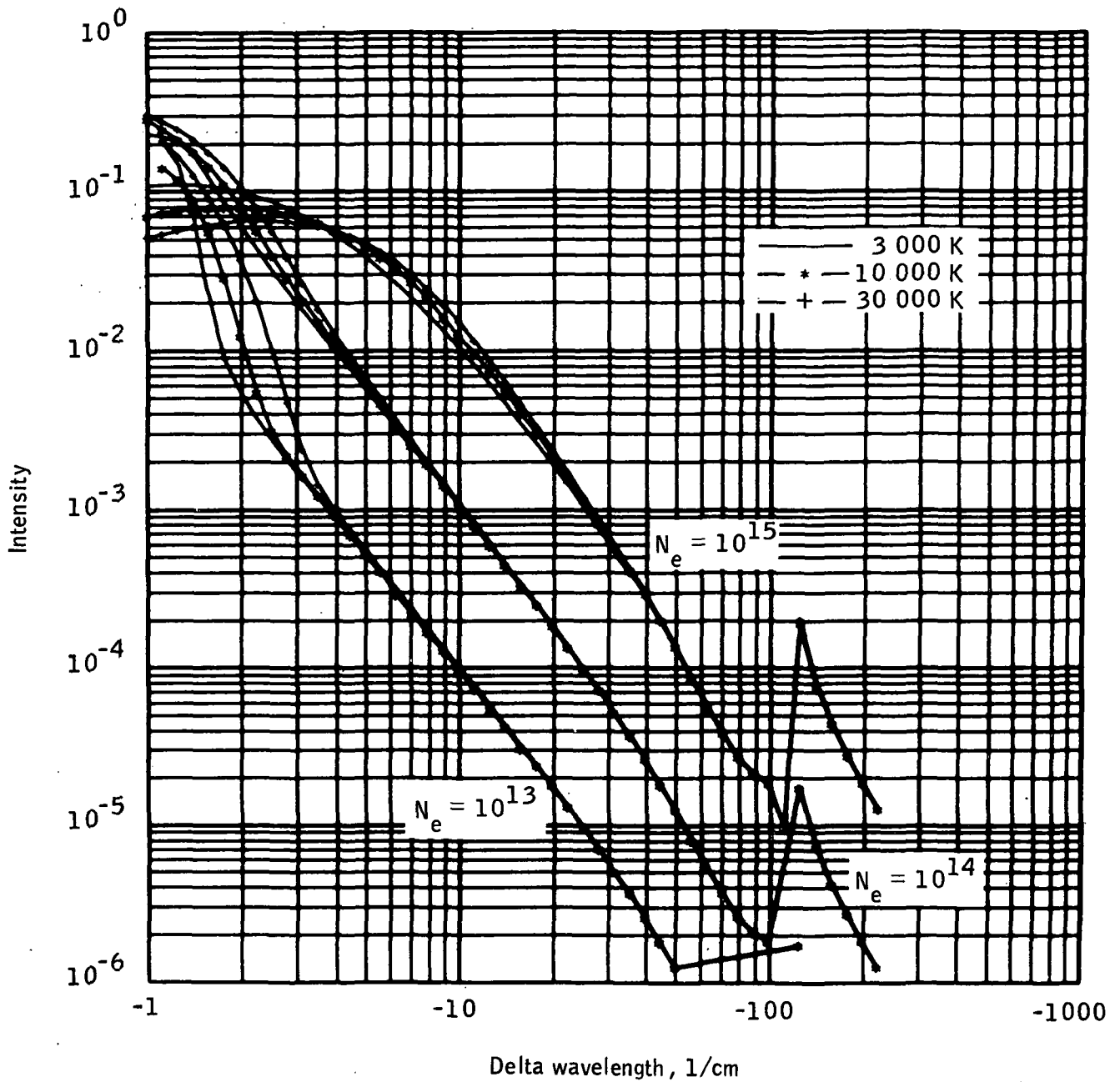
(b) Red wing, triplet diffuse series (2P-4D).

Figure A-1. - Concluded.



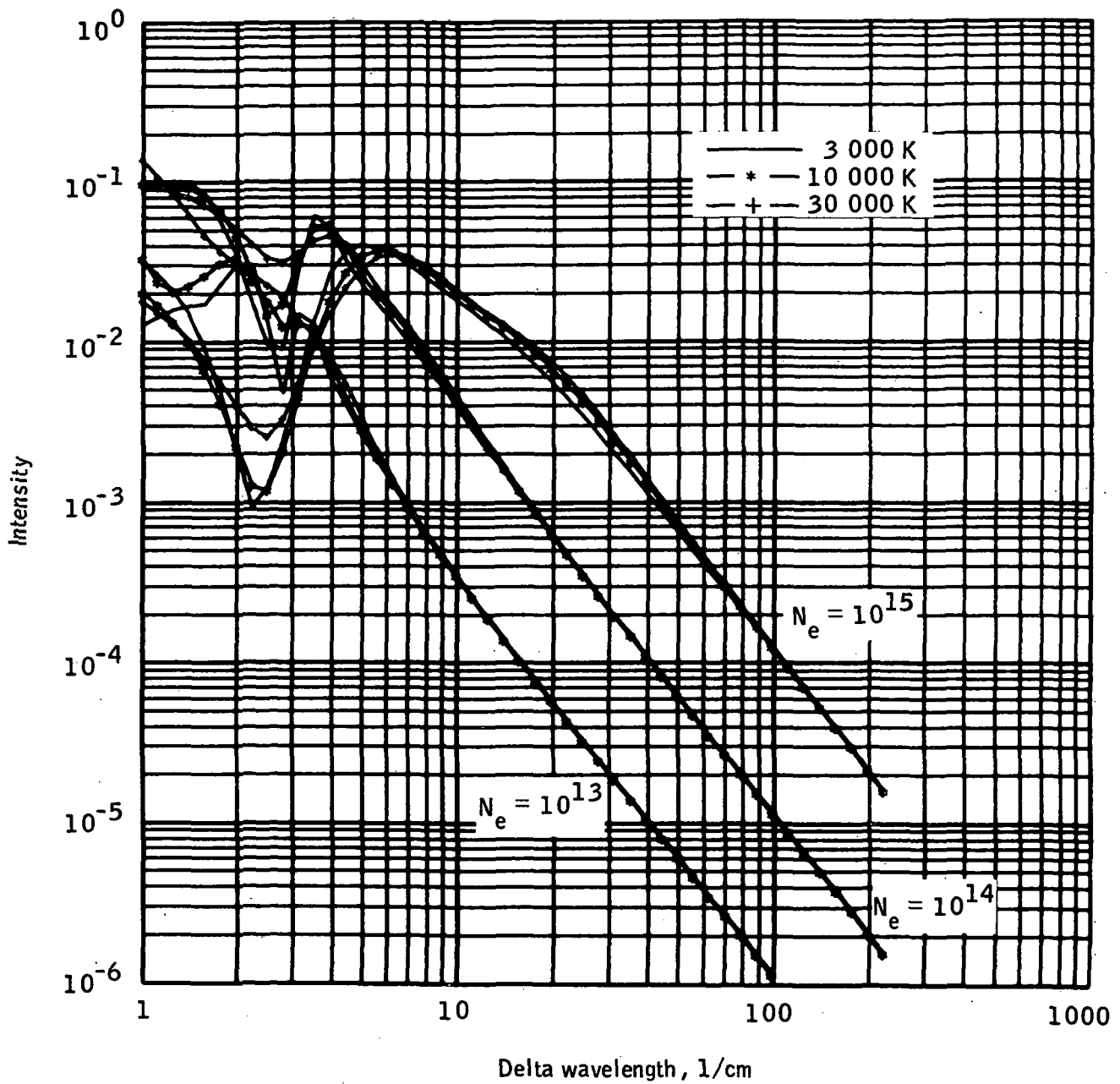
(a) Violet wing, triplet diffuse series (2P-5D).

Figure A-2. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 4026.00 Å). Parameters are temperature and electron density.



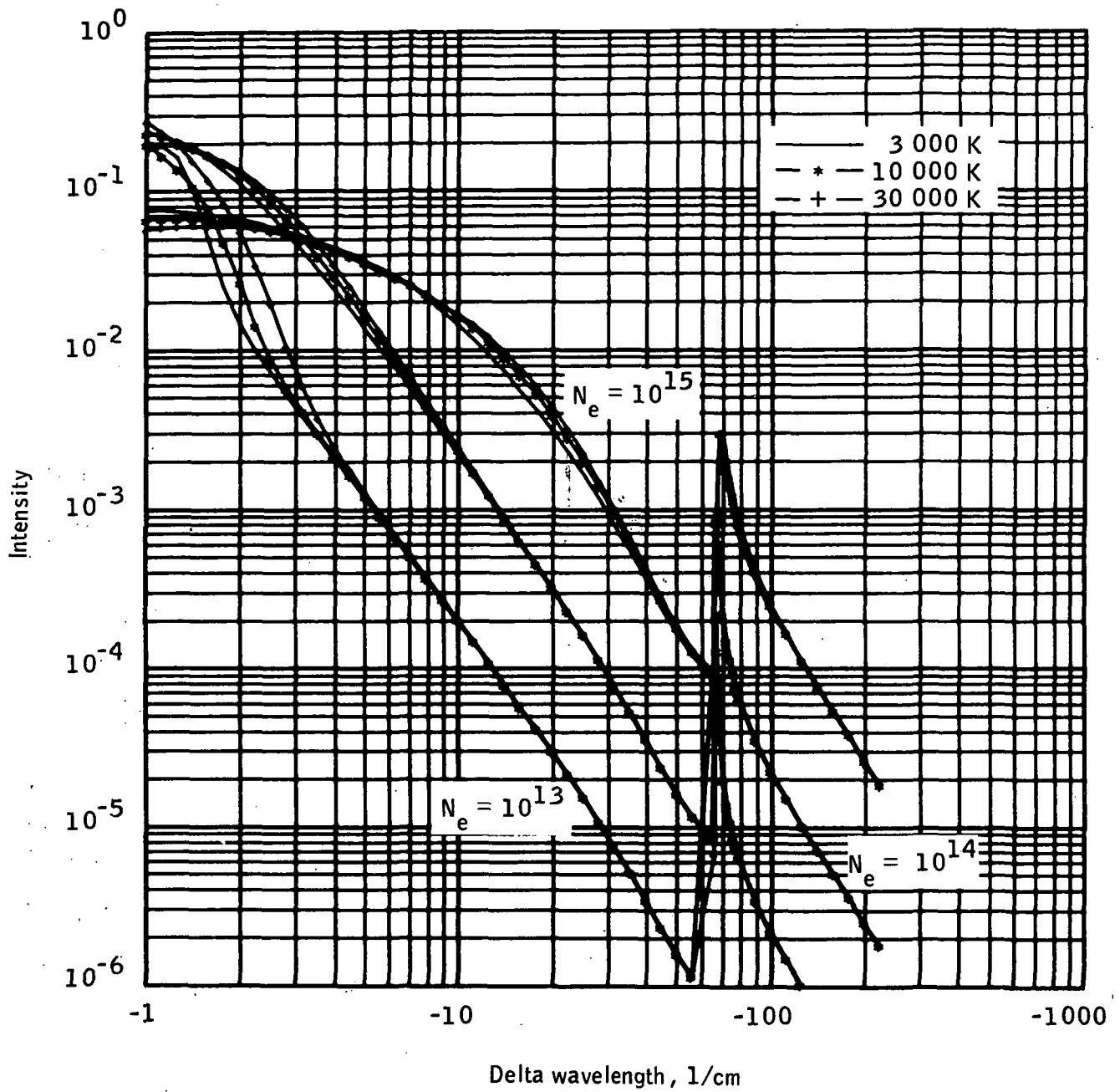
(b) Red wing, triplet diffuse series (2P-5D).

Figure A-2. - Concluded.



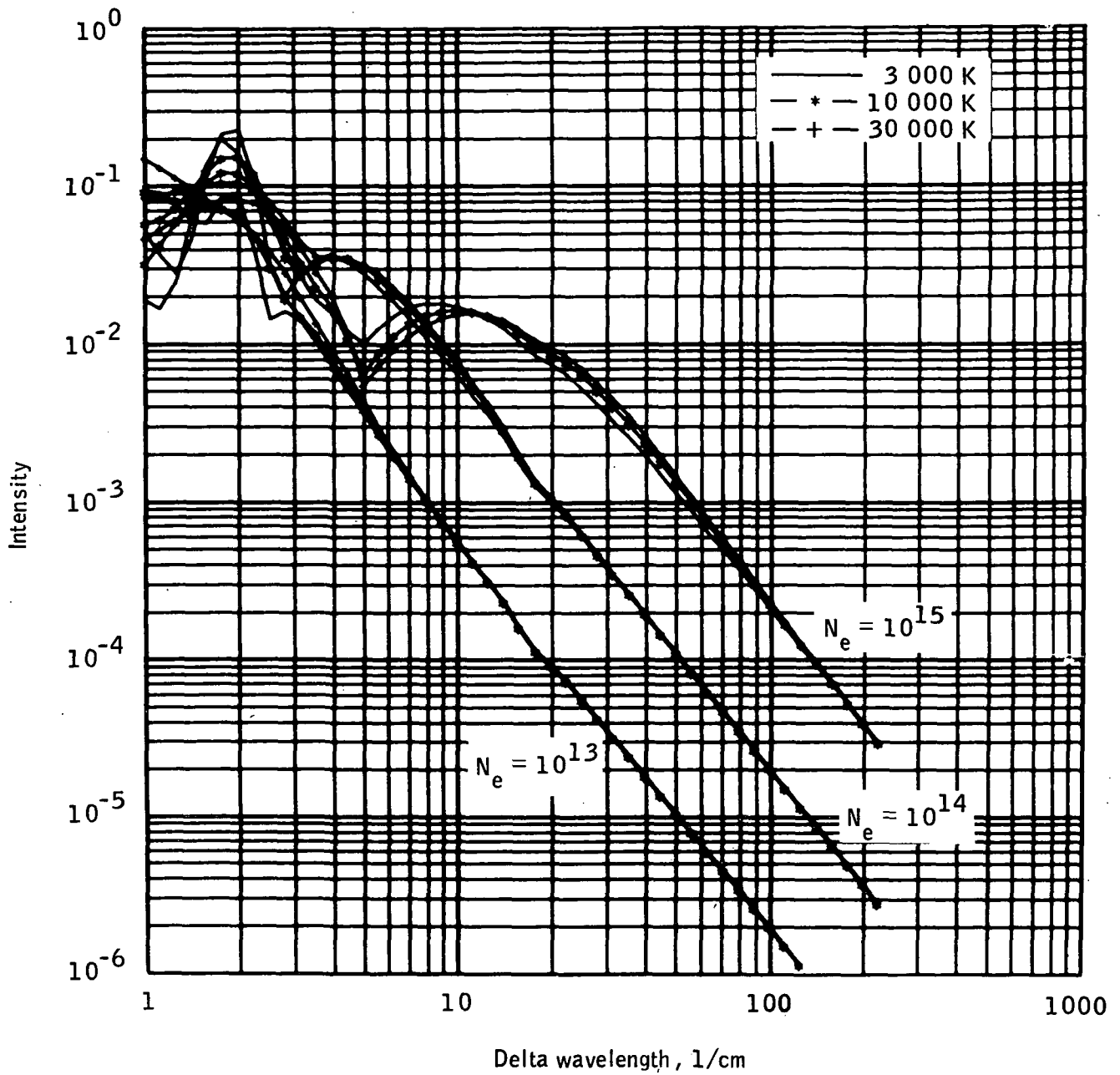
(a) Violet wing, triplet diffuse series (2P-6D).

Figure A-3. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3819.00 Å). Parameters are temperature and electron density.



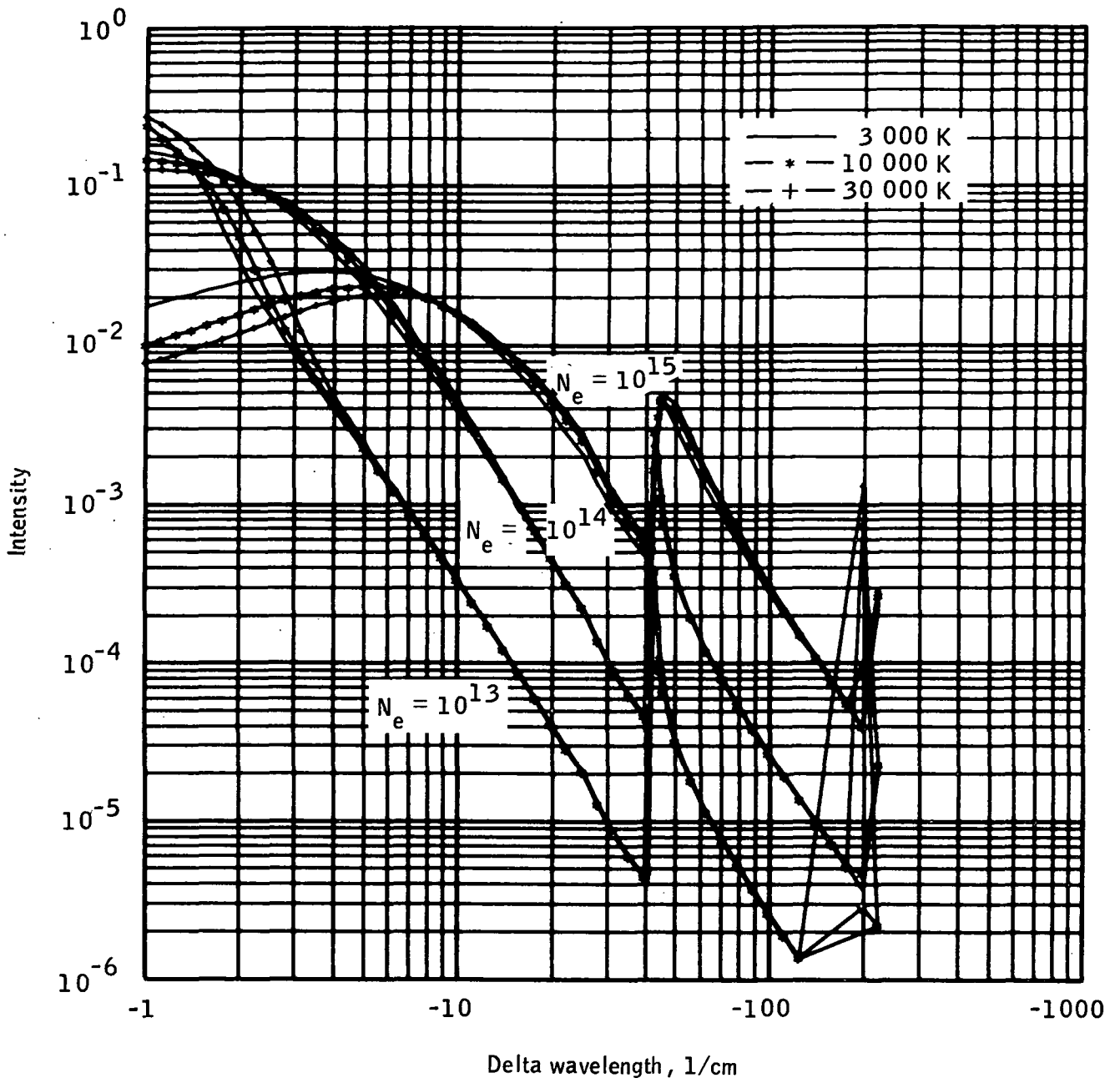
(b) Red wing, triplet diffuse series (2P-6D).

Figure A-3. - Concluded.



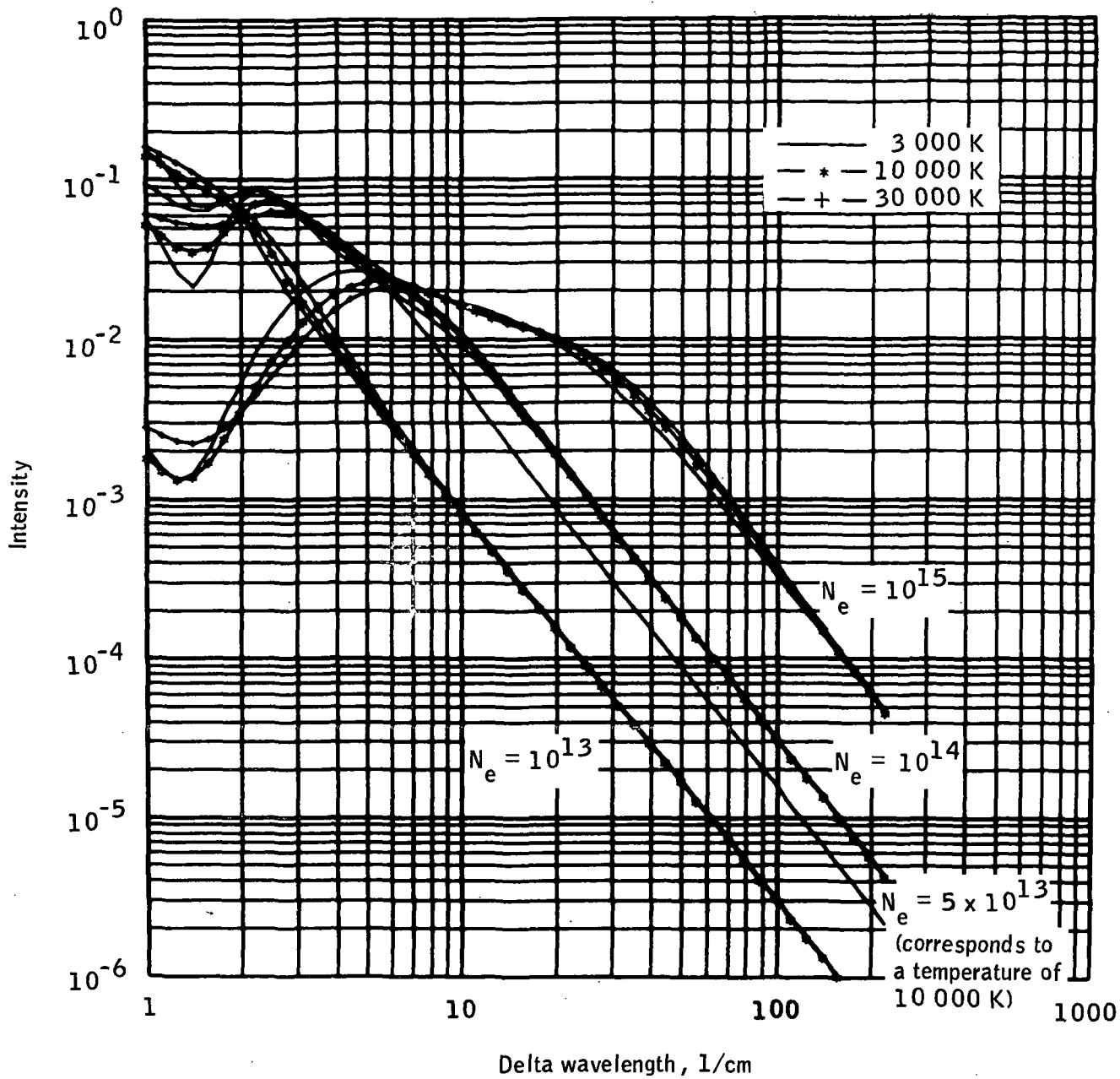
(a) Violet wing, triplet diffuse series (2P-7D).

Figure A-4. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3705.00 Å). Parameters are temperature and electron density.



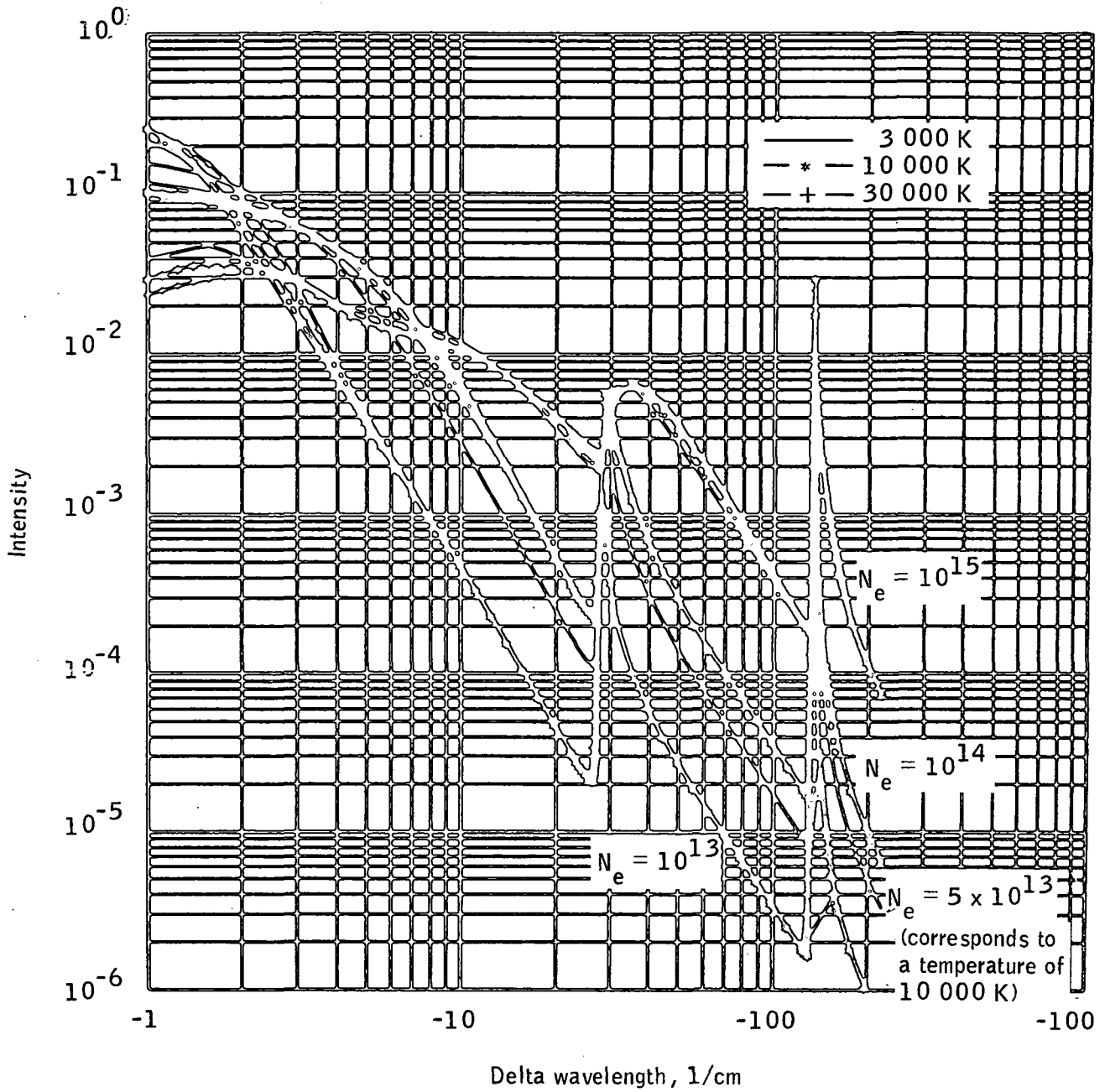
(b) Red wing, triplet diffuse series (2P-7D).

Figure A-4. - Concluded.



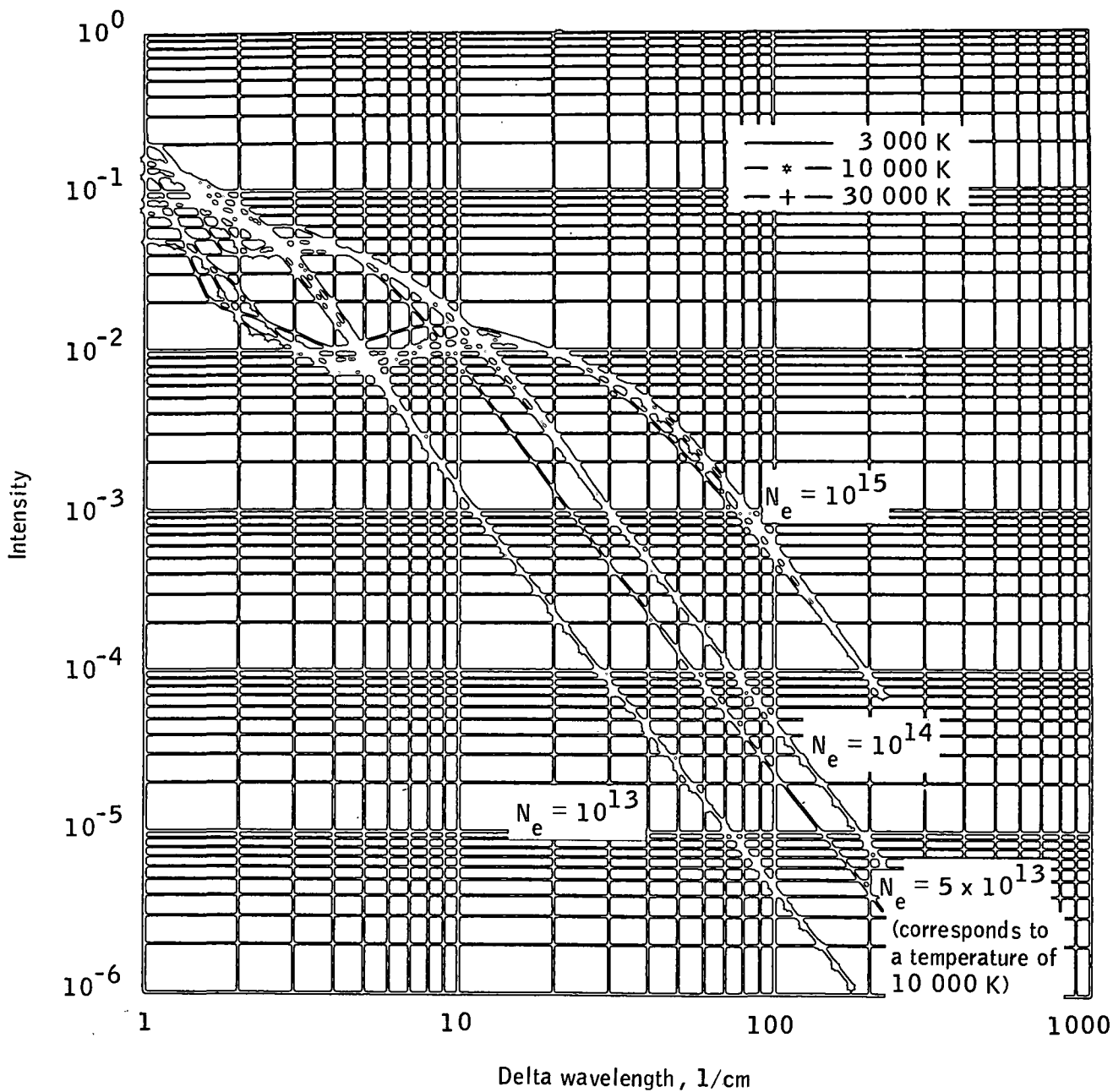
(a) Violet wing, triplet diffuse series (2P-8D).

Figure A-5. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3634.00 Å). Parameters are temperature and electron density.



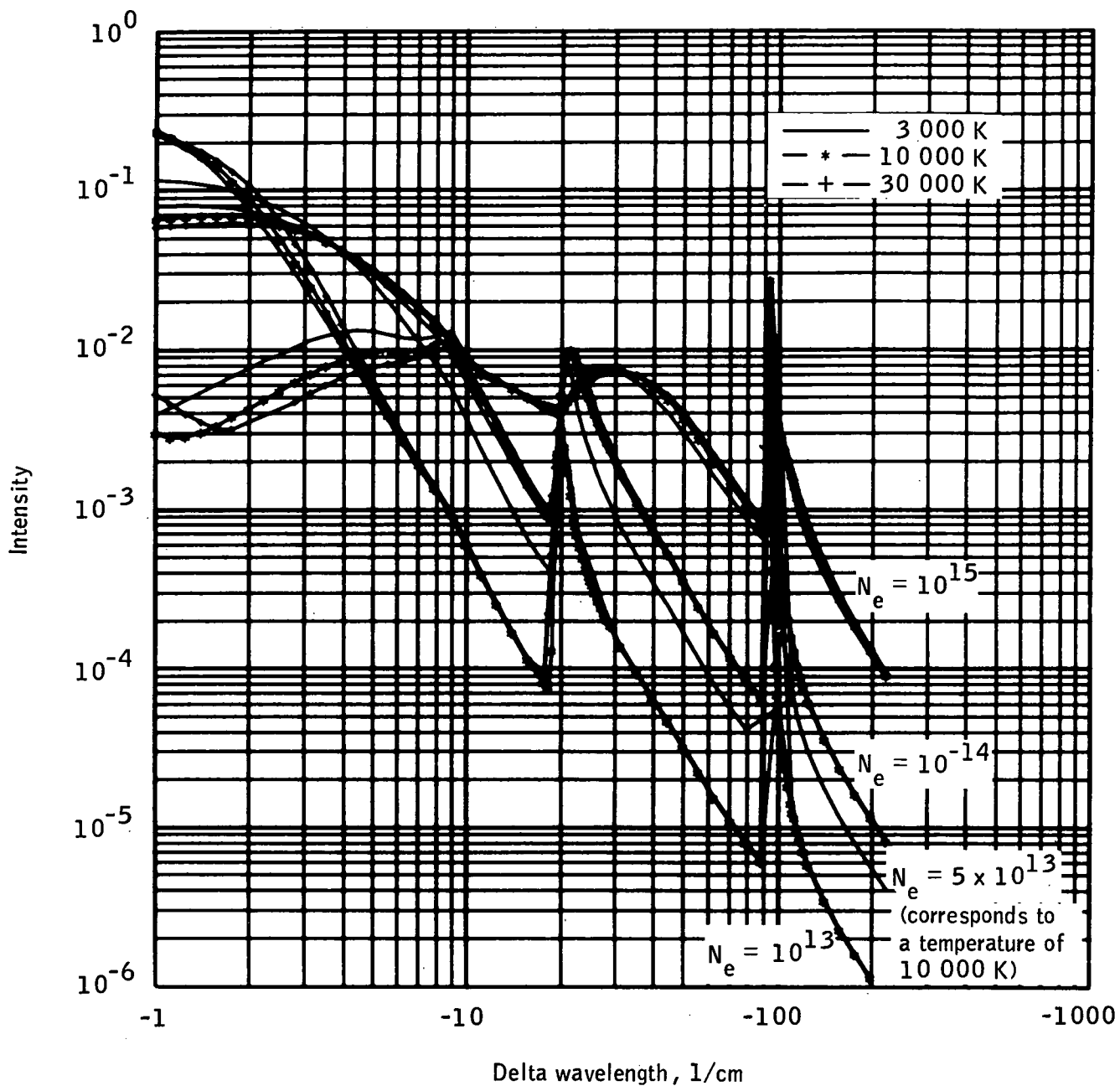
(b) Red wing, triplet diffuse series (2P-8D).

Figure A-5. - Concluded.



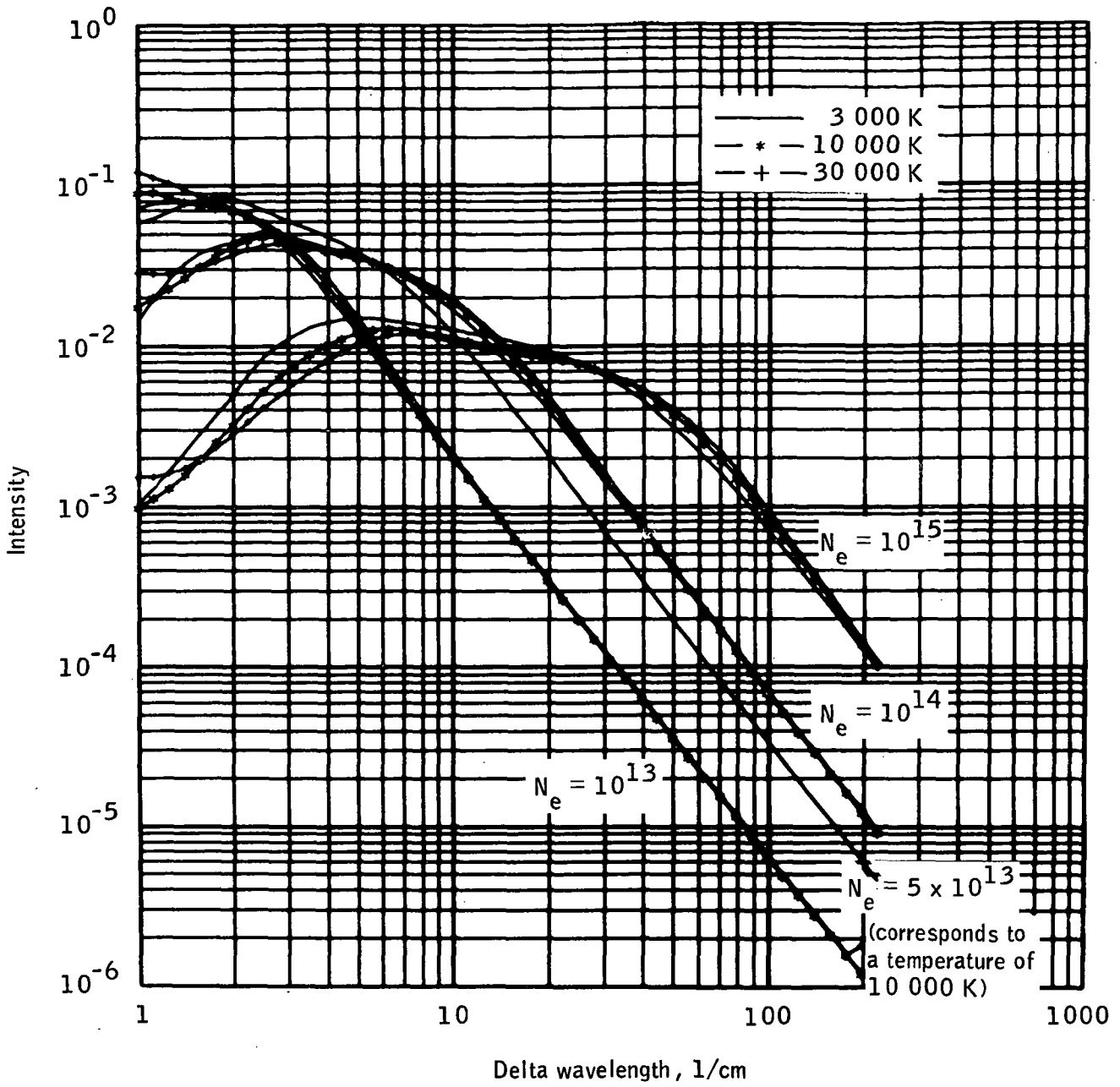
(a) Violet wing, triplet diffuse series (2P-9D).

Figure A-6. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3587.00 Å). Parameters are temperature and electron density.



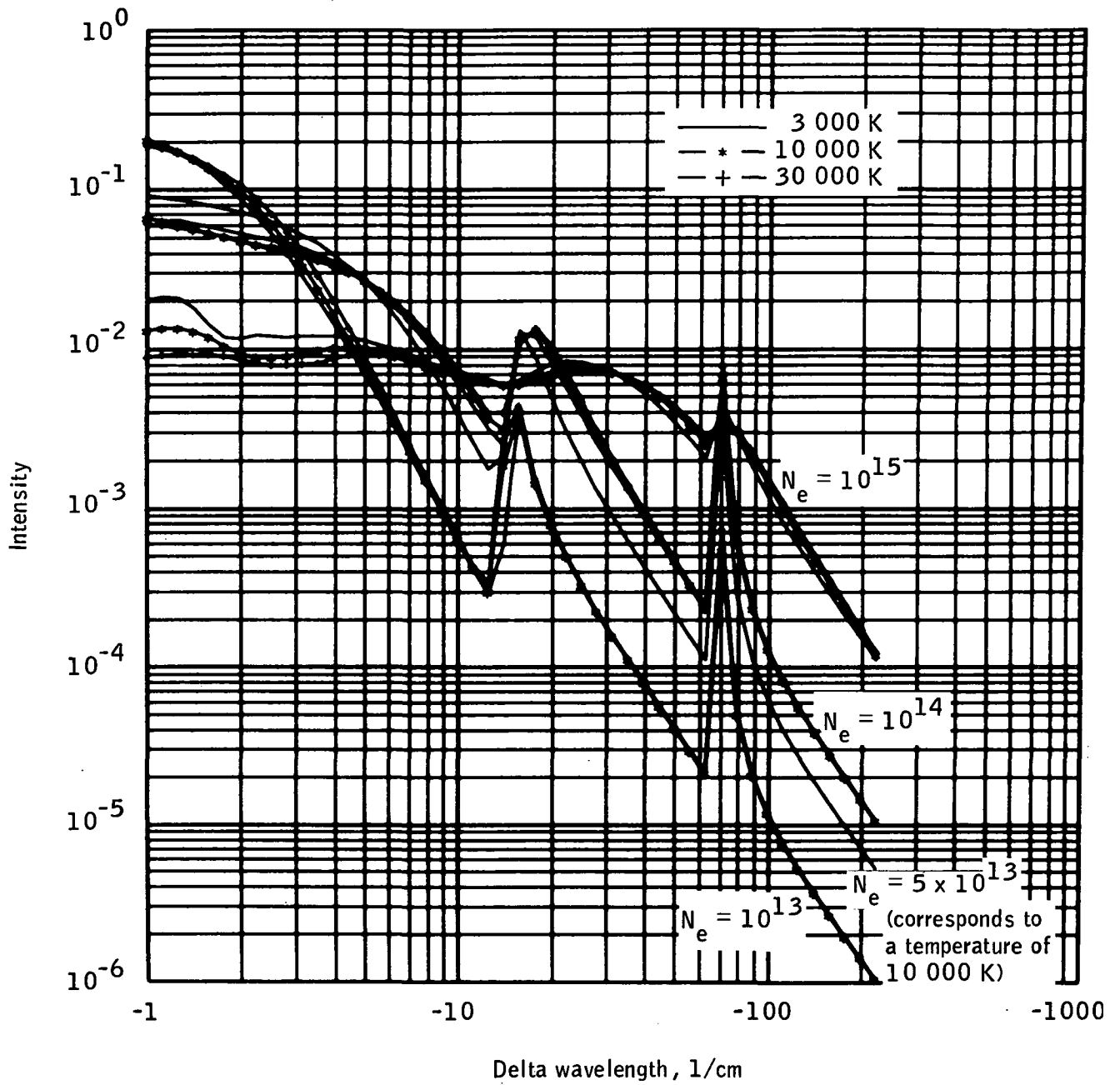
(b) Red wing, triplet diffuse series (2P-9D).

Figure A-6. - Concluded.



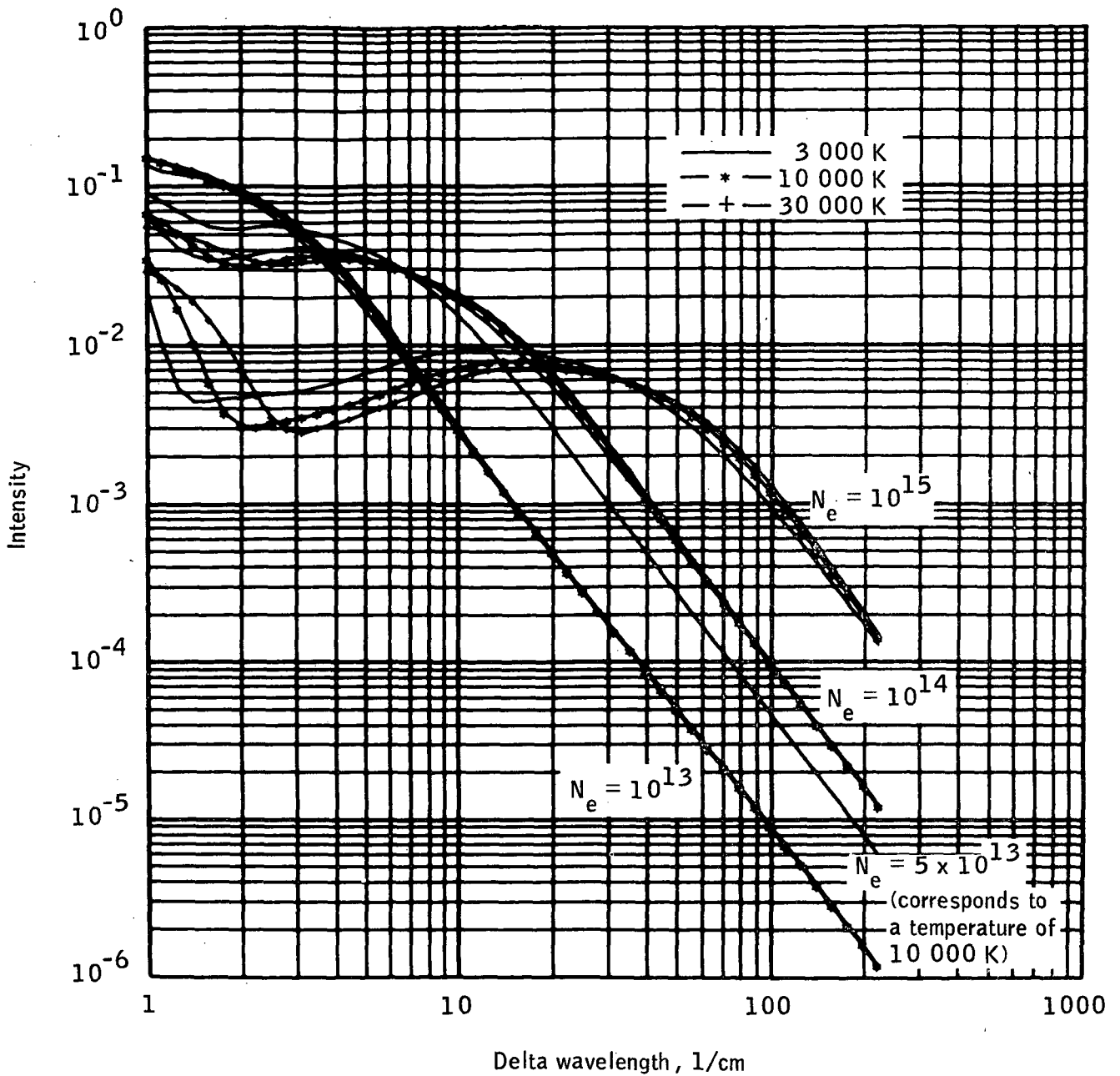
(a) Violet wing, triplet diffuse series (2P-10D).

Figure A-7. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3554.00 Å). Parameters are temperature and electron density.



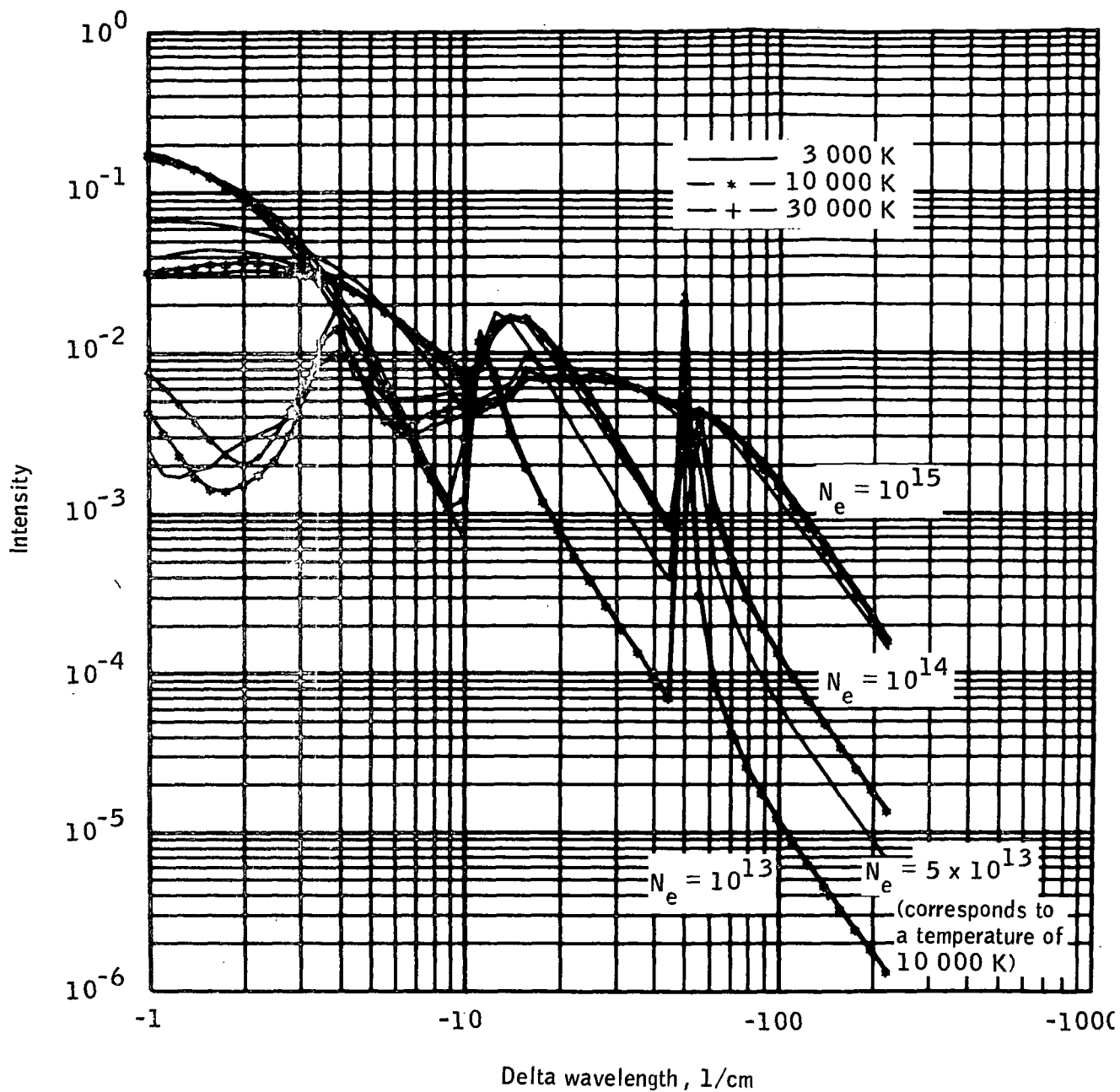
(b) Red wing, triplet diffuse series (2P-10D).

Figure A-7. - Concluded.



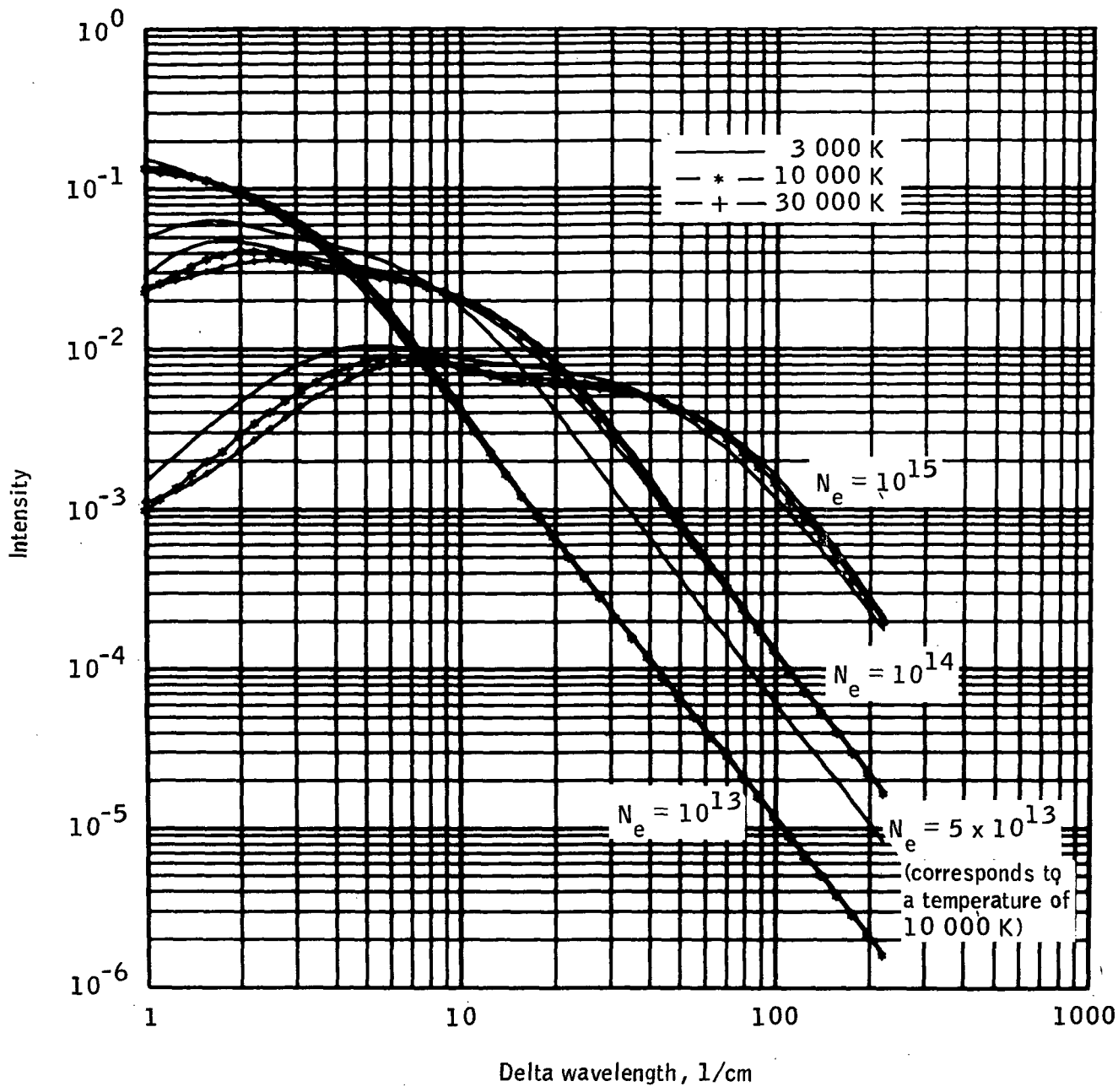
(a) Violet wing, triplet diffuse series (2P-11D).

Figure A-8. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3530.00 Å). Parameters are temperature and electron density.



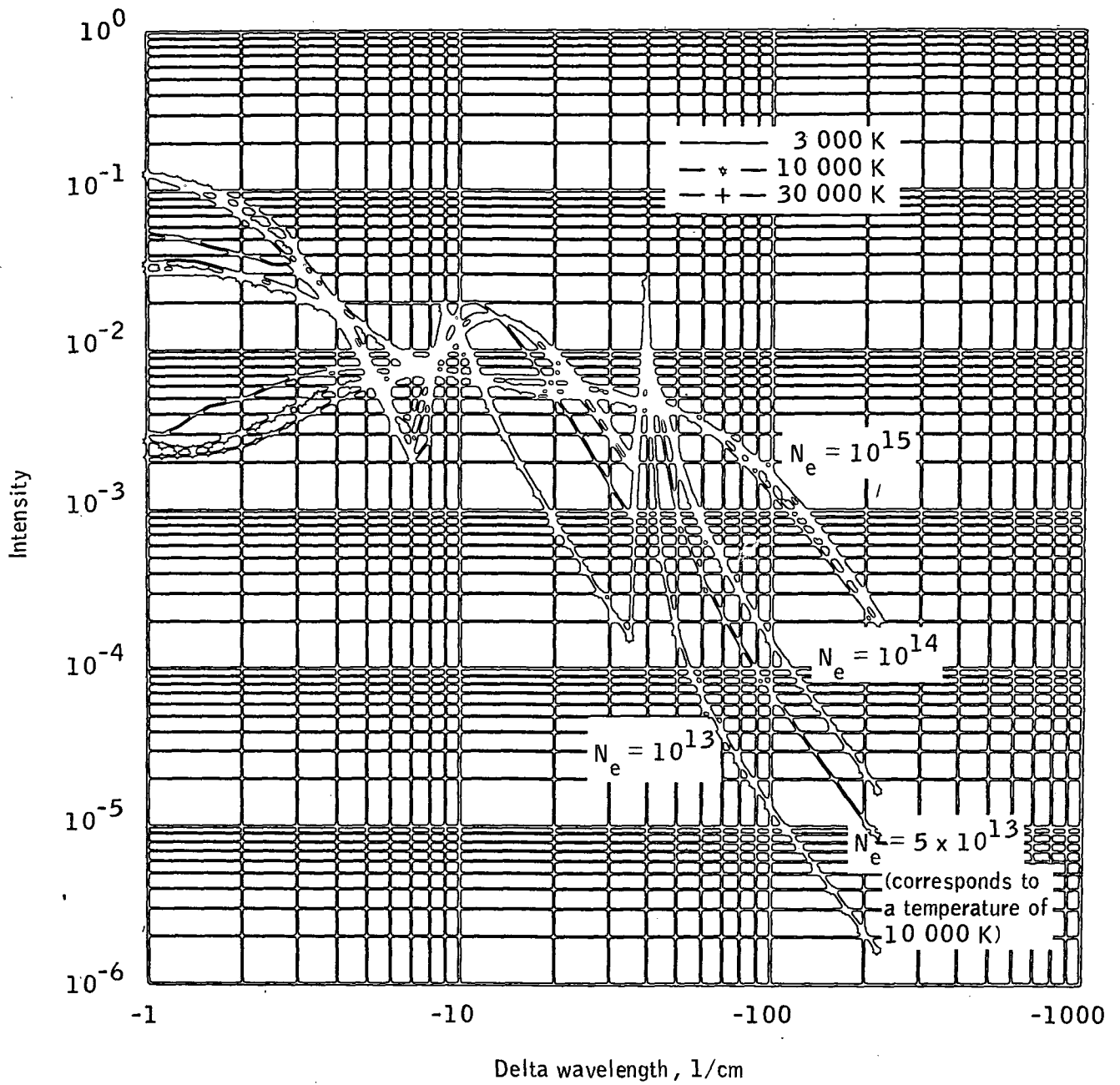
(b) Red wing, triplet diffuse series (2P-11D).

Figure A-8. - Concluded.



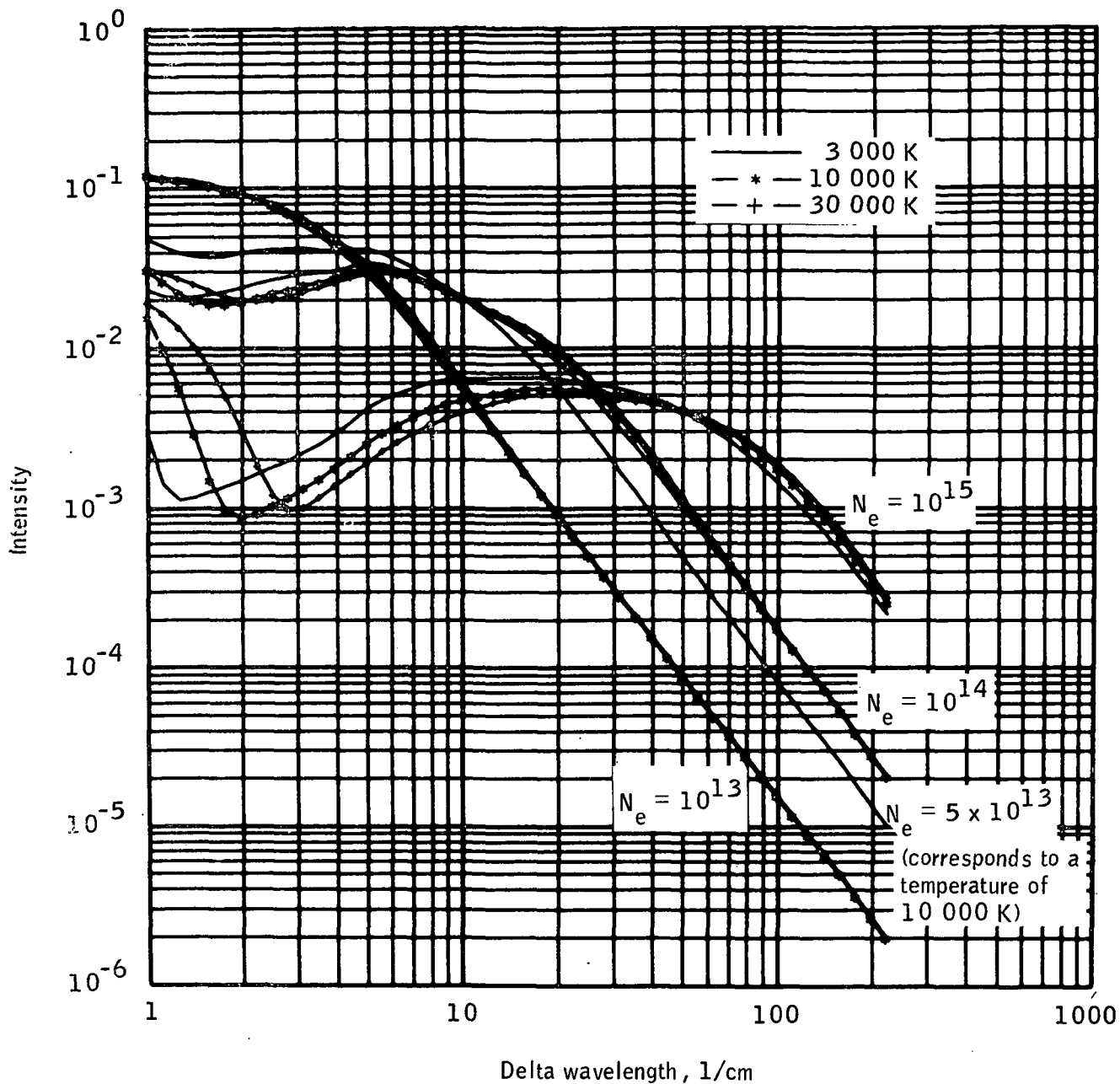
(a) Violet wing, triplet diffuse series (2P-12D).

Figure A-9. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3512.00 Å). Parameters are temperature and electron density.



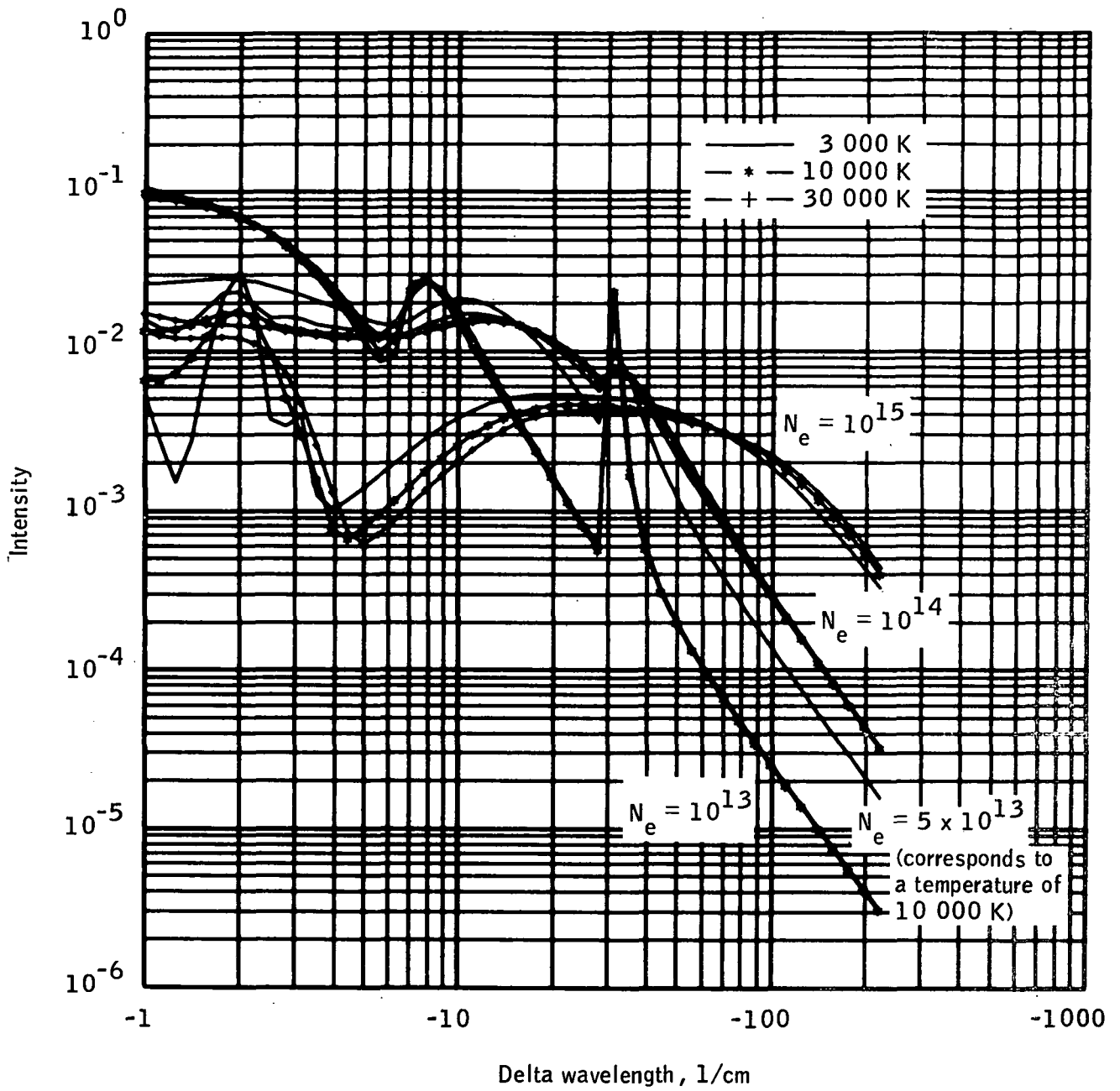
(b) Red wing, triplet diffuse series (2P-12D).

Figure A-9. - Concluded.



(a) Violet wing, triplet diffuse series (2P-13D).

Figure A-10. - Quasi-static theoretical profiles folded with Doppler profiles (wavelength = 3499.00 Å). Parameters are temperature and electron density.



(b) Red wing, triplet diffuse series (2P-13D).

Figure A-10. - Concluded.

APPENDIX B
TABLES OF CALCULATED PROFILES OF THE
HELIUM TRIPLET DIFFUSE SERIES

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å

(a) $n = 4$; $T = 3000$ K; $N_e = 10^{13} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	1.69256-09	-112.2018	4.03698-08	-99.9999	5.35657-08
-89.1250	7.10317-08	-79.4328	9.41041-08	-70.7945	1.88115-07
-63.0957	2.74587-07	-56.2341	3.87223-07	-50.1187	6.90629-07
-44.6683	9.45273-07	-39.8107	1.25685-06	-35.4813	1.70566-06
-31.6228	2.30376-06	-28.1838	3.09138-06	-25.1189	4.12774-06
-22.3872	5.48766-06	-19.9526	7.26799-06	-17.7828	9.59103-06
-15.8489	1.20332-05	-14.1254	1.58746-05	-12.5892	2.15463-05
-11.2202	2.75976-05	-10.0000	3.68124-05	-8.9125	4.75671-05
1.0000	1.43389-06	-7.9433	6.14940-05	-7.0795	7.93580-05
-6.3096	9.93760-05	-5.6234	1.31530-04	-5.0119	1.65200-04
-4.4668	2.17740-04	-3.9811	2.78880-04	-3.5481	3.59790-04
-3.1623	4.63520-04	-2.8184	5.99180-04	-2.5119	7.84650-04
-2.2387	1.03990-03	-1.9963	1.41580-03	-1.7783	2.17700-03
-1.4125	4.11650-02	-1.2589	1.31540-01	-1.1220	2.24690-01
-1.0000	2.26920-01	1.1220	3.69564-08	1.2589	3.65659-10
1.4125	1.08286-12	1.5849	6.98235-16	1.7783	6.59139-20
1.9953	5.54496-25	2.2387	2.25227-31	4.4668	7.73654-23
5.0119	5.42143-13	5.6234	2.37340-06	6.3096	3.20737-04
7.0795	1.61305-03	7.9433	6.27482-04	8.9125	2.59562-04
10.0000	1.46373-04	11.2202	9.16303-05	12.5892	6.05361-05
14.1254	4.00835-05	15.8489	2.67325-05	17.7828	2.03440-05
19.9526	1.45937-05	22.3872	1.05428-05	25.1189	7.66671-06
28.1838	5.63318-06	31.6228	4.14963-06	35.4813	3.07181-06
39.8107	2.28113-06	44.6683	1.70081-06	50.1187	1.27076-06
56.2341	9.52847-07	63.0957	7.15267-07	70.7945	5.36672-07
79.4328	4.05774-07	89.1250	3.06612-07	99.9999	2.32084-07
112.2018	1.75391-07	125.8925	1.33118-07	141.2538	7.62773-08
158.4892	5.82486-08	177.8278	4.43871-08	199.5281	3.37886-08
223.8719	9.31066-09				

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM
TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(b) $n = 4$; $T = 10\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	1.74217-09	-112.2016	4.03956-08	-99.9999	5.36004-08
-89.1250	7.10784-08	-79.4328	9.41671-08	-70.7945	1.88237-07
-63.0957	2.74861-07	-56.2341	3.87329-07	-50.1187	6.74720-07
-44.6683	9.48461-07	-39.8107	1.25730-06	-35.4813	1.70654-06
-31.6228	2.30510-06	-28.1838	3.09282-06	-25.1189	4.13027-06
-22.3872	5.49182-06	-19.9528	7.27495-06	-17.7828	9.60115-06
-15.8489	1.26310-05	-14.1254	1.65694-05	-12.5892	2.16599-05
-11.2202	2.62714-05	-10.0000	3.87336-05	-8.9125	4.77368-05
-7.9433	6.17748-05	-7.0795	7.98390-05	-6.3098	1.03160-04
-5.6234	1.32780-04	-5.0119	1.71254-04	-4.4668	2.20718-04
1.0000	1.31284-02	-3.9811	2.84360-04	-3.5481	3.68270-04
-3.1823	4.78570-04	-2.8164	6.27820-04	-2.5119	6.52720-04
-2.2387	1.46250-03	-1.9953	4.46420-03	-1.7784	1.56430-02
-1.5849	4.09460-02	-1.4125	7.72170-02	-1.2589	1.11990-01
-1.1220	1.35120-01	-1.0000	1.47230-01	-1.0000	1.47230-01
-1.0000	1.47230-01	1.1220	4.30280-03	1.2589	1.05732-03
1.4125	1.80848-04	1.5849	1.98007-05	1.7783	1.23944-06
1.9953	3.58529-06	2.2387	4.21654-10	2.5119	1.34825-12
3.9811	9.74394-14	4.4668	3.76571-10	5.0119	3.65937-07
5.6234	4.10408-05	6.3098	2.52378-04	7.0795	1.45218-03
7.9433	8.11090-04	8.9125	2.67793-04	10.0000	1.48482-04
11.2202	9.23833-05	12.5892	8.08338-05	14.1254	4.14342-05
15.8489	2.88156-05	17.7828	2.03822-05	19.9528	1.46109-05
22.3872	1.05540-05	25.1189	7.69154-06	28.1838	5.63642-06
31.6228	4.15211-06	35.4813	3.07387-06	39.8107	2.28258-06
44.6683	1.70202-06	50.1187	1.27174-06	56.2341	9.53547-07
63.0957	7.15795-07	70.7945	5.39041-07	79.4328	4.06078-07
89.1250	3.06812-07	99.9999	2.32236-07	112.2016	1.75533-07
125.8925	1.33200-07	141.2536	7.63251-08	158.4892	5.82833-08
177.8278	4.44142-08	199.5261	3.37894-08	223.8719	9.31513-09

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(c) $n = 4$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	2.76952-09	-112.2018	4.03980-08	-99.9999	5.36046-08
-89.1250	7.10857-08	-79.4328	9.41798-08	-70.7945	1.88358-07
-63.0957	2.74784-07	-58.2341	3.87503-07	-50.1187	6.81478-07
-44.6683	9.25738-07	-39.8107	1.25816-06	-35.4813	1.70795-06
-31.6228	2.30726-06	-28.1838	3.09656-06	-25.1189	4.13864-06
-22.3872	5.50234-06	-19.9528	7.29222-06	-17.7828	9.62903-06
-15.8489	1.26774-05	-14.1254	1.66419-05	-12.5892	2.17817-05
-11.2202	2.84590-05	-10.0000	3.70592-05	-8.9125	4.82304-05
-7.9433	6.25972-05	-7.0795	8.11947-05	-6.3096	1.05274-04
-5.6234	1.36420-04	-5.0119	1.77107-04	-4.4668	2.30507-04
-3.9811	3.01635-04	-3.5481	4.06801-04	-3.1823	6.62191-04
-2.8184	1.58489-03	-2.5119	4.55260-03	-2.2387	1.18410-02
-1.9953	2.47130-02	-1.7783	4.39920-02	-1.5849	6.93460-02
-1.4125	1.00490-01	-1.2589	1.37180-01	-1.1220	1.78800-01
-1.0000	2.24030-01	1.0000	1.36909-01	1.1220	9.40273-02
1.2589	5.88017-02	1.4125	3.23741-02	1.5849	1.53373-02
1.7783	6.07741-03	1.9953	1.83928-03	2.2387	4.15647-04
2.5119	4.31385-05	3.9811	8.26400-08	4.4668	1.37469-06
5.0119	1.49852-05	5.6234	9.42730-05	6.3096	4.05990-04
7.0795	1.12770-03	7.9433	9.30094-04	8.9125	3.11721-04
10.0000	1.54666-04	11.2202	9.43939-05	12.5892	6.16400-05
14.1254	4.17865-05	15.8489	2.90017-05	17.7828	2.04815-05
19.9528	1.46587-05	22.3872	1.05820-05	25.1189	7.70600-06
28.1838	5.64476-06	31.6228	4.15732-06	35.4813	3.07648-06
39.8107	2.28428-06	44.6683	1.70293-06	50.1187	1.27228-06
58.2341	9.53842-07	63.0957	7.15988-07	70.7945	5.39138-07
79.4328	4.06222-07	89.1250	3.06844-07	99.9999	2.32234-07
112.2018	1.75562-07	125.8925	1.33205-07	141.2536	7.63270-08
158.4892	5.82843-08	177.8278	4.44146-08	199.5261	3.37896-08
223.8719	9.31512-09				

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(d) $n = 4$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	1.69336-06	-112.2018	4.03924-07	-99.9999	5.36013-07
-89.1250	7.10000-07	-79.4328	9.41928-07	-70.7945	1.88386-06
-63.0957	2.74924-06	-56.2341	3.87007-06	-50.1187	6.61209-06
-44.6883	9.20489-06	-39.8107	1.26019-05	-35.4813	1.71135-05
-31.6228	2.31301-05	-28.1838	3.10551-05	-25.1189	4.15033-05
-22.3872	5.52329-05	-19.9526	7.32380-05	-17.7828	9.67778-05
-15.8489	1.21606-04	-14.1254	1.60712-04	-12.5892	2.18571-04
-11.2202	2.69589-04	-10.0000	3.73218-04	-8.9125	4.86298-04
-7.9433	6.30734-04	-7.0795	8.16957-04	-6.3096	1.02745-03
-5.6234	1.38588-03	-5.0119	1.72440-03	-4.4668	2.28920-03
-3.9811	2.94510-03	-3.5481	3.83070-03	-3.1623	4.87380-03
-2.8184	6.48890-03	-2.2387	1.14090-02	-1.9953	1.56540-02
-1.7783	2.31160-02	-1.5849	4.18710-02	-1.4125	9.37560-02
-1.2589	1.75340-01	-1.1220	2.24800-01	-1.0000	2.05520-01
-1.0000	2.05520-01	1.0000	4.55703-07	1.1220	1.10152-08
1.2589	1.02345-10	1.4125	2.84947-13	1.5849	1.73821-16
1.7783	1.56535-20	1.9953	1.26492-25	4.4668	8.13993-23
5.0119	7.65597-13	5.6234	5.81722-06	6.3096	2.00452-03
7.0795	6.78813-03	7.9433	7.14906-03	8.9125	2.83554-03
10.0000	1.57824-03	11.2202	9.87166-04	12.5892	6.30429-04
14.1254	4.13894-04	15.8489	2.73940-04	17.7828	2.07498-04
19.9526	1.48284-04	22.3872	1.06807-04	25.1189	7.78912-05
28.1838	5.68294-05	31.6228	4.18005-05	35.4813	3.09149-05
39.8107	2.29351-05	44.6883	1.70885-05	50.1187	1.27605-05
56.2341	9.58275-06	63.0957	7.17526-06	70.7945	5.40145-06
79.4328	4.06753-06	89.1250	3.07169-06	99.9999	2.32451-06
112.2018	1.75585-06	125.8925	1.33241-06	141.2536	7.63475-07
158.4892	5.82942-07	177.8278	4.44167-07	199.5261	3.37878-07
223.8719	9.31583-08				

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(e) $n = 4$; $T = 10\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	1.74314-08	-112.2018	4.04219-07	-99.9999	5.36416-07
-89.1250	7.11430-07	-79.4328	9.42685-07	-70.7945	1.88436-06
-63.0957	2.75017-06	-56.2341	3.87946-06	-50.1187	6.78131-06
-44.6663	9.21111-06	-39.8107	1.24532-05	-35.4813	1.71248-05
-31.6228	2.31479-05	-28.1838	3.10841-05	-25.1189	4.15511-05
-22.3872	5.53102-05	-19.9528	7.33631-05	-17.7828	9.69649-05
-15.8489	1.27781-04	-14.1254	1.67950-04	-12.5892	2.20034-04
-11.2202	2.87923-04	-10.0000	3.75177-04	-8.9125	4.89139-04
-7.9433	6.35308-04	-7.0795	8.24493-04	-6.3096	1.07033-03
-5.6534	1.38497-03	-5.0119	1.79703-03	-4.4668	2.33199-03
-3.9811	3.02817-03	-3.5481	3.95753-03	-3.1623	5.19551-03
-2.8184	6.89896-03	-2.5119	9.38970-03	-2.2387	1.36510-02
-1.9953	2.27660-02	-1.7783	4.20740-02	-1.5849	7.36130-02
-1.4125	1.10430-01	-1.2589	1.42050-01	-1.1220	1.64670-01
-1.0000	1.83930-01	1.0000	6.99009-03	1.1220	2.19775-03
1.2589	5.16806-04	1.4125	8.43298-05	1.5849	8.69627-06
1.7783	5.03488-07	1.9953	1.40973-08	2.2387	1.58207-10
2.5119	1.99290-13	3.9811	2.00225-13	4.4668	9.31674-10
5.0119	1.13508-06	5.6234	1.75656-04	6.3096	1.85860-03
7.0795	8.63485-03	7.9433	8.94266-03	8.9125	3.03959-03
10.0000	1.61854-03	11.2202	9.81654-04	12.5892	6.36494-04
14.1254	4.28984-04	15.8489	2.98115-04	17.7828	2.08298-04
19.9528	1.48892-04	22.3872	1.07056-04	25.1189	7.78202-05
28.1838	5.69107-05	31.6228	4.18548-05	35.4813	3.09443-05
39.8107	2.29534-05	44.6663	1.71001-05	50.1187	1.27678-05
56.2341	9.58722-06	63.0957	7.17811-06	70.7945	5.40328-06
79.4328	4.06901-06	89.1250	3.07342-06	99.9999	2.32577-06
112.2018	1.75753-06	125.8925	1.33342-06	141.2536	7.64053-07
158.4892	5.83357-07	177.8278	4.44484-07	199.5281	3.38117-07
223.8719	9.32104-08				

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(f) $n = 4$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	2.77113-08	-112.2018	4.04254-07	-99.9999	5.36476-07
-89.1250	7.11530-07	-79.4328	9.42851-07	-70.7945	1.88563-06
-63.0957	2.75154-06	-56.2341	3.88143-06	-50.1187	6.78545-06
-44.6683	9.22059-06	-39.8107	1.26188-05	-35.4813	1.71410-05
-31.6228	2.31730-05	-28.1838	3.11272-05	-25.1189	4.16239-05
-22.3872	5.54362-05	-19.9526	7.35598-05	-17.7828	9.72822-05
-15.8489	1.28308-04	-14.1254	1.68776-04	-12.5892	2.21417-04
-11.2202	2.90067-04	-10.0000	3.78876-04	-8.9125	4.84801-04
-7.9433	6.44742-04	-7.0795	8.40091-04	-6.3096	1.09489-03
-5.6234	1.42734-03	-5.0119	1.86600-03	-4.4668	2.44873-03
-3.9811	3.23668-03	-3.5481	4.35176-03	-3.1623	6.11248-03
-2.8184	9.37997-03	-2.5119	1.58741-02	-2.2387	2.75669-02
-1.9953	4.56381-02	-1.7783	7.01484-02	-1.5849	1.00765-01
1.0000	9.67028-02	-1.4125	1.36970-01	-1.2589	1.78060-01
-1.1220	2.22720-01	-1.0000	2.69070-01	-1.0000	2.69070-01
-1.0000	2.69070-01	1.1220	6.48816-02	1.2589	3.94221-02
1.4125	2.11732-02	1.5849	9.73780-03	1.7783	3.68824-03
1.9953	1.09148-03	2.2387	2.34460-04	2.5119	5.84960-06
3.9811	3.20288-07	4.4668	6.17141-06	5.0119	7.62913-05
5.6234	5.48068-04	6.3096	2.55949-03	7.0795	8.16782-03
7.9433	8.93309-03	8.9125	3.59896-03	10.0000	1.70529-03
11.2202	1.00848-03	12.5892	6.46840-04	14.1254	4.33454-04
15.8489	2.98419-04	17.7828	2.09512-04	19.9526	1.49284-04
22.3872	1.07398-04	25.1189	7.80001-05	28.1838	5.70147-05
31.6228	4.19189-05	35.4813	3.09777-05	39.8107	2.29749-05
44.6683	1.71119-05	50.1187	1.27748-05	56.2341	9.57127-06
63.0957	7.18074-06	70.7945	5.40471-06	79.4328	4.07075-06
89.1250	3.07393-06	99.9999	2.32588-06	112.2018	1.75791-06
125.8925	1.33353-06	141.2536	7.64104-07	158.4892	5.83389-07
177.8278	4.44503-07	199.5261	3.38128-07	223.8719	9.32129-08

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(g) $n = 4$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	1.70074-07	-112.2018	4.06240-06	--99.9999	5.39603-06
-89.1250	7.16448-06	-79.4328	9.50561-06	-70.7945	1.89953-05
-63.0957	2.77756-05	-56.2341	3.92722-05	-50.1187	6.70980-05
-44.6683	9.37447-05	-39.8107	1.28864-04	-35.4813	1.75811-04
-31.6228	2.38879-04	-28.1838	3.22857-04	-25.1189	4.34151-04
-22.3872	5.82201-04	-19.9526	7.78596-04	-17.7828	1.03881-03
-15.8489	1.31597-03	-14.1254	1.69088-03	-12.5892	2.30751-03
-11.2202	2.92303-03	-10.0000	3.90244-03	-8.9125	5.09885-03
-7.9433	6.62766-03	-7.0795	8.59009-03	-6.3096	1.07953-02
-5.6234	1.43095-02	-5.0119	1.79580-02	-4.4668	2.35880-02
-3.9811	2.99620-02	-3.5481	3.82020-02	-3.1623	4.82960-02
-2.8184	6.07300-02	-2.5119	7.64500-02	-2.2387	9.56270-02
-1.9953	1.18960-01	-1.7783	1.47590-01	-1.5849	1.80910-01
-1.4125	2.14750-01	-1.2589	2.40900-01	-1.1220	2.58360-01
-1.0000	2.69420-01	1.0000	2.64115-06	1.1220	5.95942-10
1.2589	5.17790-12	1.4125	1.34935-14	1.5849	7.69418-18
1.7783	6.52388-22	1.9953	4.94377-27	4.4668	5.64853-24
5.0119	7.24429-14	5.6234	9.66437-07	6.3096	1.58107-03
7.0795	5.84811-03	7.9433	3.16303-02	8.9125	2.33702-02
10.0000	1.51152-02	11.2202	9.87039-03	12.5892	6.58259-03
14.1254	4.34722-03	15.8489	2.87585-03	17.7828	2.17039-03
19.9526	1.58957-03	22.3872	1.12067-03	25.1189	8.31162-04
28.1838	6.08921-04	31.6228	4.43188-04	35.4813	3.24863-04
39.8107	2.39201-04	44.6683	1.77095-04	50.1187	1.31534-04
56.2341	9.81281-05	63.0957	7.33453-05	70.7945	5.50344-05
79.4328	4.13291-05	89.1250	3.11474-05	99.9999	2.35240-05
112.2018	1.77443-05	125.8925	1.34455-05	141.2536	7.70314-06
158.4892	5.87442-06	177.8278	4.47140-06	199.5281	3.39842-06
223.8719	9.36256-07				

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Continued

(h) $n = 4$; $T = 10\ 000\ \text{K}$; $N_e = 10^{15}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	1.75248-07	-112.2010	4.06746-06	-99.9999	5.40382-06
-89.1250	7.17645-06	-79.4320	9.52403-06	-70.7945	1.90351-05
-63.0957	2.78421-05	-56.2341	3.93844-05	-50.1187	6.90086-05
-44.6603	9.41472-05	-39.8107	1.27909-04	-35.4813	1.76880-04
-31.6228	2.40645-04	-26.1838	3.25586-04	-25.1189	4.38930-04
-22.3872	5.96614-04	-19.9528	7.91345-04	-17.7828	1.05921-03
-15.8489	1.41420-03	-14.1254	1.85695-03	-12.5892	2.46174-03
-11.2292	3.24357-03	-10.0000	4.28875-03	-8.9125	5.67492-03
-7.9433	7.48031-03	-7.0795	9.85188-03	-6.3096	1.29642-02
-5.6234	1.69867-02	-5.0119	2.22095-02	-4.4668	2.89098-02
-3.9811	3.74140-02	-3.5481	4.82620-02	-3.1623	6.17201-02
-2.8164	7.82457-02	-2.5119	9.82680-02	-2.2387	1.21790-01
-1.9953	1.48480-01	-1.7783	1.76520-01	-1.5849	1.99750-01
-1.4126	2.29310-01	-1.2589	2.52010-01	-1.1220	2.72890-01
-1.0000	2.92580-01	1.0000	5.82328-04	1.1220	1.70051-04
1.2589	3.70777-05	1.4126	5.60697-06	1.5849	5.35231-07
1.7783	2.87004-08	1.9953	7.43494-10	2.2387	7.68841-12
2.5119	3.73950-15	3.9811	1.94529-14	4.4668	1.16070-10
5.0119	2.01118-07	5.6234	5.53665-05	6.3096	1.41732-03
7.0795	7.99063-03	7.9433	3.01648-02	8.9125	2.86484-02
10.0000	1.91093-02	11.2292	1.21617-02	12.5892	7.63349-03
14.1254	5.16407-03	15.8489	3.47392-03	17.7828	2.38700-03
19.9528	1.67973-03	22.3872	1.18564-03	25.1189	8.57782-04
26.1838	6.20450-04	31.6228	4.48937-04	35.4813	3.28816-04
39.8107	2.41577-04	44.6603	1.78544-04	50.1187	1.32426-04
56.2341	9.86819-05	63.0957	7.36950-05	70.7945	5.52565-05
79.4320	4.14743-05	89.1250	3.12391-05	99.9999	2.35840-05
112.2010	1.77860-05	125.8925	1.34710-05	141.2536	7.71746-06
158.4892	5.88394-06	177.8278	4.47775-06	199.5261	3.40285-06
223.8719	9.37802-07				

TABLE B-I. - CALCULATED PROFILES OF THE HELIUM
 TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4471.00 Å - Concluded

(i) $n = 4$; $T = 30\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-125.8925	2.78596-07	-112.2018	4.06941-06	-99.9999	5.40690-06
-89.1250	7.18133-06	-79.4328	9.53178-06	-70.7945	1.90599-05
-63.0957	2.78775-05	-56.2341	3.94420-05	-50.1187	6.91278-05
-44.6683	9.43792-05	-39.8107	1.29842-04	-35.4813	1.77447-04
-31.6228	2.41582-04	-28.1838	3.27156-04	-25.1189	4.41606-04
-22.3872	5.94475-04	-19.9526	7.98761-04	-17.7828	1.07147-03
-15.8489	1.43477-03	-14.1254	1.90930-03	-12.5892	2.54521-03
-11.2202	3.39198-03	-10.0000	4.52440-03	-8.9125	6.04365-03
-7.9433	8.06446-03	-7.0795	1.07639-02	-6.3096	1.43615-02
-5.6234	1.91244-02	-5.0119	2.54226-02	-4.4668	3.36517-02
-3.9811	4.42739-02	-3.5481	5.77490-02	-3.1623	7.44221-02
-2.8184	9.43478-02	-2.5119	1.17117-01	-2.2387	1.41744-01
-1.9953	1.66862-01	-1.7783	1.91042-01	1.0000	1.41257-02
1.1220	8.87364-03	-1.5849	2.13080-01	-1.4125	2.31950-01
-1.2589	2.47110-01	-1.1220	2.58180-01	-1.0000	2.65260-01
-1.0000	2.65260-01	1.2589	5.03409-03	1.4125	2.51611-03
1.5849	1.07208-03	1.7783	3.73302-04	1.9953	9.92648-05
2.2387	1.65821-05	2.5119	9.24085-08	3.9811	5.30283-08
4.4668	1.84180-06	5.0119	3.14389-05	5.6234	3.33060-04
6.3096	2.18821-03	7.0795	1.02051-02	7.9433	2.62548-02
8.9125	3.03111-02	10.0000	2.19343-02	11.2202	1.39113-02
12.5892	8.74132-03	14.1254	5.61970-03	15.8489	3.71005-03
17.7828	2.51135-03	19.9526	1.73910-03	22.3872	1.21965-03
25.1189	8.71471-04	28.1838	6.26529-04	31.6228	4.53434-04
35.4813	3.30795-04	39.8107	2.42758-04	44.6683	1.79238-04
50.1187	1.32845-04	56.2341	9.89345-05	63.0957	7.38522-05
70.7945	5.53524-05	79.4328	4.15431-05	89.1250	3.12766-05
99.9999	2.36057-05	112.2018	1.78030-05	125.8925	1.34807-05
141.2536	7.72277-06	158.4892	5.88739-06	177.6278	4.47999-06
199.5281	3.40411-06	223.8719	9.38186-07		

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM
TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å

(a) $n = 5$; $T = 3000$ K; $N_e = 10^{13}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.25005-07	-199.5261	1.79772-07	-177.8278	2.69399-07
-158.4892	4.20753-07	-141.2536	7.21405-07	-125.8925	1.70725-06
-112.2018	9.37000-08	-99.9999	1.80435-07	-89.1250	2.07533-07
-79.4328	2.59749-07	-70.7945	3.66716-07	-63.0957	5.48910-07
-58.2341	8.31367-07	-50.1187	1.24587-06	-44.6883	1.81514-06
-39.8107	2.60583-06	-35.4813	3.67182-06	-31.6228	5.11576-06
-28.1838	7.05473-06	-25.1189	9.65438-06	-22.3872	1.31203-05
-19.9526	1.77415-05	-17.7828	2.38756-05	-15.8489	3.20051-05
-14.1254	4.27778-05	-12.5892	5.69489-05	-11.2202	7.57055-05
-10.0000	1.00194-04	-8.9125	1.32612-04	-7.9433	1.74832-04
-7.0795	2.30164-04	-6.3096	3.02989-04	-5.6234	3.97087-04
-5.0119	5.21753-04	-4.4668	6.84812-04	-3.9811	8.96222-04
-3.5481	1.18206-03	-3.1623	1.56056-03	-2.8184	2.06238-03
-2.5119	2.78937-03	-2.2387	3.77801-03	-1.9953	5.37037-03
-1.7783	8.79480-03	-1.5849	2.24802-02	-1.4125	6.90013-02
-1.2589	1.48101-01	-1.1220	2.04232-01	1.0000	1.05275-05
1.1220	5.42888-07	1.2589	2.32471-07	1.4125	2.42809-06
1.5849	1.94828-05	1.7783	9.77620-05	1.9953	2.84872-04
2.2387	6.56879-04	2.5119	1.54685-03	2.8184	2.47564-03
3.1623	4.29389-03	3.5481	1.17969-02	3.9811	1.27078-02
4.4668	1.03389-03	5.0119	1.13527-04	5.6234	9.28534-04
6.3096	7.78435-04	7.0795	5.15569-04	7.9433	3.58847-04
8.9125	2.53987-04	10.0000	1.82107-04	11.2202	1.31876-04
12.5892	9.60852-05	14.1254	7.03847-05	15.8489	5.19163-05
17.7828	3.84185-05	19.9526	2.85216-05	22.3872	2.12746-05
25.1189	1.59891-05	28.1838	1.21810-05	31.6228	9.15803-06
35.4813	6.89393-06	39.8107	5.19756-06	44.6883	3.92346-06
50.1187	2.98711-06	58.2341	2.24461-06	63.0957	1.70710-06
70.7945	1.31215-06	79.4328	9.86046-07	89.1250	7.27276-07
99.9999	5.48975-07	112.2018	4.35888-07	125.8925	3.26598-07
141.2536	2.42973-07	158.4892	1.83079-07	177.8278	1.39115-07
199.5261	1.05484-07	223.8719	8.01028-08		

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(b) $n = 5$; $T = 10\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.27708-05	-199.5261	1.84740-05	-177.8278	2.79176-05
-158.4892	4.41947-05	-141.2536	7.77657-05	-125.8925	1.93365-04
-112.2018	9.62813-06	-99.9999	1.85018-05	-89.1250	2.14627-05
-79.4328	2.71048-05	-70.7945	3.85703-05	-63.0957	5.87207-05
-56.2341	8.64488-05	-50.1187	1.35458-04	-44.6683	2.00553-04
-39.8107	2.93301-04	-35.4813	4.14111-04	-31.6228	5.83223-04
-28.1838	8.20570-04	-25.1189	1.14724-03	-22.3872	1.53829-03
-19.9526	2.20463-03	-17.7828	3.01787-03	-15.8489	3.99061-03
-14.1254	5.59916-03	-12.5892	7.28488-03	-11.2202	9.64563-03
-10.0000	1.22292-02	-8.9125	1.58706-02	-7.9433	2.15444-02
-7.0795	2.67498-02	-6.3096	3.25462-02	-5.6234	3.86910-02
-5.0119	4.48508-02	-4.4668	5.14669-02	-3.9811	5.63234-02
-3.5481	6.31864-02	-3.1623	6.81109-02	-2.8184	7.22391-02
-2.5119	7.55277-02	-2.2387	7.78436-02	-1.9953	7.91782-02
-1.7783	7.95420-02	-1.5849	7.89875-02	-1.4125	7.76346-02
-1.2589	7.56793-02	-1.1220	7.33150-02	-1.0000	7.06566-02
1.0000	4.19671-04	1.1220	7.29485-04	1.2589	1.57295-03
1.4125	3.41065-03	1.5849	6.92083-03	1.7783	1.26749-02
1.9953	2.08136-02	2.2387	3.29585-02	2.5119	5.87352-02
2.8184	1.14410-01	3.1623	1.84330-01	3.5481	1.93178-01
3.9811	1.05195-01	4.4668	2.90103-02	5.0119	9.86986-03
5.6234	5.37706-03	6.3096	5.04416-03	7.0795	5.18269-03
7.9433	8.57894-03	8.9125	1.12151-02	10.0000	1.23203-02
11.2202	1.19688-02	12.5892	1.05282-02	14.1254	8.62948-03
15.8489	6.74064-03	17.7828	5.07600-03	19.9526	3.76994-03
22.3872	2.76967-03	25.1189	2.03375-03	28.1838	1.50013-03
31.6228	1.10188-03	35.4813	8.11209-04	39.8107	5.97921-04
44.6683	4.45528-04	50.1187	3.30642-04	56.2341	2.50661-04
63.0957	1.87816-04	70.7945	1.34876-04	79.4328	1.05481-04
89.1250	7.66183-05	99.9999	5.77230-05	112.2018	4.53856-05
125.8925	3.38710-05	141.2536	2.50684-05	158.4892	1.87998-05
177.8278	1.42292-05	199.5261	1.07535-05	223.8719	8.14280-06

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(c) $n = 5$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.24988-07	-199.5261	1.79752-07	-177.8278	2.89355-07
-158.4892	4.20721-07	-141.2538	7.21724-07	-125.8925	1.71480-06
-112.2018	9.37158-08	-99.9999	1.80444-07	-89.1250	2.07565-07
-79.4328	2.80033-07	-70.7945	3.88881-07	-63.0957	5.49412-07
-56.2341	8.32598-07	-50.1187	1.24709-06	-44.6683	1.81737-06
-39.8107	2.80839-06	-35.4813	3.87773-06	-31.8228	5.12576-06
-28.1838	7.07135-06	-25.1189	9.88193-06	-22.3872	1.31678-05
-19.9526	1.78215-05	-17.7828	2.40094-05	-15.8489	3.22320-05
-14.1254	4.31392-05	-12.5892	5.75667-05	-11.2202	7.66892-05
-10.0000	1.01898-04	-8.9125	1.35309-04	-7.9433	1.79380-04
-7.0795	2.37786-04	-6.3096	3.15307-04	-5.6234	4.18525-04
-5.0119	5.57225-04	-4.4688	7.45566-04	-3.9811	1.00730-03
-3.5481	1.44064-03	-3.1623	2.36985-03	-2.8184	4.71432-03
-2.5119	1.02135-02	-2.2387	2.07894-02	-1.9953	3.74207-02
-1.7783	6.08684-02	-1.5849	9.04346-02	-1.4125	1.26118-01
-1.2589	1.66504-01	-1.1220	2.09838-01	1.0000	1.45344-01
1.1220	1.06274-01	1.2589	7.18596-02	1.4125	4.40624-02
1.5849	2.40231-02	1.7783	1.15204-02	1.9953	5.14464-03
2.2387	2.90821-03	2.5119	2.84602-03	2.8184	4.55722-03
3.1623	6.90280-03	3.5481	8.94424-03	3.9811	8.91784-03
4.4688	5.86837-03	5.0119	2.31661-03	5.6234	9.23771-04
6.3096	7.55061-04	7.0795	5.47418-04	7.9433	3.77010-04
8.9125	2.83050-04	10.0000	1.86775-04	11.2202	1.34264-04
12.5892	9.74069-05	14.1254	7.11682-05	15.8489	5.23362-05
17.7828	3.86658-05	19.9526	2.87027-05	22.3872	2.14374-05
25.1189	1.60864-05	28.1838	1.21290-05	31.8228	9.14174-06
35.4813	6.89560-06	39.8107	5.20085-06	44.6683	3.92655-06
50.1187	2.96921-06	56.2341	2.24838-06	63.0957	1.71013-06
70.7945	1.31003-06	79.4328	9.86050-07	89.1250	7.27476-07
99.9999	5.49074-07	112.2018	4.33374-07	125.8925	3.26640-07
141.2538	2.43326-07	158.4892	1.05774-06	177.8278	1.39111-07
199.5261	1.05497-07	223.8719	8.01059-08		

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(d) $n = 5$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.25234-06	-199.5261	1.80197-06	-177.8278	2.70224-06
-158.4892	4.22553-06	-141.2536	7.26379-06	-125.8925	1.73219-05
-112.2018	9.39191-07	-99.9999	1.80829-06	-89.1250	2.08180-06
-79.4328	2.60743-06	-70.7945	3.88388-06	-63.0957	5.51874-06
-56.2341	8.36704-06	-50.1187	1.25545-05	-44.6683	1.83192-05
-39.8107	2.83457-05	-35.4813	3.72024-05	-31.6228	5.19623-05
-28.1838	7.18650-05	-25.1189	9.86782-05	-22.3872	1.34624-04
-19.9526	1.82850-04	-17.7828	2.47324-04	-15.8489	3.33457-04
-14.1254	4.48632-04	-12.5892	6.01692-04	-11.2202	8.06570-04
-10.0000	1.07750-03	-8.9125	1.44105-03	-7.9433	1.91628-03
-7.0795	2.52220-03	-6.3096	3.31854-03	-5.6234	4.37808-03
-5.0119	5.77689-03	-4.4668	7.66014-03	-3.9811	1.01257-02
-3.5481	1.34817-02	-3.1623	1.79595-02	-2.8184	2.38988-02
-2.5119	3.21901-02	-2.2387	4.36740-02	-1.9953	6.02055-02
-1.7783	8.51016-02	-1.5849	1.22249-01	-1.4125	1.68431-01
-1.2589	2.06272-01	-1.1220	2.22719-01	-1.0000	2.27857-01
1.0000	1.25925-06	1.1220	2.31623-07	1.2589	2.31594-06
1.4125	2.56593-05	1.5849	2.07224-04	1.7783	1.05542-03
1.9953	3.14715-03	2.2387	7.28755-03	2.5119	1.44278-02
2.8184	1.89899-02	3.1623	4.06372-02	3.5481	1.09906-01
3.9811	5.23319-02	4.4668	2.51104-03	5.0119	1.60214-03
5.6234	4.81615-03	6.3096	7.67895-03	7.0795	5.96163-03
7.9433	4.20250-03	8.9125	2.92184-03	10.0000	2.04920-03
11.2202	1.45516-03	12.5892	1.05134-03	14.1254	7.73526-04
15.8489	5.61073-04	17.7828	4.09405-04	19.9526	3.00559-04
22.3872	2.22164-04	25.1189	1.65708-04	28.1838	1.25434-04
31.6228	9.38446-05	35.4813	7.03612-05	39.8107	5.28725-05
44.6683	3.98023-05	50.1187	3.00332-05	56.2341	2.26768-05
63.0957	1.72194-05	70.7945	1.32174-05	79.4328	9.92140-06
89.1250	7.31088-06	99.9999	5.51484-06	112.2018	4.37522-06
125.8925	3.27656-06	141.2536	2.43639-06	158.4892	1.83497-06
177.8278	1.39384-06	199.5261	1.05656-06	223.8719	8.02132-07

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(e) $n = 5$; $T = 10\ 000\ \text{K}$; $N_e = 10^{14}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.25262-06	-199.5261	1.80244-06	-177.827A	2.70326-06
-158.4892	4.22782-06	-141.2536	7.26974-06	-125.8925	1.73747-05
-112.2018	9.39611-07	-99.9999	1.80996-06	-89.1250	2.08239-06
-79.4328	2.60917-06	-70.7945	3.68647-06	-63.0957	5.37808-06
-56.2341	8.11724-06	-50.1187	1.25676-05	-44.6683	1.83421-05
-39.8107	2.63795-05	-35.4813	3.72681-05	-31.6228	5.20724-05
-28.1838	7.20467-05	-25.1189	9.89745-05	-22.3872	1.35117-04
-19.9526	1.83664-04	-17.7828	2.47441-04	-15.8489	3.22941-04
-14.1254	4.49929-04	-12.5892	5.85176-04	-11.2202	7.86301-04
-10.0000	1.05368-03	-8.9125	1.42109-03	-7.9433	1.92224-03
-7.0795	2.52090-03	-6.3096	3.26607-03	-5.6234	4.64187-03
-5.0119	6.21423-03	-4.4868	8.34052-03	-3.9811	1.12262-02
-3.5481	1.52049-02	-3.1623	2.07103-02	-2.8184	2.85096-02
-2.5119	3.98152-02	-2.2387	5.64063-02	-1.9953	7.99704-02
-1.7783	1.10005-01	-1.5849	1.43674-01	-1.4125	1.77734-01
-1.2589	2.11561-01	-1.1220	2.48929-01	-1.0000	2.85715-01
1.0000	4.53119-03	1.1220	1.74705-03	1.2589	6.81687-04
1.4125	5.74567-04	1.5849	1.11278-03	1.7783	2.43771-03
1.9953	5.01387-03	2.2387	9.32446-03	2.5119	1.58714-02
2.8184	2.86440-02	3.1623	5.64910-02	3.5481	8.68776-02
3.9811	6.07117-02	4.4868	1.28382-02	5.0119	2.33408-03
5.6234	5.01142-03	6.3096	8.28017-03	7.0795	6.96653-03
7.9433	4.80959-03	8.9125	3.23558-03	10.0000	2.21015-03
11.2202	1.53933-03	12.5892	1.08926-03	14.1254	7.86462-04
15.8489	5.68207-04	17.7828	4.13390-04	19.9526	3.02892-04
22.3872	2.23779-04	25.1189	1.66827-04	28.1838	1.25478-04
31.6228	9.40615-05	35.4813	7.05384-05	39.8107	5.29783-05
44.6683	3.98699-05	50.1187	3.00754-05	56.2341	2.27072-05
63.0957	1.72514-05	70.7945	1.25848-05	79.4328	9.92846-06
89.1250	7.27688-06	99.9999	5.51775-06	112.2018	4.36682-06
125.8925	3.27806-06	141.2536	2.43811-06	158.4892	1.83575-06
177.827A	1.39435-06	199.5261	1.05893-06	223.8719	8.02388-07

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(f) $n = 5$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.25254-06	-199.5261	1.80241-06	-177.8278	2.70320-06
-158.4892	4.22817-06	-141.2536	7.27293-06	-125.8925	1.74358-05
-112.2018	9.39684-07	-99.9999	1.80886-06	-89.1250	2.08262-06
-79.4328	2.61141-06	-70.7945	3.68748-06	-63.0957	5.52717-06
-56.2341	8.38576-06	-50.1187	1.25785-05	-44.6683	1.83626-05
-39.8107	2.64098-05	-35.4813	3.73281-05	-31.6228	5.21749-05
-28.1838	7.22204-05	-25.1189	9.92687-05	-22.3872	1.35621-04
-19.9526	1.84514-04	-17.7828	2.50087-04	-15.8489	3.38079-04
-14.1254	4.56121-04	-12.5892	6.14279-04	-11.2202	8.26983-04
-10.0000	1.11211-03	-8.9125	1.49691-03	-7.9433	2.01321-03
-7.0795	2.70862-03	-6.3096	3.65346-03	-5.6234	4.94748-03
-5.0119	6.74122-03	-4.4668	9.26195-03	-3.9811	1.28806-02
-3.5481	1.82458-02	-3.1623	2.63450-02	-2.8184	3.85171-02
-2.5119	5.59837-02	-2.2387	7.90863-02	-1.9953	1.07474-01
-1.7783	1.40050-01	-1.5849	1.75163-01	-1.4125	2.10904-01
-1.2589	2.45275-01	-1.1220	2.76642-01	-1.0000	3.03781-01
1.0000	5.28734-02	1.1220	3.73497-02	1.2589	2.48206-02
1.4125	1.58221-02	1.5849	1.05389-02	1.7783	8.83054-03
1.9953	1.04729-02	2.2387	1.55083-02	2.5119	2.44616-02
2.8184	3.76716-02	3.1623	5.24926-02	3.5481	6.03584-02
3.9811	5.07808-02	4.4668	2.72920-02	5.0119	9.57010-03
5.6234	5.90780-03	6.3096	7.63084-03	7.0795	7.26821-03
7.9433	5.29295-03	8.9125	3.50222-03	10.0000	2.33718-03
11.2202	1.60022-03	12.5892	1.12069-03	14.1254	7.98596-04
15.8489	5.74549-04	17.7828	4.16948-04	19.9526	3.05200-04
22.3872	2.25410-04	25.1189	1.67624-04	28.1838	1.25469-04
31.6228	9.40162-05	35.4813	7.05822-05	39.8107	5.30308-05
44.6683	3.99110-05	50.1187	3.01014-05	56.2341	2.27439-05
63.0957	1.72676-05	70.7945	1.32075-05	79.4328	9.92848-06
89.1250	7.31718-06	99.9999	5.51859-06	112.2018	4.35205-06
125.8925	3.27830-06	141.2536	2.44076-06	158.4892	2.38286-06
177.8278	1.39421-06	199.5261	1.05697-06	223.8719	6.02350-07

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(g) $n = 5$; $T = 3000$ K; $N_e = 10^{15}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.27271-05	-199.5261	1.83934-05	-177.8278	2.77563-05
-158.4892	4.38323-05	-141.2536	7.67250-05	-125.8925	1.79891-04
-112.2018	9.58648-06	-99.9999	1.84171-05	-89.1250	2.13462-05
-79.4328	2.69127-05	-70.7945	3.82436-05	-63.0957	5.76536-05
-56.2341	8.80846-05	-50.1187	1.33399-04	-44.6683	1.96761-04
-39.8107	2.86440-04	-35.4813	3.93690-04	-31.6228	5.40735-04
-28.1838	7.51096-04	-25.1189	1.03475-03	-22.3872	1.41522-03
-19.9526	1.92387-03	-17.7828	2.58838-03	-15.8489	3.48565-03
-14.1254	4.64708-03	-12.5892	6.13995-03	-11.2202	8.05586-03
-10.0000	1.04458-02	-8.9125	1.34337-02	-7.9433	1.70502-02
-7.0795	2.13877-02	-6.3096	2.85219-02	-5.6234	3.23352-02
-5.0119	3.90017-02	-4.4668	4.62716-02	-3.9811	5.38912-02
-3.5481	6.21642-02	-3.1623	7.02277-02	-2.8184	7.81429-02
-2.5119	8.59873-02	-2.2387	9.29362-02	-1.9953	9.99866-02
-1.7783	1.04215-01	-1.5849	1.08060-01	-1.4125	1.10155-01
-1.2589	1.10590-01	-1.1220	1.09839-01	-1.0000	1.08635-01
1.0000	1.54627-07	1.1220	1.73554-06	1.2589	2.26147-05
1.4125	2.44080-04	1.5849	1.88692-03	1.7783	8.73306-03
1.9953	2.03913-02	2.2387	2.71691-02	2.5119	3.51612-02
2.8184	8.30539-02	3.1623	1.98500-01	3.5481	2.46519-01
3.9811	7.02158-02	4.4668	1.58044-02	5.0119	7.68752-03
5.6234	4.85364-03	6.3096	5.77897-03	7.0795	7.05568-03
7.9433	1.02202-02	8.9125	1.16888-02	10.0000	1.14980-02
11.2202	1.02522-02	12.5892	8.56012-03	14.1254	6.85063-03
15.8489	5.34203-03	17.7828	4.08310-03	19.9526	3.08262-03
22.3872	2.31422-03	25.1189	1.73923-03	28.1838	1.31828-03
31.6228	9.85411-04	35.4813	7.36510-04	39.8107	5.50876-04
44.6683	4.18837-04	50.1187	3.13683-04	56.2341	2.45206-04
63.0957	1.84171-04	70.7945	1.40007-04	79.4328	1.04240-04
89.1250	7.62738-05	99.9999	5.72421-05	112.2018	4.51765-05
125.8925	3.36723-05	141.2536	2.49370-05	158.4892	1.87205-05
177.8278	1.41784-05	199.5261	1.07205-05	223.8719	8.12139-06

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Continued

(h) $n = 5$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.25005-07	-199.5261	1.79771-07	-177.8278	2.69392-07
-158.4892	4.20753-07	-141.2536	7.21589-07	-125.8925	1.70987-06
-112.2018	9.37170-08	-99.9999	1.80573-07	-89.1250	2.07566-07
-79.4328	2.59848-07	-70.7945	3.66841-07	-63.0957	5.49118-07
-56.2341	8.31959-07	-50.1187	1.24636-06	-44.6683	1.81598-06
-39.8107	2.60649-06	-35.4813	3.67372-06	-31.6228	5.11894-06
-28.1838	7.05983-06	-25.1189	9.66249-06	-22.3872	1.31344-05
-19.9526	1.77651-05	-17.7828	2.37976-05	-15.8489	3.08489-05
-14.1254	4.26697-05	-12.5892	5.50063-05	-11.2202	7.35727-05
-10.0000	9.70079-05	-8.9125	1.27855-04	-7.9433	1.88443-04
-7.0795	2.18727-04	-6.3096	2.87570-04	-5.6234	4.02692-04
-5.0119	5.30703-04	-4.4668	6.92987-04	-3.9811	9.22738-04
-3.5481	1.22423-03	-3.1623	1.63413-03	-2.8184	2.21539-03
-2.5119	3.16554-03	-2.2387	5.45510-03	-1.9953	1.23040-02
-1.7783	2.86609-02	-1.5849	5.58579-02	-1.4125	8.80576-02
-1.2589	1.17263-01	-1.1220	1.40820-01	1.0000	2.14159-02
1.1220	8.51568-03	1.2589	2.69031-03	1.4125	6.65722-04
1.5849	1.95890-04	1.7783	2.23918-04	1.9953	4.62805-04
2.2387	9.57794-04	2.5119	1.85362-03	2.8184	3.36276-03
3.1623	6.26840-03	3.5481	1.14216-02	3.9811	1.27978-02
4.4668	4.20967-03	5.0119	4.50208-04	5.6234	7.84468-04
6.3096	7.94680-04	7.0795	5.26476-04	7.9433	3.64088-04
8.9125	2.56680-04	10.0000	1.83488-04	11.2202	1.32555-04
12.5892	9.64681-05	14.1254	7.06183-05	15.8489	5.20426-05
17.7828	3.84893-05	19.9526	2.85896-05	22.3872	2.13286-05
25.1189	1.60375-05	28.1838	1.21475-05	31.6228	9.15665-06
35.4813	6.89745-06	39.8107	5.19935-06	44.6683	3.92473-06
50.1187	2.96803-06	56.2341	2.24557-06	63.0957	1.70907-06
70.7945	1.31170-06	79.4328	9.66268-07	89.1250	7.27425-07
99.9999	5.49080-07	112.2018	4.34867-07	125.8925	3.26655-07
141.2536	2.43087-07	158.4892	1.83109-07	177.8278	1.39135-07
199.5261	1.05500-07	223.8719	8.01143-08		

TABLE B-II. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 4026.00 Å - Concluded

(i) $n = 5$; $T = 30\ 000\ \text{K}$; $N_e = 10^{15}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.27858-05	-199.5261	1.85038-05	-177.8278	2.79791-05
-158.4892	4.43435-05	-141.2536	7.82376-05	-125.8925	2.00290-04
-112.2018	9.64428-06	-99.9999	1.85179-05	-89.1250	2.15095-05
-79.4328	2.72012-05	-70.7945	3.87095-05	-63.0957	5.85281-05
-56.2341	8.97579-05	-50.1187	1.36442-04	-44.6883	2.02404-04
-39.8107	2.96651-04	-35.4813	4.24576-04	-31.6228	6.04243-04
-28.1838	8.56588-04	-25.1189	1.20880-03	-22.3872	1.69758-03
-19.9526	2.37583-03	-17.7828	3.30987-03	-15.8489	4.58617-03
-14.1254	6.30528-03	-12.5892	8.57248-03	-11.2202	1.14931-02
-10.0000	1.51201-02	-8.9125	1.94835-02	-7.9433	2.44912-02
-7.0795	3.00140-02	-6.3096	3.58296-02	-5.6234	4.16592-02
-5.0119	4.72575-02	-4.4668	5.23630-02	-3.9811	5.67831-02
-3.5481	6.03904-02	-3.1623	6.31099-02	-2.8184	6.49236-02
-2.5119	6.58355-02	-2.2387	6.59029-02	-1.9953	6.51971-02
-1.7783	6.38257-02	-1.5849	6.19123-02	-1.4125	5.95786-02
-1.2589	5.69677-02	-1.1220	5.42030-02	-1.0000	5.13768-02
1.0000	5.22182-03	1.1220	5.98576-03	1.2589	7.59729-03
1.4125	1.04824-02	1.5849	1.52866-02	1.7783	2.30370-02
1.9953	3.53848-02	2.2387	5.43344-02	2.5119	8.14527-02
2.8184	1.14184-01	3.1623	1.41279-01	3.5481	1.42606-01
3.9811	1.07490-01	4.4668	5.58098-02	5.0119	2.05227-02
5.6234	7.58511-03	6.3096	5.32250-03	7.0795	4.33614-03
7.9433	7.37589-03	8.9125	1.02873-02	10.0000	1.21831-02
11.2202	1.25375-02	12.5892	1.15485-02	14.1254	9.73211-03
15.8489	7.67994-03	17.7828	5.78819-03	19.9526	4.24380-03
22.3872	3.07401-03	25.1189	2.21853-03	28.1838	1.60654-03
31.6228	1.18552-03	35.4813	8.49537-04	39.8107	6.21719-04
44.6883	4.58278-04	50.1187	3.38807-04	56.2341	2.53347-04
63.0957	1.89200-04	70.7945	1.42883-04	79.4328	1.05997-04
89.1250	7.73499-05	99.9999	5.79244-05	112.2018	4.53582-05
125.8925	3.39502-05	141.2536	2.51426-05	158.4892	1.95188-05
177.8278	1.42465-05	199.5261	1.07657-05	223.8719	8.14995-06

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å

(a) $n = 6$; $T = 3000$ K; $N_e = 10^{13}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80190-07	-199.5261	2.50869-07	-177.8278	3.64757-07
-158.4892	5.11912-07	-141.2536	7.17232-07	-125.8925	1.02718-06
-112.2018	1.49562-06	-99.9999	2.20421-06	-89.1250	3.45253-06
-79.0954	6.39232-06	-77.2950	7.39981-06	-75.5355	8.76561-06
-73.8161	1.07246-05	-72.1359	1.37611-05	-70.4938	1.94429-05
-68.8892	3.79182-05	-67.3211	1.88741-04	-65.7887	8.17231-07
-64.2912	8.53805-07	-62.8277	8.94998-07	-61.3976	9.39447-07
-56.2341	1.15347-06	-50.1187	1.59502-06	-44.6683	2.34149-06
-39.8107	3.48306-06	-35.4813	5.16885-06	-31.6228	7.55315-06
-28.1838	1.08684-05	-25.1189	1.54080-05	-22.3872	2.16042-05
-19.9526	2.99855-05	-17.7828	4.13327-05	-15.8489	5.66208-05
-14.1254	7.82758-05	-12.5892	1.07667-04	-11.2202	1.46667-04
-10.0000	1.98873-04	-8.9125	2.69022-04	-7.9433	3.66152-04
-7.0795	4.96201-04	-6.3096	6.62910-04	-5.6234	8.86368-04
-5.0119	1.18403-03	-4.4668	1.58570-03	-3.9811	2.12005-03
-3.5481	2.84938-03	-3.1623	3.84024-03	-2.8184	5.20456-03
-2.5119	7.15928-03	-2.2387	1.00517-02	-1.9953	1.48018-02
-1.7783	2.47259-02	-1.5849	5.03063-02	-1.4125	1.02576-01
-1.2589	1.62801-01	-1.1220	1.91359-01	-1.0000	1.79679-01
1.0000	1.26377-02	1.1220	1.43530-02	1.2589	1.60937-02
1.4125	1.68409-02	1.5849	1.74455-02	1.7783	2.29769-02
1.9953	3.06115-02	2.2387	3.01175-02	2.5119	1.31855-02
2.8184	4.78550-03	3.1623	1.49864-02	3.5481	1.30189-02
3.9811	6.17982-03	4.4668	3.98758-03	5.0119	2.64756-03
5.6234	1.81355-03	6.3096	1.27627-03	7.0795	9.08068-04
7.9433	6.52115-04	8.9125	4.72998-04	10.0000	3.45593-04
11.2202	2.54133-04	12.5892	1.87863-04	14.1254	1.39394-04
15.8489	1.03854-04	17.7828	7.75875-05	19.9526	5.81158-05
22.3872	4.36377-05	25.1189	3.28144-05	28.1838	2.47299-05
31.6228	1.86542-05	35.4813	1.40936-05	39.8107	1.06550-05
44.6683	8.06552-06	50.1187	6.10438-06	56.2341	4.62815-06
63.0957	3.50377-06	70.7845	2.65707-06	79.4328	2.01324-06
89.1250	1.52870-06	99.9999	1.15124-06	112.2018	8.71825-07
125.8925	6.60254-07	141.2536	4.99720-07	158.4892	3.78257-07
177.8278	2.86152-07	199.5261	2.04346-07	223.8719	1.54591-07

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(b) $n = 6$; $T = 10\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80203-07	-199.5261	2.50890-07	-177.8278	3.64785-07
-158.4892	5.11947-07	-141.2536	7.17315-07	-125.8925	1.02726-06
-112.2018	1.49440-06	-99.9999	2.20554-06	-89.1250	3.45760-06
-79.0954	6.39275-06	-77.2950	7.40762-06	-75.5355	8.77564-06
-73.8161	1.07472-05	-72.1359	1.38170-05	-70.4938	1.96303-05
-68.8892	4.13950-05	-67.3211	1.27421-04	-65.7887	8.94467-07
-64.2912	8.54088-07	-62.8277	8.95208-07	-61.3976	9.39669-07
-58.2341	1.15388-06	-50.1187	1.59581-06	-44.6683	2.34277-06
-39.8107	3.48548-06	-35.4813	5.17409-06	-31.6228	7.55995-06
-28.1838	1.08799-05	-25.1189	1.54272-05	-22.3872	2.16360-05
-19.9528	3.00397-05	-17.7828	4.14215-05	-15.8489	5.87833-05
-14.1254	7.85313-05	-12.5892	1.08107-04	-11.2202	1.47477-04
-10.0000	2.00151-04	-8.9125	2.71195-04	-7.9433	3.70753-04
-7.0795	5.02308-04	-6.3098	6.72733-04	-5.6234	9.02645-04
-5.0119	1.21230-03	-4.4668	1.63213-03	-3.9811	2.20363-03
-3.5481	2.99516-03	-3.1623	4.11284-03	-2.8184	5.77175-03
-2.5119	8.57198-03	-2.2387	1.42853-02	-1.9953	2.63763-02
-1.7783	4.75975-02	-1.5849	7.62092-02	-1.4125	1.06885-01
-1.2589	1.36045-01	-1.1220	1.65017-01	-1.0000	1.98219-01
1.0000	3.31515-02	1.1220	2.34231-02	1.2589	2.08266-02
1.4125	2.22996-02	1.5849	2.61979-02	1.7783	3.09084-02
1.9953	3.37448-02	2.2387	2.39997-02	2.5119	1.75638-02
2.8184	1.24826-02	3.1623	1.28418-02	3.5481	1.22085-02
3.9811	7.63107-03	4.4668	4.39081-03	5.0119	2.82624-03
5.6234	1.89723-03	6.3098	1.31210-03	7.0795	9.25245-04
7.9433	6.61168-04	8.9125	4.77841-04	10.0000	3.48320-04
11.2202	2.55677-04	12.5892	1.88733-04	14.1254	1.39909-04
15.8489	1.04155-04	17.7828	7.77610-05	19.9528	5.82227-05
22.3872	4.36989-05	25.1189	3.28543-05	28.1838	2.47525-05
31.6228	1.86684-05	35.4813	1.41026-05	39.8107	1.06605-05
44.6683	8.06878-06	50.1187	6.10650-06	58.2341	4.62748-06
63.0957	3.50469-06	70.7945	2.85762-06	79.4328	2.01367-06
89.1250	1.52697-06	99.9999	1.15136-06	112.2018	8.71945-07
125.8925	6.60335-07	141.2536	4.99774-07	158.4892	3.78295-07
177.8278	2.86179-07	199.5261	2.04364-07	223.8719	1.54604-07

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(c) $n = 6$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80158-07	-199.5261	2.50826-07	-177.8278	3.64702-07
-158.4892	5.11765-07	-141.2536	7.17204-07	-125.8925	1.02701-06
-112.2018	1.49324-06	-99.9999	2.20618-06	-89.1250	3.46469-06
-79.0954	6.39784-06	-77.2950	7.42358-06	-75.5355	8.80561-06
-73.8161	1.08042-05	-72.1359	1.39637-05	-70.4938	2.02899-05
-68.8892	4.63434-05	-67.3211	8.87690-05	-65.7887	6.63956-06
-64.2912	8.54289-07	-62.8277	8.95276-07	-61.3976	9.39724-07
-56.2341	1.15431-06	-50.1187	1.59721-06	-44.6683	2.34453-06
-39.8107	3.48996-06	-35.4813	5.18226-06	-31.6228	7.57328-06
-28.1838	1.09027-05	-25.1189	1.54666-05	-22.3872	2.17029-05
-19.9526	3.01567-05	-17.7828	4.16204-05	-15.8489	5.71744-05
-14.1254	7.91492-05	-12.5892	1.09151-04	-11.2202	1.49280-04
-10.0000	2.03248-04	-8.9125	2.76996-04	-7.9433	3.79636-04
-7.0795	5.16640-04	-6.3096	6.98820-04	-5.6234	9.47690-04
-5.0119	1.29178-03	-4.4668	1.77540-03	-3.9811	2.47883-03
-3.5481	3.67758-03	-3.1623	5.94510-03	-2.8184	1.05071-02
-2.5119	1.94158-02	-2.2387	3.38852-02	-1.9953	5.47457-02
-1.7783	8.21523-02	-1.5849	1.15472-01	-1.4125	1.53359-01
-1.2589	1.93912-01	-1.1220	2.34989-01	-1.0000	2.74582-01
1.0000	1.37100-01	1.1220	1.07678-01	1.2589	8.19790-02
1.4125	6.12129-02	1.5849	4.61570-02	1.7783	3.64256-02
1.9953	3.05926-02	2.2387	2.65049-02	2.5119	2.25935-02
2.8184	1.89249-02	3.1623	1.36102-02	3.5481	1.11129-02
3.9811	8.32099-03	4.4668	5.46709-03	5.0119	3.33762-03
5.6234	2.10486-03	6.3096	1.40112-03	7.0795	9.67528-04
7.9433	6.82783-04	8.9125	4.89235-04	10.0000	3.54521-04
11.2202	2.59103-04	12.5892	1.90638-04	14.1254	1.41004-04
15.8489	1.04770-04	17.7828	7.81151-05	19.9526	5.84271-05
22.3872	4.38132-05	25.1189	3.29221-05	28.1838	2.47899-05
31.6228	1.86901-05	35.4813	1.41146-05	39.8107	1.06670-05
44.6683	8.07202-06	50.1187	6.10838-06	56.2341	4.62820-06
63.0957	3.50507-06	70.7945	2.65761-06	79.4328	2.01362-06
89.1250	1.52661-06	99.9999	1.18095-06	112.2018	8.71803-07
125.8925	6.60204-07	141.2536	4.99665-07	158.4892	3.78211-07
177.8278	2.86112-07	199.5261	2.04314-07	223.8719	1.54565-07

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(d) $n = 6$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80725-06	-199.5261	2.51782-06	-177.827A	3.86314-06
-158.4892	5.14602-06	-141.2536	7.21927-06	-125.8925	1.03559-05
-112.2018	1.51128-05	-99.9999	2.23502-05	-89.1250	3.52040-05
-79.0954	6.59889-05	-77.2950	7.87226-05	-75.5355	9.14125-05
-73.8161	1.12765-04	-72.1359	1.46557-04	-70.4938	2.11463-04
-68.8892	4.15692-04	-67.3211	1.07799-03	-65.7887	8.25469-06
-64.2912	8.62735-06	-62.8277	9.04709-06	-61.3978	9.50018-06
-63.0957	8.96658-06	-63.0957	8.96658-06	-58.2341	1.16835-05
-50.1187	1.61961-05	-44.6683	2.38514-05	-39.8107	3.56198-05
-35.4813	5.31116-05	-31.6228	7.80477-05	-28.1838	1.13042-04
-25.1189	1.61474-04	-22.3872	2.28388-04	-19.9526	3.20164-04
-17.7828	4.46362-04	-15.8489	6.18790-04	-14.1254	8.48992-04
-12.5892	1.17208-03	-11.2202	1.60574-03	-10.0000	2.20137-03
-8.9125	3.00968-03	-7.9433	4.13717-03	-7.0795	5.65861-03
-6.3096	7.63087-03	-5.6234	1.02726-02	-5.0119	1.37680-02
-4.4668	1.84011-02	-3.9811	2.43818-02	-3.5481	3.21648-02
-3.1623	4.20872-02	-2.8184	5.44106-02	-2.5119	6.97357-02
-2.2387	8.82388-02	-1.9953	1.10002-01	-1.7783	1.34879-01
-1.5849	1.61223-01	-1.4125	1.85824-01	-1.2589	2.05811-01
-1.1220	2.21939-01	-1.0000	2.37916-01	1.0000	8.87828-02
1.1220	9.54158-02	1.2589	1.00499-01	1.4125	1.01058-01
1.5849	8.55957-02	1.7783	5.67557-02	1.9953	3.50983-02
2.2387	1.73834-02	2.5119	9.58034-03	2.8184	8.98031-03
3.1623	2.87501-02	3.5481	6.14134-02	3.9811	5.04311-02
4.4668	3.21865-02	5.0119	2.28192-02	5.6234	1.74310-02
6.3096	1.33514-02	7.0795	1.00260-02	7.9433	7.41086-03
8.9125	5.42812-03	10.0000	3.95142-03	11.2202	2.87270-03
12.5892	2.09555-03	14.1254	1.53468-03	15.8489	1.12891-03
17.7828	8.38794-04	19.9526	6.27549-04	22.3872	4.69519-04
25.1189	3.49135-04	28.1838	2.60636-04	31.6228	1.95033-04
35.4813	1.46358-04	39.8107	1.10017-04	44.6683	8.28775-05
50.1187	6.24885-05	58.2341	4.71774-05	63.0957	3.56263-05
70.7945	2.69495-05	79.4328	2.03763-05	89.1250	1.54240-05
99.9999	1.16134-05	112.2018	8.76321-06	125.8925	6.64431-06
141.2536	5.02401-06	158.4892	3.79975-06	177.8278	2.87254-06
199.5261	2.05043-06	223.8719	1.55037-06		

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(e) $n = 6$; $T = 10\ 000\ \text{K}$; $N_e = 10^{14}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80797-06	-199.5281	2.51894-06	-177.8278	3.66500-06
-158.4892	5.14908-06	-141.2536	7.22456-06	-125.8925	1.03652-05
-112.2018	1.51168-05	-99.9999	2.23935-05	-89.1250	3.53230-05
-79.0954	6.62130-05	-77.2950	7.71019-05	-75.5355	9.19453-05
-73.8161	1.13669-04	-72.1359	1.48345-04	-70.4938	2.16669-04
-68.8892	4.57510-04	-67.3211	8.82513-04	-65.7887	8.51713-06
-64.2912	8.63848-06	-62.8277	9.05822-06	-61.3976	9.51225-06
-56.2341	1.17016-05	-50.1187	1.62280-05	-44.6683	2.39075-05
-39.8107	3.57240-05	-35.4813	5.33135-05	-31.6228	7.83886-05
-28.1838	1.13649-04	-25.1189	1.62540-04	-22.3872	2.30243-04
-19.9526	3.23386-04	-17.7828	4.51902-04	-15.8489	6.28694-04
-14.1254	8.76489-04	-12.5892	1.22089-03	-11.2202	1.69129-03
-10.0000	2.33970-03	-8.9125	3.23429-03	-7.8433	4.50838-03
-7.0795	6.23458-03	-6.3096	8.53435-03	-5.6234	1.16734-02
-5.0119	1.59124-02	-4.4668	2.15835-02	-3.9811	2.90254-02
-3.5481	3.86602-02	-3.1623	5.08055-02	-2.8184	6.57004-02
-2.5119	8.34195-02	-2.2387	1.03612-01	-1.9953	1.25447-01
-1.7783	1.47618-01	-1.5849	1.68826-01	-1.4125	1.88299-01
-1.2589	2.05800-01	-1.1220	2.21294-01	-1.0000	2.34806-01
1.0000	9.65554-02	1.1220	9.80751-02	1.2589	9.73123-02
1.4125	9.21667-02	1.5849	8.17447-02	1.7783	6.53725-02
1.9953	4.55169-02	2.2387	2.74055-02	2.5119	1.47999-02
2.8184	1.72203-02	3.1623	3.24480-02	3.5481	5.21145-02
3.9811	5.38054-02	4.4668	3.87014-02	5.0119	2.61452-02
5.6234	1.94890-02	6.3096	1.51050-02	7.0795	1.14530-02
7.8433	8.41806-03	8.9125	6.06871-03	10.0000	4.34215-03
11.2202	3.10701-03	12.5892	2.23459-03	14.1254	1.61692-03
15.8489	1.17813-03	17.7828	8.65247-04	19.9526	6.39538-04
22.3872	4.74823-04	25.1189	3.52301-04	28.1838	2.62515-04
31.6228	1.96174-04	35.4813	1.47057-04	39.8107	1.10446-04
44.6683	8.31421-05	50.1187	6.26346-05	56.2341	4.72814-05
63.0957	3.56924-05	70.7945	2.69912-05	79.4328	2.04033-05
89.1250	1.54412-05	99.9999	1.16238-05	112.2018	8.79039-06
125.8925	6.64898-06	141.2536	5.02708-06	158.4892	3.60181-06
177.8278	2.87390-06	199.5281	2.05135-06	223.8719	1.55099-06

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(f) $n = 6$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80771-06	-199.5261	2.51863-06	-177.8278	3.66473-06
-158.4892	5.14824-06	-141.2536	7.22512-06	-125.8925	1.03657-05
-112.2018	1.51111-05	-99.9999	2.24121-05	-89.1250	3.54245-05
-79.0954	6.63685-05	-77.2950	7.74124-05	-75.5355	9.24775-05
-73.8161	1.14640-04	-72.1359	1.50687-04	-70.4938	2.26500-04
-68.892	5.07415-04	-67.3211	6.95966-04	-65.7887	3.97366-05
-64.2912	8.64388-06	-62.8277	9.06258-06	-61.3976	9.51683-06
-56.2341	1.17118-05	-50.1187	1.62523-05	-44.6683	2.39439-05
-39.8107	3.58051-05	-35.4813	5.34642-05	-31.6228	7.86514-05
-28.1838	1.14117-04	-25.1189	1.63371-04	-22.3872	2.31702-04
-19.9526	3.25978-04	-17.7828	4.56436-04	-15.8489	6.37082-04
-14.1254	8.94444-04	-12.5892	1.25372-03	-11.2202	1.75021-03
-10.0000	2.44124-03	-8.9125	3.41459-03	-7.9433	4.80737-03
-7.0795	6.73415-03	-6.3096	9.38486-03	-5.6234	1.30688-02
-5.0119	1.81433-02	-4.4668	2.50148-02	-3.9811	3.41072-02
-3.5481	4.57565-02	-3.1623	6.00934-02	-2.8184	7.69158-02
-2.5119	9.56003-02	-2.2387	1.15097-01	-1.9953	1.34327-01
-1.7783	1.52240-01	-1.5849	1.67985-01	-1.4125	1.81027-01
-1.2589	1.91178-01	-1.1220	1.98468-01	-1.0000	2.03195-01
1.0000	9.80745-02	1.1220	9.29104-02	1.2589	8.70652-02
1.4125	8.01798-02	1.5849	7.18326-02	1.7783	6.19650-02
1.9953	5.10613-02	2.2387	4.08592-02	2.5119	3.32687-02
2.8184	3.14524-02	3.1623	3.58403-02	3.5481	4.29154-02
3.9811	4.59811-02	4.4668	4.06304-02	5.0119	3.04178-02
5.6234	2.18248-02	6.3096	1.63571-02	7.0795	1.24302-02
7.9433	9.17494-03	8.9125	6.57258-03	10.0000	4.64328-03
11.2202	3.27791-03	12.5892	2.32915-03	14.1254	1.66924-03
15.8489	1.20724-03	17.7828	8.80580-04	19.9526	6.47304-04
22.3872	4.78382-04	25.1189	3.54367-04	28.1838	2.63695-04
31.6228	1.96865-04	35.4813	1.47460-04	39.8107	1.10680-04
44.6683	8.32773-05	50.1187	6.27163-05	56.2341	4.73273-05
63.0957	3.57203-05	70.7945	2.70060-05	79.4328	2.04121-05
89.1250	1.54455-05	99.9999	1.19237-05	112.2018	8.79130-06
125.8925	6.64914-06	141.2536	5.02693-06	158.4892	3.80157-06
177.8278	2.87362-06	199.5261	2.05111-06	223.8719	1.55076-06

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(g) $n = 6$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.85403-05	-199.5261	2.59642-05	-177.827A	3.79631-05
-158.4892	5.37358-05	-141.2536	7.60923-05	-125.8925	1.10461-04
-112.2018	1.63144-04	-99.9999	2.32676-04	-89.1250	3.69240-04
-79.0954	6.94517-04	-77.2950	8.05344-04	-75.5355	9.53347-04
-73.8161	1.16014-03	-72.1359	1.46008-03	-70.493A	1.93698-03
-68.8892	2.63623-03	-67.3211	7.89228-04	-65.7887	8.55023-05
-64.2912	8.93584-05	-62.8277	9.38002-05	-61.3976	9.86026-05
-58.2341	1.21194-04	-50.1187	1.88748-04	-44.6683	2.49740-04
-39.8107	3.74053-04	-35.4813	5.58770-04	-31.6228	8.20542-04
-28.1838	1.18203-03	-25.1189	1.67035-03	-22.3872	2.31905-03
-19.9526	3.14158-03	-17.7828	4.20923-03	-15.8489	5.53896-03
-14.1254	7.27184-03	-12.5892	9.39187-03	-11.2202	1.18194-02
-10.0000	1.45729-02	-8.9125	1.76755-02	-7.9433	2.13772-02
-7.0795	2.54763-02	-6.3096	2.91317-02	-5.6234	3.29562-02
-5.0119	3.68578-02	-4.4668	4.08150-02	-3.9811	4.47027-02
-3.5481	4.86452-02	-3.1623	5.24988-02	-2.8184	5.62153-02
-2.5119	5.98532-02	-2.2387	6.32381-02	-1.9953	6.63129-02
-1.7783	6.90872-02	-1.5849	7.14512-02	-1.4125	7.33319-02
-1.2589	7.47591-02	-1.1220	7.58085-02	-1.0000	7.65673-02
1.0000	3.19462-02	1.1220	2.66041-02	1.2589	2.07805-02
1.4125	1.48755-02	1.5849	9.39763-03	1.7783	4.97519-03
1.9953	2.10602-03	2.2387	9.35185-04	2.5119	1.26915-03
2.8184	2.42369-03	3.1623	5.16842-03	3.5481	1.36661-02
3.9811	2.63296-02	4.4668	3.63617-02	5.0119	4.05710-02
5.6234	3.87120-02	6.3096	3.52507-02	7.0795	3.01475-02
7.9433	2.53938-02	8.9125	2.14263-02	10.0000	1.81800-02
11.2202	1.54270-02	12.5892	1.30016-02	14.1254	1.08115-02
15.8489	6.84877-03	17.7828	7.12258-03	19.9526	5.84783-03
22.3872	4.42147-03	25.1189	3.43039-03	28.1838	2.63769-03
31.6228	2.00831-03	35.4813	1.52270-03	39.8107	1.15725-03
44.6683	8.74724-04	50.1187	6.58265-04	58.2341	4.98521-04
63.0957	3.72570-04	70.7945	2.81671-04	79.4328	2.13039-04
89.1250	1.64103-04	99.9999	1.24292-04	112.2018	9.31565-05
125.8925	6.99090-05	141.2536	5.24913-05	158.4892	3.94573-05
177.827A	2.96898-05	199.5261	2.11096-05	223.8719	1.58941-05

TABLE B-III.- CALCULATED PROFILES OF THE HELIUM
 TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Continued

(h) $n = 6$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.86425-05	-199.5261	2.61397-05	-177.4274	3.42701-05
-158.4892	5.42828-05	-141.2536	7.70447-05	-125.8925	1.12354-04
-112.2018	1.67006-04	-99.9999	2.44409-04	-89.1250	4.04408-04
-79.0954	7.97591-04	-77.2950	9.39730-04	-75.5355	1.13248-03
-73.8181	1.40774-03	-72.1359	1.81402-03	-70.4938	2.43084-03
-68.8892	2.98238-03	-67.3211	8.17210-04	-65.7887	8.95631-05
-64.2912	9.36815-05	-62.8277	9.85024-05	-61.3976	1.03715-04
-56.2341	1.28786-04	-50.1187	1.81222-04	-44.6683	2.72066-04
-39.8107	4.14114-04	-35.4813	6.30592-04	-31.6228	9.44800-04
-28.1838	1.38954-03	-25.1189	2.00227-03	-22.3872	2.82871-03
-19.9526	3.89718-03	-17.7828	5.25320-03	-15.8489	6.89714-03
-14.1254	8.91736-03	-12.5892	1.12354-02	-11.2202	1.37229-02
-10.0000	1.63197-02	-8.9125	1.90452-02	-7.9433	2.23262-02
-7.0795	2.56906-02	-6.3096	2.86064-02	-5.6234	3.17875-02
-5.0119	3.51889-02	-4.4668	3.87907-02	-3.9811	4.25341-02
-3.5481	4.63610-02	-3.1623	5.01388-02	-2.8184	5.37286-02
-2.5119	5.70151-02	-2.2387	5.98960-02	-1.9953	6.22874-02
-1.7783	6.41474-02	-1.5849	6.54894-02	-1.4125	6.63354-02
-1.2589	6.67489-02	-1.1220	6.68032-02	-1.0000	6.85598-02
1.0000	2.04368-02	1.1220	1.69964-02	1.2589	1.34652-02
1.4125	9.98604-03	1.5849	6.79342-03	1.7783	4.13834-03
1.9953	2.25326-03	2.2387	1.26594-03	2.5119	1.18237-03
2.8184	2.05982-03	3.1623	4.47779-03	3.5481	9.64222-03
3.9811	1.78267-02	4.4668	2.69772-02	5.0119	3.41373-02
5.6234	3.74090-02	6.3096	3.66552-02	7.0795	3.31220-02
7.9433	2.84368-02	8.9125	2.38635-02	10.0000	2.00045-02
11.2202	1.69198-02	12.5892	1.44256-02	14.1254	1.22790-02
15.8489	1.03323-02	17.7828	8.52292-03	19.9526	6.86911-03
22.3872	5.41102-03	25.1189	4.18016-03	28.1838	3.17795-03
31.6228	2.38570-03	35.4813	1.77920-03	39.8107	1.32448-03
44.6683	9.83421-04	50.1187	7.28724-04	56.2341	5.41380-04
63.0957	4.02081-04	70.7945	3.00268-04	79.4328	2.24251-04
89.1250	1.69276-04	99.9999	1.26597-04	112.2018	9.45755-05
125.8925	7.07858-05	141.2536	5.30362-05	158.4892	3.97980-05
177.8278	2.98840-05	199.5261	2.12436-05	223.8719	1.59790-05

TABLE B-III. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3819.00 Å - Concluded

(i) $n = 6$; $T = 30\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.86791-05	-199.5261	2.62053-05	-177.8278	3.83904-05
-158.4892	5.44984-05	-141.2536	7.75073-05	-125.8925	1.13173-04
-112.2018	1.68719-04	-99.9999	2.55789-04	-89.1250	4.23350-04
-79.0954	8.60597-04	-77.2950	1.02557-03	-75.5355	1.25284-03
-73.8161	1.58072-03	-72.1359	2.06385-03	-70.4938	2.73388-03
-68.8892	2.93627-03	-67.3211	9.68271-04	-65.7887	1.04373-04
-64.2912	9.57176-05	-62.8277	1.00748-04	-61.3976	1.06177-04
-56.2341	1.32347-04	-50.1187	1.87631-04	-44.6683	2.83820-04
-39.8107	4.36808-04	-35.4813	6.73563-04	-31.6228	1.02255-03
-28.1838	1.52574-03	-25.1189	2.22836-03	-22.3872	3.18061-03
-19.9526	4.41278-03	-17.7828	5.94430-03	-15.8489	7.74988-03
-14.1254	9.86026-03	-12.5892	1.21586-02	-11.2202	1.44962-02
-10.0000	1.68140-02	-8.9125	1.92305-02	-7.9433	2.20882-02
-7.0795	2.50380-02	-6.3096	2.79004-02	-5.6234	3.10680-02
-5.0119	3.46077-02	-4.4668	3.84354-02	-3.9811	4.24056-02
-3.5481	4.63248-02	-3.1623	4.99985-02	-2.8184	5.32417-02
-2.5119	5.59216-02	-2.2387	5.79797-02	-1.9953	5.93976-02
-1.7783	6.02162-02	-1.5849	6.05021-02	-1.4125	6.03485-02
-1.2589	5.98527-02	-1.1220	5.90921-02	-1.0000	5.81424-02
1.0000	1.77630-02	1.1220	1.53081-02	1.2589	1.27798-02
1.4125	1.02533-02	1.5849	7.85377-03	1.7783	5.71200-03
1.9953	3.99281-03	2.2387	2.87638-03	2.5119	2.55858-03
2.8184	3.27844-03	3.1623	5.35895-03	3.5481	9.16556-03
3.9811	1.48459-02	4.4668	2.18449-02	5.0119	2.87038-02
5.6234	3.36131-02	6.3096	3.53248-02	7.0795	3.37952-02
7.9433	3.00413-02	8.9125	2.58844-02	10.0000	2.12256-02
11.2202	1.77541-02	12.5892	1.50656-02	14.1254	1.29104-02
15.8489	1.10302-02	17.7828	9.26593-03	19.9526	7.58713-03
22.3872	6.03563-03	25.1189	4.87363-03	28.1838	3.53919-03
31.6228	2.63547-03	35.4813	1.84428-03	39.8107	1.42816-03
44.6683	1.04767-03	50.1187	7.68744-04	56.2341	5.65681-04
63.0957	4.17108-04	70.7945	3.09076-04	79.4328	2.29548-04
89.1250	1.71854-04	99.9999	1.28367-04	112.2018	9.51894-05
125.8925	7.11545-05	141.2536	5.32587-05	158.4892	3.99331-05
177.8278	2.99659-05	199.5261	2.12932-05	223.8719	1.60091-05

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

$$\text{WAVELENGTH} = 3705.00 \text{ \AA}$$

$$(a) \ n = 7; \ T = 3000 \text{ K}; \ N_e = 10^{13} \text{ cm}^{-3}$$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.20460-06	-199.5261	3.73504-07	-177.8274	5.15142-07
-158.4892	7.10393-07	-141.2536	9.83442-07	-125.8925	1.36141-06
-112.2018	1.89442-06	-99.9999	2.64310-06	-89.1250	3.73339-08
-79.4324	5.31158-06	-70.7945	7.64144-06	-63.0957	1.14741-05
-56.2341	1.81155-05	-50.1147	3.21374-05	-44.6643	9.51745-05
-45.9261	6.44544-05	-44.8407	4.77534-05	-43.8591	1.57295-04
-42.8604	3.24760-04	-41.8451	5.23067-05	-40.9317	4.20466-06
-39.8107	4.46202-06	-35.4813	5.97793-06	-31.6224	4.53493-06
-28.1834	1.28067-05	-25.1189	2.07453-05	-22.3472	2.88347-05
-19.9526	4.12263-05	-17.7428	5.94440-05	-15.8449	4.54248-05
-14.1254	1.21681-04	-12.5492	1.71690-04	-11.2202	2.40015-04
-10.0000	3.33285-04	-8.9125	4.59747-04	-7.9433	6.31901-04
-7.0795	8.65074-04	-6.3096	1.18265-03	-5.6234	1.61399-03
-5.0119	2.19963-03	-4.4668	2.99735-03	-3.9411	4.07229-03
-3.5441	5.57899-03	-3.1623	7.67453-03	-2.8144	1.06944-02
-2.5119	1.51248-02	-2.2387	2.14697-02	-1.9953	3.24763-02
-1.7743	5.23300-02	-1.5449	8.60897-02	-1.4125	1.31064-01
-1.2549	1.67940-01	-1.1220	1.42549-01	-1.0000	1.44093-01
1.0000	9.45944-02	1.1220	9.09957-02	1.2549	7.79270-02
1.4125	6.04203-02	1.5449	5.82452-02	1.7743	4.39467-02
1.9953	4.79124-02	2.2387	3.96064-02	2.5119	1.44335-02
2.8144	1.62036-02	3.1623	1.43450-02	3.5441	1.03646-02
3.9411	7.29370-03	4.4668	5.12747-03	5.0119	3.62496-03
5.6234	2.60077-03	6.3096	1.88144-03	7.0795	1.37764-03
7.9433	1.01905-03	8.9125	7.51521-04	10.0000	5.56620-04
11.2202	4.13921-04	12.5492	3.11712-04	14.1254	2.32025-04
15.8449	1.59411-04	17.7428	1.12765-04	19.9526	9.20674-05
22.3472	7.38766-05	25.1189	5.59070-05	28.1834	4.22761-05
31.6224	3.19747-05	35.4813	2.42079-05	39.8107	1.83275-05
44.6643	1.38829-05	50.1147	1.05145-05	56.2341	7.96991-06
63.0957	6.04778-06	70.7945	4.56291-06	79.4324	3.47107-06
89.1250	2.62476-06	99.9999	1.98997-06	112.2018	1.50650-06
125.8925	1.13966-06	141.2536	8.62371-07	158.4892	6.51941-07
177.8274	4.91240-07	199.5261	3.71157-07	223.8719	2.80592-07

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(b) $n = 7$; $T = 10\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.20604-06	-199.5261	2.85085-06	-177.8278	5.15232-07
-158.4892	7.10471-07	-141.2536	9.83993-07	-125.8925	1.36201-06
-112.2018	1.89874-06	-99.9999	2.64361-06	-89.1250	3.73426-06
-79.4328	5.30961-06	-70.7945	7.64437-06	-63.0957	1.14800-05
-56.2341	1.81312-05	-50.1187	3.22028-05	-44.6683	9.82550-05
-45.9261	6.50499-05	-44.8807	8.97598-05	-43.8591	1.66709-04
-42.8608	3.81989-04	-41.8851	1.71826-04	-40.9317	4.85024-06
-39.8107	4.46558-06	-35.4813	5.98359-06	-31.6228	8.55013-06
-28.1838	1.28538-05	-25.1189	2.07813-05	-22.3872	2.89070-05
-19.9526	4.13391-05	-17.7828	5.98719-05	-15.8489	8.57563-05
-14.1254	1.22260-04	-12.5892	1.72662-04	-11.2202	2.41690-04
-10.0000	3.36076-04	-8.9125	4.64550-04	-7.9433	6.39924-04
-7.0795	8.78914-04	-6.3096	1.20623-03	-5.6234	1.65494-03
-5.0119	2.27320-03	-4.4668	3.12930-03	-3.9811	4.32870-03
-3.5481	6.04686-03	-3.1623	8.57792-03	-2.8184	1.24883-02
-2.5119	1.89475-02	-2.2387	3.01114-02	-1.9953	4.79679-02
-1.7783	7.28344-02	-1.5849	1.02077-01	-1.4125	1.32963-01
-1.2589	1.65245-01	-1.1220	2.00671-01	-1.0000	2.40853-01
1.0000	9.26030-02	1.1220	8.62527-02	1.2589	8.13255-02
1.4125	7.75617-02	1.5849	7.51368-02	1.7783	7.25225-02
1.9953	6.49616-02	2.2387	4.90130-02	2.5119	3.05597-02
2.8184	1.94420-02	3.1623	1.50648-02	3.5481	1.15373-02
3.9811	8.12590-03	4.4668	5.58411-03	5.0119	3.86027-03
5.6234	2.72570-03	6.3096	1.94971-03	7.0795	1.41243-03
7.9433	1.03342-03	8.9125	7.59544-04	10.0000	5.61288-04
11.2202	4.16803-04	12.5892	3.13170-04	14.1254	2.32785-04
15.8489	1.60357-04	17.7828	1.13439-04	19.9526	9.21869-05
22.3872	7.39027-05	25.1189	5.59908-05	28.1838	4.23289-05
31.6228	3.20084-05	35.4813	2.42275-05	39.8107	1.83400-05
44.6683	1.38905-05	50.1187	1.05215-05	56.2341	7.97445-06
63.0957	6.04701-06	70.7945	4.58320-06	79.4328	3.47176-06
89.1250	2.62929-06	99.9999	1.99032-06	112.2018	1.50673-06
125.8925	1.13981-06	141.2536	8.62473-07	158.4892	6.52009-07
177.8278	4.91265-07	199.5261	3.71188-07	223.8719	2.80613-07

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(c) $n = 7$; $T = 30\ 000\ \text{K}$; $N_e = 10^{13}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.20835-06	-199.5261	1.31305-03	-177.8278	5.15040-07
-158.4892	7.10226-07	-141.2536	9.83636-07	-125.8925	1.36161-06
-112.2018	1.89817-06	-99.9999	2.64312-06	-89.1250	3.73348-06
-79.4328	5.30434-06	-70.7945	7.64526-06	-63.0957	1.14832-05
-56.2341	1.81448-05	-50.1187	3.23429-05	-44.6683	1.09562-04
-45.9261	6.67907-05	-44.8007	9.78802-05	-43.8591	1.86426-04
-42.8608	3.21995-04	-41.8851	2.04248-04	-40.9317	3.12571-05
-39.8107	4.49311-06	-35.4813	5.99297-06	-31.6228	8.57130-06
-28.1838	1.30419-05	-25.1189	2.08783-05	-22.3872	2.90378-05
-19.9526	4.15753-05	-17.7828	6.00700-05	-15.8489	8.64563-05
-14.1254	1.23467-04	-12.5892	1.74740-04	-11.2202	2.45299-04
-10.0000	3.42244-04	-8.9125	4.75333-04	-7.9433	6.58565-04
-7.0795	9.11731-04	-6.3096	1.26399-03	-5.6234	1.75861-03
-5.0119	2.46293-03	-4.4688	3.49130-03	-3.9811	5.06820-03
-3.5481	7.73179-03	-3.1623	1.23583-02	-2.8184	2.03400-02
-2.5119	3.34863-02	-2.2387	5.21707-02	-1.9953	7.67332-02
-1.7783	1.06494-01	-1.5849	1.40087-01	-1.4125	1.75606-01
-1.2589	2.11018-01	-1.1220	2.44514-01	-1.0000	2.74690-01
1.0000	1.47994-01	1.1220	1.29184-01	1.2589	1.11836-01
1.4125	9.64486-02	1.5849	8.31641-02	1.7783	7.15205-02
1.9953	6.06696-02	2.2387	4.98014-02	2.5119	3.66766-02
2.8184	2.84264-02	3.1623	1.98633-02	3.5481	1.36071-02
3.9811	9.41563-03	4.4688	6.40772-03	5.0119	4.33432-03
5.6234	2.96859-03	6.3096	2.07363-03	7.0795	1.47540-03
7.9433	1.06524-03	8.9125	7.76611-04	10.0000	5.70555-04
11.2202	4.22217-04	12.5892	3.15709-04	14.1254	2.33579-04
15.8489	1.62204-04	17.7828	1.14831-04	19.9526	9.22531-05
22.3872	7.38840-05	25.1189	5.61083-05	28.1838	4.23912-05
31.6228	3.20444-05	35.4813	2.42477-05	39.8107	1.83518-05
44.6683	1.38977-05	50.1187	1.05268-05	56.2341	7.97611-06
63.0957	6.04485-06	70.7945	4.58069-06	79.4328	3.47010-06
89.1250	2.62833-06	99.9999	1.98964-06	112.2018	1.50623-06
125.8925	1.13942-06	141.2536	8.62171-07	158.4892	6.51770-07
177.8278	4.91100-07	199.5261	3.71048-07	223.8719	2.80502-07

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(d) $n = 7$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.26083-05	-199.5261	3.75584-06	-177.827A	5.1A633-06
-158.4892	7.16142-06	-141.2536	9.93518-06	-125.A925	1.37800-05
-112.2018	1.92593-05	-99.9999	2.68997-05	-89.1250	3.A1525-05
-79.4328	5.45715-05	-70.7945	7.90A14-05	-63.0957	1.20005-04
-56.2341	1.92696-04	-50.1187	3.52A18-04	-44.66A3	1.0A9A3-03
-45.9281	7.18783-04	-44.A807	9.997A3-04	-43.8591	1.6A912-03
-42.8608	2.94252-03	-41.A851	1.11559-04	-40.9317	4.3644A-05
-39.A107	4.83382-05	-35.4813	8.25079-05	-31.622A	9.00A04-05
-28.1838	1.36530-04	-25.1189	2.22A23-04	-22.3872	3.11366-04
-19.9526	4.45206-04	-17.7828	8.50242-04	-15.8489	9.44949-04
-14.1254	1.36213-03	-12.5892	1.94475-03	-11.2202	2.75040-03
-10.0000	3.84888-03	-8.9125	5.30715-03	-7.9433	7.3030A-03
-7.0795	9.94167-03	-6.3096	1.33970-02	-5.6234	1.78178-02
-5.0119	2.33756-02	-4.4668	3.02060-02	-3.9811	3.85200-02
-3.5481	4.78973-02	-3.1623	5.86809-02	-2.A1A4	7.05839-02
-2.5119	8.33650-02	-2.2387	9.63297-02	-1.9953	1.10071-01
-1.7783	1.23129-01	-1.5849	1.35188-01	-1.4125	1.45600-01
-1.2589	1.53927-01	-1.1220	1.60555-01	-1.0000	1.66222-01
1.0000	5.14750-02	1.1220	3.65582-02	1.2589	2.83820-02
1.4125	4.60207-02	1.5849	1.15709-01	1.7783	2.18939-01
1.9953	2.25787-01	2.2387	1.10437-01	2.5119	3.14492-02
2.8184	2.03413-02	3.1623	2.79008-02	3.5481	3.50861-02
3.9811	3.64876-02	4.4668	3.30176-02	5.0119	2.77964-02
5.6234	2.28594-02	6.3096	1.83485-02	7.0795	1.44451-02
7.9433	1.11676-02	8.9125	8.49119-03	10.0000	6.38826-03
11.2202	4.75942-03	12.5892	3.57033-03	14.1254	2.64299-03
15.8489	1.79379-03	17.7828	1.25931-03	19.9526	1.01631-03
22.3872	8.06010-04	25.1189	6.05790-04	28.1838	4.53663-04
31.6228	3.44724-04	35.4813	2.58149-04	39.8107	1.93617-04
44.6683	1.45489-04	50.1187	1.09434-04	56.2341	8.24819-05
63.0957	8.22579-05	70.7945	4.69755-05	79.4328	3.54487-05
89.1250	2.87627-05	99.9999	2.02051-05	112.2018	1.52812-05
125.8925	1.15226-05	141.2536	8.70458-06	158.4892	6.57119-06
177.827A	4.94558-06	199.5261	3.73275-06	223.8719	2.81947-06

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(e) $n = 7$; $T = 10\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.26807-05	-199.5261	4.69409-06	-177.8278	5.19016-06
-158.4892	7.16767-06	-141.2536	9.94544-06	-125.8925	1.37973-05
-112.2018	1.92888-05	-99.9999	2.69507-05	-89.1250	3.82431-05
-79.4328	5.47008-05	-70.7945	7.93976-05	-63.0957	1.20668-04
-56.2341	1.94317-04	-50.1187	3.58817-04	-45.9261	7.70993-04
-44.8807	1.11146-03	-43.8591	1.89066-03	-42.8608	2.87430-03
-41.8851	5.19653-04	-40.9317	4.47867-05	-39.8107	4.65673-05
-35.4813	6.28862-05	-31.6228	9.07781-05	-28.1838	1.38128-04
-25.1189	2.25385-04	-22.3872	3.18846-04	-19.9526	4.62210-04
-17.7828	6.79862-04	-15.8489	9.97096-04	-14.1254	1.45217-03
-12.5892	2.09767-03	-11.2202	3.00481-03	-10.0000	4.26663-03
-8.9125	5.99854-03	-7.9433	8.36928-03	-7.0795	1.15370-02
-6.3096	1.56842-02	-5.6234	2.09515-02	-5.0119	2.74489-02
-4.4668	3.51971-02	-3.9811	4.41285-02	-3.5481	5.41009-02
-3.1623	6.46828-02	-2.8184	7.61973-02	-2.5119	8.77094-02
-2.2387	9.90532-02	-1.9953	1.09777-01	-1.7783	1.19509-01
-1.5849	1.27915-01	-1.4125	1.34879-01	-1.2589	1.40396-01
-1.1220	1.44548-01	-1.0000	1.47422-01	1.0000	5.77161-02
1.1220	6.17112-02	1.2589	7.30011-02	1.4125	9.42352-02
1.5849	1.23725-01	1.7783	1.50059-01	1.9953	1.52903-01
2.2387	1.20176-01	2.5119	6.95979-02	2.8184	3.53093-02
3.1623	2.77033-02	3.5481	3.22767-02	3.9811	3.63032-02
4.4668	3.54127-02	5.0119	3.11055-02	5.6234	2.80231-02
6.3096	2.10503-02	7.0795	1.68476-02	7.9433	1.28849-02
8.9125	9.76388-03	10.0000	7.27230-03	11.2202	5.35541-03
12.5892	3.95431-03	14.1254	2.87591-03	15.8489	1.92672-03
17.7828	1.33033-03	19.9526	1.06159-03	22.3872	6.38254-04
25.1189	6.23557-04	28.1838	4.64818-04	31.6228	3.48548-04
35.4813	2.60458-04	39.8107	1.95026-04	44.6883	1.48351-04
50.1187	1.09968-04	56.2341	8.28075-05	63.0957	6.24370-05
70.7945	4.70954-05	79.4328	3.55291-05	89.1250	2.66142-05
99.9999	2.02379-05	112.2018	1.52822-05	125.8925	1.15360-05
141.2536	6.71321-06	158.4892	6.57679-06	177.8278	4.94919-06
199.5261	3.73514-06	223.8719	2.82102-06		

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(f) $n = 7$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.37655-04	-199.5261	3.93039-05	-177.8278	5.47269-05
-158.4892	7.63091-05	-141.2536	1.07076-04	-125.8925	1.43717-04
-112.2018	2.02193-04	-99.9999	2.82251-04	-89.1250	4.02075-04
-79.4328	5.75086-04	-70.7945	8.29315-04	-63.0957	1.24342-03
-56.2341	1.92104-03	-50.1187	3.05048-03	-45.9261	4.45238-03
-44.8607	4.61961-03	-43.8591	4.10250-03	-42.8608	2.12702-03
-41.8851	4.39685-04	-40.9317	4.53893-04	-39.8107	4.81072-04
-35.4813	6.42149-04	-31.6228	9.07478-04	-28.1838	1.33435-03
-25.1189	2.10070-03	-22.3872	2.78158-03	-19.9526	3.73091-03
-17.7828	4.98153-03	-15.8489	6.52644-03	-14.1254	8.35862-03
-12.5892	1.04363-02	-11.2202	1.27035-02	-10.0000	1.51082-02
-8.9125	1.75890-02	-7.9433	2.00250-02	-7.0795	2.23621-02
-6.3096	2.44861-02	-5.6234	2.62887-02	-5.0119	2.78999-02
-4.4668	2.86601-02	-3.9811	2.91494-02	-3.5481	2.92126-02
-3.1623	2.88682-02	-2.8184	2.82104-02	-2.5119	2.73027-02
-2.2387	2.62152-02	-1.9953	2.50218-02	-1.7783	2.37618-02
-1.5649	2.24806-02	-1.4125	2.12132-02	-1.2589	1.99933-02
-1.1220	1.88132-02	-1.0000	1.77202-02	1.0000	1.90084-02
1.1220	1.88286-02	1.2589	2.45778-02	1.4125	5.96425-02
1.5649	1.35398-01	1.7783	1.97768-01	1.9953	1.61812-01
2.2387	9.42595-02	2.5119	5.99125-02	2.8184	3.94829-02
3.1623	2.68779-02	3.5481	1.90166-02	3.9811	1.58467-02
4.4668	1.21636-02	5.0119	1.00572-02	5.6234	1.28040-02
6.3096	1.53133-02	7.0795	1.72449-02	7.9433	1.82168-02
8.9125	1.81536-02	10.0000	1.73173-02	11.2202	1.60097-02
12.5892	1.45079-02	14.1254	1.27731-02	15.8489	1.04477-02
17.7828	8.45837-03	19.9526	7.45270-03	22.3872	6.42253-03
25.1189	5.19249-03	28.1838	4.13266-03	31.6228	3.24744-03
35.4813	2.52706-03	39.8107	1.94762-03	44.8683	1.49151-03
50.1187	1.13482-03	56.2341	8.65361-04	63.0957	6.54662-04
70.7945	4.93495-04	79.4328	3.74499-04	89.1250	2.82380-04
99.9999	2.11926-04	112.2018	1.60390-04	125.8925	1.20264-04
141.2536	9.21722-05	158.4892	6.99435-05	177.8278	5.22028-05
199.5261	3.91053-05	223.8719	2.93435-05		

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(g) $n = 7$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.27299-05	-199.5261	7.56803-04	-177.8278	5.18948-06
-158.4892	7.16729-06	-141.2536	9.94539-06	-125.8925	1.37994-05
-112.2018	1.92937-05	-99.9999	2.69646-05	-89.1250	3.82697-05
-79.4328	5.47112-05	-70.7945	7.95346-05	-63.0957	1.20979-04
-56.2341	1.95166-04	-50.1187	3.62946-04	-45.9261	8.20254-04
-44.8807	1.23976-03	-43.8591	2.04177-03	-42.8608	2.35749-03
-41.8851	9.62371-04	-40.9317	1.28782-04	-39.8107	4.67187-05
-35.4813	6.31337-05	-31.6228	9.12824-05	-28.1838	1.40589-04
-25.1189	2.27507-04	-22.3872	3.23237-04	-19.9526	4.71936-04
-17.7828	6.97779-04	-15.8489	1.02986-03	-14.1254	1.51147-03
-12.5892	2.20371-03	-11.2202	3.19062-03	-10.0000	4.58536-03
-8.9125	6.53475-03	-7.9433	9.21831-03	-7.0795	1.28208-02
-6.3096	1.75063-02	-5.6234	2.33902-02	-5.0119	3.05026-02
-4.4668	3.87813-02	-3.9811	4.80720-02	-3.5481	5.81505-02
-3.1623	6.86858-02	-2.8184	7.93175-02	-2.5119	8.96144-02
-2.2387	9.91117-02	-1.9953	1.07478-01	-1.7783	1.14464-01
-1.5849	1.19957-01	-1.4125	1.23934-01	-1.2589	1.26512-01
-1.1220	1.27869-01	-1.0000	1.28237-01	1.0000	6.37300-02
1.1220	8.71024-02	1.2589	9.18119-02	1.4125	9.74093-02
1.5849	1.02846-01	1.7783	1.06123-01	1.9953	1.04571-01
2.2387	9.58274-02	2.5119	7.98035-02	2.8184	6.04321-02
3.1623	4.43618-02	3.5481	3.61168-02	3.9811	3.46752-02
4.4668	3.41839-02	5.0119	3.18364-02	5.6234	2.77290-02
6.3096	2.27694-02	7.0795	1.80752-02	7.9433	1.40179-02
8.9125	1.06263-02	10.0000	7.88573-03	11.2202	5.78517-03
12.5892	4.20418-03	14.1254	3.01423-03	15.8489	2.01758-03
17.7828	1.38104-03	19.9526	1.08385-03	22.3872	6.49963-04
25.1189	6.32641-04	28.1838	4.69936-04	31.6228	3.50841-04
35.4813	2.81673-04	39.8107	1.95748-04	44.6683	1.48785-04
50.1187	1.10261-04	56.2341	8.29575-05	63.0957	6.24988-05
70.7945	4.71204-05	79.4328	3.55434-05	89.1250	2.68236-05
99.9999	2.02430-05	112.2018	1.52847-05	125.8925	1.15388-05
141.2536	8.71311-06	158.4892	6.57626-06	177.8278	4.94851-06
199.5261	3.73449-06	223.8719	2.82039-06		

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Continued

(h) $n = 7$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.66232-04	-199.5261	3.97740-05	-177.8278	5.54635-05
-158.4892	7.75948-05	-141.2536	1.09356-04	-125.8925	1.51277-04
-112.2018	2.15238-04	-99.9999	3.05615-04	-89.1250	4.42839-04
-79.4328	6.47541-04	-70.7945	9.60798-04	-63.0957	1.48531-03
-56.2341	2.37061-03	-50.1187	3.84325-03	-44.6683	4.47581-03
-45.9261	4.90207-03	-44.8807	4.61754-03	-43.8591	3.55583-03
-42.8608	1.65874-03	-41.8851	5.58377-04	-40.9317	5.28624-04
-39.8107	5.62449-04	-35.4813	7.63839-04	-31.6228	1.09841-03
-28.1838	1.63585-03	-25.1189	2.54574-03	-22.3872	3.39646-03
-19.9526	4.49810-03	-17.7828	5.86703-03	-15.8489	7.48370-03
-14.1254	9.34175-03	-12.5892	1.14013-02	-11.2202	1.36009-02
-10.0000	1.58522-02	-8.9125	1.80234-02	-7.9433	1.99868-02
-7.0795	2.15993-02	-6.3096	2.27633-02	-5.6234	2.34324-02
-5.0119	2.36093-02	-4.4668	2.33360-02	-3.9811	2.26940-02
-3.5481	2.17755-02	-3.1623	2.06686-02	-2.8184	1.94564-02
-2.5119	1.82028-02	-2.2387	1.69562-02	-1.9953	1.57509-02
-1.7783	1.46076-02	-1.5849	1.35370-02	-1.4125	1.25510-02
-1.2589	1.16492-02	-1.1220	1.08288-02	-1.0000	1.00868-02
1.0000	3.21950-02	1.1220	4.25758-02	1.2589	5.87897-02
1.4125	8.11865-02	1.5849	1.05797-01	1.7783	1.22474-01
1.9953	1.19627-01	2.2387	9.65594-02	2.5119	6.76707-02
2.8184	4.62871-02	3.1623	3.28475-02	3.5481	2.27873-02
3.9811	1.73598-02	4.4668	1.08260-02	5.0119	6.54741-03
5.6234	8.88607-03	6.3096	1.13274-02	7.0795	1.35892-02
7.9433	1.53185-02	8.9125	1.63633-02	10.0000	1.66367-02
11.2202	1.62121-02	12.5892	1.52872-02	14.1254	1.39014-02
15.8489	1.18128-02	17.7828	9.84638-03	19.9526	8.76450-03
22.3872	7.66510-03	25.1189	6.30359-03	28.1838	5.06760-03
31.6228	3.99455-03	35.4813	3.09591-03	39.8107	2.36292-03
44.6683	1.78437-03	50.1187	1.33598-03	56.2341	9.98393-04
63.0957	7.42410-04	70.7945	5.51191-04	79.4328	4.10337-04
89.1250	3.05231-04	99.9999	2.26551-04	112.2018	1.69738-04
125.8925	1.25936-04	141.2536	9.48132-05	158.4892	7.10978-05
177.8278	5.29113-05	199.5261	3.95428-05	223.8719	2.96153-05

TABLE B-IV. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3705.00 Å - Concluded

(i) $n = 7$; $T = 30\ 000\ \text{K}$; $N_e = 10^{15}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.82937-04	-199.5261	9.61712-05	-177.8278	5.57662-05
-158.4892	7.81423-05	-141.2536	1.10348-04	-125.8925	1.54880-04
-112.2018	2.21417-04	-99.9999	3.17512-04	-89.1250	4.64773-04
-79.4328	6.88887-04	-70.7945	1.04146-03	-63.0957	1.64444-03
-56.2341	2.67270-03	-50.1187	4.29042-03	-45.9261	4.91124-03
-44.8807	4.32922-03	-43.8591	3.11665-03	-42.8608	1.60666-03
-41.8851	7.34879-04	-40.9317	5.85053-04	-39.8107	6.14562-04
-35.4813	8.43521-04	-31.6228	1.22516-03	-28.1838	1.84754-03
-25.1189	2.82815-03	-22.3872	3.75681-03	-19.9526	4.91172-03
-17.7828	6.29717-03	-15.8489	7.90661-03	-14.1254	9.74818-03
-12.5892	1.17921-02	-11.2202	1.39522-02	-10.0000	1.60879-02
-8.9125	1.80195-02	-7.9433	1.95764-02	-7.0795	2.06431-02
-6.3096	2.11823-02	-5.6234	2.11834-02	-5.0119	2.07221-02
-4.4668	1.99389-02	-3.9811	1.89197-02	-3.5481	1.77616-02
-3.1623	1.65408-02	-2.8184	1.53183-02	-2.5119	1.41332-02
-2.2387	1.30119-02	-1.9953	1.19679-02	-1.7783	1.10220-02
-1.5849	1.01748-02	-1.4125	9.43002-03	-1.2589	8.79323-03
-1.1220	8.26478-03	-1.0000	7.84251-03	1.0000	4.61849-02
1.1220	5.31837-02	1.2589	6.09564-02	1.4125	6.90670-02
1.5849	7.64954-02	1.7783	8.16968-02	1.9953	8.27785-02
2.2387	7.82565-02	2.5119	6.81106-02	2.8184	5.44075-02
3.1623	4.06049-02	3.5481	2.80934-02	3.9811	2.07257-02
4.4668	1.16876-02	5.0119	5.50822-03	5.6234	7.33384-03
6.3096	9.34092-03	7.0795	1.13718-02	7.9433	1.32287-02
8.9125	1.46856-02	10.0000	1.55582-02	11.2202	1.57519-02
12.5892	1.53097-02	14.1254	1.42389-02	15.8489	1.24327-02
17.7828	1.05819-02	19.9526	9.43386-03	22.3872	8.31526-03
25.1189	6.93286-03	28.1838	5.62847-03	31.6228	4.46404-03
35.4813	3.46392-03	39.8107	2.63556-03	44.8683	1.97543-03
50.1187	1.46480-03	56.2341	1.08053-03	63.0957	7.94122-04
70.7945	5.83615-04	79.4328	4.29763-04	89.1250	3.16866-04
99.9999	2.33790-04	112.2018	1.73326-04	125.8925	1.28572-04
141.2536	9.59851-05	158.4892	7.15868-05	177.8278	5.32027-05
199.5261	3.97170-05	223.8719	2.97191-05		

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

$$\text{WAVELENGTH} = 364.00 \text{ \AA}$$

$$(a) \ n = 8; \ T = 3000 \text{ K}; \ N_e = 10^{13} \text{ cm}^{-3}$$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.61026-07	-199.5261	1.02667-06	-177.8278	1.77299-06
-181.8755	3.37955-06	-158.1908	4.17049-06	-154.5899	5.30388-06
-151.0710	7.19724-06	-147.6322	1.03049-05	-144.2717	1.66252-05
-140.9877	3.21687-05	-137.7784	9.46648-05	-134.6422	1.24605-02
-131.5774	1.58321-06	-128.5823	1.68766-06	-125.6554	1.79925-06
-112.2018	2.50807-06	-99.9999	3.54204-06	-89.1250	4.90629-06
-79.4328	6.81979-06	-70.7945	9.49904-06	-63.0957	1.33754-05
-58.2341	1.88028-05	-50.1187	2.71703-05	-44.6683	3.99345-05
-39.8107	6.02852-05	-35.4813	1.00951-04	-31.6228	2.15771-04
-31.0758	2.56748-04	-30.3684	3.48227-04	-29.6772	6.14109-04
-29.0018	8.61337-04	-28.3415	1.42467-03	-27.6964	2.85198-05
-27.0659	1.99343-05	-26.4488	2.09272-05	-25.8477	2.20035-05
-25.2594	2.31787-05	-24.6844	2.44928-05	-24.1225	2.60723-05
-23.5734	2.78458-05	-23.0368	2.98014-05	-22.5124	3.19518-05
-19.9526	4.71352-05	-17.7828	6.99475-05	-15.8489	1.04359-04
-14.1254	1.54618-04	-12.5892	2.26596-04	-11.2202	3.28283-04
-10.0000	4.70195-04	-8.9125	6.68040-04	-7.9433	9.41674-04
-7.0795	1.31938-03	-6.3098	1.83063-03	-5.6234	2.54592-03
-5.0119	3.55678-03	-4.4668	4.99361-03	-3.9811	7.03517-03
-3.5481	9.92422-03	-3.1623	1.39098-02	-2.8184	1.95083-02
-2.5119	2.78274-02	-2.2387	3.95275-02	-1.9953	5.68664-02
-1.7783	8.13102-02	-1.5849	1.12608-01	-1.4125	1.45602-01
-1.2589	1.72972-01	-1.1220	1.94102-01	-1.0000	2.15797-01
1.0000	1.50998-01	1.1220	1.28179-01	1.2589	9.61970-02
1.4125	7.04570-02	1.5849	6.81488-02	1.7783	7.49970-02
1.9953	6.24825-02	2.2387	4.04797-02	2.5119	2.71172-02
2.8184	1.93578-02	3.1623	1.48701-02	3.5481	1.10794-02
3.9811	8.16454-03	4.4668	5.98988-03	5.0119	4.39265-03
5.6234	3.24317-03	6.3098	2.41766-03	7.0795	1.62324-03
7.9433	1.39233-03	8.9125	1.07741-03	10.0000	8.38735-04
11.2202	6.44533-04	12.5892	4.91099-04	14.1254	3.71106-04
15.8489	2.79562-04	17.7828	2.10471-04	19.9526	1.58627-04
22.3872	1.19889-04	25.1189	9.03894-05	28.1838	6.83173-05
31.6228	5.16809-05	35.4813	3.90834-05	39.8107	2.95720-05
44.6683	2.23796-05	50.1187	1.69362-05	58.2341	1.28184-05
63.0957	9.67718-06	70.7945	7.29845-06	79.4328	5.50448-06
89.1250	4.06755-06	99.9999	3.07598-06	112.2018	2.32468-06
125.8925	1.75687-06	141.2536	1.32701-06	158.4892	1.00239-06
177.8278	7.56687-07	199.5261	5.71058-07	223.8719	4.22971-07

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(b) $n = 8$; $T = 10\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.61090-07	-199.5261	1.02617-06	-177.8278	1.77258-06
-161.8755	3.38133-06	-158.1908	4.17323-06	-154.5899	5.30977-06
-151.0710	7.20619-06	-147.6322	1.03266-05	-144.2717	1.66780-05
-140.9877	3.23809-05	-137.7784	9.69944-05	-134.6422	1.77527-02
-131.5774	1.65132-06	-128.5823	1.68795-06	-125.6554	1.79959-06
-158.4892	4.09775-06	-141.2536	3.03359-05	-125.8925	1.79012-06
-112.2018	2.50859-06	-99.9999	3.54210-06	-89.1250	4.90765-06
-79.4328	6.82204-06	-70.7945	9.50292-06	-63.0957	1.33820-05
-56.2341	1.88142-05	-50.1187	2.71928-05	-44.6683	3.99846-05
-39.8107	6.04910-05	-35.4813	1.01478-04	-31.6228	2.18841-04
-31.0758	2.62703-04	-30.3684	3.72444-04	-29.6772	6.10140-04
-29.0016	1.05459-03	-28.3415	1.11599-03	-27.6964	2.10477-04
-27.0659	2.41448-05	-26.4498	2.09701-05	-25.8477	2.20396-05
-25.2594	2.32233-05	-24.6844	2.45666-05	-24.1225	2.61376-05
-23.5734	2.79143-05	-23.0368	2.98783-05	-22.5124	3.20387-05
-19.9526	4.73075-05	-17.7828	7.02601-05	-15.8489	1.04913-04
-14.1254	1.55612-04	-12.5892	2.28346-04	-11.2202	3.31333-04
-10.0000	4.75621-04	-8.9125	6.77471-04	-7.9433	9.58612-04
-7.0795	1.34983-03	-6.3096	1.89420-03	-5.6234	2.66410-03
-5.0119	3.76906-03	-4.4668	5.37404-03	-3.9811	7.71433-03
-3.5481	1.11103-02	-3.1623	1.60630-02	-2.8184	2.34300-02
-2.5119	3.44590-02	-2.2387	5.04282-02	-1.9953	7.17782-02
-1.7783	9.76376-02	-1.5849	1.26400-01	-1.4125	1.56900-01
-1.2589	1.88823-01	-1.1220	2.21938-01	-1.0000	2.55531-01
1.0000	1.40862-01	1.1220	1.26511-01	1.2589	1.11338-01
1.4125	9.64712-02	1.5849	8.34050-02	1.7783	7.22544-02
1.9953	6.09926-02	2.2387	4.77578-02	2.5119	3.48559-02
2.8184	2.37673-02	3.1623	1.70212-02	3.5481	1.24692-02
3.9811	9.11215-03	4.4668	6.67742-03	5.0119	4.83924-03
5.6234	3.52700-03	6.3096	2.59486-03	7.0795	1.92564-03
7.9433	1.44293-03	8.9125	1.09049-03	10.0000	8.29207-04
11.2202	6.30488-04	12.5892	4.79865-04	14.1254	3.64717-04
15.8489	2.76769-04	17.7828	2.09560-04	19.9526	1.58489-04
22.3872	1.19767-04	25.1189	9.05040-05	28.1836	6.64053-05
31.6228	5.17226-05	35.4813	3.91223-05	39.8107	2.95974-05
44.6683	2.23954-05	50.1187	1.69485-05	56.2341	1.28226-05
63.0957	9.88135-06	70.7945	7.30096-06	79.4328	5.50623-06
89.1250	4.06868-06	99.9999	3.07662-06	112.2018	2.32511-06
125.8925	1.75716-06	141.2536	1.32719-06	158.4892	1.00251-06
177.8278	7.56771-07	199.5261	5.70950-07	223.8719	4.23006-07

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(c) $n = 8$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.60682-07	-199.5281	1.02459-06	-177.8278	1.76987-06
-181.8755	3.38153-06	-158.1908	4.17576-06	-154.5899	5.31892-06
-151.0710	7.22035-06	-147.6322	1.03703-05	-144.2717	1.67978-05
-140.9877	3.29278-05	-137.7784	1.04760-04	-134.6422	2.53510-02
-131.5774	3.73600-04	-128.5823	1.68726-06	-125.6554	1.78900-06
-112.2018	2.50772-06	-99.9999	3.53577-06	-89.1250	4.90635-06
-79.4328	6.82011-06	-70.7945	9.50222-06	-63.0957	1.33796-05
-56.2341	1.88200-05	-50.1187	2.72053-05	-44.6683	3.99938-05
-39.8107	6.08143-05	-35.4813	1.02351-04	-31.6228	2.28307-04
-31.0758	2.83876-04	-30.3684	4.23280-04	-29.6772	6.73973-04
-29.0016	9.31484-04	-28.3415	8.42582-04	-27.6964	4.28317-04
-27.0659	1.21683-04	-26.4498	3.41464-05	-25.8477	2.21516-05
-25.2594	2.33148-05	-24.6844	2.48929-05	-24.1225	2.62678-05
-23.5734	2.80458-05	-23.0368	3.00228-05	-22.5124	3.22027-05
-19.9526	4.76405-05	-17.7828	7.08838-05	-15.8489	1.08022-04
-14.1254	1.57576-04	-12.5892	2.31840-04	-11.2202	3.37450-04
-10.0000	4.86551-04	-8.9125	6.96768-04	-7.9433	9.93200-04
-7.0795	1.41294-03	-6.3098	2.01371-03	-5.6234	2.89252-03
-5.0119	4.20796-03	-4.4668	6.21586-03	-3.9811	9.33969-03
-3.5481	1.43100-02	-3.1623	2.20789-02	-2.8184	3.37912-02
-2.5119	5.02527-02	-2.2387	7.13027-02	-1.9953	9.63473-02
-1.7783	1.24105-01	-1.5849	1.52981-01	-1.4125	1.81288-01
-1.2589	2.07683-01	-1.1220	2.31172-01	-1.0000	2.51226-01
1.0000	1.59608-01	1.1220	1.44233-01	1.2589	1.28527-01
1.4125	1.12777-01	1.5849	9.72808-02	1.7783	8.22586-02
1.8953	6.78951-02	2.2387	5.43271-02	2.5119	4.18491-02
2.8184	3.09649-02	3.1623	2.20176-02	3.5481	1.53581-02
3.9811	1.08033-02	4.4668	7.70368-03	5.0119	5.46267-03
5.6234	3.88866-03	6.3098	2.79379-03	7.0795	2.03111-03
7.9433	1.49335-03	8.9125	1.10934-03	10.0000	8.30289-04
11.2202	6.24419-04	12.5892	4.71393-04	14.1254	3.56834-04
15.8489	2.70604-04	17.7828	2.05331-04	19.9526	1.55851-04
22.3872	1.18242-04	25.1189	8.96819-05	28.1838	6.79787-05
31.6228	5.15120-05	35.4813	3.90179-05	39.8107	2.85476-05
44.6683	2.23701-05	50.1187	1.69344-05	56.2341	1.28151-05
63.0957	9.92480-06	70.7945	7.29786-06	79.4328	5.60767-06
89.1250	4.06709-06	99.9999	3.07531-06	112.2018	2.32410-06
125.8925	1.75837-06	141.2536	1.32658-06	158.4892	1.00203-06
177.8278	7.58400-07	199.5281	5.70185-07	223.8719	4.22791-07

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(d) $n = 8$; $T = 10\,000\text{ K}$; $N_e = 5 \times 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.32428-06	-199.5261	5.17044-06	-177.8278	8.96586-06
-161.8755	1.72234-05	-158.1908	2.13174-05	-154.5899	2.72216-05
-151.0710	3.71269-05	-147.6322	5.35685-05	-144.2717	8.74180-05
-140.9877	1.72775-04	-137.7784	5.37929-04	-134.6422	2.45239-02
-131.5774	8.00874-06	-128.5823	8.51091-06	-125.6554	9.07666-06
-112.2018	1.26715-05	-99.9999	1.79252-05	-89.1250	2.48984-05
-79.4328	3.47184-05	-70.7945	4.85493-05	-63.0957	6.87032-05
-58.2341	9.72007-05	-50.1187	1.41684-04	-44.6683	2.10813-04
-39.8107	3.24735-04	-35.4813	5.58805-04	-31.6228	1.27956-03
-31.0758	1.58171-03	-30.3684	2.24040-03	-29.6772	3.26530-03
-29.0016	4.37237-03	-28.3415	2.64608-03	-27.6964	3.77387-04
-27.0659	1.09199-04	-28.4498	1.10334-04	-25.8477	1.16230-04
-25.2594	1.22712-04	-24.6844	1.30084-04	-24.1225	1.38725-04
-23.5734	1.48523-04	-23.0388	1.59393-04	-22.5124	1.71395-04
-19.9526	2.55953-04	-17.7828	3.84277-04	-15.8489	5.83372-04
-14.1254	8.81009-04	-12.5892	1.31736-03	-11.2202	1.94498-03
-10.0000	2.83815-03	-8.9125	4.10911-03	-7.9433	5.88726-03
-7.0795	8.34336-03	-6.3096	1.16656-02	-5.6234	1.60734-02
-5.0119	2.17842-02	-4.4688	2.89967-02	-3.9811	3.77738-02
-3.5481	4.78620-02	-3.1623	5.88443-02	-2.8184	7.04602-02
-2.5119	8.25820-02	-2.2387	9.48585-02	-1.9953	1.06827-01
-1.7783	1.18024-01	-1.5849	1.28035-01	-1.4125	1.36779-01
-1.2589	1.44245-01	-1.1220	1.50397-01	-1.0000	1.55332-01
1.0000	9.33861-02	1.1220	8.12342-02	1.2589	7.05020-02
1.4125	6.46674-02	1.5849	6.51639-02	1.7783	7.32636-02
1.9953	8.37286-02	2.2387	8.85453-02	2.5119	8.28811-02
2.8184	6.99947-02	3.1623	5.71035-02	3.5481	4.76506-02
3.9811	4.05859-02	4.4688	3.42467-02	5.0119	2.81590-02
5.6234	2.25183-02	6.3096	1.75593-02	7.0795	1.34087-02
7.9433	1.00686-02	8.9125	7.46122-03	10.0000	5.48940-03
11.2202	4.02509-03	12.5892	2.95259-03	14.1254	2.17154-03
15.8489	1.60233-03	17.7828	1.18889-03	19.9526	8.79872-04
22.3872	6.54839-04	25.1189	4.89701-04	28.1838	3.68846-04
31.6228	2.74456-04	35.4813	2.05749-04	39.8107	1.54483-04
44.6683	1.16143-04	50.1187	8.74053-05	56.2341	6.58281-05
63.0957	4.96108-05	70.7945	3.74007-05	79.4328	2.82117-05
89.1250	2.11556-05	99.9999	1.59593-05	112.2018	1.17446-05
125.8925	8.88205-06	141.2536	6.88478-06	158.4892	5.04379-06
177.8278	3.80381-06	199.5261	2.86750-06	223.8719	2.12314-06

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(e) $n = 8$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.68768-06	-199.5261	1.04295-05	-177.8278	1.81515-05
-161.8755	3.50681-05	-158.1908	4.35129-05	-154.5899	5.57236-05
-151.0710	7.63255-05	-147.6322	1.10682-04	-144.2717	1.81959-04
-140.9877	3.49188-04	-137.7784	1.08738-03	-134.6422	2.00062-02
-131.5774	1.60938-05	-128.5823	1.71660-05	-125.6554	1.83128-05
-112.2018	2.56080-05	-99.9999	3.62999-05	-89.1250	5.05346-05
-79.4328	7.08765-05	-70.7945	9.91915-05	-63.0957	1.41002-04
-56.2341	2.00602-04	-50.1187	2.94509-04	-44.6683	4.29470-04
-39.8107	6.61455-04	-35.4813	1.13844-03	-31.6228	2.51901-03
-31.0758	2.98920-03	-30.3684	3.90683-03	-29.6772	5.02493-03
-29.0016	5.98169-03	-28.3415	2.03755-03	-27.6964	2.08118-04
-27.0659	2.14403-04	-26.4498	2.25642-04	-25.8477	2.37763-04
-25.2594	2.51027-04	-24.6844	2.65983-04	-24.1225	2.83781-04
-23.5734	3.03929-04	-23.0368	3.26260-04	-22.5124	3.50786-04
-19.9526	5.25863-04	-17.7828	7.83416-04	-15.8489	1.18312-03
-14.1254	1.77080-03	-12.5892	2.61129-03	-11.2202	3.78572-03
-10.0000	5.38420-03	-8.9125	7.51847-03	-7.9433	1.02831-02
-7.0795	1.37836-02	-6.3096	1.80721-02	-5.6234	2.31956-02
-5.0119	2.91323-02	-4.4668	3.59084-02	-3.9811	4.34818-02
-3.5481	5.15572-02	-3.1623	5.94598-02	-2.8184	6.70890-02
-2.5119	7.44770-02	-2.2387	8.16338-02	-1.9953	8.87330-02
-1.7783	9.56502-02	-1.5849	1.01742-01	-1.4125	1.06791-01
-1.2589	1.11020-01	-1.1220	1.14682-01	-1.0000	1.17948-01
1.0000	5.57718-02	1.1220	3.91322-02	1.2589	2.61910-02
1.4125	2.14752-02	1.5849	2.92322-02	1.7783	4.98772-02
1.9953	7.40333-02	2.2387	8.66481-02	2.5119	8.25747-02
2.8184	6.90407-02	3.1623	5.47295-02	3.5481	4.35592-02
3.9811	3.56667-02	4.4668	3.00613-02	5.0119	2.56882-02
5.6234	2.20446-02	6.3096	1.88690-02	7.0795	1.60812-02
7.9433	1.35545-02	8.9125	1.12652-02	10.0000	9.16663-03
11.2202	7.27159-03	12.5892	5.63150-03	14.1254	4.27407-03
15.8489	3.21025-03	17.7828	2.39963-03	19.9526	1.79086-03
22.3872	1.34043-03	25.1189	1.00262-03	28.1838	7.53310-04
31.6228	5.62611-04	35.4813	4.22194-04	39.8107	3.19227-04
44.6683	2.40455-04	50.1187	1.80109-04	56.2341	1.35092-04
63.0957	1.01235-04	70.7945	7.58572-05	79.4328	5.68925-05
89.1250	4.18609-05	99.9999	3.15215-05	112.2018	2.37355-05
125.8925	1.78822-05	141.2536	1.34709-05	158.4892	1.01524-05
177.8278	7.64909-06	199.5261	5.76311-06	223.8719	4.26311-06

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(f) $n = 8$; $T = 10\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.69586-06	-199.5261	1.04404-05	-177.8278	1.81906-05
-161.8755	3.52283-05	-158.1908	4.37491-05	-154.5899	5.61063-05
-151.0710	7.69672-05	-147.6322	1.11941-04	-144.2717	1.84864-04
-140.9877	3.66536-04	-137.7784	1.17334-03	-134.6422	2.94100-02
-131.5774	1.61345-05	-128.5823	1.71969-05	-125.6554	1.83470-05
-112.2018	2.56658-05	-99.9999	3.63901-05	-89.1250	5.07029-05
-79.4328	7.09696-05	-70.7945	9.97108-05	-63.0957	1.41945-04
-58.2341	2.02350-04	-50.1187	2.97962-04	-44.6683	4.44291-04
-39.8107	6.93242-04	-35.4813	1.22452-03	-31.6228	2.88582-03
-31.0758	3.48335-03	-30.3684	4.57760-03	-29.6772	5.72674-03
-29.0016	5.72466-03	-28.3415	2.47753-03	-27.6964	4.00032-04
-27.0659	2.22758-04	-26.4498	2.32026-04	-25.8477	2.44800-04
-25.2594	2.58864-04	-24.6844	2.74912-04	-24.1225	2.93665-04
-23.5734	3.14998-04	-23.0368	3.38724-04	-22.5124	3.64942-04
-19.9526	5.53598-04	-17.7828	8.41752-04	-15.8489	1.28996-03
-14.1254	1.98064-03	-12.5892	2.93694-03	-11.2202	4.31841-03
-10.0000	6.21508-03	-8.9125	8.74330-03	-7.9433	1.19900-02
-7.0795	1.60178-02	-6.3096	2.08195-02	-5.6234	2.63528-02
-5.0119	3.25328-02	-4.4668	3.92690-02	-3.9811	4.63897-02
-3.5481	5.34931-02	-3.1623	6.01957-02	-2.8184	6.63930-02
-2.5119	7.21470-02	-2.2387	7.76274-02	-1.9953	8.28128-02
-1.7783	8.76494-02	-1.5849	9.20473-02	-1.4125	9.59827-02
-1.2589	9.94864-02	-1.1220	1.02583-01	-1.0000	1.05291-01
1.0000	5.24597-02	1.1220	4.41354-02	1.2589	3.77866-02
1.4125	3.51965-02	1.5849	3.80442-02	1.7783	4.67858-02
1.9953	5.94328-02	2.2387	7.10786-02	2.5119	7.60223-02
2.8184	7.16851-02	3.1623	6.08586-02	3.5481	4.88070-02
3.9811	3.91585-02	4.4668	3.29988-02	5.0119	2.83456-02
5.6234	2.46966-02	6.3096	2.14776-02	7.0795	1.84493-02
7.9433	1.55578-02	8.9125	1.28200-02	10.0000	1.03074-02
11.2202	8.09215-03	12.5892	6.22357-03	14.1254	4.70469-03
15.8489	3.51594-03	17.7828	2.60814-03	19.9526	1.92874-03
22.3872	1.42672-03	25.1189	1.05602-03	28.1838	7.84056-04
31.6228	5.81852-04	35.4813	4.33546-04	39.8107	3.24525-04
44.6683	2.42895-04	50.1187	1.81597-04	58.2341	1.36000-04
63.0957	1.01797-04	70.7945	7.62026-05	79.4328	5.71091-05
89.1250	4.19958-05	99.9999	3.16051-05	112.2018	2.37884-05
125.8925	1.79157-05	141.2538	1.34921-05	158.4892	1.01660-05
177.8278	7.65776-06	199.5261	5.76705-06	223.8719	4.26667-06

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(g) $n = 8$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.69466-06	-199.5261	1.04306-05	-177.8278	1.81811-05
-161.8755	3.52946-05	-158.1908	4.38715-05	-154.5899	5.63546-05
-151.0710	7.73830-05	-147.6322	1.12931-04	-144.2717	1.87417-04
-140.9877	3.79855-04	-137.7784	1.32675-03	-134.6422	2.89383-02
-131.5774	1.32294-04	-128.5823	1.72014-05	-125.6554	1.83538-05
-112.2018	2.56789-05	-99.9999	3.63647-05	-89.1250	5.07568-05
-79.4328	7.10694-05	-70.7945	9.99203-05	-63.0957	1.42323-04
-56.2341	2.03177-04	-50.1187	2.99643-04	-44.6683	4.50263-04
-39.8107	7.10923-04	-35.4813	1.27836-03	-31.6228	3.19209-03
-31.0758	3.87334-03	-30.3684	4.92117-03	-29.6772	5.59374-03
-29.0016	4.88388-03	-28.3415	2.82814-03	-27.6964	1.06141-03
-27.0659	3.73875-04	-26.4498	2.48427-04	-25.8477	2.48571-04
-25.2594	2.63375-04	-24.6844	2.80235-04	-24.1225	2.99575-04
-23.5734	3.21535-04	-23.0368	3.46141-04	-22.5124	3.73414-04
-19.9526	5.71078-04	-17.7828	8.78801-04	-15.8489	1.36112-03
-14.1254	2.09217-03	-12.5892	3.16859-03	-11.2202	4.70314-03
-10.0000	6.81462-03	-8.9125	9.61083-03	-7.9433	1.31620-02
-7.0795	1.74911-02	-6.3096	2.25581-02	-5.6234	2.82751-02
-5.0119	3.45141-02	-4.4668	4.10783-02	-3.9811	4.78705-02
-3.5481	5.40232-02	-3.1623	5.99602-02	-2.8184	6.54702-02
-2.5119	7.06102-02	-2.2387	7.54152-02	-1.9953	7.98965-02
-1.7783	8.40486-02	-1.5849	8.78240-02	-1.4125	9.11988-02
-1.2589	9.41236-02	-1.1220	9.65908-02	-1.0000	9.86108-02
1.0000	6.09551-02	1.1220	5.72025-02	1.2589	5.40317-02
1.4125	5.19329-02	1.5849	5.13882-02	1.7783	5.27725-02
1.9953	5.58971-02	2.2387	5.99030-02	2.5119	6.31021-02
2.8184	6.34529-02	3.1623	5.97168-02	3.5481	5.24379-02
3.9811	4.40493-02	4.4668	3.69760-02	5.0119	3.10084-02
5.6234	2.66075-02	6.3096	2.30126-02	7.0795	1.97300-02
7.9433	1.66035-02	8.9125	1.38478-02	10.0000	1.09363-02
11.2202	8.54494-03	12.5892	6.52857-03	14.1254	4.89996-03
15.8489	3.63488-03	17.7828	2.60020-03	19.9526	1.97274-03
22.3872	1.45333-03	25.1189	1.07239-03	28.1638	7.93690-04
31.6228	5.88082-04	35.4813	4.37229-04	39.8107	3.26211-04
44.6683	2.43705-04	50.1187	1.82116-04	56.2341	1.36310-04
63.0957	1.02296-04	70.7945	7.63138-05	79.4328	5.72369-05
89.1250	4.20328-05	99.9999	3.16246-05	112.2018	2.37963-05
125.8925	1.79202-05	141.2538	1.34937-05	158.4892	1.01660-05
177.8278	7.65706-06	199.5261	5.78128-06	223.8719	4.26569-06

TABLE B-V.- CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(h) $n = 8$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	7.03759-05	-199.5261	1.10425-04	-177.8278	1.90829-04
-161.8755	3.65420-04	-158.1908	4.50315-04	-154.5899	5.69706-04
-151.0710	7.62881-04	-147.6322	1.06447-03	-144.2717	1.62776-03
-140.9877	2.79585-03	-137.7784	5.83507-03	-134.6422	1.25175-02
-131.5774	1.69871-04	-128.5823	1.81485-04	-125.6554	1.93045-04
-112.2018	2.69900-04	-99.9999	3.81721-04	-89.1250	5.29426-04
-79.4328	7.37765-04	-70.7945	1.02624-03	-63.0957	1.43121-03
-56.2341	1.96994-03	-50.1187	2.73288-03	-44.6883	3.73048-03
-39.8107	4.92489-03	-35.4813	6.24305-03	-31.6228	6.28898-03
-31.0758	5.91723-03	-30.3684	5.16285-03	-29.6772	4.07888-03
-29.0016	2.81129-03	-28.3415	1.85963-03	-27.6964	1.81472-03
-27.0659	1.88375-03	-26.4498	1.95785-03	-25.8477	2.03640-03
-25.2594	2.11931-03	-24.6844	2.21043-03	-24.1225	2.31843-03
-23.5734	2.43593-03	-23.0368	2.56112-03	-22.5124	2.69444-03
-19.9526	3.52653-03	-17.7828	4.55171-03	-15.8489	5.80116-03
-14.1254	7.24356-03	-12.5892	8.79656-03	-11.2202	1.03872-02
-10.0000	1.18982-02	-8.9125	1.32769-02	-7.9433	1.44674-02
-7.0795	1.54840-02	-6.3096	1.63418-02	-5.6234	1.70939-02
-5.0119	1.79473-02	-4.4868	1.90733-02	-3.9811	2.13711-02
-3.5481	2.48903-02	-3.1623	2.83032-02	-2.8184	3.19027-02
-2.5119	3.44271-02	-2.2387	3.61734-02	-1.9953	3.98248-02
-1.7783	4.44933-02	-1.5849	4.71090-02	-1.4125	4.61942-02
-1.2589	4.40910-02	-1.1220	4.19469-02	-1.0000	3.89361-02
1.0000	2.03431-03	1.1220	1.53024-03	1.2589	1.31477-03
1.4125	1.44803-03	1.5849	2.04130-03	1.7783	3.30285-03
1.9953	5.42091-03	2.2387	8.43012-03	2.5119	1.21538-02
2.8184	1.62794-02	3.1623	2.03208-02	3.5481	2.37407-02
3.9811	2.60630-02	4.4868	2.70350-02	5.0119	2.66867-02
5.6234	2.52852-02	6.3096	2.33236-02	7.0795	2.12502-02
7.9433	1.94214-02	8.9125	1.79765-02	10.0000	1.68655-02
11.2202	1.58585-02	12.5892	1.47835-02	14.1254	1.35495-02
15.8489	1.22123-02	17.7828	1.08197-02	19.9526	9.43231-03
22.3872	8.08502-03	25.1189	6.81341-03	28.1838	5.64522-03
31.6228	4.60554-03	35.4813	3.70099-03	39.8107	2.93118-03
44.6883	2.29452-03	50.1187	1.77854-03	56.2341	1.36675-03
63.0957	1.04253-03	70.7945	7.89271-04	79.4328	5.95012-04
89.1250	4.38905-04	99.9999	3.32104-04	112.2018	2.49269-04
125.6925	1.68846-04	141.2536	1.41998-04	158.4892	1.06847-04
177.8278	7.99338-05	199.5261	6.17437-05	223.8719	4.53687-05

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Continued

(i) $n = 8$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	7.36153-05	-199.5261	1.17591-04	-177.8278	2.11519-04
-161.8755	4.25489-04	-158.1908	5.32428-04	-154.5899	6.65364-04
-151.0710	9.34598-04	-147.6322	1.32370-03	-144.2717	2.03288-03
-140.9877	3.39056-03	-137.7784	6.20569-03	-134.6422	8.19412-03
-131.5774	1.82147-04	-128.5823	1.95116-04	-125.6554	2.08421-04
-112.2018	2.95933-04	-99.9999	4.25804-04	-89.1250	6.03418-04
-79.4328	8.58277-04	-70.7945	1.21899-03	-63.0957	1.73583-03
-56.2341	2.42708-03	-50.1187	3.38936-03	-44.6683	4.57373-03
-39.8107	5.78245-03	-35.4813	6.64526-03	-31.6228	5.63185-03
-31.0758	5.18041-03	-30.3684	4.40091-03	-29.6772	3.53986-03
-29.0016	2.72977-03	-28.3415	2.25283-03	-27.6964	2.19797-03
-27.0659	2.27138-03	-26.4498	2.35646-03	-25.8477	2.44649-03
-25.2594	2.54200-03	-24.6844	2.64694-03	-24.1225	2.76624-03
-23.5734	2.89603-03	-23.0368	3.03327-03	-22.5124	3.17720-03
-19.9526	4.03944-03	-17.7828	5.04040-03	-15.8489	6.20288-03
-14.1254	7.48550-03	-12.5892	8.77688-03	-11.2202	1.00035-02
-10.0000	1.10824-02	-8.9125	1.20194-02	-7.9433	1.28321-02
-7.0795	1.35740-02	-6.3096	1.42818-02	-5.6234	1.50014-02
-5.0119	1.59187-02	-4.4668	1.73810-02	-3.9811	2.00120-02
-3.5481	2.38240-02	-3.1623	2.72734-02	-2.8184	3.02499-02
-2.5119	3.24291-02	-2.2387	3.43541-02	-1.9953	3.61895-02
-1.7783	3.73342-02	-1.5849	3.72587-02	-1.4125	3.60169-02
-1.2589	3.40481-02	-1.1220	3.17825-02	-1.0000	2.95203-02
1.0000	1.81568-03	1.1220	1.49844-03	1.2589	1.33579-03
1.4125	1.38371-03	1.5849	1.70520-03	1.7783	2.37835-03
1.9953	3.49015-03	2.2387	5.11271-03	2.5119	7.28007-03
2.8184	9.95032-03	3.1623	1.29867-02	3.5481	1.61401-02
3.9811	1.90745-02	4.4668	2.14537-02	5.0119	2.28934-02
5.6234	2.32711-02	6.3096	2.26622-02	7.0795	2.13306-02
7.9433	1.96415-02	8.9125	1.79219-02	10.0000	1.63943-02
11.2202	1.51291-02	12.5892	1.38016-02	14.1254	1.31709-02
15.8489	1.22560-02	17.7828	1.12636-02	19.9526	1.01823-02
22.3872	9.02279-03	25.1189	7.83196-03	28.1838	6.65505-03
31.6228	5.53786-03	35.4813	4.51068-03	39.8107	3.60007-03
44.6683	2.81948-03	50.1187	2.17283-03	56.2341	1.65157-03
63.0957	1.24117-03	70.7945	9.24592-04	79.4328	6.85804-04
89.1250	4.98879-04	99.9999	3.70188-04	112.2018	2.73874-04
125.8925	2.03848-04	141.2536	1.51219-04	158.4892	1.12513-04
177.8278	8.35487-05	199.5261	6.29811-05	223.8719	4.61089-05

TABLE B-V. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3634.00 Å - Concluded

(j) $n = 8$; $T = 30\ 000\ K$; $N_e = 10^{15}\ cm^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	7.50985-05	-199.5261	1.21114-04	-177.8278	2.23039-04
-151.0710	1.05123-03	-147.6322	1.49893-03	-144.2717	2.28959-03
-140.9877	3.89794-03	-137.7784	6.12036-03	-134.6422	5.86377-03
-131.5774	1.91294-04	-128.5823	2.01933-04	-125.6554	2.16263-04
-112.2018	3.09873-04	-99.9999	4.50075-04	-89.1250	6.48937-04
-79.4328	9.32912-04	-70.7945	1.34400-03	-63.0957	1.93681-03
-56.2341	2.72871-03	-50.1187	3.80327-03	-44.6883	5.04484-03
-39.8107	6.16460-03	-35.4813	6.62969-03	-31.6228	5.18783-03
-31.0758	4.73730-03	-30.3684	4.07846-03	-29.6772	3.41447-03
-29.0016	2.86384-03	-28.3415	2.54423-03	-27.6964	2.45919-03
-27.0659	2.50267-03	-26.4498	2.58666-03	-25.8477	2.68135-03
-25.2594	2.78311-03	-24.6844	2.89418-03	-24.1225	3.01613-03
-23.5734	3.14769-03	-23.0368	3.28661-03	-22.5124	3.43117-03
-19.9528	4.27595-03	-17.7828	5.22314-03	-15.8489	6.29500-03
-14.1254	7.43891-03	-12.5892	8.54865-03	-11.2202	9.56125-03
-10.0000	1.04487-02	-8.9125	1.12471-02	-7.9433	1.20045-02
-7.0795	1.27588-02	-6.3096	1.35282-02	-5.6234	1.43940-02
-5.0119	1.58125-02	-4.4668	1.75745-02	-3.9811	2.02255-02
-3.5481	2.32985-02	-3.1623	2.61814-02	-2.8184	2.85002-02
-2.5119	3.01150-02	-2.2387	3.09892-02	-1.9953	3.11431-02
-1.7783	3.06482-02	-1.5849	2.96500-02	-1.4125	2.83086-02
-1.2589	2.67772-02	-1.1220	2.51824-02	-1.0000	2.36195-02
1.0000	2.78949-03	1.1220	2.49292-03	1.2589	2.30057-03
1.4125	2.25243-03	1.5849	2.39386-03	1.7783	2.77878-03
1.9953	3.46624-03	2.2387	4.51185-03	2.5119	5.95986-03
2.8184	7.82608-03	3.1623	1.00858-02	3.5481	1.26375-02
3.9811	1.52879-02	4.4668	1.78132-02	5.0119	1.98333-02
5.6234	2.10889-02	6.3096	2.14257-02	7.0795	2.08521-02
7.9433	1.95934-02	8.9125	1.79668-02	10.0000	1.63006-02
11.2202	1.48111-02	12.5892	1.35902-02	14.1254	1.26093-02
15.8489	1.17781-02	17.7828	1.09771-02	19.9528	1.01309-02
22.3872	9.19176-03	25.1189	6.16719-03	28.1838	7.08901-03
31.6228	6.00655-03	35.4813	4.98255-03	39.8107	4.00065-03
44.6883	3.14847-03	50.1187	2.42747-03	56.2341	1.83691-03
63.0957	1.36978-03	70.7945	1.00995-03	79.4328	7.40757-04
89.1250	5.33401-04	99.9999	3.91327-04	112.2018	2.86996-04
125.8925	2.11430-04	141.2536	1.55746-04	158.4892	1.15121-04
177.8278	8.51974-05	199.5261	6.34594-05	223.8719	4.64119-05

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å

(a) $n = 9$; $T = 3000$ K; $N_e = 10^{13}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.11122-07	-199.5261	1.12577-06	-177.8274	1.57777-06
-158.4892	2.28562-06	-141.2536	3.47592-06	-125.8925	5.84163-06
-121.4067	7.10638-06	-118.6431	6.28848-06	-115.9425	9.72255-06
-113.3033	1.15939-05	-110.7242	1.42526-05	-108.2038	1.81936-05
-105.7400	2.38988-05	-103.3338	3.41901-05	-100.9817	5.37215-05
-98.6830	1.01340-04	-96.4367	2.79997-04	-94.2416	1.52435-02
-89.1250	6.11683-06	-79.4328	8.11807-06	-70.7945	1.09844-05
-83.0957	1.55170-05	-56.2341	2.23400-05	-50.1187	3.20999-05
-44.6483	4.64117-05	-39.8107	6.52510-05	-35.4813	9.35413-05
-31.6220	1.37546-04	-29.1928	1.85684-04	-28.5281	2.02422-04
-27.8787	2.20806-04	-27.2441	2.41613-04	-26.6239	2.65605-04
-26.0179	2.97098-04	-25.4257	3.33661-04	-24.8469	3.74415-04
-24.2613	4.23269-04	-23.7286	4.86551-04	-23.1885	5.69723-04
-22.6407	6.76887-04	-22.1448	8.39895-04	-21.6408	1.11818-03
-21.1482	1.67148-03	-20.6668	2.00541-03	-20.1963	3.84350-03
-19.7366	2.02778-03	-19.9526	3.74609-03	-17.7828	8.06014-05
-15.8489	1.12861-04	-14.1254	1.67266-04	-12.5892	2.50916-04
-11.2202	3.79102-04	-10.0000	5.85106-04	-8.9125	9.26745-04
-7.9433	1.32875-03	-7.0795	1.81857-03	-6.3096	2.52853-03
-5.6234	3.61806-03	-5.0119	5.17613-03	-4.4668	7.37986-03
-3.9611	1.04841-02	-3.5481	1.46587-02	-3.1623	2.09572-02
-2.8184	2.94008-02	-2.5119	4.08671-02	-2.2387	5.80579-02
-1.9953	7.55527-02	-1.7783	9.94422-02	-1.5849	1.26746-01
-1.4125	1.54610-01	-1.2589	1.79792-01	-1.1220	2.02155-01
-1.0000	2.24331-01	1.0000	2.03756-01	1.1220	1.62795-01
1.2589	1.37156-01	1.4125	9.50828-02	1.5849	7.83244-02
1.7783	7.53070-02	1.9953	6.85673-02	2.2387	5.75044-02
2.5119	4.63397-02	2.8184	3.64368-02	3.1623	2.79829-02
3.5481	2.10428-02	3.9811	1.55913-02	4.4668	1.14862-02
5.0119	8.40136-03	5.6234	6.14498-03	6.3096	4.50261-03
7.0795	3.31229-03	7.9433	2.44974-03	8.9125	1.82087-03
10.0000	1.35193-03	11.2202	1.00905-03	12.5892	7.58155-04
14.1254	5.67046-04	15.8489	4.25204-04	17.7828	3.19387-04
19.9526	2.40431-04	22.3872	1.81251-04	25.1189	1.36009-04
28.1838	1.01753-04	31.6228	7.70017-05	35.4813	5.90632-05
39.8107	4.45610-05	44.6883	3.35275-05	50.1187	2.54129-05
56.2341	1.92309-05	63.0957	1.44881-05	70.7945	1.09192-05
79.4328	8.24742-06	89.1250	6.22271-06	99.9999	4.70001-06
112.2018	3.54708-06	125.8925	2.67778-06	141.2536	2.02007-06
158.4892	1.52423-06	177.8278	1.13525-06	199.5261	6.55818-07
223.8719	6.44767-07				

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(b) $n = 9$; $T = 10\ 000\ \text{K}$; $N_e = 10^{13}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.11213-07	-199.5261	1.12592-06	-177.8278	1.57808-06
-158.4892	2.28810-06	-141.2538	3.47697-06	-125.8925	5.84455-06
-121.4087	7.11184-06	-118.6431	8.29449-06	-115.9425	9.73119-06
-113.3033	1.16063-05	-110.7242	1.42733-05	-108.2038	1.82509-05
-105.7408	2.40376-05	-103.3338	3.43251-05	-100.9817	5.41584-05
-98.6630	1.02727-04	-96.4367	2.94320-04	-94.2416	1.56316-02
-112.2018	1.25859-05	-99.9999	6.92654-05	-89.1250	6.13420-06
-79.4328	8.12127-06	-70.7945	1.09901-05	-83.0957	1.55265-05
-56.2341	2.23536-05	-50.1187	3.21316-05	-44.6683	4.64342-05
-39.8107	6.53492-05	-35.4813	9.38848-05	-31.6228	1.37931-04
-28.1838	2.12759-04	-25.1189	3.57122-04	-22.3872	7.85054-04
-29.1926	1.66057-04	-28.5281	2.03204-04	-27.8787	2.21807-04
-27.2441	2.42876-04	-28.6239	2.67802-04	-28.0179	2.99122-04
-25.4257	3.35859-04	-24.8469	3.77757-04	-24.2813	4.28473-04
-23.7286	4.93809-04	-23.1885	5.60278-04	-22.6607	6.98915-04
-22.1448	8.86234-04	-21.6408	1.22139-03	-21.1482	1.71781-03
-20.6668	2.46549-03	-20.1963	3.15515-03	-19.7366	2.15297-03
-19.2873	6.38487-04	-18.8483	1.30801-04	-18.4193	7.69183-05
-17.7828	8.10007-05	-15.8489	1.13697-04	-14.1254	1.68722-04
-12.5892	2.53677-04	-11.2202	3.84696-04	-10.0000	5.99883-04
-8.9125	9.45359-04	-7.9433	1.38138-03	-7.0795	1.88835-03
-6.3096	2.66736-03	-5.6234	3.86164-03	-5.0119	5.61350-03
-4.4888	8.14942-03	-3.9811	1.18200-02	-3.5481	1.71120-02
-3.1623	2.48368-02	-2.8184	3.50995-02	-2.5119	4.91486-02
-2.2387	6.71154-02	-1.9953	8.87240-02	-1.7783	1.12962-01
-1.5849	1.38560-01	-1.4125	1.64400-01	-1.2589	1.89801-01
-1.1220	2.14234-01	-1.0000	2.37761-01	1.0000	1.63821-01
1.1220	1.53063-01	1.2589	1.38249-01	1.4125	1.20098-01
1.5849	1.01292-01	1.7783	8.55563-02	1.9953	7.25181-02
2.2387	6.20454-02	2.5119	5.15091-02	2.8184	4.11524-02
3.1623	3.18072-02	3.5481	2.39145-02	3.9811	1.75904-02
4.4888	1.27866-02	5.0119	9.19951-03	5.6234	6.62194-03
6.3096	4.78255-03	7.0795	3.47535-03	7.9433	2.54215-03
8.9125	1.86977-03	10.0000	1.38064-03	11.2202	1.02539-03
12.5892	7.65257-04	14.1254	5.71341-04	15.8489	4.27753-04
17.7828	3.20926-04	19.9528	2.41428-04	22.3872	1.81818-04
25.1189	1.36351-04	28.1838	1.01963-04	31.6228	7.71308-05
35.4813	5.91425-05	39.8107	4.48107-05	44.6683	3.38597-05
50.1187	2.54324-05	56.2341	1.92423-05	63.0957	1.44957-05
70.7945	1.09242-05	79.4328	8.25080-06	89.1250	6.22471-06
99.9999	4.70121-06	112.2018	3.54793-06	125.8925	2.67833-06
141.2538	2.02042-06	158.4892	1.52446-06	177.8278	1.13540-06
199.5261	6.55918-07	223.8719	6.44833-07		

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(c) $n = 9$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.10718-07	-199.5261	1.12519-06	-177.8278	1.57800-06
-158.4892	2.28496-06	-141.2536	3.47548-06	-125.8925	5.84377-06
-121.4067	7.11563-06	-118.6431	8.29269-06	-115.9425	9.73712-06
-113.3033	1.16198-05	-110.7242	1.43047-05	-108.2038	1.82810-05
-105.7408	2.41830-05	-103.3338	3.45943-05	-100.9817	5.50747-05
-98.6830	1.06508-04	-96.4367	4.27237-04	-94.2416	2.25228-02
-89.1250	6.26792-06	-79.4328	8.11444-06	-70.7945	1.09857-05
-83.0957	1.55272-05	-56.2341	2.23808-05	-50.1187	3.21375-05
-44.6683	4.62845-05	-39.8107	6.54212-05	-35.4813	9.42050-05
-31.6228	1.38398-04	-29.1926	1.86523-04	-28.5281	2.04059-04
-27.8787	2.23201-04	-27.2441	2.45083-04	-26.6239	2.71141-04
-26.0179	3.02514-04	-25.4257	3.39705-04	-24.8469	3.83923-04
-24.2813	4.38477-04	-23.7286	5.09404-04	-23.1885	6.08059-04
-22.6807	7.58514-04	-22.1448	9.98403-04	-21.6408	1.37229-03
-21.1482	1.87052-03	-20.6668	2.30496-03	-20.1963	2.35839-03
-19.7366	1.86944-03	-19.2873	1.12444-03	-18.8483	5.27660-04
-18.4193	2.21073-04	-17.7828	9.59658-05	-15.8489	1.15247-04
-14.1254	1.71442-04	-12.5892	2.58959-04	-11.2202	3.96527-04
-10.0000	6.25058-04	-8.9125	9.69408-04	-7.9433	1.40922-03
-7.0795	2.00232-03	-6.3096	2.89714-03	-5.6234	4.28060-03
-5.0119	6.39153-03	-4.4668	9.59928-03	-3.9811	1.44522-02
-3.5481	2.16636-02	-3.1623	3.19344-02	-2.8184	4.57884-02
-2.5119	6.32764-02	-2.2387	8.37236-02	-1.9953	1.06252-01
-1.7783	1.29845-01	-1.5849	1.52149-01	-1.4125	1.73570-01
-1.2589	1.92525-01	-1.1220	2.08783-01	-1.0000	2.2281-01
1.0000	1.62420-01	1.1220	1.51198-01	1.2589	1.39285-01
1.4125	1.26684-01	1.5849	1.13799-01	1.7783	9.81232-02
1.9953	8.46142-02	2.2387	7.04034-02	2.5119	5.78000-02
2.8184	4.64566-02	3.1623	3.63691-02	3.5481	2.75182-02
3.9811	2.02829-02	4.4668	1.45753-02	5.0119	1.03227-02
5.6234	7.27888-03	6.3096	5.15227-03	7.0795	3.67821-03
7.9433	2.65219-03	8.9125	1.92961-03	10.0000	1.41402-03
11.2202	1.04380-03	12.5892	7.74809-04	14.1254	5.76889-04
15.8489	4.30915-04	17.7828	3.22750-04	19.9526	2.42537-04
22.3872	1.82424-04	25.1189	1.36605-04	28.1838	1.02147-04
31.6228	7.72343-05	35.4813	5.91727-05	39.8107	4.48348-05
44.6683	3.35730-05	50.1187	2.54356-05	56.2341	1.92407-05
63.0957	1.44935-05	70.7945	1.09217-05	79.4328	6.24819-06
89.1250	6.22228-06	99.9999	4.89906-06	112.2018	3.54624-06
125.8925	2.67696-06	141.2536	2.01934-06	158.4892	1.52361-06
177.8278	1.13474-06	199.5261	8.55411-07	223.8719	6.44444-07

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM
TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(d) $n = 9$; $T = 10\ 000\ \text{K}$; $N_e = 5 \times 10^{13}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	4.08282-06	-199.5261	5.67545-06	-177.8278	7.97071-06
-158.4892	1.15806-05	-141.2536	1.76939-05	-125.8925	2.99917-05
-121.4067	3.68623-05	-118.6431	4.29108-05	-115.9425	5.05549-05
-113.3033	6.08068-05	-110.7242	7.50181-05	-108.2038	9.66185-05
-105.7408	1.28946-04	-103.3338	1.86958-04	-100.9817	2.99952-04
-98.6830	5.83430-04	-96.4387	1.77879-03	-94.2416	2.48603-02
-112.2018	6.58451-05	-79.4328	4.16107-05	-70.7945	5.65736-05
-83.0957	8.04152-05	-56.2341	1.16653-04	-50.1187	1.69195-04
-44.6683	2.47254-04	-39.8107	3.53220-04	-35.4813	5.13044-04
-31.6228	7.67878-04	-29.1926	1.06318-03	-28.5281	1.16947-03
-27.8787	1.28648-03	-27.2441	1.42018-03	-26.6239	1.57942-03
-26.0179	1.78153-03	-25.4257	2.02227-03	-24.8469	2.30125-03
-24.2813	2.64303-03	-23.7286	3.08551-03	-23.1885	3.66753-03
-22.6607	4.44075-03	-22.1448	5.48273-03	-21.6408	6.75441-03
-21.1482	7.95700-03	-20.6668	8.42774-03	-20.1963	6.51014-03
-19.7366	2.87692-03	-19.2873	8.39414-04	-18.8483	4.32440-04
-18.4193	4.19932-04	-17.7828	4.55430-04	-15.8489	6.49714-04
-14.1254	9.85553-04	-12.5892	1.51465-03	-11.2202	2.33818-03
-10.0000	3.68034-03	-8.9125	5.80760-03	-7.9433	8.30584-03
-7.0795	1.11777-02	-6.3096	1.49386-02	-5.6234	1.99906-02
-5.0119	2.61695-02	-4.4668	3.32504-02	-3.9811	4.10873-02
-3.5481	4.85055-02	-3.1623	5.82863-02	-2.6184	6.72000-02
-2.5119	7.59992-02	-2.2387	8.43896-02	-1.9953	9.20950-02
-1.7783	9.88317-02	-1.5849	1.04431-01	-1.4125	1.08848-01
-1.2589	1.12143-01	-1.1220	1.14453-01	-1.0000	1.15930-01
1.0000	1.43015-01	1.1220	1.41764-01	1.2589	1.31894-01
1.4125	1.13640-01	1.5849	9.12201-02	1.7783	7.17906-02
1.9953	6.09628-02	2.2387	5.86397-02	2.5119	5.99522-02
2.8184	6.01013-02	3.1623	5.73589-02	3.5481	5.23638-02
3.9811	4.83835-02	4.4668	4.02890-02	5.0119	3.43409-02
5.6234	2.87037-02	6.3096	2.34854-02	7.0795	1.87470-02
7.9433	1.48488-02	8.9125	1.12168-02	10.0000	8.45931-03
11.2202	6.30950-03	12.5892	4.67065-03	14.1254	3.44597-03
15.8489	2.53816-03	17.7828	1.87043-03	19.9526	1.38380-03
22.3872	1.02528-03	25.1189	7.59259-04	28.1838	5.59717-04
31.6228	4.18404-04	35.4813	3.18585-04	39.8107	2.37675-04
43.0957	7.49386-05	70.7945	5.61915-05	79.4328	4.22585-05
44.6683	1.77145-04	50.1187	1.33162-04	56.2341	1.00058-04
89.1250	3.18029-05	99.9999	2.39440-05	112.2018	1.80179-05
125.8925	1.35599-05	141.2536	1.02098-05	158.4892	7.69092-06
177.8278	5.79106-06	199.5261	4.36209-06	223.8719	3.24191-06

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(e) $n = 9$; $T = 3000$ K; $N_e = 10^{14}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.22125-06	-199.5261	1.14460-05	-177.8278	1.61068-05
-158.4892	2.34898-05	-141.2536	3.60167-05	-125.8925	6.15178-05
-121.4067	7.54340-05	-118.6431	8.85629-05	-115.9425	1.04688-04
-113.3033	1.26006-04	-110.7242	1.52253-04	-108.2038	1.96253-04
-105.7468	2.60884-04	-103.3338	3.78938-04	-100.9817	6.06077-04
-98.6830	1.16982-03	-96.4367	3.27806-03	-94.2416	2.32918-02
-99.9999	7.62262-04	-89.1250	6.37928-05	-79.4328	6.52456-05
-70.7945	1.16383-04	-63.0957	1.66320-04	-56.2341	2.42798-04
-50.1187	3.46036-04	-44.6683	5.07632-04	-39.8107	7.22395-04
-35.4813	1.04791-03	-31.6228	1.57035-03	-29.1926	2.14741-03
-28.5281	2.34631-03	-27.8787	2.56500-03	-27.2441	2.81262-03
-28.6239	3.09594-03	-26.0179	3.46407-03	-25.4257	3.88443-03
-24.8469	4.34033-03	-24.2813	4.86519-03	-23.7286	5.50784-03
-23.1885	6.28245-03	-22.6607	7.16132-03	-22.1448	8.14880-03
-21.6408	9.09664-03	-21.1482	9.48530-03	-20.6668	9.02690-03
-20.1983	6.96127-03	-19.7366	1.51370-03	-19.2873	7.69910-04
-18.8483	7.99789-04	-18.4193	8.43625-04	-17.7828	9.20750-04
-15.8489	1.26933-03	-14.1254	1.92669-03	-12.5892	2.85675-03
-11.2202	4.22221-03	-10.0000	6.28956-03	-8.9125	9.55639-03
-7.9433	1.26081-02	-7.0795	1.58397-02	-6.3096	1.94128-02
-5.6234	2.42210-02	-5.0119	2.96950-02	-4.4668	3.54346-02
-3.9811	4.13643-02	-3.5481	4.73974-02	-3.1823	5.33667-02
-2.8184	5.91328-02	-2.5119	6.45202-02	-2.2387	6.93484-02
-1.9953	7.35223-02	-1.7783	7.67131-02	-1.5849	7.90367-02
-1.4125	8.03991-02	-1.2589	8.08519-02	-1.1220	8.04809-02
-1.0000	7.97103-02	1.0000	2.00136-01	1.1220	1.92178-01
1.2589	1.50079-01	1.4125	9.68519-02	1.5849	5.87439-02
1.7783	4.21984-02	1.9953	3.92589-02	2.2387	4.20060-02
2.5119	4.59761-02	2.8184	4.87760-02	3.1823	4.94913-02
3.5481	4.79207-02	3.9811	4.48321-02	4.4668	4.11042-02
5.0119	3.69636-02	5.6234	3.26756-02	6.3096	2.84252-02
7.0795	2.42838-02	7.9433	2.03477-02	8.9125	1.67091-02
10.0000	1.34700-02	11.2202	1.06706-02	12.5892	8.32221-03
14.1254	6.40228-03	15.8489	4.88115-03	17.7828	3.68719-03
19.9528	2.77015-03	22.3872	2.07826-03	25.1189	1.54619-03
28.1838	1.14412-03	31.6228	8.58268-04	35.4813	6.50397-04
39.8107	4.88900-04	44.6683	3.63573-04	50.1187	2.73038-04
56.2341	2.07658-04	63.0957	1.54748-04	70.7945	1.15526-04
79.4328	8.65457-05	89.1250	6.48419-05	99.9999	4.86784-05
112.2018	3.85483-05	125.8925	2.74669-05	141.2536	2.06414-05
158.4892	1.55241-05	177.8278	1.15320-05	199.5261	6.67260-06
223.8719	6.52074-06				

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(f) $n = 9$; $T = 10\ 000\ K$; $N_e = 10^{14}\ cm^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.23285-06	-199.5261	1.14660-05	-177.8278	1.61433-05
-158.4892	2.35390-05	-141.2536	3.61674-05	-125.8925	6.19324-05
-121.4067	7.60602-05	-118.6431	8.93933-05	-115.9425	1.05832-04
-113.3033	1.27627-04	-110.7242	1.57344-04	-108.2038	2.03874-04
-105.7408	2.74312-04	-103.3338	4.01689-04	-100.9817	6.55658-04
-98.6830	1.30546-03	-96.4367	3.94242-03	-94.2416	2.72535-02
-89.1250	6.42555-05	-79.4328	6.57617-05	-70.7945	1.17263-04
-83.0957	1.67911-04	-58.2341	2.45784-04	-50.1187	3.56633-04
-44.6663	5.25742-04	-39.8107	7.58204-04	-35.4813	1.12009-03
-31.6226	1.70807-03	-29.1926	2.37391-03	-28.5281	2.61463-03
-27.8787	2.87819-03	-27.2441	3.17776-03	-26.6239	3.53126-03
-26.0179	3.97131-03	-25.4257	4.48052-03	-24.8469	5.04706-03
-24.2613	5.70151-03	-23.7286	6.48338-03	-23.1885	7.39271-03
-22.6607	7.83691-03	-22.1448	9.33719-03	-21.6408	9.98273-03
-21.1482	9.83135-03	-20.6668	8.30741-03	-20.1963	5.20526-03
-19.7366	2.25680-03	-19.2873	1.05709-03	-18.8483	8.86112-04
-18.4193	9.20753-04	-17.7828	1.00903-03	-15.8489	1.44872-03
-14.1254	2.18508-03	-12.5892	3.29143-03	-11.2202	4.90765-03
-10.0000	7.36333-03	-8.9125	1.09896-02	-7.9433	1.45824-02
-7.0795	1.78080-02	-6.3096	2.14793-02	-5.6234	2.61346-02
-5.0119	3.12836-02	-4.4668	3.65645-02	-3.9811	4.16930-02
-3.5481	4.72007-02	-3.1623	5.23527-02	-2.8184	5.71572-02
-2.5119	6.13937-02	-2.2387	6.48602-02	-1.9953	6.73934-02
-1.7783	6.89339-02	-1.5849	6.95173-02	-1.4125	6.92412-02
-1.2589	6.83417-02	-1.1220	6.70290-02	-1.0000	6.55361-02
1.0000	1.26469-01	1.1220	1.27015-01	1.2589	1.19389-01
1.4125	1.03324-01	1.5849	8.19249-02	1.7783	6.11644-02
1.9953	4.67294-02	2.2387	4.05711-02	2.5119	4.05470-02
2.8184	4.30170-02	3.1623	4.53677-02	3.5481	4.59292-02
3.9811	4.46122-02	4.4668	4.20295-02	5.0119	3.64857-02
5.6234	3.45459-02	6.3096	3.05322-02	7.0795	2.65527-02
7.9433	2.26519-02	8.9125	1.89036-02	10.0000	1.54299-02
11.2202	1.23175-02	12.5892	9.62741-03	14.1254	7.38363-03
15.8489	5.57926-03	17.7828	4.16671-03	19.9526	3.09076-03
22.3872	2.26377-03	25.1189	1.67649-03	28.1838	1.22653-03
31.6226	9.08420-04	35.4813	6.81820-04	39.8107	5.06155-04
44.6663	3.74258-04	50.1187	2.79611-04	58.2341	2.09925-04
63.0957	1.56121-04	70.7945	1.16364-04	79.4328	6.70596-05
89.1250	6.51582-05	99.9999	4.88733-05	112.2018	3.66681-05
125.8925	2.75429-05	141.2536	2.06891-05	158.4892	1.55542-05
177.8278	1.15510-05	199.5261	8.66484-06	223.8719	6.52840-06

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(g) $n = 9$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.23209-06	-199.5261	1.14662-05	-177.8278	1.61561-05
-158.4892	2.35549-05	-141.2536	3.62142-05	-125.8925	6.21022-05
-121.4067	7.63694-05	-118.6431	8.97379-05	-115.9425	1.06404-04
-113.3033	1.28487-04	-110.7242	1.59743-04	-108.2038	2.07628-04
-105.7408	2.81175-04	-103.3338	4.15566-04	-100.9817	6.91540-04
-98.6830	1.43040-03	-96.4367	4.88626-03	-94.2416	2.48845-02
-89.1250	6.57936-05	-79.4328	8.59085-05	-70.7945	1.17593-04
-63.0957	1.68620-04	-56.2341	2.47201-04	-50.1187	3.60966-04
-44.6683	5.32316-04	-39.8107	7.75746-04	-35.4813	1.15889-03
-31.6228	1.78763-03	-29.1926	2.50966-03	-28.5281	2.77953-03
-27.8787	3.07788-03	-27.2441	3.42101-03	-26.8239	3.82900-03
-26.0179	4.31592-03	-25.4257	4.88240-03	-24.8469	5.53072-03
-24.2813	6.27510-03	-23.7286	7.12472-03	-23.1885	8.04944-03
-22.6607	8.95754-03	-22.1448	9.62500-03	-21.6408	9.76402-03
-21.1482	9.04273-03	-20.6668	7.37170-03	-20.1963	5.16152-03
-19.7366	3.14287-03	-19.2873	1.82894-03	-18.8483	1.22313-03
-18.4193	1.04426-03	-17.7828	1.07084-03	-15.8489	1.55333-03
-14.1254	2.36718-03	-12.5892	3.59739-03	-11.2202	5.40294-03
-10.0000	8.13474-03	-8.9125	1.17958-02	-7.9433	1.54682-02
-7.0795	1.89131-02	-6.3096	2.27140-02	-5.6234	2.71698-02
-5.0119	3.20497-02	-4.4668	3.70961-02	-3.9811	4.21436-02
-3.5481	4.70335-02	-3.1623	5.15433-02	-2.8184	5.54194-02
-2.5119	5.84709-02	-2.2387	6.05729-02	-1.9953	6.17474-02
-1.7783	6.21056-02	-1.5849	6.18257-02	-1.4125	6.12682-02
-1.2589	6.04030-02	-1.1220	5.94672-02	-1.0000	5.85733-02
1.0000	8.88982-02	1.1220	8.88729-02	1.2589	8.72743-02
1.4125	8.38674-02	1.5849	7.81361-02	1.7783	7.00521-02
1.9953	6.12696-02	2.2387	5.29902-02	2.5119	4.88169-02
2.8184	4.35272-02	3.1623	4.29034-02	3.5481	4.27574-02
3.9811	4.25342-02	4.4668	4.14205-02	5.0119	3.88437-02
5.6234	3.53709-02	6.3096	3.15400-02	7.0795	2.76480-02
7.9433	2.38039-02	8.9125	2.00665-02	10.0000	1.65251-02
11.2202	1.32819-02	12.5892	1.04207-02	14.1254	7.99519-03
15.8489	6.02082-03	17.7828	4.46815-03	19.9526	3.28740-03
22.3872	2.40560-03	25.1189	1.74948-03	28.1838	1.27063-03
31.6228	9.34006-04	35.4813	6.96606-04	39.8107	5.14257-04
44.6683	3.79072-04	50.1187	2.82328-04	56.2341	2.10921-04
63.0957	1.56701-04	70.7945	1.16700-04	79.4328	6.72528-05
89.1250	6.52653-05	99.9999	4.89316-05	112.2018	3.66997-05
125.8925	2.75589-05	141.2536	2.06965-05	158.4892	1.55569-05
177.8278	1.15514-05	199.5261	8.68409-06	223.8719	6.52719-06

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(h) $n = 9$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.62675-05	-199.5261	1.20208-04	-177.8278	1.69983-04
-158.4892	2.46332-04	-141.2536	3.74930-04	-125.8925	6.18794-04
-121.4067	7.42074-04	-116.6431	8.53140-04	-115.9425	9.80830-04
-113.3033	1.13821-03	-110.7242	1.34675-03	-108.2038	1.62749-03
-105.7408	1.98167-03	-103.3338	2.48958-03	-100.9817	3.22201-03
-96.6830	4.31198-03	-96.4367	5.75300-03	-94.2416	5.88458-03
-89.1250	6.62043-04	-79.4328	8.72892-04	-70.7945	1.16407-03
-63.0957	1.60199-03	-56.2341	2.21924-03	-50.1187	3.01990-03
-44.6663	4.04020-03	-39.8107	5.05778-03	-35.4813	6.19936-03
-31.6228	7.24905-03	-29.1926	7.79636-03	-28.5281	7.87491-03
-27.8787	7.91299-03	-27.2441	7.91646-03	-26.6239	7.88635-03
-26.0179	7.88248-03	-25.4257	7.81858-03	-24.8469	7.65471-03
-24.2813	7.43140-03	-23.7286	7.16678-03	-23.1885	6.84413-03
-22.6607	6.43553-03	-22.1448	5.95981-03	-21.6408	5.43201-03
-21.1462	4.88132-03	-20.6668	4.37004-03	-20.1963	3.96471-03
-19.7366	3.80937-03	-19.2873	3.86126-03	-18.8483	3.94285-03
-18.4193	4.02967-03	-17.7828	4.17710-03	-15.8489	4.85268-03
-14.1254	5.69921-03	-12.5892	6.54824-03	-11.2202	7.47997-03
-10.0000	9.08744-03	-8.9125	1.31094-02	-7.9433	1.22190-02
-7.0795	1.17520-02	-6.3096	1.20027-02	-5.6234	1.25176-02
-5.0119	1.32078-02	-4.4668	1.32897-02	-3.9811	1.29521-02
-3.5481	1.23114-02	-3.1623	1.14676-02	-2.8184	1.05134-02
-2.5119	9.29918-03	-2.2387	8.55954-03	-1.9953	7.85961-03
-1.7783	6.88141-03	-1.5849	6.10653-03	-1.4125	5.44910-03
-1.2589	4.87163-03	-1.1220	4.36705-03	-1.0000	3.93483-03
1.0000	1.34801-01	1.1220	1.11321-01	1.2589	7.03588-02
1.4125	3.85285-02	1.5849	2.19392-02	1.7783	1.85543-02
1.9953	1.73839-02	2.2387	1.61329-02	2.5119	1.48062-02
2.8184	1.34264-02	3.1623	1.24925-02	3.5481	1.12510-02
3.9811	1.02791-02	4.4668	1.06853-02	5.0119	1.13604-02
5.6234	1.20762-02	6.3096	1.29663-02	7.0795	1.37738-02
7.9433	1.42363-02	8.9125	1.42993-02	10.0000	1.41827-02
11.2202	1.38511-02	12.5892	1.33057-02	14.1254	1.25851-02
15.8489	1.17153-02	17.7828	1.07748-02	19.9526	9.78284-03
22.3872	8.75253-03	25.1189	7.61987-03	28.1838	6.49346-03
31.6228	5.53808-03	35.4813	4.72253-03	39.8107	3.86328-03
44.6663	3.10043-03	50.1187	2.47431-03	56.2341	1.94634-03
63.0957	1.50830-03	70.7945	1.16170-03	79.4328	8.86821-04
89.1250	6.72720-04	99.9999	5.08579-04	112.2018	3.83671-04
125.8925	2.88331-04	141.2536	2.17500-04	158.4892	1.62820-04
177.8278	1.21689-04	199.5261	9.12275-05	223.8719	6.83971-05

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Continued

(i) $n = 9$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	9.13043-05	-199.5261	1.29282-04	-177.8278	1.85824-04
-158.4892	2.78414-04	-141.2536	4.33205-04	-125.8925	7.41154-04
-121.4667	8.97021-04	-110.6431	1.03636-03	-115.9425	1.19459-03
-113.3033	1.38509-03	-110.7242	1.62881-03	-108.2038	1.94072-03
-105.7468	2.30394-03	-103.3338	2.77468-03	-100.9817	3.36116-03
-98.6838	4.04388-03	-96.4387	4.58701-03	-94.2416	3.71535-03
-89.1250	7.82048-04	-79.4328	1.04577-03	-70.7945	1.41807-03
-83.0957	1.97279-03	-56.2341	2.74117-03	-50.1187	3.69805-03
-44.6683	4.84361-03	-39.8107	5.84298-03	-35.4813	6.82343-03
-31.6228	7.48861-03	-29.1926	7.63412-03	-28.5281	7.61017-03
-27.8787	7.54256-03	-27.2441	7.44576-03	-26.6239	7.33118-03
-26.0179	7.21685-03	-25.4257	7.06724-03	-24.8489	6.86205-03
-24.2813	6.62188-03	-23.7286	6.36020-03	-23.1885	6.07269-03
-22.6607	5.75381-03	-22.1448	5.41261-03	-21.6408	5.06573-03
-21.1482	4.73668-03	-20.6668	4.45832-03	-20.1963	4.26952-03
-19.7368	4.20107-03	-19.2873	4.22653-03	-18.8483	4.28852-03
-18.4193	4.36034-03	-17.7826	4.48381-03	-15.8489	5.07711-03
-14.1254	5.77970-03	-12.5892	8.40472-03	-11.2202	7.07822-03
-10.0000	8.67176-03	-8.9125	1.17913-02	-7.9433	1.08002-02
-7.0795	9.90735-03	-6.3096	9.71963-03	-5.6234	9.81447-03
-5.0119	9.71689-03	-4.4668	9.31546-03	-3.9811	8.67752-03
-3.5461	7.91023-03	-3.1623	7.10195-03	-2.8184	6.31017-03
-2.5119	5.57085-03	-2.2387	4.90215-03	-1.9953	4.31150-03
-1.7783	3.79741-03	-1.5849	3.36490-03	-1.4125	3.03171-03
-1.2589	2.83457-03	-1.1220	2.81910-03	-1.0000	3.01856-03
1.0000	7.70864-02	1.1220	7.31480-02	1.2589	6.35756-02
1.4125	4.96373-02	1.5849	3.47115-02	1.7783	2.27913-02
1.9953	1.59171-02	2.2387	1.31241-02	2.5119	1.21470-02
2.8184	1.13517-02	3.1623	1.07577-02	3.5461	9.57390-03
3.9811	8.34520-03	4.4668	8.35207-03	5.0119	8.56658-03
5.6234	8.97562-03	6.3096	9.66166-03	7.0795	1.05307-02
7.9433	1.12219-02	8.9125	1.16293-02	10.0000	1.19868-02
11.2202	1.21880-02	12.5892	1.21258-02	14.1254	1.17998-02
15.8489	1.12915-02	17.7826	1.06454-02	19.9526	9.92439-03
22.3872	9.12143-03	25.1189	8.16104-03	28.1838	7.15732-03
31.6228	6.29791-03	35.4813	5.52620-03	38.8107	4.62192-03
44.6683	3.77292-03	50.1187	3.04155-03	56.2341	2.39933-03
63.0957	1.85163-03	70.7945	1.41017-03	79.4328	1.06227-03
89.1250	7.93242-04	99.9999	5.89557-04	112.2018	4.36834-04
125.8925	3.23049-04	141.2536	2.39282-04	158.4892	1.76877-04
177.8278	1.30038-04	199.5261	9.63962-05	223.8719	7.15525-05

TABLE B-VI. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3587.00 Å - Concluded

(j) $n = 9$; $T = 30\ 000\ \text{K}$; $N_e = 10^{15}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	9.37487-05	-199.5261	1.33823-04	-177.8278	1.94535-04
-158.4892	2.93835-04	-141.2536	4.69722-04	-125.8925	8.20159-04
-121.4067	9.98672-04	-118.6431	1.15138-03	-115.9425	1.32607-03
-113.3033	1.53109-03	-110.7242	1.78627-03	-108.2038	2.09854-03
-105.7408	2.43866-03	-103.3338	2.84424-03	-100.9817	3.29980-03
-98.6830	3.73084-03	-96.4367	3.90056-03	-94.2416	2.84249-03
-89.1250	8.78079-04	-79.4326	1.15788-03	-70.7945	1.58058-03
-63.0957	2.21144-03	-56.2341	3.06258-03	-50.1187	4.08591-03
-44.6683	5.23143-03	-39.8107	6.16693-03	-35.4813	6.98404-03
-31.6228	7.40066-03	-29.1926	7.34766-03	-28.5281	7.28400-03
-27.8787	7.18679-03	-27.2441	7.06727-03	-26.6239	6.93536-03
-26.0179	6.79185-03	-25.4257	6.62737-03	-24.8469	6.43565-03
-24.2813	6.22123-03	-23.7286	5.98997-03	-23.1885	5.74427-03
-22.6607	5.48649-03	-22.1448	5.22251-03	-21.6408	4.96678-03
-21.1482	4.73690-03	-20.6668	4.55397-03	-20.1963	4.43440-03
-19.7366	4.38244-03	-19.2873	4.38574-03	-18.8483	4.42509-03
-18.4193	4.48402-03	-17.7828	4.59558-03	-15.8489	5.14574-03
-14.1254	5.76159-03	-12.5892	6.25928-03	-11.2202	6.87610-03
-10.0000	8.54382-03	-8.9125	1.04436-02	-7.9433	9.97656-03
-7.0795	8.98097-03	-6.3096	8.47065-03	-5.6234	8.19632-03
-5.0119	7.84795-03	-4.4668	7.33807-03	-3.9811	6.70972-03
-3.5481	6.02970-03	-3.1823	5.35655-03	-2.8184	4.72530-03
-1.7783	3.19838-03	-1.5849	3.21192-03	-1.4125	3.50060-03
-1.2589	3.93049-03	-1.1220	4.54468-03	-1.0000	5.31876-03
1.0000	4.78783-02	1.1220	4.70931-02	1.2589	4.50569-02
1.4125	4.15723-02	1.5849	3.66569-02	1.7783	3.06706-02
1.9953	2.43217-02	2.2387	1.85789-02	2.5119	1.42251-02
2.8184	1.13552-02	3.1823	1.00180-02	3.5481	8.63718-03
3.9811	7.52962-03	4.4668	7.49201-03	5.0119	7.59413-03
5.6234	7.85775-03	6.3096	8.33835-03	7.0795	9.00373-03
7.9433	9.63171-03	8.9125	1.01264-02	10.0000	1.06234-02
11.2202	1.10558-02	12.5892	1.12589-02	14.1254	1.11836-02
15.8489	1.08766-02	17.7828	1.03914-02	19.9526	9.81654-03
22.3872	9.13091-03	25.1189	8.26428-03	28.1838	7.36501-03
31.6228	6.60281-03	35.4813	5.90283-03	39.8107	5.01791-03
44.6683	4.15301-03	50.1187	3.38254-03	56.2341	2.68410-03
63.0957	2.07374-03	70.7945	1.57282-03	79.4326	1.17656-03
89.1250	8.70121-04	99.9999	6.39538-04	112.2018	4.68178-04
125.8925	3.42643-04	141.2536	2.51068-04	158.4892	1.84091-04
177.8278	1.34156-04	199.5261	9.88067-05	223.8719	7.29861-05

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å

(a) $n = 10$; $T = 3000$ K; $N_e = 10^{13} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.04410-06	-199.5261	1.41585-06	-177.8278	1.93450-06
-158.4892	2.66258-06	-141.2536	3.69195-06	-125.8925	5.30577-06
-112.2018	7.73851-06	-99.9999	1.19192-05	-89.1250	2.07870-05
-79.4328	4.97710-05	-70.7945	5.10817-04	-63.0957	2.14095-05
-56.2341	2.95959-05	-50.1187	4.10304-05	-44.6683	5.69863-05
-39.8107	7.96234-05	-35.4813	1.11318-04	-31.6228	1.57948-04
-28.1838	2.24079-04	-25.1189	3.27788-04	-22.3872	4.96419-04
-19.9526	7.78592-04	-17.7828	1.38381-03	-15.8489	3.91448-03
-14.1254	5.94679-04	-12.5892	2.92765-04	-11.2202	4.18887-04
-10.0000	6.26377-04	-8.9125	9.54200-04	-7.9433	1.44056-03
-7.0795	2.16572-03	-6.3096	3.23288-03	-5.6234	4.77459-03
-5.0119	6.98553-03	-4.4668	1.01007-02	-3.9811	1.44557-02
-3.5481	2.04316-02	-3.1623	2.84392-02	-2.8184	3.88720-02
-2.5119	5.20407-02	-2.2387	6.80826-02	-1.9953	8.68404-02
-1.7783	1.07820-01	-1.5849	1.29911-01	-1.4125	1.51434-01
-1.2589	1.69973-01	-1.1220	1.87843-01	-1.0000	2.05236-01
1.0000	7.22598-02	1.1220	7.71472-02	1.2589	7.84212-02
1.4125	7.80357-02	1.5849	7.65510-02	1.7783	7.43353-02
1.9953	7.00998-02	2.2387	6.36175-02	2.5119	5.51210-02
2.8184	4.54206-02	3.1623	3.61626-02	3.5481	2.81548-02
3.9811	2.14971-02	4.4668	1.61705-02	5.0119	1.20396-02
5.6234	8.91011-03	6.3096	6.58469-03	7.0795	4.86712-03
7.9433	3.60344-03	8.9125	2.67156-03	10.0000	1.98912-03
11.2202	1.48652-03	12.5892	1.10850-03	14.1254	6.29214-04
15.8489	6.23721-04	17.7828	4.67113-04	19.9526	3.50456-04
22.3872	2.63292-04	25.1189	1.98045-04	28.1838	1.48951-04
31.6228	1.12403-04	35.4813	8.50691-05	39.8107	6.38974-05
44.6683	4.78812-05	50.1187	3.62007-05	56.2341	2.73853-05
63.0957	2.06641-05	70.7945	1.55846-05	79.4328	1.17583-05
89.1250	8.86679-06	99.9999	6.57280-06	112.2018	4.95524-06
125.8925	3.73636-06	141.2536	2.81584-06	158.4892	2.12230-06
177.8278	1.59876-06	199.5261	1.19696-06	223.8719	9.01341-07

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(b) $n = 10$; $T = 10\ 000\ \text{K}$; $N_e = 10^{13}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.04424-06	-199.5261	1.41610-06	-177.8278	1.93486-06
-158.4892	2.66320-06	-141.2536	3.69298-06	-125.8925	5.30749-06
-112.2018	7.74213-06	-99.9999	1.19143-05	-89.1250	2.07718-05
-79.4328	4.99409-05	-70.7945	5.39608-04	-63.0957	2.14260-05
-56.2341	2.96230-05	-50.1187	4.10774-05	-44.6683	5.70653-05
-39.8107	7.87624-05	-35.4813	1.11569-04	-31.6228	1.58397-04
-28.1838	2.25049-04	-25.1189	3.29456-04	-22.3872	4.99203-04
-19.9526	7.90623-04	-17.7828	1.44427-03	-15.8489	4.17131-03
-14.1254	1.87715-03	-12.5892	2.98550-04	-11.2202	4.28140-04
-10.0000	6.45828-04	-8.9125	9.88587-04	-7.9433	1.51116-03
-7.0795	2.29911-03	-6.3096	3.47678-03	-5.6234	5.21527-03
-5.0119	7.75551-03	-4.4668	1.14139-02	-3.9811	1.65808-02
-3.5481	2.36897-02	-3.1623	3.31448-02	-2.8184	4.52373-02
-2.5119	6.00458-02	-2.2387	7.73225-02	-1.9953	9.64366-02
-1.7783	1.16537-01	-1.5849	1.36725-01	-1.4125	1.56297-01
-1.2588	1.74718-01	-1.1220	1.91635-01	-1.0000	2.06254-01
1.0000	9.03711-02	1.1220	9.14564-02	1.2589	8.42962-02
1.4125	7.96330-02	1.5849	7.66263-02	1.7783	7.41262-02
1.9953	7.06821-02	2.2387	6.56315-02	2.5119	5.85249-02
2.8184	4.97670-02	3.1623	4.04643-02	3.5481	3.17514-02
3.9811	2.42612-02	4.4668	1.81546-02	5.0119	1.33803-02
5.6234	9.77419-03	6.3096	7.11706-03	7.0795	5.18640-03
7.9433	3.79156-03	8.9125	2.78172-03	10.0000	2.05150-03
11.2202	1.51986-03	12.5892	1.12848-03	14.1254	8.40859-04
15.8489	6.28824-04	17.7828	4.70171-04	19.9526	3.52299-04
22.3872	2.64405-04	25.1189	1.98722-04	28.1838	1.49364-04
31.6228	1.12655-04	35.4813	8.52289-05	39.8107	6.39950-05
44.6683	4.79404-05	50.1187	3.62377-05	56.2341	2.74087-05
63.0957	2.06787-05	70.7945	1.55939-05	79.4328	1.17641-05
89.1250	8.87051-06	99.9999	6.57515-06	112.2018	4.95675-06
125.8925	3.73735-06	141.2536	2.81648-06	158.4892	2.12272-06
177.8278	1.59903-06	199.5261	1.19864-06	223.8719	9.01455-07

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(c) $n = 10$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.04353-06	-199.5261	1.41538-06	-177.8278	1.93362-06
-156.4892	2.66149-06	-141.2536	3.69101-06	-125.8925	5.30250-06
-112.2018	7.73876-06	-99.9999	1.19055-05	-89.1250	2.07667-05
-79.4328	5.02040-05	-70.7945	7.35398-04	-63.0957	2.14261-05
-56.2341	2.96281-05	-50.1187	4.10936-05	-44.6683	5.71049-05
-39.8107	7.98459-05	-35.4813	1.11770-04	-31.6228	1.58762-04
-28.1838	2.26303-04	-25.1189	3.31237-04	-22.3872	5.02387-04
-19.9526	8.07071-04	-17.7828	1.54565-03	-15.8489	4.39622-03
-14.1254	2.70965-03	-12.5892	3.43214-04	-11.2202	4.41763-04
-10.0000	6.72205-04	-8.9125	1.03938-03	-7.9433	1.61081-03
-7.0795	2.49124-03	-6.3096	3.83977-03	-5.6234	5.88901-03
-5.0119	8.96591-03	-4.4668	1.34904-02	-3.9811	1.99556-02
-3.5481	2.87743-02	-3.1623	4.02474-02	-2.8184	5.43476-02
-2.5119	7.06579-02	-2.2387	8.84189-02	-1.9953	1.06816-01
-1.7783	1.24852-01	-1.5849	1.41699-01	-1.4125	1.56848-01
-1.2589	1.69956-01	-1.1220	1.81036-01	-1.0000	1.90014-01
1.0000	1.21317-01	1.1220	1.12095-01	1.2589	1.02932-01
1.4125	9.41224-02	1.5849	8.60243-02	1.7783	7.85595-02
1.9953	7.18708-02	2.2387	6.54942-02	2.5119	5.88735-02
2.8184	5.15494-02	3.1623	4.34647-02	3.5481	3.51231-02
3.9811	2.71936-02	4.4668	2.03912-02	5.0119	1.49306-02
5.6234	1.07711-02	6.3096	7.71956-03	7.0795	5.53574-03
7.9433	3.98754-03	8.9125	2.89145-03	10.0000	2.11156-03
11.2202	1.55225-03	12.5892	1.14670-03	14.1254	8.50979-04
15.8489	6.34028-04	17.7828	4.73235-04	19.9526	3.54062-04
22.3872	2.65414-04	25.1189	1.99288-04	28.1838	1.49694-04
31.6228	1.12828-04	35.4813	8.53169-05	39.8107	6.40413-05
44.6683	4.79610-05	50.1187	3.62442-05	56.2341	2.74089-05
63.0957	2.06756-05	70.7945	1.55900-05	79.4328	1.17601-05
89.1250	8.86677-06	99.9999	6.57215-06	112.2018	4.95413-06
125.8925	3.73525-06	141.2536	2.81481-06	156.4892	2.12140-06
177.8278	1.59601-06	199.5261	1.79629-06	223.8719	9.00851-07

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(d) $n = 10$; $T = 10\,000\text{ K}$; $N_e = 5 \times 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	5.26674-06	-199.5261	7.15495-06	-177.8278	9.79774-06
-158.4892	1.35236-05	-141.2536	1.88199-05	-125.8925	2.71713-05
-112.2018	3.99106-05	-99.9999	6.21005-05	-89.1250	1.10572-04
-79.4328	2.75571-04	-70.7945	3.38252-03	-63.0957	1.12234-04
-56.2341	1.56617-04	-50.1187	2.19627-04	-44.6683	3.09291-04
-39.8107	4.35687-04	-35.4813	6.19294-04	-31.6228	8.95391-04
-28.1838	1.30049-03	-25.1189	1.95555-03	-22.3872	3.05040-03
-19.9528	4.94230-03	-17.7828	8.73051-03	-15.8489	1.32302-02
-14.1254	2.11424-03	-12.5892	1.79194-03	-11.2202	2.61478-03
-10.0000	3.91958-03	-8.9125	5.83151-03	-7.9433	8.45621-03
-7.0795	1.18640-02	-6.3096	1.60781-02	-5.6234	2.10456-02
-5.0119	2.68653-02	-4.4668	3.27745-02	-3.9811	3.91734-02
-3.5481	4.56157-02	-3.1623	5.18503-02	-2.8184	5.78710-02
-2.5119	6.29570-02	-2.2387	6.77329-02	-1.9953	7.21027-02
-1.7783	7.61601-02	-1.5849	7.99390-02	-1.4125	8.34259-02
-1.2589	8.66537-02	-1.1220	8.96873-02	-1.0000	9.30414-02
1.0000	5.82821-02	1.1220	6.27524-02	1.2589	6.93896-02
1.4125	7.67842-02	1.5849	8.28607-02	1.7783	8.54282-02
1.9953	8.33908-02	2.2387	7.75596-02	2.5119	7.01507-02
2.8184	6.32151-02	3.1623	5.75530-02	3.5481	5.27784-02
3.9811	4.82190-02	4.4668	4.34794-02	5.0119	3.85125-02
5.6234	3.34522-02	6.3096	2.84638-02	7.0795	2.37021-02
7.9433	1.93041-02	8.9125	1.53783-02	10.0000	1.20017-02
11.2202	9.19520-03	12.5892	6.94057-03	14.1254	5.18135-03
15.8489	3.84130-03	17.7828	2.83731-03	19.9528	2.09254-03
22.3872	1.54424-03	25.1189	1.14001-03	28.1838	8.43495-04
31.6228	6.27695-04	35.4813	4.68464-04	39.8107	3.47411-04
44.6683	2.58535-04	50.1187	1.93270-04	56.2341	1.44796-04
63.0957	1.08348-04	70.7945	8.11339-05	79.4328	6.08426-05
89.1250	4.56434-05	99.9999	3.42764-05	112.2018	2.57437-05
125.8925	1.92622-05	141.2536	1.42962-05	158.4892	1.07499-05
177.8278	8.08194-06	199.5261	6.07814-06	223.8719	4.57005-06

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(e) $n = 10$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.06280-05	-199.5261	1.44638-05	-177.8278	1.98501-05
-158.4892	2.74730-05	-141.2536	3.83630-05	-125.8925	5.56224-05
-112.2018	8.22042-05	-99.9999	1.26788-04	-89.1250	2.26055-04
-79.4328	5.64235-04	-70.7945	5.51929-03	-63.0957	2.30084-04
-56.2341	3.21566-04	-50.1187	4.49297-04	-44.6683	6.30709-04
-39.8107	6.92157-04	-35.4813	1.26542-03	-31.6228	1.81790-03
-28.1838	2.59994-03	-25.1189	3.80566-03	-22.3872	5.64247-03
-19.9526	8.23741-03	-17.7628	1.19015-02	-15.8489	1.26423-02
-14.1254	2.50347-03	-12.5892	3.20487-03	-11.2202	4.39168-03
-10.0000	6.10965-03	-8.9125	8.37688-03	-7.9433	1.11872-02
-7.0795	1.44930-02	-6.3096	1.82737-02	-5.6234	2.23908-02
-5.0119	2.67414-02	-4.4668	3.11203-02	-3.9811	3.53713-02
-3.5481	3.92881-02	-3.1623	4.27434-02	-2.8184	4.56714-02
-2.5119	4.82330-02	-2.2367	5.06295-02	-1.9953	5.29426-02
-1.7763	5.54940-02	-1.5849	5.85725-02	-1.4125	6.19021-02
-1.2589	6.50298-02	-1.1220	6.38370-02	-1.0000	6.68936-02
1.0000	1.45672-02	1.1220	1.97193-02	1.2589	2.62578-02
1.4125	3.30703-02	1.5849	3.85382-02	1.7763	4.19483-02
1.9953	4.47601-02	2.2367	4.93185-02	2.5119	5.21690-02
2.8184	4.99114-02	3.1623	4.64962-02	3.5481	4.36928-02
3.9811	4.13235-02	4.4668	3.88702-02	5.0119	3.62516-02
5.6234	3.33270-02	6.3096	3.01361-02	7.0795	2.67765-02
7.9433	2.33727-02	8.9125	2.00208-02	10.0000	1.67961-02
11.2202	1.37979-02	12.5892	1.11184-02	14.1254	8.80404-03
15.8489	6.66752-03	17.7628	5.28413-03	19.9526	4.02342-03
22.3872	3.03889-03	25.1189	2.28312-03	28.1838	1.70838-03
31.6228	1.27773-03	35.4813	9.58538-04	39.8107	7.11451-04
44.6683	5.28253-04	50.1187	3.96980-04	56.2341	2.97662-04
63.0957	2.22392-04	70.7945	1.68467-04	79.4328	1.25694-04
89.1250	9.38720-05	99.9999	6.90618-05	112.2018	5.16870-05
125.8925	3.87301-05	141.2536	2.90317-05	158.4892	2.17810-05
177.8278	1.63436-05	199.5261	1.21963-05	223.8719	9.15781-06

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(f) $n = 10$; $T = 10\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.06479-05	-199.5261	1.44970-05	-177.8278	1.99059-05
-158.4892	2.75698-05	-141.2536	3.85354-05	-125.8925	5.59466-05
-112.2018	8.28702-05	-99.9999	1.29614-04	-89.1250	2.34569-04
-79.4328	6.10035-04	-70.7945	6.66605-03	-63.0957	2.35750-04
-56.2341	3.31360-04	-50.1187	4.68024-04	-44.6683	6.64253-04
-39.8107	9.52056-04	-35.4813	1.36975-03	-31.6228	2.00256-03
-28.1838	2.92494-03	-25.1189	4.36646-03	-22.3872	6.57441-03
-19.9526	9.64391-03	-17.7828	1.32181-02	-15.8489	1.17764-02
-14.1254	3.13474-03	-12.5892	3.68815-03	-11.2202	5.05347-03
-10.0000	6.97006-03	-8.9125	9.41250-03	-7.9433	1.23273-02
-7.0795	1.56364-02	-6.3096	1.92725-02	-5.6234	2.31152-02
-5.0119	2.70180-02	-4.4668	3.07785-02	-3.9811	3.42006-02
-3.5481	3.71340-02	-3.1623	3.95457-02	-2.8184	4.15686-02
-2.5119	4.34528-02	-2.2387	4.54586-02	-1.9953	4.77717-02
-1.7783	5.04629-02	-1.5849	5.35007-02	-1.4125	5.68028-02
-1.2589	6.02768-02	-1.1220	6.37862-02	-1.0000	6.71785-02
1.0000	1.74828-02	1.1220	2.01494-02	1.2589	2.29115-02
1.4125	2.68764-02	1.5849	3.16560-02	1.7783	3.67293-02
1.9953	4.15929-02	2.2387	4.56549-02	2.5119	4.79514-02
2.8184	4.76289-02	3.1623	4.51304-02	3.5481	4.20955-02
3.9811	3.95938-02	4.4668	3.75858-02	5.0119	3.56718-02
5.6234	3.35334-02	6.3096	3.10313-02	7.0795	2.81890-02
7.9433	2.51112-02	8.9125	2.19158-02	10.0000	1.87160-02
11.2202	1.56270-02	12.5892	1.27517-02	14.1254	1.01737-02
15.8489	7.94928-03	17.7828	6.09650-03	19.9526	4.60479-03
22.3872	3.43882-03	25.1189	2.54940-03	28.1838	1.88013-03
31.6228	1.38749-03	35.4813	1.02713-03	39.8107	7.54049-04
44.6683	5.53854-04	50.1187	4.11667-04	56.2341	3.06295-04
63.0957	2.27709-04	70.7945	1.70338-04	79.4328	1.26827-04
89.1250	9.45597-05	99.9999	6.94817-05	112.2018	5.19448-05
125.8925	3.88892-05	141.2536	2.91304-05	158.4892	2.18424-05
177.8278	1.63820-05	199.5261	1.22356-05	223.8719	9.17302-06

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(g) $n = 10$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.06481-05	-199.5261	1.45025-05	-177.8278	1.99154-05
-158.4892	2.75915-05	-141.2536	3.85868-05	-125.8925	5.60343-05
-112.2018	8.31258-05	-99.9999	1.30720-04	-89.1250	2.38506-04
-79.4328	6.37715-04	-70.7945	7.71620-03	-63.0957	2.38045-04
-56.2341	3.35698-04	-50.1187	4.76505-04	-44.6683	6.80474-04
-39.8107	9.82647-04	-35.4813	1.42708-03	-31.6228	2.11018-03
-28.1838	3.12995-03	-25.1189	4.72301-03	-22.3872	7.14660-03
-19.9526	1.04378-02	-17.7828	1.35416-02	-15.8488	1.07914-02
-14.1254	4.02996-03	-12.5892	4.01174-03	-11.2202	5.47834-03
-10.0000	7.49285-03	-8.9125	1.00083-02	-7.9433	1.29480-02
-7.0795	1.62279-02	-6.3096	1.97553-02	-5.6234	2.33944-02
-5.0119	2.69574-02	-4.4668	3.02468-02	-3.9811	3.31243-02
-3.5481	3.55847-02	-3.1623	3.77511-02	-2.8184	3.98567-02
-2.5119	4.21145-02	-2.2387	4.46303-02	-1.9953	4.73977-02
-1.7783	5.03000-02	-1.5849	5.31676-02	-1.4125	5.57987-02
-1.2589	5.80832-02	-1.1220	5.98852-02	-1.0000	6.11973-02
1.0000	2.86004-02	1.1220	2.81575-02	1.2589	2.83753-02
1.4125	2.93991-02	1.5849	3.12733-02	1.7783	3.39020-02
1.9953	3.70067-02	2.2387	4.00661-02	2.5119	4.24366-02
2.8184	4.35563-02	3.1623	4.31704-02	3.5481	4.13459-02
3.9811	3.88659-02	4.4668	3.67631-02	5.0119	3.49727-02
5.6234	3.31775-02	6.3096	3.10953-02	7.0795	2.86218-02
7.9433	2.58025-02	8.9125	2.27859-02	10.0000	1.98486-02
11.2202	1.65680-02	12.5892	1.36402-02	14.1254	1.09572-02
15.8488	8.59387-03	17.7828	6.59318-03	19.9526	4.96428-03
22.3872	3.68437-03	25.1189	2.70901-03	28.1838	1.97974-03
31.6228	1.44800-03	35.4813	1.06321-03	39.8107	7.75252-04
44.6683	5.65894-04	50.1187	4.18347-04	56.2341	3.10067-04
63.0957	2.29866-04	70.7945	1.71120-04	79.4328	1.27282-04
89.1250	9.48185-05	99.9999	6.96294-05	112.2018	5.20258-05
125.8925	3.89329-05	141.2536	2.91530-05	158.4892	2.18532-05
177.8278	1.63864-05	199.5261	1.29741-05	223.8719	8.17257-06

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(h) $n = 10$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.11491-04	-199.5261	1.52339-04	-177.8278	2.04424-04
-158.4892	2.88141-04	-141.2536	3.94644-04	-125.8925	5.68220-04
-112.2018	8.07827-04	-99.9999	1.17729-03	-89.1250	1.78945-03
-79.4328	2.86908-03	-70.7945	4.39086-03	-63.0957	2.07873-03
-56.2341	2.70684-03	-50.1187	3.46325-03	-44.6683	4.33099-03
-39.8107	5.28539-03	-35.4813	6.23653-03	-31.6228	7.16187-03
-28.1838	7.86277-03	-25.1189	8.35112-03	-22.3872	8.48214-03
-19.9526	8.09812-03	-17.7828	7.35890-03	-15.8489	6.39644-03
-14.1254	6.04892-03	-12.5892	6.45592-03	-11.2202	6.87309-03
-10.0000	7.30887-03	-8.9125	7.79182-03	-7.9433	8.39464-03
-7.0795	9.15726-03	-6.3096	9.96764-03	-5.6234	1.07224-02
-5.0119	1.13716-02	-4.4668	1.18502-02	-3.9811	1.21296-02
-3.5481	1.22000-02	-3.1623	1.20576-02	-2.8184	1.18793-02
-2.5119	1.21998-02	-2.2387	1.23748-02	-1.9953	1.17838-02
-1.7783	1.19014-02	-1.5849	1.43445-02	-1.4125	1.82245-02
-1.2589	2.10182-02	-1.1220	2.13157-02	-1.0000	2.02768-02
1.0000	1.04653-03	1.1220	1.31038-03	1.2589	1.69526-03
1.4125	2.21876-03	1.5849	2.89649-03	1.7783	3.76477-03
1.9953	4.97355-03	2.2387	6.69892-03	2.5119	8.64437-03
2.8184	1.03193-02	3.1623	1.17757-02	3.5481	1.30520-02
3.9811	1.40623-02	4.4668	1.47129-02	5.0119	1.50174-02
5.6234	1.49586-02	6.3096	1.46040-02	7.0795	1.41095-02
7.9433	1.36042-02	8.9125	1.31698-02	10.0000	1.27135-02
11.2202	1.22172-02	12.5892	1.17016-02	14.1254	1.11789-02
15.8489	1.06248-02	17.7828	1.00194-02	19.9526	9.35078-03
22.3872	8.62303-03	25.1189	7.84180-03	28.1838	7.00103-03
31.6228	6.18997-03	35.4813	5.37463-03	39.8107	4.56580-03
44.6683	3.79107-03	50.1187	3.11273-03	56.2341	2.51725-03
63.0957	2.00283-03	70.7945	1.57198-03	79.4328	1.22144-03
89.1250	9.39423-04	99.9999	7.04985-04	112.2018	5.35240-04
125.8925	4.05216-04	141.2536	3.04639-04	158.4892	2.29399-04
177.8278	1.71746-04	199.5261	1.26372-04	223.8719	9.58934-05

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Continued

(i) $n = 10$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.20740-04	-199.5261	1.67385-04	-177.8278	2.33569-04
-158.4892	3.29184-04	-141.2538	4.65392-04	-125.8925	8.75714-04
-112.2018	9.77614-04	-99.9999	1.42594-03	-89.1250	2.09834-03
-79.4328	3.03177-03	-70.7945	3.71598-03	-63.0957	2.55331-03
-58.2341	3.28270-03	-50.1167	4.10541-03	-44.8683	4.97301-03
-39.8107	5.83545-03	-35.4813	6.59008-03	-31.6228	7.21667-03
-28.1838	7.56838-03	-25.1189	7.69904-03	-22.3872	7.55382-03
-19.9526	7.14084-03	-17.7828	8.61018-03	-15.8489	8.10668-03
-14.1254	8.01453-03	-12.5892	8.29172-03	-11.2202	8.55069-03
-10.0000	8.84937-03	-8.9125	7.27591-03	-7.9433	7.87802-03
-7.0795	8.57814-03	-6.3096	9.25991-03	-5.6234	9.80235-03
-5.0119	1.01388-02	-4.4688	1.02302-02	-3.9811	1.00862-02
-3.5481	9.74822-03	-3.1823	9.33920-03	-2.8184	9.04788-03
-2.5119	8.89578-03	-2.2387	8.90651-03	-1.9953	9.36574-03
-1.7783	1.04458-02	-1.5849	1.18481-02	-1.4125	1.30338-02
-1.2589	1.36511-02	-1.1220	1.36544-02	-1.0000	1.31809-02
1.0000	9.84837-04	1.1220	1.12160-03	1.2589	1.30921-03
1.4125	1.59057-03	1.5849	1.98882-03	1.7783	2.53180-03
1.9953	3.25488-03	2.2387	4.17673-03	2.5119	5.26374-03
2.8184	6.44023-03	3.1823	7.64400-03	3.5481	8.86442-03
3.9811	1.00715-02	4.4688	1.11862-02	5.0119	1.21082-02
5.6234	1.27108-02	6.3096	1.29207-02	7.0795	1.27745-02
7.9433	1.23657-02	8.9125	1.18394-02	10.0000	1.12801-02
11.2202	1.07562-02	12.5892	1.02945-02	14.1254	9.89801-03
15.8489	9.54137-03	17.7828	9.18815-03	19.9526	8.79472-03
22.3872	8.34312-03	25.1189	7.82133-03	28.1838	7.22657-03
31.6228	6.57813-03	35.4813	5.89527-03	39.8107	5.16479-03
44.8683	4.41433-03	50.1167	3.71207-03	58.2341	3.05610-03
63.0957	2.45795-03	70.7945	1.93843-03	79.4328	1.49939-03
89.1250	1.14254-03	99.9999	8.48581-04	112.2018	6.33531-04
125.8925	4.70553-04	141.2538	3.47790-04	158.4892	2.57144-04
177.8278	1.89815-04	199.5261	1.39863-04	223.8719	1.03029-04

TABLE B-VII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3554.00 Å - Concluded

(j) $n = 10$; $T = 30\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.25461-04	-199.5261	1.75487-04	-177.8278	2.47904-04
-158.4892	3.53765-04	-141.2536	5.07239-04	-125.8925	7.44456-04
-112.2018	1.08538-03	-99.9999	1.57324-03	-89.1250	2.25132-03
-79.4328	3.08609-03	-70.7945	3.51031-03	-63.0957	2.83721-03
-56.2341	3.60135-03	-50.1187	4.42299-03	-44.6683	5.24004-03
-39.8107	6.00003-03	-35.4813	6.61113-03	-31.6228	7.06433-03
-28.1838	7.28087-03	-25.1189	7.25419-03	-22.3872	7.03707-03
-19.9526	6.67308-03	-17.7828	6.27058-03	-15.8489	5.95601-03
-14.1254	5.94707-03	-12.5892	6.16211-03	-11.2202	6.38983-03
-10.0000	6.69876-03	-8.9125	7.16671-03	-7.9433	7.77313-03
-7.0795	8.40491-03	-6.3096	8.92546-03	-5.6234	9.24019-03
-5.0119	9.30414-03	-4.4668	9.13183-03	-3.9811	8.78379-03
-3.5481	8.24696-03	-3.1623	8.04755-03	-2.8184	7.89476-03
-2.5119	7.97831-03	-2.2387	8.27032-03	-1.9953	8.66837-03
-1.7783	9.04933-03	-1.5849	9.31328-03	-1.4125	9.40785-03
-1.2589	9.35400-03	-1.1220	9.15882-03	-1.0000	8.86711-03
1.0000	1.54176-03	1.1220	1.54062-03	1.2589	1.60229-03
1.4125	1.74594-03	1.5849	1.98531-03	1.7783	2.33321-03
1.9953	2.80264-03	2.2387	3.40337-03	2.5119	4.13359-03
2.8184	4.98980-03	3.1623	5.95876-03	3.5481	7.00949-03
3.9811	8.12176-03	4.4668	9.26561-03	5.0119	1.03500-02
5.6234	1.12423-02	6.3096	1.18074-02	7.0795	1.19715-02
7.9433	1.17631-02	8.9125	1.12947-02	10.0000	1.07025-02
11.2202	1.01099-02	12.5892	9.59429-03	14.1254	9.18456-03
15.8489	8.86861-03	17.7828	8.59653-03	19.9526	8.32555-03
22.3872	8.01149-03	25.1189	7.62823-03	28.1838	7.16616-03
31.6228	6.63471-03	35.4813	6.05098-03	39.8107	5.39945-03
44.6683	4.70123-03	50.1187	4.01998-03	56.2341	3.35752-03
63.0957	2.72982-03	70.7945	2.16456-03	79.4328	1.67885-03
89.1250	1.27516-03	99.9999	9.41758-04	112.2018	6.96239-04
125.8925	5.10972-04	141.2536	3.73341-04	158.4892	2.72803-04
177.8278	1.99306-04	199.5261	1.46197-04	223.8719	1.06509-04

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å

(a) $n = 11$; $T = 3000$ K; $N_e = 10^{13}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.31682-06	-199.5261	1.79645-06	-177.8278	2.42912-06
-158.4892	3.29012-06	-141.2536	4.53936-06	-125.8925	6.32629-06
-112.2018	6.75578-06	-99.9999	1.22816-05	-89.1250	1.75070-05
-79.4328	2.61767-05	-70.7945	4.24135-05	-63.0957	8.29378-05
-56.2341	3.01057-04	-50.1187	6.35317-03	-44.6683	7.03099-05
-39.8107	9.75849-05	-35.4813	1.35828-04	-31.6228	1.89988-04
-28.1838	2.66513-04	-25.1189	3.78235-04	-22.3872	5.38002-04
-19.9526	7.86323-04	-17.7828	1.14672-03	-15.8489	1.88840-03
-14.1254	2.99813-03	-12.5892	6.23692-03	-11.2202	1.38101-02
-10.0000	7.10607-04	-8.9125	1.04325-03	-7.9433	1.53484-03
-7.0795	2.35680-03	-6.3096	3.63500-03	-5.6234	5.54662-03
-5.0119	8.34504-03	-4.4668	1.22596-02	-3.9811	1.77386-02
-3.5481	2.47739-02	-3.1623	3.37243-02	-2.8184	4.48177-02
-2.5119	5.60040-02	-2.2387	7.30706-02	-1.9953	8.96102-02
-1.7783	1.06995-01	-1.5849	1.23768-01	-1.4125	1.40596-01
-1.2589	1.55473-01	-1.1220	1.68911-01	-1.0000	1.81079-01
1.0000	1.38833-01	1.1220	1.23577-01	1.2589	1.19300-01
1.4125	1.16378-01	1.5849	1.09784-01	1.7783	9.97640-02
1.9953	8.84411-02	2.2387	7.70279-02	2.5119	6.59044-02
2.8184	5.52566-02	3.1623	4.53317-02	3.5481	3.63872-02
3.9811	2.86060-02	4.4668	2.20852-02	5.0119	1.67894-02
5.6234	1.26141-02	6.3096	9.40322-03	7.0795	6.97324-03
7.9433	5.16282-03	8.9125	3.82619-03	10.0000	2.84084-03
11.2202	2.10847-03	12.5892	1.56992-03	14.1254	1.17373-03
15.8489	8.78292-04	17.7828	6.56510-04	19.9526	4.92789-04
22.3872	3.68833-04	25.1189	2.76533-04	28.1838	2.07520-04
31.6228	1.55921-04	35.4813	1.17205-04	39.8107	8.81850-05
44.6683	6.63551-05	50.1187	4.99684-05	56.2341	3.76199-05
63.0957	2.83386-05	70.7945	2.13498-05	79.4328	1.66602-05
89.1250	1.20531-05	99.9999	9.11131-06	112.2018	6.90329-06
125.8925	5.18683-06	141.2536	3.83040-06	158.4892	2.83003-06
177.8278	2.12976-06	199.5261	1.60293-06	223.8719	1.18743-06

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(b) $n = 11$; $T = 10\ 000\ \text{K}$; $N_e = 10^{13}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.31705-06	-199.5261	1.79681-06	-177.8278	2.42968-06
-158.4892	3.29102-06	-141.2536	4.54141-06	-125.8925	6.32904-06
-112.2018	8.75999-06	-99.9999	1.22891-05	-89.1250	1.75186-05
-79.4328	2.62081-05	-70.7945	4.24906-05	-63.0957	8.32854-05
-56.2341	3.06321-04	-50.1187	2.05895-02	-44.6683	7.04328-05
-39.8107	9.77911-05	-35.4813	1.36200-04	-31.6228	1.90617-04
-28.1838	2.67695-04	-25.1189	3.80362-04	-22.3872	5.42262-04
-19.9526	7.94564-04	-17.7828	1.18135-03	-15.8489	1.92395-03
-14.1254	3.18678-03	-12.5892	6.92962-03	-11.2202	1.19595-02
-10.0000	1.22259-03	-8.9125	1.08982-03	-7.9433	1.63971-03
-7.0795	2.54999-03	-6.3096	3.99852-03	-5.6234	6.20099-03
-5.0119	9.44148-03	-4.4668	1.40397-02	-3.9811	2.03036-02
-3.5481	2.83929-02	-3.1623	3.84614-02	-2.8184	5.05314-02
-2.5119	6.43418-02	-2.2387	7.95382-02	-1.9953	9.53865-02
-1.7783	1.11195-01	-1.5849	1.26355-01	-1.4125	1.40488-01
-1.2589	1.53417-01	-1.1220	1.64988-01	-1.0000	1.75124-01
1.0000	1.52090-01	1.1220	1.40603-01	1.2589	1.29290-01
1.4125	1.19004-01	1.5849	1.09951-01	1.7783	1.01254-01
1.9953	9.19553-02	2.2387	8.17673-02	2.5119	7.08960-02
2.8184	6.02132-02	3.1623	5.00081-02	3.5481	4.05433-02
3.9811	3.20754-02	4.4668	2.47967-02	5.0119	1.87856-02
5.6234	1.40026-02	6.3096	1.03207-02	7.0795	7.55933-03
7.9433	5.52591-03	8.9125	4.04441-03	10.0000	2.96888-03
11.2202	2.18478-03	12.5892	1.61448-03	14.1254	1.19773-03
15.8489	8.90439-04	17.7828	6.63956-04	19.9526	4.96311-04
22.3872	3.70965-04	25.1189	2.77818-04	28.1838	2.08302-04
31.6228	1.58397-04	35.4813	1.17497-04	39.8107	8.83635-05
44.6683	6.64658-05	50.1187	5.00347-05	56.2341	3.76625-05
63.0957	2.83663-05	70.7945	2.13665-05	79.4328	1.60706-05
89.1250	1.20596-05	99.9999	9.11547-06	112.2018	6.90597-06
125.8925	5.18853-06	141.2536	3.82110-06	158.4892	2.83073-06
177.8278	2.13021-06	199.5261	1.60322-06	223.8719	1.18762-06

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(c) $n = 11$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.31609-06	-199.5261	1.79556-06	-177.8278	2.42801-06
-158.4892	3.28892-06	-141.2536	4.54651-06	-125.8925	6.32633-06
-112.2018	8.75565-06	-99.9999	1.22838-05	-89.1250	1.75198-05
-79.4328	2.62135-05	-70.7945	4.25382-05	-63.0957	8.37447-05
-56.2341	3.17619-04	-50.1187	2.31047-02	-44.6683	7.04888-05
-39.8107	9.79085-05	-35.4813	1.36445-04	-31.6228	1.91068-04
-28.1838	2.68659-04	-25.1189	3.82061-04	-22.3872	5.45946-04
-19.9526	8.02012-04	-17.7828	1.21299-03	-15.8489	1.96726-03
-14.1254	3.44591-03	-12.5892	7.51338-03	-11.2202	9.53077-03
-10.0000	2.88117-03	-8.9125	1.23317-03	-7.9433	1.77994-03
-7.0795	2.82444-03	-6.3096	4.51177-03	-5.6234	7.12007-03
-5.0119	1.09842-02	-4.4668	1.64441-02	-3.9811	2.37694-02
-3.5481	3.31068-02	-3.1623	4.43996-02	-2.8184	5.73886-02
-2.5119	7.15400-02	-2.2387	8.61910-02	-1.9953	1.00616-01
-1.7783	1.14394-01	-1.5849	1.27147-01	-1.4125	1.38678-01
-1.2589	1.47772-01	-1.1220	1.55826-01	-1.0000	1.62377-01
1.0000	1.48389-01	1.1220	1.41579-01	1.2589	1.33975-01
1.4125	1.25305-01	1.5849	1.15970-01	1.7783	1.06075-01
1.9953	9.58536-02	2.2387	8.54205-02	2.5119	7.49381-02
2.8184	6.44558-02	3.1623	5.40777-02	3.5481	4.43561-02
3.9811	3.53539-02	4.4668	2.74388-02	5.0119	2.07730-02
5.6234	1.53990-02	6.3096	1.12407-02	7.0795	8.13204-03
7.9433	5.86757-03	8.9125	4.24186-03	10.0000	3.08042-03
11.2202	2.24818-03	12.5892	1.64977-03	14.1254	1.21700-03
15.8489	9.01254-04	17.7828	6.69814-04	19.9526	4.99328-04
22.3872	3.72697-04	25.1189	2.78790-04	28.1838	2.08849-04
31.6228	1.58696-04	35.4813	1.17658-04	39.8107	8.84450-05
44.6683	6.65047-05	50.1187	5.00500-05	56.2341	3.76658-05
63.0957	2.83638-05	70.7945	2.13621-05	79.4328	1.60652-05
89.1250	1.20544-05	99.9999	9.11090-06	112.2018	6.90215-06
125.8925	5.18542-06	141.2536	3.81357-06	158.4892	2.82886-06
177.8278	2.12875-06	199.5261	1.60209-06	223.8719	1.18677-06

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(d) $n = 11$; $T = 10\,000\text{ K}$; $N_e = 5 \times 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	6.66219-06	-199.5261	9.10857-06	-177.8278	1.23506-05
-158.4892	1.67845-05	-141.2536	2.32508-05	-125.8925	3.25495-05
-112.2018	4.53371-05	-99.9999	6.41298-05	-89.1250	9.24524-05
-79.4328	1.40897-04	-70.7945	2.32112-04	-63.0957	4.75877-04
-56.2341	1.90451-03	-50.1187	5.04952-03	-44.6683	3.86713-04
-39.8107	5.44586-04	-35.4813	7.72041-04	-31.6228	1.10144-03
-28.1838	1.58080-03	-25.1189	2.29591-03	-22.3872	3.33919-03
-19.9526	4.95246-03	-17.7828	7.34256-03	-15.8489	1.13034-02
-14.1254	1.54070-02	-12.5892	1.79683-02	-11.2202	9.94365-03
-10.0000	4.34925-03	-8.9125	5.99585-03	-7.9433	8.13569-03
-7.0795	1.10002-02	-6.3096	1.46096-02	-5.6234	1.88030-02
-5.0119	2.34728-02	-4.4668	2.84950-02	-3.9811	3.37027-02
-3.5481	3.85512-02	-3.1623	4.30940-02	-2.8184	4.75896-02
-2.5119	5.19982-02	-2.2387	5.60975-02	-1.9953	5.98420-02
-1.7783	6.24290-02	-1.5849	6.44348-02	-1.4125	6.57263-02
-1.2589	6.64844-02	-1.1220	6.67916-02	-1.0000	6.67255-02
1.0000	9.02388-02	1.1220	8.04008-02	1.2589	7.01500-02
1.4125	6.14257-02	1.5849	5.58067-02	1.7783	5.37057-02
1.9953	5.41855-02	2.2387	5.55830-02	2.5119	5.64371-02
2.8184	5.59754-02	3.1623	5.41215-02	3.5481	5.12226-02
3.9811	4.77144-02	4.4668	4.38931-02	5.0119	3.98971-02
5.6234	3.57575-02	6.3096	3.15235-02	7.0795	2.72680-02
7.9433	2.31037-02	8.9125	1.91508-02	10.0000	1.55236-02
11.2202	1.23108-02	12.5892	9.57036-03	14.1254	7.30633-03
15.8489	5.50081-03	17.7828	4.09854-03	19.9526	3.03342-03
22.3872	2.23648-03	25.1189	1.64810-03	28.1838	1.21468-03
31.6228	8.96476-04	35.4813	6.62847-04	39.8107	4.91426-04
44.6683	3.64981-04	50.1187	2.71383-04	56.2341	2.02904-04
63.0957	1.51132-04	70.7945	1.12762-04	79.4328	8.41271-05
89.1250	6.26949-05	99.9999	4.71109-05	112.2018	3.55126-05
125.8925	2.65666-05	141.2536	1.95004-05	158.4892	1.44044-05
177.8278	1.08105-05	199.5261	8.11748-06	223.8719	6.00230-06

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(e) $n = 11$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.34836-05	-199.5261	1.84738-05	-177.8278	2.51158-05
-158.4892	3.42407-05	-141.2536	4.75957-05	-125.8925	6.69074-05
-112.2018	9.37133-05	-99.9999	1.31487-04	-89.1250	1.90151-04
-79.4328	2.87529-04	-70.7945	4.75906-04	-63.0957	9.52785-04
-56.2341	3.27038-03	-50.1187	9.02680-04	-44.6683	7.91332-04
-39.8107	1.11120-03	-35.4813	1.56196-03	-31.6228	2.19974-03
-28.1838	3.08796-03	-25.1189	4.33375-03	-22.3872	5.98318-03
-19.9528	8.23422-03	-17.7828	1.09413-02	-15.8489	1.53224-02
-14.1254	1.65006-02	-12.5892	1.55733-02	-11.2202	8.22590-03
-10.0000	6.09514-03	-8.9125	8.06133-03	-7.9433	9.84650-03
-7.0795	1.22742-02	-6.3096	1.51217-02	-5.6234	1.82105-02
-5.0119	2.16331-02	-4.4668	2.48891-02	-3.9811	2.84105-02
-3.5481	3.20771-02	-3.1823	3.41413-02	-2.8184	3.65588-02
-2.5119	3.90811-02	-2.2387	4.13587-02	-1.9953	4.30788-02
-1.7783	4.40309-02	-1.5849	4.41367-02	-1.4125	4.34518-02
-1.2589	4.21642-02	-1.1220	4.06421-02	-1.0000	3.94514-02
1.0000	6.60798-02	1.1220	5.03896-02	1.2589	4.10639-02
1.4125	3.63474-02	1.5849	3.44997-02	1.7783	3.48013-02
1.9953	3.59795-02	2.2387	3.77566-02	2.5119	3.97761-02
2.8184	4.10337-02	3.1823	4.14136-02	3.5481	4.09048-02
3.9811	3.98395-02	4.4668	3.78283-02	5.0119	3.58533-02
5.6234	3.32209-02	6.3096	3.06064-02	7.0795	2.78347-02
7.9433	2.49554-02	8.9125	2.20102-02	10.0000	1.90768-02
11.2202	1.62231-02	12.5892	1.35340-02	14.1254	1.10751-02
15.8489	8.89523-03	17.7828	7.02192-03	19.9528	5.46410-03
22.3872	4.19196-03	25.1189	3.18393-03	28.1838	2.40032-03
31.6228	1.79878-03	35.4813	1.34285-03	39.8107	1.00245-03
44.6683	7.47004-04	50.1187	5.56485-04	56.2341	4.15081-04
63.0957	3.10365-04	70.7945	2.31994-04	79.4328	1.72728-04
89.1250	1.30088-04	99.9999	9.72702-05	112.2018	7.29974-05
125.8925	5.43958-05	141.2536	3.99098-05	158.4892	2.93225-05
177.8278	2.18493-05	199.5261	1.64445-05	223.8719	1.21376-05

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(f) $n = 11$; $T = 10\ 000\ K$; $N_e = 10^{14}\ cm^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.35178-05	-199.5261	1.85304-05	-177.8278	2.52103-05
-158.4892	3.44002-05	-141.2538	4.78764-05	-125.8925	6.73924-05
-112.2018	9.45874-05	-99.9999	1.34294-04	-89.1250	1.95439-04
-79.4328	3.00308-04	-70.7945	5.08150-04	-63.0957	1.06104-03
-56.2341	3.84407-03	-50.1187	2.22959-03	-44.6683	8.47479-04
-39.8107	1.20722-03	-35.4813	1.72529-03	-31.6228	2.47114-03
-28.1838	3.52590-03	-25.1189	5.01620-03	-22.3872	6.97880-03
-19.9526	9.56948-03	-17.7828	1.25430-02	-15.8489	1.64178-02
-14.1254	1.67317-02	-12.5892	1.43138-02	-11.2202	8.06036-03
-10.0000	6.85919-03	-8.9125	8.87278-03	-7.9433	1.06969-02
-7.0795	1.26761-02	-6.3096	1.54567-02	-5.6234	1.82190-02
-5.0119	2.11293-02	-4.4668	2.42277-02	-3.9811	2.74837-02
-3.5481	2.99554-02	-3.1623	3.18197-02	-2.8184	3.36042-02
-2.5119	3.52285-02	-2.2387	3.64160-02	-1.9953	3.69295-02
-1.7783	3.58190-02	-1.5849	3.59993-02	-1.4125	3.49836-02
-1.2589	3.39483-02	-1.1220	3.30486-02	-1.0000	3.23181-02
1.0000	6.83390-02	1.1220	5.95882-02	1.2589	5.04052-02
1.4125	4.22455-02	1.5849	3.62716-02	1.7783	3.28978-02
1.9953	3.17963-02	2.2387	3.22813-02	2.5119	3.36475-02
2.8184	3.52629-02	3.1623	3.65859-02	3.5481	3.72346-02
3.9811	3.70498-02	4.4668	3.60902-02	5.0119	3.45471-02
5.6234	3.26330-02	6.3096	3.04988-02	7.0795	2.82051-02
7.9433	2.57712-02	8.9125	2.32021-02	10.0000	2.05375-02
11.2202	1.78287-02	12.5892	1.51560-02	14.1254	1.25994-02
15.8489	1.02376-02	17.7828	8.13368-03	19.9526	6.33118-03
22.3872	4.83662-03	25.1189	3.64178-03	28.1838	2.71208-03
31.6228	2.00547-03	35.4813	1.47663-03	39.8107	1.08647-03
44.6683	7.99147-04	50.1187	5.88716-04	56.2341	4.34542-04
63.0957	3.21575-04	70.7945	2.38429-04	79.4328	1.76689-04
89.1250	1.31502-04	99.9999	9.81199-05	112.2018	7.35159-05
125.8925	5.47110-05	141.2538	3.99972-05	158.4892	2.94406-05
177.8278	2.20223-05	199.5261	1.64699-05	223.8719	1.21659-05

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(g) $n = 1:1$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber /cm	Intensity	Wavenumber /cm	Intensity	Wavenumber /cm	Intensity
-223.8719	1.35215-05	-199.5261	1.85403-05	-177.8278	2.52317-05
-158.4892	3.44451-05	-141.2536	4.80439-05	-125.8925	6.75734-05
-112.2018	9.49278-05	-99.9999	1.35379-04	-89.1250	1.97809-04
-79.4328	3.06349-04	-70.7945	5.25502-04	-63.0957	1.12976-03
-56.2341	4.23675-03	-50.1187	3.66333-03	-44.6683	8.76597-04
-39.8107	1.25995-03	-35.4813	1.81968-03	-31.6228	2.63436-03
-28.1838	3.79723-03	-25.1189	5.43644-03	-22.3872	7.57245-03
-19.9526	1.02991-02	-17.7828	1.33783-02	-15.8489	1.65589-02
-14.1254	1.64184-02	-12.5892	1.33841-02	-11.2202	8.54900-03
-10.0000	7.52035-03	-8.9125	9.21877-03	-7.9433	1.11177-02
-7.0795	1.32320-02	-6.3096	1.56127-02	-5.6234	1.82277-02
-5.0119	2.09897-02	-4.4668	2.37964-02	-3.9811	2.63977-02
-3.5481	2.85867-02	-3.1623	3.03611-02	-2.8184	3.15679-02
-2.5119	3.23376-02	-2.2387	3.26175-02	-1.9953	3.24568-02
-1.7783	3.22259-02	-1.5849	3.18073-02	-1.4125	3.14598-02
-1.2589	3.12769-02	-1.1220	3.13112-02	-1.0000	3.15830-02
1.0000	5.55032-02	1.1220	5.33493-02	1.2589	5.04555-02
1.4125	4.69197-02	1.5849	4.30230-02	1.7783	3.91771-02
1.9953	3.59142-02	2.2387	3.36819-02	2.5119	3.27224-02
2.8184	3.28575-02	3.1623	3.35508-02	3.5481	3.44308-02
3.9811	3.48489-02	4.4668	3.45768-02	5.0119	3.36081-02
5.6234	3.20969-02	6.3096	3.02370-02	7.0795	2.81707-02
7.9433	2.59532-02	8.9125	2.35985-02	10.0000	2.11179-02
11.2202	1.85412-02	12.5892	1.59366-02	14.1254	1.33838-02
15.8489	1.09887-02	17.7828	8.76871-03	19.9526	6.84594-03
22.3872	5.22827-03	25.1189	3.92172-03	28.1838	2.90095-03
31.6228	2.12734-03	35.4813	1.55244-03	39.8107	1.13206-03
44.6683	8.26177-04	50.1187	6.04465-04	56.2341	4.43572-04
63.0957	3.26608-04	70.7945	2.41193-04	79.4328	1.78261-04
89.1250	1.32072-04	99.9999	9.84447-05	112.2018	7.37002-05
125.8925	5.48127-05	141.2536	4.00009-05	158.4892	2.94698-05
177.8278	2.20368-05	199.5261	1.64963-05	223.8719	1.21681-05

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(h) $n = 11$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.41998-04	-199.5261	1.94102-04	-177.8270	2.63445-04
-158.4892	3.55180-04	-141.2536	4.87121-04	-125.8925	6.69281-04
-112.2018	9.03309-04	-99.9999	1.21393-03	-89.1250	1.61426-03
-79.4328	2.14141-03	-70.7945	2.81241-03	-63.0957	3.61256-03
-56.2341	4.41740-03	-50.1187	3.70227-03	-44.6683	4.47194-03
-39.8107	5.28217-03	-35.4813	6.07338-03	-31.8228	6.80328-03
-28.1838	7.40461-03	-25.1189	7.86027-03	-22.3872	8.09681-03
-19.9526	8.15630-03	-17.7828	8.09171-03	-15.8489	9.85561-03
-14.1254	6.50258-03	-12.5892	5.71645-03	-11.2202	5.16213-03
-10.0000	5.48669-03	-8.9125	5.66623-03	-7.9433	5.41339-03
-7.0795	5.29865-03	-6.3098	5.17768-03	-5.6234	5.09737-03
-5.0119	6.77539-03	-4.4668	6.92982-03	-3.9811	1.95249-02
-3.5481	1.25647-02	-3.1623	5.64575-03	-2.8184	3.98587-03
-2.5119	3.48826-03	-2.2387	3.14557-03	-1.9953	2.80655-03
-1.7783	2.47131-03	-1.5849	1.95727-03	-1.4125	1.87563-03
-1.2589	1.68355-03	-1.1220	1.78400-03	-1.0000	2.47515-03
1.0000	2.14224-02	1.1220	9.84826-03	1.2589	5.36591-03
1.4125	4.43726-03	1.5849	4.46932-03	1.7783	4.60968-03
1.9953	4.73446-03	2.2387	4.84342-03	2.5119	4.95299-03
2.8184	5.07858-03	3.1623	5.24472-03	3.5481	5.47312-03
3.9811	5.74048-03	4.4668	6.13963-03	5.0119	6.59178-03
5.6234	7.11056-03	6.3098	7.65541-03	7.0795	8.19000-03
7.9433	8.86738-03	8.9125	9.04287-03	10.0000	9.29357-03
11.2202	9.40383-03	12.5892	9.38478-03	14.1254	9.25492-03
15.8489	9.02900-03	17.7828	8.72744-03	19.9526	8.35345-03
22.3872	7.91435-03	25.1189	7.40904-03	28.1838	6.84542-03
31.8228	6.23232-03	35.4813	5.58222-03	39.8107	4.91363-03
44.6683	4.24636-03	50.1187	3.60269-03	56.2341	2.99914-03
63.0957	2.45430-03	70.7945	1.97566-03	79.4328	1.56504-03
89.1250	1.22299-03	99.9999	9.50332-04	112.2018	7.33459-04
125.8925	5.57471-04	141.2536	4.13998-04	158.4892	3.06226-04
177.8278	2.30826-04	199.5261	1.72895-04	223.8719	1.27857-04

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Continued

(i) $n = 11$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.57682-04	-199.5261	2.19465-04	-177.8278	3.03277-04
-158.4892	4.17728-04	-141.2536	5.82398-04	-125.8925	8.09852-04
-112.2018	1.10283-03	-99.9999	1.48141-03	-89.1250	1.94442-03
-79.4326	2.50889-03	-70.7945	3.15035-03	-63.0957	3.81579-03
-56.2341	4.39792-03	-50.1187	4.22920-03	-44.6683	4.90338-03
-39.8107	5.58810-03	-35.4813	6.15047-03	-31.6228	6.82883-03
-26.1838	6.96678-03	-25.1189	7.17944-03	-22.3872	7.23966-03
-19.9526	7.17989-03	-17.7828	7.12697-03	-15.8489	7.84853-03
-14.1254	5.67211-03	-12.5892	5.07329-03	-11.2202	4.83537-03
-10.0000	4.62890-03	-8.9125	4.51092-03	-7.9433	4.17010-03
-7.0795	3.86819-03	-6.3098	3.82437-03	-5.6234	3.81493-03
-5.0119	5.06080-03	-4.4668	6.84536-03	-3.9811	1.41845-02
-3.5481	1.18935-02	-3.1623	6.06142-03	-2.8184	3.15863-03
-2.5119	2.14893-03	-2.2387	1.74880-03	-1.9953	1.51990-03
-1.7783	1.38740-03	-1.5849	1.41460-03	-1.4125	1.70094-03
-1.2589	2.30459-03	-1.1220	3.19445-03	-1.0000	4.26501-03
1.0000	3.50177-02	1.1220	2.58580-02	1.2589	1.71702-02
1.4125	1.02701-02	1.5849	5.87454-03	1.7783	3.77853-03
1.9953	3.13373-03	2.2387	3.09899-03	2.5119	3.22443-03
2.8184	3.37837-03	3.1623	3.54044-03	3.5481	3.72315-03
3.9811	3.93542-03	4.4668	4.18123-03	5.0119	4.50081-03
5.6234	4.87275-03	6.3098	5.30592-03	7.0795	5.78867-03
7.9433	6.29498-03	8.9125	6.79071-03	10.0000	7.23049-03
11.2202	7.57620-03	12.5892	7.80289-03	14.1254	7.90236-03
15.8489	7.88094-03	17.7828	7.76224-03	19.9526	7.56430-03
22.3872	7.30693-03	25.1189	6.99474-03	28.1838	6.63284-03
31.6228	6.21643-03	35.4813	5.74758-03	39.8107	5.22807-03
44.6683	4.86973-03	50.1187	4.08933-03	56.2341	3.50225-03
63.0957	2.93504-03	70.7945	2.40484-03	79.4326	1.92359-03
89.1250	1.50527-03	99.9999	1.16501-03	112.2018	8.90342-04
125.8925	6.66992-04	141.2536	4.87280-04	158.4892	3.55920-04
177.8278	2.62983-04	199.5261	1.93801-04	223.8719	1.40937-04

TABLE B-VIII. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3530.00 Å - Concluded

(j) $n = 11$; $T = 30\ 000\ \text{K}$; $N_e = 10^{15}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.66319-04	-199.5261	2.34074-04	-177.8278	3.27387-04
-158.4892	4.57087-04	-141.2536	6.44529-04	-125.8925	9.00796-04
-112.2018	1.22909-03	-99.9999	1.64313-03	-89.1250	2.12992-03
-79.4328	2.69490-03	-70.7945	3.30195-03	-63.0957	3.90386-03
-56.2341	4.42445-03	-50.1187	4.45395-03	-44.6683	5.02637-03
-39.8107	5.58381-03	-35.4813	6.04392-03	-31.6228	6.39685-03
-28.1838	6.63300-03	-25.1189	6.76799-03	-22.3872	6.76431-03
-19.9526	6.70940-03	-17.7828	6.72548-03	-15.8489	6.81533-03
-14.1254	5.31776-03	-12.5892	4.69764-03	-11.2202	4.27543-03
-10.0000	4.07587-03	-8.9125	3.83075-03	-7.9433	3.48910-03
-7.0795	3.17802-03	-6.3096	3.10256-03	-5.6234	3.79281-03
-5.0119	5.82732-03	-4.4668	8.58244-03	-3.9811	9.94680-03
-3.5481	8.94718-03	-3.1623	6.67373-03	-2.8184	4.52382-03
-2.5119	3.05421-03	-2.2387	2.27094-03	-1.9953	1.99391-03
-1.7783	2.30273-03	-1.5849	2.85837-03	-1.4125	3.69830-03
-1.2589	4.79334-03	-1.1220	6.08943-03	-1.0000	7.53154-03
1.0000	2.91860-02	1.1220	2.62780-02	1.2589	2.27392-02
1.4125	1.87262-02	1.5849	1.45324-02	1.7783	1.05652-02
1.9953	7.25065-03	2.2387	4.88322-03	2.5119	3.52839-03
2.8184	2.96923-03	3.1623	2.80808-03	3.5481	2.98867-03
3.9811	3.18837-03	4.4668	3.41552-03	5.0119	3.67869-03
5.6234	3.98707-03	6.3096	4.34734-03	7.0795	4.76025-03
7.9433	5.21821-03	8.9125	5.70206-03	10.0000	6.17782-03
11.2202	6.60621-03	12.5892	6.94632-03	14.1254	7.16773-03
15.8489	7.25840-03	17.7828	7.22963-03	19.9526	7.10459-03
22.3872	6.91300-03	25.1189	6.67142-03	28.1838	6.39179-03
31.6228	6.06789-03	35.4813	5.69662-03	39.8107	5.27147-03
44.6683	4.79641-03	50.1187	4.28044-03	56.2341	3.73481-03
63.0957	3.18361-03	70.7945	2.64618-03	79.4328	2.13890-03
89.1250	1.68270-03	99.9999	1.30379-03	112.2018	9.92788-04
125.8925	7.37988-04	141.2536	5.33912-04	158.4892	3.86387-04
177.8278	2.81858-04	199.5261	2.05494-04	223.8719	1.47986-04

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å

(a) $n = 12$; $T = 3000$ K; $N_e = 10^{13}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.66860-06	-199.5261	2.23014-06	-177.8278	3.00045-06
-158.4892	4.04779-06	-141.2536	5.48361-06	-125.8925	7.43426-06
-112.2018	1.01322-05	-99.9999	1.38630-05	-89.1250	1.91853-05
-79.4328	2.68257-05	-70.7945	3.86739-05	-63.0957	5.74169-05
-56.2341	9.13071-05	-50.1187	1.69790-04	-44.6683	4.81846-04
-39.8107	1.91486-02	-35.4813	1.56540-04	-31.6226	2.16518-04
-28.1838	3.02263-04	-25.1189	4.30098-04	-22.3872	6.14022-04
-19.9526	8.63366-04	-17.7828	1.24419-03	-15.8489	1.82221-03
-14.1254	2.69932-03	-12.5892	4.22522-03	-11.2202	7.01455-03
-10.0000	1.28203-02	-8.9125	1.93894-02	-7.9433	2.65712-03
-7.0795	1.99360-03	-6.3096	3.02600-03	-5.6234	4.73744-03
-5.0119	7.32737-03	-4.4668	1.09929-02	-3.9811	1.65546-02
-3.5481	2.21961-02	-3.1623	2.97280-02	-2.8184	3.84912-02
-2.5119	4.83231-02	-2.2387	5.81832-02	-1.9953	7.01584-02
-1.7783	7.99160-02	-1.5849	9.00808-02	-1.4125	9.94656-02
-1.2589	1.08451-01	-1.1220	1.16011-01	-1.0000	1.29040-01
1.0000	1.54006-01	1.1220	1.45896-01	1.2589	1.34005-01
1.4125	1.22297-01	1.5849	1.11975-01	1.7783	1.02334-01
1.9953	9.28383-02	2.2387	8.28614-02	2.5119	7.28968-02
2.8184	6.29506-02	3.1623	5.31791-02	3.5481	4.41534-02
3.9811	3.58250-02	4.4668	2.84722-02	5.0119	2.22011-02
5.6234	1.70277-02	6.3096	1.28856-02	7.0795	9.66144-03
7.9433	7.19415-03	8.9125	5.34125-03	10.0000	3.95417-03
11.2202	2.92929-03	12.5892	2.17420-03	14.1254	1.61801-03
15.8489	1.20428-03	17.7828	9.00534-04	19.9526	6.71829-04
22.3872	5.04117-04	25.1189	3.76752-04	28.1838	2.81752-04
31.6226	2.11018-04	35.4813	1.58185-04	39.8107	1.18712-04
44.6683	8.91316-05	50.1187	6.69766-05	56.2341	5.03379-05
63.0957	3.78547-05	70.7945	2.84868-05	79.4328	2.11873-05
89.1250	1.59369-05	99.9999	1.19910-05	112.2018	9.01971-06
125.8925	6.78591-06	141.2536	5.10372-06	158.4892	3.82907-06
177.8278	2.87958-06	199.5261	2.16470-06	223.8719	1.62624-06

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(b) $n = 12$; $T = 10\ 000\ K$; $N_e = 10^{13}\ cm^{-3}$

Wavenumber 1/cm.	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.66237-06	-199.5261	2.23068-06	-177.8278	3.00132-06
-158.4892	4.04916-08	-141.2536	5.48522-06	-125.8925	7.43786-06
-112.2018	1.01382-05	-99.9999	1.38731-05	-89.1250	1.92027-05
-79.4328	2.66499-05	-70.7945	3.87325-05	-63.0957	5.75393-05
-56.2341	9.16139-05	-50.1187	1.70907-04	-44.6683	4.98729-04
-39.8107	2.67855-02	-35.4813	1.57089-04	-31.6228	2.17495-04
-28.1838	3.04025-04	-25.1189	4.33361-04	-22.3872	6.20191-04
-19.9528	6.80981-04	-17.7828	1.27686-03	-15.8489	1.88844-03
-14.1254	2.84050-03	-12.5892	4.53589-03	-11.2202	7.77706-03
-10.0000	1.42372-02	-8.9125	1.84164-02	-7.9433	5.15499-03
-7.0795	2.23895-03	-6.3098	3.40609-03	-5.6234	5.39886-03
-5.0119	8.39247-03	-4.4668	1.25707-02	-3.9811	1.87063-02
-3.5481	2.48051-02	-3.1623	3.27228-02	-2.8184	4.73713-02
-2.5119	5.28271-02	-2.2387	6.22767-02	-1.9953	7.17067-02
-1.7783	9.65389-02	-1.5849	1.05017-01	-1.4125	1.13177-01
-1.2589	1.20149-01	-1.1220	1.25982-01	-1.0000	1.30684-01
1.0000	1.36594-01	1.1220	1.34070-01	1.2589	1.29364-01
1.4125	1.22540-01	1.5849	1.14085-01	1.7783	1.04883-01
1.9953	9.54732-02	2.2387	8.60895-02	2.5119	7.65857-02
2.8184	6.70421-02	3.1623	5.75405-02	3.5481	4.83045-02
3.9811	3.98203-02	4.4668	3.17286-02	5.0119	2.48272-02
5.6234	1.90198-02	6.3098	1.43151-02	7.0795	1.06319-02
7.9433	7.82761-03	8.9125	5.73844-03	10.0000	4.19950-03
11.2202	3.07696-03	12.5892	2.26231-03	14.1254	1.66922-03
15.8489	1.23468-03	17.7828	9.18452-04	19.9528	6.81231-04
22.3872	5.08223-04	25.1189	3.79126-04	28.1838	2.83181-04
31.6228	2.11884-04	35.4813	1.58711-04	39.8107	1.19033-04
44.6683	8.93284-05	50.1187	6.70977-05	56.2341	5.04128-05
63.0957	3.79010-05	70.7945	2.84957-05	79.4328	2.12054-05
89.1250	1.59482-05	99.9999	1.19981-05	112.2018	9.02421-06
125.8925	6.78875-06	141.2536	5.10553-06	158.4892	3.83024-06
177.8278	2.88033-06	199.5261	2.16518-06	223.8719	1.62656-07

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(c) $n = 12$; $T = 30\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.64803-06	-199.5261	2.22905-06	-177.8278	2.99924-06
-158.4892	4.04843-06	-141.2536	5.48139-06	-125.8925	7.43357-06
-112.2018	1.01329-05	-99.9999	1.38676-05	-89.1250	1.91471-05
-79.4328	2.68511-05	-70.7945	3.87431-05	-63.0957	5.75874-05
-56.2341	9.18034-05	-50.1187	1.72010-04	-44.6683	5.20278-04
-39.8107	2.69714-02	-35.4813	1.57208-04	-31.6228	2.18086-04
-28.1838	3.05537-04	-25.1189	4.38052-04	-22.3872	6.24486-04
-19.9528	8.92911-04	-17.7828	1.30078-03	-15.8489	1.93856-03
-14.1254	2.98709-03	-12.5892	4.83862-03	-11.2202	8.59302-03
-10.0000	1.46898-02	-8.9125	1.54855-02	-7.9433	7.48330-03
-7.0795	3.38783-03	-6.3098	3.98044-03	-5.6234	6.28207-03
-5.0119	9.75281-03	-4.4868	1.44905-02	-3.9811	2.11000-02
-3.5481	2.89114-02	-3.1623	3.73902-02	-2.8184	5.37487-02
-2.5119	6.48715-02	-2.2387	7.58309-02	-1.9953	8.57029-02
-1.7783	9.47581-02	-1.5849	1.02639-01	-1.4125	1.09357-01
-1.2589	1.15193-01	-1.1220	1.20314-01	-1.0000	1.24854-01
1.0000	1.29571-01	1.1220	1.26514-01	1.2589	1.22618-01
1.4125	1.17259-01	1.5849	1.12082-01	1.7783	1.05327-01
1.9953	9.80804-02	2.2387	8.92933-02	2.5119	7.99130-02
2.8184	7.03583-02	3.1623	6.08616-02	3.5481	5.15452-02
3.9811	4.26830-02	4.4868	3.44276-02	5.0119	2.70845-02
5.6234	2.07549-02	6.3098	1.55734-02	7.0795	1.14852-02
7.9433	8.37518-03	8.9125	6.07245-03	10.0000	4.39731-03
11.2202	3.19113-03	12.5892	2.32700-03	14.1254	1.70535-03
15.8489	1.25493-03	17.7828	9.27306-04	19.9528	6.87269-04
22.3872	5.11177-04	25.1189	3.80777-04	28.1838	2.84107-04
31.6228	2.12395-04	35.4813	1.58988-04	39.8107	1.19177-04
44.6683	8.84001-05	50.1187	6.71287-05	56.2341	5.04233-05
63.0957	3.79009-05	70.7945	2.84909-05	79.4328	2.11993-05
89.1250	1.59418-05	99.9999	1.19923-05	112.2018	9.01919-06
125.8925	6.78480-06	141.2536	5.10219-06	158.4892	3.82761-06
177.8278	2.87827-06	199.5261	2.16356-06	223.8719	1.82532-06

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(d) $n = 12$; $T = 10\,000\text{ K}$; $N_e = 5 \times 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	8.43704-06	-199.5261	1.13542-05	-177.8278	1.53294-05
-158.4892	2.07672-05	-141.2536	2.82715-05	-125.8925	3.85679-05
-112.2018	5.29595-05	-99.9999	7.31293-05	-89.1250	1.02388-04
-79.4328	1.44894-04	-70.7945	2.11691-04	-63.0957	3.21619-04
-56.2341	5.27307-04	-50.1187	1.02859-03	-44.6683	3.07373-03
-39.8107	1.93154-02	-35.4813	9.15106-04	-31.6228	1.29195-03
-28.1838	1.84236-03	-25.1189	2.67142-03	-22.3872	3.86308-03
-19.9528	5.48951-03	-17.7828	7.75370-03	-15.8489	1.07468-02
-14.1254	1.42213-02	-12.5892	1.80039-02	-11.2202	2.04441-02
-10.0000	1.90538-02	-8.9125	1.20631-02	-7.9433	6.70868-03
-7.0795	7.29736-03	-6.3098	9.07255-03	-5.6234	1.14269-02
-5.0119	1.42363-02	-4.4668	1.73929-02	-3.9811	2.14475-02
-3.5481	2.43702-02	-3.1623	2.79840-02	-2.8184	3.48083-02
-2.5119	3.46434-02	-2.2387	3.79026-02	-1.9953	4.06101-02
-1.7783	4.31421-02	-1.5849	4.54667-02	-1.4125	4.85851-02
-1.2589	5.20345-02	-1.1220	5.35172-02	-1.0000	5.51801-02
1.0000	4.94934-02	1.1220	5.39351-02	1.2589	5.82312-02
1.4125	6.16511-02	1.5849	6.34284-02	1.7783	6.31788-02
1.9953	6.10264-02	2.2387	5.77083-02	2.5119	5.42484-02
2.8184	5.11479-02	3.1623	4.85894-02	3.5481	4.63557-02
3.9811	4.41336-02	4.4668	4.16922-02	5.0119	3.89375-02
5.6234	3.58819-02	6.3098	3.25787-02	7.0795	2.91023-02
7.9433	2.55269-02	8.9125	2.19495-02	10.0000	1.84614-02
11.2202	1.51787-02	12.5892	1.22074-02	14.1254	9.61469-03
15.8489	7.42083-03	17.7828	5.63103-03	19.9528	4.21881-03
22.3872	3.13047-03	25.1189	2.31095-03	28.1838	1.70004-03
31.6228	1.25058-03	35.4813	9.20219-04	39.8107	6.78820-04
44.6683	5.01591-04	50.1187	3.71747-04	56.2341	2.75798-04
63.0957	2.05327-04	70.7945	1.52925-04	79.4328	1.12667-04
89.1250	8.39829-05	99.9999	6.26753-05	112.2018	4.68276-05
125.8925	3.50287-05	141.2536	2.82170-05	158.4892	1.95891-05
177.8278	1.46797-05	199.5261	1.10024-05	223.8719	8.24470-06

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(e) $n = 12$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.71989-05	-199.5261	2.31195-05	-177.8278	3.13156-05
-158.4892	4.25872-05	-141.2536	5.82406-05	-125.8925	7.98605-05
-112.2018	1.08908-04	-99.9999	1.51026-04	-89.1250	2.10081-04
-79.4328	2.97421-04	-70.7945	4.33314-04	-63.0957	6.53155-04
-56.2341	1.04877-03	-50.1187	1.91288-03	-44.6683	4.48725-03
-39.8107	1.25966-02	-35.4813	1.81583-03	-31.6228	2.50387-03
-28.1838	3.44305-03	-25.1189	4.75575-03	-22.3872	6.44682-03
-19.9526	8.43426-03	-17.7828	1.07953-02	-15.8489	1.33452-02
-14.1254	1.55235-02	-12.5892	1.71636-02	-11.2202	1.71442-02
-10.0000	1.46288-02	-8.9125	9.85778-03	-7.9433	7.18378-03
-7.0795	8.16082-03	-6.3096	9.63715-03	-5.6234	1.14947-02
-5.0119	1.35406-02	-4.4668	1.57000-02	-3.9811	1.83234-02
-3.5481	2.02892-02	-3.1623	2.26702-02	-2.8184	2.50184-02
-2.5119	2.72141-02	-2.2387	2.90671-02	-1.9953	3.06776-02
-1.7783	3.26472-02	-1.5849	3.50448-02	-1.4125	3.67698-02
-1.2589	3.73000-02	-1.1220	3.88361-02	-1.0000	3.62306-02
1.0000	2.87395-02	1.1220	3.42171-02	1.2589	3.94354-02
1.4125	4.37575-02	1.5849	4.65828-02	1.7783	4.76159-02
1.9953	4.89934-02	2.2387	4.51907-02	2.5119	4.28586-02
2.8184	4.03991-02	3.1623	3.82633-02	3.5481	3.64791-02
3.9811	3.49796-02	4.4668	3.36094-02	5.0119	3.22019-02
5.6234	3.08530-02	6.3096	2.89028-02	7.0795	2.69598-02
7.9433	2.48242-02	8.9125	2.25413-02	10.0000	2.01399-02
11.2202	1.78872-02	12.5892	1.52498-02	14.1254	1.29075-02
15.8489	1.07039-02	17.7828	8.70279-03	19.9526	6.94610-03
22.3872	5.44979-03	25.1189	4.21394-03	28.1838	3.21786-03
31.6228	2.43698-03	35.4813	1.82951-03	39.8107	1.36860-03
44.6683	1.01908-03	50.1187	7.59484-04	56.2341	5.63954-04
63.0957	4.20384-04	70.7945	3.13105-04	79.4328	2.31830-04
89.1250	1.72898-04	99.9999	1.29558-04	112.2018	9.70237-05
125.8925	7.22226-05	141.2536	5.38224-05	158.4892	4.00669-05
177.8278	2.99275-05	199.5261	2.23672-05	223.8719	1.87202-05

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(f) $n = 12$; $T = 10\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.71891-05	-199.5261	2.32144-05	-177.8278	3.14738-05
-158.4892	4.28538-05	-141.2536	5.46885-05	-125.8925	8.06460-05
-112.2018	1.11118-04	-99.9999	1.54738-04	-89.1250	2.17970-04
-79.4328	3.11727-04	-70.7945	4.62038-04	-63.0957	7.10409-04
-56.2341	1.17264-03	-50.1187	2.20099-03	-44.6683	5.06843-03
-39.8107	9.71267-03	-35.4813	2.05168-03	-31.6228	2.87025-03
-28.1838	3.99398-03	-25.1189	5.54761-03	-22.3872	7.49764-03
-19.9526	9.68515-03	-17.7828	1.20782-02	-15.8489	1.43609-02
-14.1254	1.59420-02	-12.5892	1.66325-02	-11.2202	1.56665-02
-10.0000	1.29347-02	-8.9125	9.30211-03	-7.9433	7.70957-03
-7.0795	8.55484-03	-6.3096	9.99280-03	-5.6234	1.16967-02
-5.0119	1.34874-02	-4.4668	1.53005-02	-3.9811	1.74253-02
-3.5481	1.91131-02	-3.1623	2.11325-02	-2.8184	2.44782-02
-2.5119	2.50605-02	-2.2387	2.69815-02	-1.9953	2.87003-02
-1.7783	3.02597-02	-1.5849	3.14938-02	-1.4125	3.24090-02
-1.2589	3.34385-02	-1.1220	3.48147-02	-1.0000	3.53274-02
1.0000	2.29573-02	1.1220	2.60331-02	1.2589	2.95567-02
1.4125	3.32540-02	1.5849	3.66164-02	1.7783	3.92483-02
1.9953	4.07133-02	2.2387	4.08366-02	2.5119	3.97551-02
2.8184	3.78854-02	3.1623	3.57461-02	3.5481	3.37716-02
3.9811	3.21762-02	4.4668	3.09362-02	5.0119	2.98914-02
5.6234	2.88492-02	6.3096	2.76642-02	7.0795	2.62722-02
7.9433	2.46544-02	8.9125	2.28369-02	10.0000	2.08392-02
11.2202	1.87038-02	12.5892	1.64861-02	14.1254	1.42504-02
15.8489	1.20423-02	17.7828	9.94170-03	19.9526	8.01673-03
22.3872	6.32079-03	25.1189	4.88297-03	28.1838	3.70687-03
31.6228	2.77710-03	35.4813	2.05908-03	39.8107	1.51832-03
44.6683	1.11528-03	50.1187	8.19267-04	56.2341	6.01591-04
63.0957	4.43067-04	70.7945	3.26710-04	79.4328	2.39460-04
89.1250	1.77300-04	99.9999	1.31785-04	112.2018	9.80021-05
125.8925	7.28122-05	141.2536	5.41797-05	158.4892	4.02846-05
177.8278	3.00809-05	199.5261	2.24493-05	223.8719	1.67710-05

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(g) $n = 12$; $T = 30\ 000\ K$; $N_e = 10^{14}\ cm^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.70655-05	-199.5261	2.32366-05	-177.8278	3.15186-05
-158.4892	4.29393-05	-141.2536	5.88460-05	-125.8925	8.09483-05
-112.2018	1.11965-04	-99.9999	1.56317-04	-89.1250	2.21416-04
-79.4328	3.18650-04	-70.7945	4.76681-04	-63.0957	7.42159-04
-56.2341	1.24652-03	-50.1187	2.37632-03	-44.6683	5.35020-03
-39.8107	7.89821-03	-35.4813	2.19115-03	-31.6228	3.09443-03
-28.1838	4.33400-03	-25.1189	6.01927-03	-22.3872	8.07746-03
-19.9526	1.03204-02	-17.7828	1.26295-02	-15.8489	1.46488-02
-14.1254	1.58637-02	-12.5892	1.60127-02	-11.2202	1.47006-02
-10.0000	1.21041-02	-8.9125	9.36789-03	-7.9433	8.28469-03
-7.0795	8.91331-03	-6.3096	1.02577-02	-5.6234	1.18305-02
-5.0119	1.34726-02	-4.4668	1.51608-02	-3.9811	1.71247-02
-3.5481	1.87697-02	-3.1623	2.06257-02	-2.8184	2.44234-02
-2.5119	2.44286-02	-2.2387	2.73959-02	-1.9953	2.86170-02
-1.7783	2.97844-02	-1.5849	3.04955-02	-1.4125	3.11117-02
-1.2589	3.15388-02	-1.1220	3.17640-02	-1.0000	3.18410-02
1.0000	2.44547-02	1.1220	2.55516-02	1.2589	2.69952-02
1.4125	2.87242-02	1.5849	3.06846-02	1.7783	3.26869-02
1.9953	3.44622-02	2.2387	3.56725-02	2.5119	3.61140-02
2.8184	3.56834-02	3.1623	3.44978-02	3.5481	3.28930-02
3.9811	3.12467-02	4.4668	2.98364-02	5.0119	2.87142-02
5.6234	2.77587-02	6.3096	2.67877-02	7.0795	2.58626-02
7.9433	2.43225-02	8.9125	2.27559-02	10.0000	2.09836-02
11.2202	1.90411-02	12.5892	1.69782-02	14.1254	1.48455-02
15.8489	1.26887-02	17.7828	1.05817-02	19.9526	8.60318-03
22.3872	6.82068-03	25.1189	5.28026-03	28.1838	4.00263-03
31.6228	2.98357-03	35.4813	2.19611-03	39.8107	1.60501-03
44.6683	1.16888-03	50.1187	8.51046-04	56.2341	6.20482-04
63.0957	4.53836-04	70.7945	3.32878-04	79.4328	2.42759-04
89.1250	1.79125-04	99.9999	1.32853-04	112.2018	9.83826-05
125.8925	7.30282-05	141.2536	5.42984-05	158.4892	4.03493-05
177.8278	3.00950-05	199.5261	2.24863-05	223.8719	1.67786-05

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(h) $n = 12$; $T = 3000$ K; $N_e = 10^{15} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.80356-04	-199.5261	2.41588-04	-177.8278	3.24232-04
-158.4892	4.34188-04	-141.2536	5.79286-04	-125.8925	7.63659-04
-112.2018	1.00031-03	-99.9999	1.29388-03	-89.1250	1.65383-03
-79.4328	2.07876-03	-70.7945	2.59110-03	-63.0957	3.13469-03
-56.2341	3.70379-03	-50.1187	4.26559-03	-44.6683	4.74362-03
-39.8107	4.98851-03	-35.4813	5.08343-03	-31.6228	5.53458-03
-28.1838	5.92597-03	-25.1189	6.27745-03	-22.3872	6.52517-03
-19.9526	6.64889-03	-17.7828	6.72936-03	-15.8489	6.75600-03
-14.1254	6.76656-03	-12.5892	6.80920-03	-11.2202	6.90599-03
-10.0000	7.05357-03	-8.9125	7.24837-03	-7.9433	7.47680-03
-7.0795	7.66904-03	-6.3096	7.75449-03	-5.6234	7.77058-03
-5.0119	7.75648-03	-4.4668	7.70530-03	-3.9811	7.59319-03
-3.5481	7.35413-03	-3.1623	6.99985-03	-2.8184	6.53348-03
-2.5119	5.99230-03	-2.2387	5.42937-03	-1.9953	4.97873-03
-1.7783	4.74877-03	-1.5849	4.46795-03	-1.4125	3.93150-03
-1.2589	3.35581-03	-1.1220	3.03391-03	-1.0000	3.16157-03
1.0000	1.48504-03	1.1220	1.80520-03	1.2589	2.19875-03
1.4125	2.67584-03	1.5849	3.24408-03	1.7783	3.90590-03
1.9953	4.66317-03	2.2387	5.50110-03	2.5119	6.40454-03
2.8184	7.33947-03	3.1623	8.25475-03	3.5481	9.07819-03
3.9811	9.76202-03	4.4668	1.02489-02	5.0119	1.04937-02
5.6234	1.04972-02	6.3096	1.03001-02	7.0795	9.96320-03
7.9433	9.55584-03	8.9125	9.14989-03	10.0000	8.78932-03
11.2202	8.48506-03	12.5892	8.24035-03	14.1254	8.03490-03
15.8489	7.83745-03	17.7828	7.63370-03	19.9526	7.39691-03
22.3872	7.12226-03	25.1189	6.79675-03	28.1838	6.42048-03
31.6228	5.99231-03	35.4813	5.51662-03	39.8107	5.00077-03
44.6683	4.45779-03	50.1187	3.90427-03	56.2341	3.35175-03
63.0957	2.82469-03	70.7945	2.33591-03	79.4328	1.87497-03
89.1250	1.50087-03	99.9999	1.16495-03	112.2018	9.23190-04
125.8925	7.12225-04	141.2536	5.45560-04	158.4892	4.12940-04
177.8278	3.11514-04	199.5261	2.34294-04	223.8719	1.75405-04

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Continued

(i) $n = 12$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	2.05018-04	-199.5261	2.40726-04	-177.8278	3.44019-04
-158.4892	5.22965-04	-141.2536	7.06862-04	-125.8925	9.40721-04
-112.2018	1.23245-03	-99.9999	1.57787-03	-89.1250	1.97669-03
-79.4328	2.41140-03	-70.7945	2.89490-03	-63.0957	3.36151-03
-56.2341	3.80582-03	-50.1187	4.21109-03	-44.6683	4.54445-03
-39.8107	4.75904-03	-35.4813	4.86855-03	-31.6228	5.15653-03
-28.1838	5.39320-03	-25.1189	5.59480-03	-22.3872	5.72392-03
-19.9526	5.78629-03	-17.7828	5.85218-03	-15.8489	5.94293-03
-14.1254	6.10071-03	-12.5892	6.34697-03	-11.2202	6.65288-03
-10.0000	6.95582-03	-8.9125	7.18842-03	-7.9433	7.31233-03
-7.0795	7.30278-03	-6.3096	7.15837-03	-5.6234	6.92076-03
6.0119	6.61658-03	-4.4668	6.25171-03	-3.9811	5.83127-03
-3.5481	5.34866-03	-3.1623	4.83686-03	-2.8184	4.31829-03
-2.5119	3.83198-03	-2.2387	3.41868-03	-1.9953	3.08588-03
-1.7783	2.81484-03	-1.5849	2.60888-03	-1.4125	2.48330-03
-1.2589	2.47918-03	-1.1220	2.58350-03	-1.0000	2.75281-03
1.0000	9.96968-04	1.1220	1.16552-03	1.2589	1.38335-03
1.4125	1.65847-03	1.5849	1.99544-03	1.7783	2.30373-03
1.9953	2.88080-03	2.2387	3.43933-03	2.5119	4.07677-03
2.8184	4.78658-03	3.1623	5.55432-03	3.5481	6.34791-03
3.9811	7.12917-03	4.4668	7.84447-03	5.0119	8.42887-03
5.6234	8.82551-03	6.3096	9.00070-03	7.0795	8.94709-03
7.9433	8.69932-03	8.9125	8.32033-03	10.0000	7.88835-03
11.2202	7.47296-03	12.5892	7.12399-03	14.1254	6.86034-03
15.8489	6.67136-03	17.7828	6.53496-03	19.9526	6.41637-03
22.3872	6.29016-03	25.1189	6.13229-03	28.1838	5.93142-03
31.6228	5.68155-03	35.4813	5.37900-03	39.8107	5.02728-03
44.6683	4.62778-03	50.1187	4.18897-03	56.2341	3.71814-03
63.0957	3.23237-03	70.7945	2.74728-03	79.4328	2.25914-03
89.1250	1.83627-03	99.9999	1.46066-03	112.2018	1.13833-03
125.8925	8.72249-04	141.2536	6.59342-04	158.4892	4.91817-04
177.8278	3.64799-04	199.5261	2.69415-04	223.8719	1.98326-04

TABLE B-IX. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3512.00 Å - Concluded

(j) $n = 12$; $T = 30\ 000\ K$; $N_e = 10^{15}\ cm^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8710	2.18325-04	-199.5261	3.04923-04	-177.8274	4.22195-04
-158.4892	5.80782-04	-141.2536	7.90037-04	-125.8925	1.05355-04
-112.2018	1.37409-03	-99.9999	1.74027-03	-89.1250	2.14462-03
-79.4328	2.56405-03	-70.7945	3.00940-03	-63.0957	3.41748-03
-56.2341	3.78970-03	-50.1187	4.11811-03	-44.6683	4.39029-03
-39.8107	4.51130-03	-35.4813	4.67312-03	-31.6228	4.90115-03
-28.1838	5.08308-03	-25.1189	5.22755-03	-22.3872	5.31260-03
-19.9526	5.36438-03	-17.7828	5.45233-03	-15.8489	5.61535-03
-14.1254	5.88329-03	-12.5892	6.24292-03	-11.2202	6.62559-03
-10.0000	6.93799-03	-8.9125	7.10656-03	-7.9433	7.10692-03
-7.0795	6.94576-03	-6.3096	6.64778-03	-5.6234	6.25703-03
-5.0110	5.80664-03	-4.4668	5.31820-03	-3.9811	4.81699-03
-3.5481	4.30910-03	-3.1623	3.82646-03	-2.8184	3.41215-03
-2.5119	3.02590-03	-2.2387	2.73339-03	-1.9953	2.51894-03
-1.7783	2.37503-03	-1.5849	2.28578-03	-1.4125	2.23585-03
-1.2589	2.20821-03	-1.1220	2.18944-03	-1.0000	2.17267-03
1.0000	1.11572-03	1.1220	1.19001-03	1.2589	1.30314-03
1.4125	1.46417-03	1.5849	1.68024-03	1.7783	1.95829-03
1.9953	2.30152-03	2.2387	2.72128-03	2.5119	3.21552-03
2.8184	3.78298-03	3.1623	4.42013-03	3.5481	5.11276-03
3.9811	5.83814-03	4.4668	6.55948-03	5.0119	7.22792-03
5.6234	7.78435-03	6.3096	8.17017-03	7.0795	8.34157-03
7.9433	8.28313-03	8.9125	8.01895-03	10.0000	7.61621-03
11.2202	7.15769-03	12.5892	6.72755-03	14.1254	6.38066-03
15.8489	6.13559-03	17.7828	5.98138-03	19.9526	5.88426-03
22.3872	5.80785-03	25.1189	5.71786-03	28.1838	5.59184-03
31.6228	5.42067-03	35.4813	5.19832-03	39.8107	4.92798-03
44.6683	4.60880-03	50.1187	4.24473-03	56.2341	3.83679-03
63.0957	3.40123-03	70.7945	2.94451-03	79.4328	2.46365-03
89.1250	2.02936-03	99.9999	1.62891-03	112.2018	1.27479-03
125.8925	9.76067-04	141.2536	7.33549-04	158.4892	5.42598-04
177.8274	3.98190-04	199.5261	2.90605-04	223.8710	2.11488-04

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å

(a) $n = 13$; $T = 3000$ K; $N_e = 10^{13}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.08510-06	-199.5261	4.14943-06	-177.8278	5.59127-06
-158.4892	7.51975-06	-141.2536	1.01260-05	-125.8925	1.39696-05
-112.2018	1.88874-05	-99.9999	2.56517-05	-89.1250	3.49241-05
-79.4328	4.79613-05	-70.7945	6.61888-05	-63.0957	9.29221-05
-56.2341	1.33170-04	-50.1187	1.96926-04	-44.6683	3.08263-04
-39.8107	5.64048-04	-35.4813	1.55519-03	-31.6228	2.17830-02
-28.1838	5.65386-04	-25.1189	7.91822-04	-22.3872	1.11753-03
-19.9526	1.58327-03	-17.7828	2.28172-03	-15.8489	3.24521-03
-14.1254	4.70933-03	-12.5892	6.84250-03	-11.2202	1.00939-02
-10.0000	1.46547-02	-8.9125	2.17638-02	-7.9433	2.80925-02
-7.0795	2.67361-02	-6.3096	9.31914-03	-5.6234	8.61936-03
-5.0119	1.17838-02	-4.4668	1.61763-02	-3.9811	2.18117-02
-3.5481	2.85262-02	-3.1623	3.61945-02	-2.8184	4.44731-02
-2.5119	5.30654-02	-2.2387	6.21258-02	-1.9953	7.12851-02
-1.7783	7.85635-02	-1.5849	8.48416-02	-1.4125	8.98707-02
-1.2589	9.47554-02	-1.1220	1.00431-01	-1.0000	1.07712-01
1.0000	1.17589-01	1.1220	1.16979-01	1.2589	1.15674-01
1.4125	1.12613-01	1.5849	1.07279-01	1.7783	1.00427-01
1.9953	9.27948-02	2.2387	8.47188-02	2.5119	7.63032-02
2.8184	6.76587-02	3.1623	5.89180-02	3.5481	5.02634-02
3.9811	4.22309-02	4.4668	3.52368-02	5.0119	2.87917-02
5.6234	2.26879-02	6.3096	1.74047-02	7.0795	1.31817-02
7.9433	9.88612-03	8.9125	7.33743-03	10.0000	5.40154-03
11.2202	3.97412-03	12.5892	2.93923-03	14.1254	2.17713-03
15.8489	1.61416-03	17.7828	1.20077-03	19.9526	8.92790-04
22.3872	6.67494-04	25.1189	4.97418-04	28.1838	3.72955-04
31.6228	2.78254-04	35.4813	2.07985-04	39.8107	1.55627-04
44.6683	1.16610-04	50.1187	8.74050-05	56.2341	6.55739-05
63.0957	4.92128-05	70.7945	3.69574-05	79.4328	2.77564-05
89.1250	2.08512-05	99.9999	1.58659-05	112.2018	1.17729-05
125.8925	8.84841-06	141.2536	6.66513-06	158.4892	5.00228-06
177.8278	3.61514-06	199.5261	2.67412-06	223.8719	2.00226-06

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(b) $n = 13$; $T = 10\,000\text{ K}$; $N_e = 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.08614-06	-199.5267	4.15065-06	-177.8278	5.59390-06
-158.4892	7.52397-06	-141.2536	1.01328-05	-125.8925	1.39409-05
-112.2018	1.89060-05	-99.9999	2.56827-05	-89.1250	3.49764-05
-79.4328	4.80513-05	-70.7945	6.63802-05	-63.0957	9.32105-05
-56.2341	1.33727-04	-50.1187	1.98145-04	-44.6683	3.13288-04
-39.8107	5.81600-04	-35.4813	1.67361-03	-31.6228	2.38773-02
-28.1838	5.74289-04	-25.1189	8.09964-04	-22.3872	1.15085-03
-19.9526	1.64522-03	-17.7828	2.37512-03	-15.8489	3.45248-03
-14.1254	5.08485-03	-12.5892	7.52354-03	-11.2202	1.12516-02
-10.0000	1.66864-02	-8.9125	2.37041-02	-7.9433	2.88610-02
-7.0795	2.41942-02	-6.3096	1.19932-02	-5.6234	9.91095-03
-5.0119	1.31664-02	-4.4668	1.78576-02	-3.9811	2.36755-02
-3.5481	3.04296-02	-3.1623	3.78710-02	-2.8184	4.57223-02
-2.5119	5.38253-02	-2.2387	6.17890-02	-1.9953	6.92361-02
-1.7783	7.55940-02	-1.5849	8.20201-02	-1.4125	8.74713-02
-1.2589	9.26381-02	-1.1220	9.84757-02	-1.0000	1.00440-01
1.0000	1.21288-01	1.1220	1.18597-01	1.2589	1.12175-01
1.4125	1.08058-01	1.5849	1.03816-01	1.7783	8.89024-02
1.9953	9.29863-02	2.2387	8.60296-02	2.5119	7.84522-02
2.8184	7.04750-02	3.1623	6.22421-02	3.5481	5.39586-02
3.9811	4.59913-02	4.4668	3.86275-02	5.0119	3.17368-02
5.6234	2.51998-02	6.3096	1.93879-02	7.0795	1.46300-02
7.9433	1.08881-02	8.9125	8.00362-03	10.0000	5.82849-03
11.2202	4.24052-03	12.5892	3.10017-03	14.1254	2.27420-03
15.8489	1.67210-03	17.7828	1.23406-03	19.9526	9.12500-04
22.3872	6.77593-04	25.1189	5.03471-04	28.1838	3.75496-04
31.6228	2.79784-04	35.4813	2.08903-04	39.8107	1.56183-04
44.6683	1.18949-04	50.1187	8.76111-05	56.2341	6.57010-05
63.0957	4.92911-05	70.7945	3.70059-05	79.4328	2.77865-05
89.1250	2.08700-05	99.9999	1.56776-05	112.2018	1.17803-05
125.8925	8.85107-06	141.2536	6.68807-06	158.4892	5.00416-06
177.8278	3.61833-06	199.5261	2.67487-06	223.8719	2.00273-06

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(c) $n = 13$; $T = 30\ 000\ \text{K}$; $N_e = 10^{13}\ \text{cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.08385-06	-199.5261	4.14924-06	-177.8278	5.59015-06
-158.4892	7.51927-06	-141.2536	1.01272-05	-125.8925	1.39741-05
-112.2018	1.88991-05	-99.9999	2.56764-05	-89.1250	3.49752-05
-79.4328	4.80600-05	-70.7945	6.64427-05	-63.0957	9.33060-05
-56.2341	1.33963-04	-50.1187	1.98844-04	-44.6683	3.16248-04
-39.8107	5.94548-04	-35.4813	1.80793-03	-31.6228	2.28710-02
-28.1838	6.17411-04	-25.1189	8.19907-04	-22.3872	1.17012-03
-19.9526	1.68296-03	-17.7828	2.44782-03	-15.8489	3.59513-03
-14.1254	5.35294-03	-12.5892	8.04052-03	-11.2202	1.21195-02
-10.0000	1.79155-02	-8.9125	2.43992-02	-7.9433	2.71583-02
-7.0795	2.21882-02	-6.3096	1.48981-02	-5.6234	1.25521-02
-5.0119	1.49190-02	-4.4668	1.96421-02	-3.9811	2.56280-02
-3.5481	3.24390-02	-3.1623	3.97602-02	-2.8184	4.73041-02
-2.5119	5.47286-02	-2.2387	6.17402-02	-1.9953	6.83647-02
-1.7783	7.42759-02	-1.5849	7.94855-02	-1.4125	8.40259-02
-1.2589	8.79448-02	-1.1220	9.13112-02	-1.0000	9.42280-02
1.0000	1.15093-01	1.1220	1.12993-01	1.2589	1.10178-01
1.4125	1.06839-01	1.5849	1.02601-01	1.7783	9.77982-02
1.9953	9.23580-02	2.2387	8.62308-02	2.5119	7.95183-02
2.8184	7.21917-02	3.1623	6.44317-02	3.5481	5.65103-02
3.9811	4.86056-02	4.4668	4.09924-02	5.0119	3.37742-02
5.6234	2.70245-02	6.3096	2.09416-02	7.0795	1.57977-02
7.9433	1.16924-02	8.9125	8.53014-03	10.0000	6.16102-03
11.2202	4.43991-03	12.5892	3.21458-03	14.1254	2.33954-03
15.8489	1.70925-03	17.7828	1.25449-03	19.9526	9.24018-04
22.3872	6.83560-04	25.1189	5.06781-04	28.1838	3.77045-04
31.6228	2.80855-04	35.4813	2.09376-04	39.8107	1.56437-04
44.6683	1.17079-04	50.1187	8.76728-05	56.2341	6.57285-05
63.0957	4.92976-05	70.7945	3.70035-05	79.4328	2.77602-05
89.1250	2.08625-05	99.9999	1.56704-05	112.2018	1.17739-05
125.8925	8.84571-06	141.2536	6.66364-06	158.4892	5.00065-06
177.8278	3.61371-06	199.5261	2.67285-06	223.8719	2.00117-06

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(d) $n = 13$; $T = 10\,000\text{ K}$; $N_e = 5 \times 10^{13}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	1.58387-05	-199.5261	2.14061-05	-177.8278	2.90160-05
-158.4892	3.93007-05	-141.2536	5.33701-05	-125.8925	7.42890-05
-112.2018	1.01643-04	-99.9999	1.39337-04	-89.1250	1.92002-04
-79.4328	2.88064-04	-70.7945	3.76883-04	-63.0957	5.40379-04
-56.2341	7.93063-04	-50.1187	1.20030-03	-44.6683	1.91926-03
-39.8107	3.35338-03	-35.4813	6.53013-03	-31.6228	1.03843-02
-28.1838	3.55651-03	-25.1189	4.93408-03	-22.3872	6.72432-03
-19.9526	8.93733-03	-17.7828	1.15282-02	-15.8489	1.43132-02
-14.1254	1.70778-02	-12.5892	1.93886-02	-11.2202	2.09730-02
-10.0000	2.13819-02	-8.9125	2.04686-02	-7.9433	1.82492-02
-7.0795	1.55983-02	-6.3096	1.42690-02	-5.6234	1.48670-02
-5.0119	1.81073-02	-4.4668	1.75404-02	-3.9811	1.91038-02
-3.5481	2.07832-02	-3.1623	2.24811-02	-2.8184	2.40668-02
-2.5119	2.58972-02	-2.2387	2.73049-02	-1.9953	2.83457-02
-1.7783	2.85113-02	-1.5849	2.80868-02	-1.4125	2.75452-02
-1.2589	2.71411-02	-1.1220	2.69040-02	-1.0000	2.66717-02
1.0000	4.83126-02	1.1220	4.35387-02	1.2589	3.98387-02
1.4125	3.76018-02	1.5849	3.72739-02	1.7783	3.80335-02
1.9953	3.94509-02	2.2387	4.09173-02	2.5119	4.19836-02
2.8184	4.23789-02	3.1623	4.20623-02	3.5481	4.13210-02
3.9811	4.09755-02	4.4668	4.15691-02	5.0119	4.18002-02
5.6234	3.92115-02	6.3096	3.52823-02	7.0795	3.14100-02
7.9433	2.77757-02	8.9125	2.41641-02	10.0000	2.06152-02
11.2202	1.73551-02	12.5892	1.44282-02	14.1254	1.17480-02
15.8489	9.34540-03	17.7828	7.27981-03	19.9526	5.56424-03
22.3872	4.18993-03	25.1189	3.11837-03	28.1838	2.30531-03
31.6228	1.89531-03	35.4813	1.24545-03	39.8107	9.14512-04
44.6683	6.73032-04	50.1187	4.96131-04	56.2341	3.66328-04
63.0957	2.71366-04	70.7945	2.01308-04	79.4328	1.50052-04
89.1250	1.11411-04	99.9999	8.28680-05	112.2018	6.17446-05
125.8925	4.60593-05	141.2536	3.44882-05	158.4892	2.57480-05
177.8278	1.85340-05	199.5261	1.36563-05	223.8719	1.01918-05

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(e) $n = 13$; $T = 3000$ K; $N_e = 10^{14} \text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.25008-05	-199.5261	4.41217-05	-177.8278	6.01007-05
-158.4892	8.09913-05	-141.2536	1.09696-04	-125.8925	1.52664-04
-112.2018	2.07903-04	-99.9999	2.85617-04	-89.1250	3.93011-04
-79.4328	5.45282-04	-70.7945	7.59905-04	-63.0957	1.07064-03
-56.2341	1.52281-03	-50.1187	2.17742-03	-44.8683	3.16125-03
-39.8107	4.66818-03	-35.4813	6.90229-03	-31.6228	8.21768-03
-28.1838	5.62338-03	-25.1189	7.20429-03	-22.3872	8.99706-03
-19.9526	1.09098-02	-17.7828	1.28297-02	-15.8489	1.45688-02
-14.1254	1.60043-02	-12.5892	1.69033-02	-11.2202	1.72577-02
-10.0000	1.69421-02	-8.9125	1.60219-02	-7.9433	1.46612-02
-7.0795	1.32509-02	-6.3096	1.25073-02	-5.6234	1.27978-02
-5.0119	1.32808-02	-4.4668	1.37725-02	-3.9811	1.42925-02
-3.5481	1.48196-02	-3.1623	1.59225-02	-2.8184	1.64006-02
-2.5119	1.61504-02	-2.2387	1.90935-02	-1.9953	2.37648-02
-1.7783	2.33038-02	-1.5849	1.88575-02	-1.4125	1.52631-02
-1.2589	1.36655-02	-1.1220	1.39602-02	-1.0000	1.56912-02
1.0000	2.31883-02	1.1220	2.13685-02	1.2589	2.08891-02
1.4125	2.10692-02	1.5849	2.18285-02	1.7783	2.27610-02
1.9953	2.41359-02	2.2387	2.56208-02	2.5119	2.70636-02
2.8184	2.82639-02	3.1623	2.91117-02	3.5481	2.94361-02
3.9811	3.01112-02	4.4668	3.25877-02	5.0119	3.45687-02
5.6234	3.34348-02	6.3096	3.06888-02	7.0795	2.80736-02
7.9433	2.56858-02	8.9125	2.31201-02	10.0000	2.04666-02
11.2202	1.81065-02	12.5892	1.60495-02	14.1254	1.40065-02
15.8489	1.19843-02	17.7828	1.00530-02	19.9526	8.26200-03
22.3872	6.66294-03	25.1189	5.26924-03	28.1838	4.10219-03
31.6228	3.14860-03	35.4813	2.39066-03	39.8107	1.79933-03
44.8683	1.34834-03	50.1187	1.00413-03	56.2341	7.47144-04
63.0957	5.54544-04	70.7945	4.12233-04	79.4328	3.06832-04
89.1250	2.28176-04	99.9999	1.70429-04	112.2018	1.27012-04
125.8925	9.55970-05	141.2536	7.12563-05	158.4892	5.29548-05
177.8278	3.79828-05	199.5261	2.78869-05	223.8719	2.07484-05

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(f) $n = 13$; $T = 10\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.27103-05	-199.5261	4.44693-05	-177.8278	6.06971-05
-158.4892	8.25265-05	-141.2536	1.12655-04	-125.8925	1.57822-04
-112.2018	2.17307-04	-99.9999	3.01792-04	-89.1250	4.20855-04
-79.4328	5.92832-04	-70.7945	8.39781-04	-63.0957	1.20276-03
-56.2341	1.73558-03	-50.1187	2.50364-03	-44.6683	3.60567-03
-39.8107	5.13416-03	-35.4813	6.98256-03	-31.6228	7.60951-03
-28.1838	6.45286-03	-25.1189	8.13297-03	-22.3872	9.92257-03
-19.9526	1.16955-02	-17.7828	1.33244-02	-15.8489	1.46499-02
-14.1254	1.55928-02	-12.5892	1.60349-02	-11.2202	1.60176-02
-10.0000	1.55411-02	-8.9125	1.47259-02	-7.9433	1.36953-02
-7.0795	1.27394-02	-6.3096	1.22679-02	-5.6234	1.23249-02
-5.0119	1.25186-02	-4.4668	1.27083-02	-3.9811	1.26797-02
-3.5481	1.31626-02	-3.1623	1.35530-02	-2.8184	1.40152-02
-2.5119	1.50836-02	-2.2387	1.66724-02	-1.9953	1.76095-02
-1.7783	1.72096-02	-1.5849	1.59434-02	-1.4125	1.46421-02
-1.2589	1.37974-02	-1.1220	1.34548-02	-1.0000	1.34771-02
1.0000	3.07748-02	1.1220	2.58612-02	1.2589	2.20713-02
1.4125	1.97212-02	1.5849	1.87438-02	1.7783	1.88095-02
1.9953	1.95284-02	2.2387	2.06307-02	2.5119	2.19439-02
2.8184	2.33189-02	3.1623	2.46020-02	3.5481	2.57854-02
3.9811	2.73097-02	4.4668	2.96530-02	5.0119	3.16995-02
5.6234	3.14972-02	6.3096	2.94583-02	7.0795	2.72193-02
7.9433	2.51120-02	8.9125	2.28620-02	10.0000	2.05142-02
11.2202	1.84612-02	12.5892	1.67090-02	14.1254	1.49228-02
15.8489	1.30622-02	17.7828	1.11898-02	19.9526	9.36252-03
22.3872	7.64977-03	25.1189	6.10051-03	28.1838	4.76036-03
31.6228	3.64157-03	35.4813	2.74264-03	39.8107	2.04072-03
44.6683	1.50741-03	50.1187	1.10716-03	56.2341	8.12108-04
63.0957	5.95284-04	70.7945	4.37333-04	79.4328	3.21787-04
89.1250	2.37162-04	99.9999	1.75423-04	112.2018	1.29902-04
125.8925	9.66561-05	141.2536	7.18957-05	158.4892	5.33400-05
177.8278	3.82121-05	199.5261	2.80245-05	223.8719	2.08324-05

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(g) $n = 13$; $T = 30\,000\text{ K}$; $N_e = 10^{14}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.27762-05	-199.5261	4.46073-05	-177.8278	6.09215-05
-158.4892	8.31105-05	-141.2536	1.13858-04	-125.8925	1.60052-04
-112.2018	2.21557-04	-99.9999	3.09574-04	-89.1250	4.35022-04
-79.4328	6.18541-04	-70.7945	8.85357-04	-63.0957	1.28057-03
-56.2341	1.86198-03	-50.1187	2.69068-03	-44.6683	3.84281-03
-39.8107	5.35073-03	-35.4813	6.99692-03	-31.6228	7.38053-03
-28.1838	6.88488-03	-25.1189	8.57428-03	-22.3872	1.03118-02
-19.9526	1.19640-02	-17.7828	1.34071-02	-15.8489	1.45128-02
-14.1254	1.52172-02	-12.5892	1.54733-02	-11.2202	1.53238-02
-10.0000	1.48280-02	-8.9125	1.40998-02	-7.9433	1.32633-02
-7.0795	1.25508-02	-6.3096	1.21622-02	-5.6234	1.20592-02
-5.0119	1.20707-02	-4.4668	1.21022-02	-3.9811	1.22064-02
-3.5481	1.24384-02	-3.1623	1.28661-02	-2.8184	1.34323-02
-2.5119	1.39732-02	-2.2387	1.43109-02	-1.9953	1.45915-02
-1.7783	1.46917-02	-1.5849	1.48280-02	-1.4125	1.51278-02
-1.2589	1.56595-02	-1.1220	1.64352-02	-1.0000	1.74237-02
1.0000	3.16425-02	1.1220	2.96026-02	1.2589	2.73358-02
1.4125	2.50091-02	1.5849	2.28504-02	1.7783	2.11213-02
1.9953	2.00482-02	2.2387	1.97416-02	2.5119	2.01540-02
2.8184	2.10730-02	3.1623	2.23942-02	3.5481	2.39829-02
3.9811	2.58021-02	4.4668	2.77549-02	5.0119	2.93325-02
5.6234	2.96884-02	6.3096	2.85728-02	7.0795	2.66941-02
7.9433	2.46821-02	8.9125	2.25667-02	10.0000	2.04066-02
11.2202	1.84918-02	12.5892	1.68657-02	14.1254	1.52364-02
15.8489	1.35010-02	17.7828	1.17043-02	19.9526	9.90317-03
22.3872	8.16950-03	25.1189	6.56327-03	28.1838	5.14257-03
31.6228	3.93806-03	35.4813	2.95521-03	39.8107	2.18527-03
44.6683	1.60076-03	50.1187	1.18538-03	56.2341	8.47283-04
63.0957	6.16187-04	70.7945	4.49491-04	79.4328	3.28685-04
89.1250	2.41096-04	99.9999	1.77521-04	112.2018	1.31038-04
125.8925	9.70804-05	141.2536	7.21304-05	158.4892	5.34700-05
177.8278	3.82825-05	199.5261	2.80611-05	223.8719	2.08509-05

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM_{IV}

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(h) $n = 13$; $T = 3000$ K; $N_e = 10^{15}$ cm⁻³

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.29714-04	-199.5261	4.36461-04	-177.8278	5.73656-04
-158.4892	7.43469-04	-141.2536	9.51446-04	-125.8925	1.23249-03
-112.2018	1.52895-03	-99.9999	1.86521-03	-89.1250	2.22918-03
-79.4328	2.61529-03	-70.7945	3.00418-03	-63.0957	3.39439-03
-56.2341	3.76794-03	-50.1187	4.11537-03	-44.6683	4.43150-03
-39.8107	4.71132-03	-35.4813	4.94143-03	-31.6228	5.08650-03
-28.1838	5.18774-03	-25.1189	5.32093-03	-22.3872	5.39792-03
-19.9526	5.41617-03	-17.7828	5.36542-03	-15.8489	5.23263-03
-14.1254	5.00761-03	-12.5892	4.69241-03	-11.2202	4.29143-03
-10.0000	3.82536-03	-8.9125	3.33247-03	-7.9433	2.83870-03
-7.0795	2.38354-03	-6.3096	1.98909-03	-5.6234	1.66738-03
-5.0119	1.40398-03	-4.4668	1.19448-03	-3.9811	1.02647-03
-3.5481	1.24225-03	-3.1623	3.93660-03	-2.8184	3.40419-03
-2.5119	3.78287-03	-2.2387	1.72743-02	-1.9953	3.14077-02
-1.7783	2.17629-02	-1.5849	8.80287-03	-1.4125	2.70967-03
-1.2589	1.50565-03	-1.1220	2.69642-03	-1.0000	5.27489-03
1.0000	2.88776-03	1.1220	1.42057-03	1.2589	1.12815-03
1.4125	1.16363-03	1.5849	1.25786-03	1.7783	1.36841-03
1.9953	1.49599-03	2.2387	1.64058-03	2.5119	1.80744-03
2.8184	2.00657-03	3.1623	2.24405-03	3.5481	2.52338-03
3.9811	2.90086-03	4.4668	3.48539-03	5.0119	4.19274-03
5.6234	4.77510-03	6.3096	5.21980-03	7.0795	5.66063-03
7.9433	6.08097-03	8.9125	6.35031-03	10.0000	6.40196-03
11.2202	6.41475-03	12.5892	6.52475-03	14.1254	6.57597-03
15.8489	6.55688-03	17.7828	6.50216-03	19.9526	6.40160-03
22.3872	6.25427-03	25.1189	6.06351-03	28.1838	5.82921-03
31.6228	5.54621-03	35.4813	5.21578-03	39.8107	4.84379-03
44.6683	4.43284-03	50.1187	3.98809-03	56.2341	3.52443-03
63.0957	3.05685-03	70.7945	2.60097-03	79.4328	2.17084-03
89.1250	1.77917-03	99.9999	1.43571-03	112.2018	1.13926-03
125.8925	8.91890-04	141.2536	6.92025-04	158.4892	5.30008-04
177.8278	3.87774-04	199.5261	2.89527-04	223.8719	2.16895-04

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Continued

(i) $n = 13$; $T = 10\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	3.98548-04	-199.5261	5.34193-04	-177.8278	7.06885-04
-158.4892	9.16488-04	-141.2536	1.16328-03	-125.8925	1.47697-03
-112.2018	1.79103-03	-99.9999	2.12305-03	-89.1250	2.45758-03
-79.4328	2.78861-03	-70.7945	3.10056-03	-63.0957	3.39433-03
-56.2341	3.65961-03	-50.1187	3.89313-03	-44.6683	4.09548-03
-39.8107	4.26748-03	-35.4813	4.40481-03	-31.6228	4.49400-03
-28.1838	4.55636-03	-25.1189	4.61893-03	-22.3872	4.62554-03
-19.9526	4.56180-03	-17.7828	4.41253-03	-15.8489	4.17358-03
-14.1254	3.84902-03	-12.5892	3.45935-03	-11.2202	3.02932-03
-10.0000	2.58870-03	-8.9125	2.16579-03	-7.9433	1.77925-03
-7.0795	1.44559-03	-6.3096	1.17237-03	-5.6234	9.57414-04
-5.0119	7.89276-04	-4.4668	6.68283-04	-3.9811	7.60369-04
-3.5481	1.58673-03	-3.1623	2.97492-03	-2.8184	5.16300-03
-2.5119	9.66059-03	-2.2387	1.54729-02	-1.9953	1.79239-02
-1.7783	1.61991-02	-1.5849	1.25301-02	-1.4125	9.25133-03
-1.2589	7.30411-03	-1.1220	6.62218-03	-1.0000	6.65913-03
1.0000	1.53980-02	1.1220	9.91088-03	1.2589	5.65786-03
1.4125	2.90038-03	1.5849	1.48284-03	1.7783	9.60878-04
1.9953	8.73585-04	2.2387	9.36221-04	2.5119	1.04262-03
2.8184	1.17229-03	3.1623	1.32790-03	3.5481	1.51976-03
3.9811	1.77448-03	4.4668	2.12447-03	5.0119	2.54715-03
5.6234	2.95559-03	6.3096	3.32834-03	7.0795	3.72055-03
7.9433	4.13022-03	8.9125	4.48472-03	10.0000	4.73879-03
11.2202	4.98717-03	12.5892	5.22634-03	14.1254	5.41698-03
15.8489	5.52052-03	17.7828	5.56727-03	19.9526	5.55014-03
22.3872	5.47937-03	25.1189	5.37308-03	28.1838	5.23975-03
31.6228	5.07740-03	35.4813	4.88135-03	39.8107	4.65255-03
44.6683	4.38374-03	50.1187	4.06979-03	56.2341	3.71742-03
63.0957	3.33416-03	70.7945	2.93040-03	79.4328	2.51953-03
89.1250	2.11742-03	99.9999	1.73983-03	112.2018	1.39637-03
125.8925	1.09759-03	141.2536	8.49031-04	158.4892	6.44093-04
177.8278	4.66459-04	199.5261	3.41816-04	223.8719	2.51664-04

TABLE B-X. - CALCULATED PROFILES OF THE HELIUM

TRIPLET DIFFUSE SERIES WHERE

WAVELENGTH = 3499.00 Å - Concluded

(j) $n = 13$; $T = 30\,000\text{ K}$; $N_e = 10^{15}\text{ cm}^{-3}$

Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity	Wavenumber 1/cm	Intensity
-223.8719	4.43204-04	-199.5261	5.97675-04	-177.8278	7.91381-04
-156.4892	1.02193-03	-141.2536	1.28503-03	-125.8925	1.60642-03
-112.2018	1.91592-03	-99.9999	2.22972-03	-89.1250	2.53363-03
-79.4328	2.82362-03	-70.7945	3.08885-03	-63.0957	3.33040-03
-56.2341	3.54258-03	-50.1187	3.72488-03	-44.6683	3.88037-03
-39.8107	4.01243-03	-35.4813	4.12144-03	-31.6228	4.19672-03
-28.1838	4.24954-03	-25.1189	4.28325-03	-22.3872	4.24837-03
-19.9526	4.12653-03	-17.7826	3.91131-03	-15.8489	3.61192-03
-14.1254	3.24743-03	-12.5892	2.84597-03	-11.2202	2.43477-03
-10.0000	2.03671-03	-8.9125	1.87612-03	-7.9433	1.35875-03
-7.0795	1.09326-03	-6.3090	8.80314-04	-5.6234	7.13780-04
-5.0119	6.26616-04	-4.4668	7.34075-04	-3.9811	1.31367-03
-3.5481	2.59886-03	-3.1623	4.68578-03	-2.8184	7.23555-03
-2.5119	9.59576-03	-2.2387	1.11954-02	-1.9953	1.20718-02
-1.7783	1.22341-02	-1.5849	1.21213-02	-1.4125	1.20448-02
-1.2589	1.21902-02	-1.1220	1.26216-02	-1.0000	1.33200-02
1.0000	1.91302-02	1.1220	1.64176-02	1.2589	1.34450-02
1.4125	1.03860-02	1.5849	7.47498-03	1.7783	4.96509-03
1.9953	3.05314-03	2.2387	1.83036-03	2.5119	1.20876-03
2.8184	9.72118-04	3.1623	1.01445-03	3.5481	1.17379-03
3.9811	1.37658-03	4.4668	1.63189-03	5.0119	1.93315-03
5.6234	2.25697-03	6.3090	2.58567-03	7.0795	2.92855-03
7.9433	3.28858-03	8.9125	3.83331-03	10.0000	3.93822-03
11.2202	4.23761-03	12.5892	4.55327-03	14.1254	4.81752-03
15.8489	5.00025-03	17.7826	5.11216-03	19.9526	5.14244-03
22.3872	5.10236-03	25.1189	5.01916-03	28.1838	4.91162-03
31.6228	4.78500-03	35.4813	4.83731-03	39.8107	4.46896-03
44.6683	4.26385-03	50.1187	4.01819-03	56.2341	3.73242-03
63.0957	3.40879-03	70.7945	3.05358-03	79.4328	2.87545-03
89.1250	2.28841-03	99.9999	1.90834-03	112.2018	1.54908-03
125.8925	1.22578-03	141.2536	9.49919-04	156.4892	7.18300-04
177.8278	5.17406-04	199.5261	3.75065-04	223.8719	2.73064-04

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