HYDROGEN STARK-BROADENING TABLES

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ABSTRACT

Tables of Stark broadening of the first four Lyman lines and the first four Balmer lines of hydrogen are presented. They are based on a recently developed "unified theory" of line broadening which generates normalized profiles covering the entire profile from the impact limit in the line center to the quasi-static limit in the line wings. The tables are presented in a convenient form for accurate numerical interpolation.
Subject heading: line profiles

I. INTRODUCTION

For a long time the Stark broadening of the hydrogen lines has been one of the most important diagnostic tools for the understanding of stellar atmospheres, especially of the early-type O, B, and A stars and in plasma spectroscopy in general. For this purpose a number of Stark-broadening tables have been generated. The best tabulations presently available are those by Kepple and Griem (1968) based on what is generally known as the "modified impact theory" (see, for example, Griem 1964) and the semiempirical profiles by Edmonds, Schlüter, and Wells (1967). Like the tables of Underhill and Waddell (1959) the latter profiles are purely static profiles. They account, however, for shielding effects (Mozer and Baranger 1960), and the broadening due to the electrons has been modified according to experimental observations.

Recently, significant improvements have been achieved on the basis of a "unified theory" of line broadening (Smith, Cooper, and Vidal 1969; Voslamber 1969) as applied to the Stark broadening of hydrogen (Vidal, Cooper, and Smith 1970, 1971a). The unified theory generates normalized profiles which cover the entire region from the impact limit in the line center to the quasi-static limit in the line wings. This includes the problematic transition region which in many astrophysical problems with low electron densities may cover almost the total intensity range of interest. In this critical range the tables of Kepple and Griem (1968) have apparently overestimated the intensity of the profile, particularly for those lines where lower state interaction is important (like Hα and Hβ). Furthermore, there have been some normalization problems.

It also should be pointed out that even for electron densities and temperatures for which most of the line center is well within the domain of the impact theory, the line profiles presented here differ from those given by Kepple and Griem (1968). These differences are most significant for those lines for which lower state interactions are important. The reasons will be explained below.

A detailed comparison of the unified theory calculations with measurements in the high and low electron density region (Vidal *et al.* 1970, 1971a) has revealed the following, most significant improvements.

At high electron densities of 10^{16}–10^{17} cm^{-3} and electron temperatures of 12,000°–20,000° K the unified-theory calculations give better agreement with the measured Hα, Hβ, and Hγ profiles (Behringer 1971; Wiese, Kelleher, and Paquette 1972). This is

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particularly true for Hα, which so far has shown the biggest discrepancies even in the pure impact limit. As a result, the electron densities which are obtained from the different hydrogen lines, appear to be more consistent. The measurements of the Lα wings of Boldt and Cooper (1964) run over the entire measured range exactly parallel to the unified theory calculations and differ by about 20 percent. In view of the good agreement for Hα and the severe problems associated with the absolute intensity calibration, one is tempted to search for a systematic error in the experiments.

Better agreement has been obtained also at low electron densities of 10^{13} cm^{-3} and an electron temperature of 2000° K (Ferguson and Schlüter 1963; Vidal 1964, 1965) where the unified theory profiles describe the whole measured profile of the higher Balmer series members within 5 percent and especially explain the long $\Delta\lambda^{-2.5}$ wings which in the measured intensity region do not necessarily coincide with the asymptotic Holtsmark $\Delta\lambda^{-5/2}$ wing. The calculations also predict that with decreasing principal quantum numbers the contribution to the broadening due to the electrons diminishes towards the line center as observed at low electron densities by Schlüter and Avila (1966) and for high electron densities by Boldt and Cooper (1964). These observations gave rise to the empirical modification of the static profiles as compiled by Edmonds *et al.* (1967).

The largest remaining discrepancies appear to show up in the region of high electron density where our calculations do not yet account for any asymmetries or line shifts (Wiese and Kelleher 1971) and, like all other impact-theory calculations so far, show too much structure in the very line center. This means that, for example, the unshifted component of Hα and Hγ and the two bumps in the center of Hβ show up more strongly in the calculations than they do in the measurements. For this reason the user of the tables is strongly discouraged from basing electron densities only on the half-width or any other fractional width of the profile that refers line intensities to the intensity in the very line center (where, at this stage, the theory appears to be least reliable). Much better results are obtained by a least-squares fit of the experimental and theoretical profile over the entire measured range using the same normalization for both profiles. With this method it is expected that the electron densities should be in error at most by 5–10 percent, where the lower limit of this error should hold for low electron densities ($\lesssim 10^{15}$ cm^{-3}) which are of prime interest for astrophysical applications. It is also obvious that this is only true if the line profile is not seriously affected by Doppler broadening.

In view of the above-mentioned improvements we felt it would be desirable to generate new Stark-broadening tables of hydrogen. To make the present tables more useful for astrophysical problems we also decided to extend the tables to lower electron densities than have been available in earlier tables, and to extend the profiles further into the wings. The calculations have been performed for the first four members of the Lyman series and the first four members of the Balmer series. The condition for validity of use of the unified theory for electrons—namely, that strong collisions be separated in time—is satisfied for all values of temperature and electron density tabulated; in addition, the other approximations are discussed in the next section. Simplified tables for the higher series members for which the present method of tabulation would be very inefficient are in preparation. Recent calculations of non-LTE model atmospheres (see, for example, Auer and Mihalas 1969, 1970) have demonstrated that improved profiles of the Pα, Pβ, and Bα lines are also very desirable. Due to the rather severe computer time requirements these profiles have not yet been calculated, although our program is capable of handling these lines.

II. DESCRIPTION OF THE STARK-BROADENING TABLES

The tables contain the normalized profiles $S(\Delta\alpha)$ with

$$\Delta\alpha = \Delta\lambda/F_0 , \qquad (1)$$

where $\Delta\lambda$ is the wavelength perturbation of a line with respect to the unperturbed position of the line (in Å) and

$$F_0 = 1.25 \times 10^{-9} n_e^{2/3} , \tag{2}$$

the normal field strength (in esu) due to the electrons with density n_e (number per cm³).

All the profiles have been generated with a modified and more efficient version of a program developed earlier (Vidal, Cooper, and Smith 1971b). While the first three Balmer lines have been calculated with a program accounting for lower-state interactions, all other lines have been generated with a simplified version neglecting lower-state interactions. In view of the accuracy to be expected from present unified classical-path theory calculations, lower-state interactions may be neglected for all Balmer series members beyond Hγ. To make the tables convenient to use, all the values of $\Delta\alpha$, the electron density n_e, and the electron temperature T_e have been equally spaced on a logarithmic scale. It has been our experience that by interpolating any reasonable value of the three variables in a logarithmic representation, either graphically or numerically (using, for example, an nth-order polynomial interpolation, see Appendix), one obtains the highest accuracy with the smallest number of tabulated points.

Every table starts with the upper- and lower-state principal quantum numbers and the wavelength in standard air. The tables then display the electron density, which increases by half a decade from one table to the next, the conversion factor $\Delta\lambda/\Delta\alpha = F_0$, and the asymptotic Holtsmark $\Delta\alpha^{-5/2}$ wing due to the ions. Since the broadening of the hydrogen lines has been calculated within the electric-dipole approximation neglecting higher-multipole terms and higher-order Stark-effect terms, all profiles are completely symmetric and approach in the static limit for large $\Delta\alpha$ twice the intensity given by the asymptotic Holtsmark $\Delta\alpha^{-5/2}$ wing due to the ions.

The table then is subdivided into six columns. The first one specifies the value of $\Delta\alpha$ starting with the line center point and continuing with five points per decade. The next five columns give the normalized function $S(\alpha)$ for the temperatures specified on top of every column in degrees Kelvin. Every column contains the results of the unified theory-calculations in brackets and in front of it the values obtained after the convolution with the Doppler profile assuming that all constituents of the plasma have the same temperature $T = T_e$. The unified-theory values in brackets have been included in case the user wants to perform his own convolution to account, for example, for stellar rotations or expansions. Furthermore, they will be useful for comparison with other Stark-broadening calculations. The normalization of all profiles is only a function of the number of integration steps used for a particular profile and is, at the most, off by 0.0015 before and after convolution. This is the case particularly at low electron densities. At high electron densities, deviations from normalization reduce to about 10^{-4} due to the smoother profiles. The individual values of $S(\alpha)$ are given with four figures to minimize round-off errors in numerical interpolations. Every profile is tabulated out to values of $\Delta\alpha$ for which

$$\hbar\Delta\omega < kT \tag{3}$$

according to the validity criterion of the weak coupling density matrix approximation (Smith, Vidal, and Cooper 1969). It should be noted that in most cases the last $\Delta\alpha$ points are in a region where the wings of adjacent lines already overlap and where some of the approximations, such as the no-quenching approximation, become questionable. For practical purposes, however, it is usually good enough to just add the contributions of neighboring lines if necessary. This procedure has been surprisingly successful even in the ultimate limit of the line merging (Vidal 1966).

The range of electron densities for every line has been determined by two considerations in addition to the requirement that the unified theory for electrons be valid. The

highest electron density included is the one for which a line can still be clearly distinguished from its next member in the series over at least an order of magnitude in intensity. For this purpose the highest electron density included is given roughly by $n_{\text{IT}}/30$, where n_{IT} is the electron density given by the Inglis Teller relation (Vidal 1966). The lowest electron density included is the one for which the Stark broadening of the line has become so small that for a temperature of 2500° K the core of the folded profile is determined by a pure Doppler profile over at least two orders of magnitude in intensity. When even lower electron densities are required, in most situations, it will be good enough to use the Doppler core and attach the asymptotic $\Delta\alpha^{-5/2}$ wing. For interpolation purposes it has to be kept in mind, however, that frequently the line wing immediately outside the Doppler core does not yet quite coincide with the asymptotic Holtsmark wing, as was pointed out above.

On top of every column we also give the shielding parameter

$$r_0/D = 0.0898 n_e^{1/6} T^{-1/2} . \tag{4}$$

The profiles for the lowest temperature(s) have been omitted if r_0/D exceeds 0.9. In this case the theory on which present microfield distribution functions are based (Mozer and Baranger 1960; Pfennig and Trefftz 1966; Hooper 1968) is questionable because in the cluster expansion correlation terms of higher order than the pair correlation have to be incorporated.

The second number below the temperature in each column specifies a constant K which is defined to be the weighted average

$$K = \sum_k \{-f_k \ln (4C^2)\} \Big/ \sum_k f_k , \tag{5}$$

where f_k is the oscillator strength of the kth Stark component excluding any unshifted components and

$$C = 4.565 \times 10^{-7}(nq - n'q')(n_e)^{1/2}(T)^{-1} \tag{6}$$

(see also eq. [IX.21] of Vidal et al. 1970) with n_e in units of cm^{-3} and T in degrees K. The upper- and lower-state quantum numbers n, q, n', and q' specify the kth Stark component. As explained in detail by Vidal et al. (1971a), a constant such as K gives an idea about the quality of the impact theory. Since in the impact limit the large time limit of the thermal average is given by

$$\bar{F}(t)_{t \to \infty} = -\left[\frac{3}{2}(nq - n'q')\frac{\hbar}{m}\right]^2 n_e t \left[\frac{8\pi m}{kT}\right]^{1/2}[B - \ln (4C^2)], \tag{7}$$

and the inherent uncertainty of the constant B is of the order or smaller than unity, it is desirable to have $K \gg 1$. From the preceding equations or from the tables one recognizes that K decreases with decreasing temperature and increasing electron density. This, however, is not too detrimental because for $K \lesssim 5$ the profiles approach the static limit. Consequently, for those values of K the impact-broadening constant due to the electrons has only a minor influence on the final line profile.

With respect to earlier calculations (Vidal et al. 1970, 1971a) we have slightly modified the constant B in equation (7). The constant B in earlier calculations was based on a thermal average in which the integral over all impact parameters was extended from $\rho_{\min} = \lambda + \frac{3}{2}n^2 a_0$ to the order of the Debye length D; λ is the De Broglie wavelength. Collisions with impact parameters $\rho < \rho_{\min}$ for which the classical-path approximation starts to break down, had been completely neglected. Whatever treatment one may use in this range, the S-matrix is, for these impact parameters,

already in its strongly oscillatory part. For this reason in the present calculations the thermal average of $(1 - S)$ was simply replaced by unity in the range $\rho < \rho_{\min}$. As a result the final value of B is rather insensitive to the particular value of $\rho_{\min}$. For impact parameters of the order of the Debye length D, one is dealing only with weak collisions for which a second-order classical path theory is applicable. We therefore determined the upper cutoff parameter αD in such a manner that to second order the result from an unshielded Coulomb potential with an upper cutoff at αD is identical to the result obtained from using the correct Debye shielded potential where the integral over impact parameters is extended to infinity.

With this procedure one obtains as the upper cutoff parameter

$$\rho_{\max} = 2e^{-\gamma}D = 1.123D \tag{8}$$

(γ is the Euler constant). This is the same result as that obtained by Griem, Kolb, and Shen (1962). It has to be kept in mind, however, that our thermal average is performed over a sphere of radius $1.1D$, while in their calculations the thermal average is extended over an infinitely long cylinder of radius $1.1D$ as discussed in detail in the Appendix of Vidal $et\ al.$ (1970). Because of this difference, Chappell, Cooper, and Smith (1969), in their calculations using the convention of Griem $et\ al.$ (1962), obtain $\rho_{\max} = 0.68D$; however, although this result may still be open to some question, the numerical uncertainty is again associated with a change in B of the order of unity at most. In summary, the constant B used in the present tables is given by

$$B = 0.501 + 2\left[\frac{\cos(z)}{z^2} - \frac{\sin(z)}{z} + \mathrm{Ci}(z)\right] \tag{9}$$

with

$$z = 3(nq - n'q')\lambda/[\lambda + \tfrac{3}{2}(nq - n'q')a_0], \tag{10}$$

where Ci is the cosine integral and a_0 the Bohr radius. The latter details will be rather immaterial to most users of the tables. They have been included, however, for those who want to compare our tables in detail with other calculations. By examining the constant K or from more detailed calculations (Vidal $et\ al.$ 1970) it is apparent that uncertainties from the variation of B (with largest discrepancies close to the line center) will be typically of the order of 10–15 percent or less.

In fact, much of the uncertainty in B in the present calculations is due to the approximate treatment of the time ordering of the time-development operator. It is expected that consideration of time ordering will improve the remaining discrepancies in the very line center which have been mentioned in the Introduction and which show up in particular at high electron densities. This has been demonstrated already for Lyman α by Bacon, Shen, and Cooper (1969) and Godfrey $et\ al.$ (1971) and for Hα by Bacon (1971). In all cases time ordering appears to reduce the structure in the very line center, which improves the agreement with measurements of, for example, Wiese $et\ al.$ (1972). Work including time ordering is in process using a recently developed technique of Pfennig (1971, 1972), who for the case of hydrogen was able to give analytical expressions for the time ordered time-development operators. For most astrophysical problems, however, these modifications should be of minor importance.

Finally, we would like to explain why our profiles differ from those of Kepple and Griem (1968) even when most of the line profile is well within the domain of the impact theory (e.g., Hα at $n_e = 10^{17}\ \mathrm{cm}^{-3}$, $T_e = 10,000°$ K). For such a case one would expect the impact and unified-theory profiles to be identical in the line center. However, our method of calculating the S-matrix differs from that used by Kepple and Griem (1968) and this difference can be significant, particularly for lines which are

sensitive to lower-state interactions. Basically we use a full exponential S-matrix (without time ordering) which contains a factor $C^2[B - \ln(4C^2)]$, where B and C are quantum-number–dependent according to equations (6), (9), and (10). The results of Kepple and Griem (1968) are based on a second-order approximation of the S-matrix and differ from ours because the full quantum number dependence of $\ln(4C^2)$ is suppressed and is essentially replaced by an averaged quantity, namely, $\ln(y'_1{}^2/y'_2)$, where $(y'_1{}^2/y'_2) = (2\pi n_e/m)[e\hbar(n^2 - n'^2)/kT]^2$ (see Kepple and Griem 1968, eqs. [10], [11], and [12]). The factor of Kepple and Griem could be obtained by separately averaging our $\ln(4C^2)$ term over the quantum numbers q and q', but they obtained their result by introducing an averaged cutoff to prevent divergence of their second-order S-matrix approximation. This difference is relatively minor in the Lyman series, but it becomes rather important for a line like Hα where lower-state interaction produces additional quantum-number dependence [e.g., for Hα at $n_e = 10^{17}$ cm^{-3}, $T = 10^4$ ° K using an averaged $\ln(4C^2)$ would lower the line-center intensity by about 6 percent].

Another significant difference occurs for lines like Hα, where lower-state interaction is important. From equations (4-31) and (4-42) of Griem (1964) or equation (10.7) of Baranger (1962) one sees that within the conventional impact approximation the electron broadening function ϕ_{ab} should be proportional to $(R_b \cdot R_b - 2R_b \cdot R_a{}^* + R_a{}^* \cdot R_a{}^*)$. Instead of this, Griem et al. (1962), Griem (1964, see eqs. [4–44]), Bacon and Edwards (1970), and Kepple and Griem (1968) have based their calculations $(R_b \cdot R_b - 2R_b \cdot R_a + R_a \cdot R_a)$. The latter expression would be valid (Griem 1964, p. 75) if one used a representation in which the matrix elements of R_a are all real, but all of the above calculations have used spherical or parabolic wave functions in which the R_a-matrix elements are complex. This discrepancy is noticeable only when $R_b \cdot R_a{}^*$ is important (i.e., when lower-state interaction is important). For Hα at $n_e = 10^{17}$ cm^{-3} and $T = 10^4$ ° K, this error lowers the line center intensity by about 40 percent and raises the wings around $\Delta\omega = \omega_p$ by roughly the same amount. Specifically, for this case, the use of an averaged $\ln(4C^2)$ reduces our $S(0)$ from 23.13 to 21.24, in close agreement with the value 21.8 obtained by Kepple (1972) when his program is modified to compute $R_b \cdot R_a{}^*$ rather than $R_b \cdot R_a$; this is also about 40 percent higher than the value 14.8 given by Kepple and Griem (1968).

It should also be pointed out that our calculations (as most previous ones) have treated the ions entirely as static. Departures from static behavior could possibly explain some of the remaining discrepancies, observed close to line center. However, ion dynamics will not affect the wings and, again, any modifications will probably have little importance in astrophysical situations.

APPENDIX

AN nTH-ORDER POLYNOMIAL INTERPOLATION SUBROUTINE

For the sake of making the present tabulations more complete it was felt to be useful to include a FORTRAN subroutine which is able to perform the numerical interpolation for any reasonable value of $\Delta\alpha$, n_e, and T. As indicated above, we have

obtained the best results with the smallest number of tabulated points by taking the logarithms of the tabulated values and using an nth-order polynomial interpolation procedure where a third- or fourth-order is usually good enough.

The relation used by the subroutine is

$$y(x) = \sum_{k=k_1}^{k_2} y_k \left\{ \prod_{l=k_1, l \neq k}^{k_2} \frac{x - x_l}{x_k - x_l} \right\} \qquad (A1)$$

(see, for example, Abramowitz and Stegun 1969, p. 878). This method fits a polynomial of order $n - 1$ through the n nearest known points k_1 to k_2 which do not have to be equally spaced. In our case they are in a logarithmic representation.

For points to be interpolated between the first two $\Delta\alpha$ points listed in the table $\Delta\alpha = 0$ and $\Delta\alpha = \Delta\alpha_1$, a simple quadratic interpolation is sufficient such that, for $\Delta\alpha \leq \Delta\alpha_1$,

$$S(\alpha) = \frac{S(\Delta\alpha_1) - S(0)}{(\Delta\alpha_1)^2} \Delta\alpha^2 + S(0) . \qquad (A2)$$

INDEX OF ELECTRON DENSITIES
COVERED IN THE TABLES

Lα:	10^{13}–10^{18} cm^{-3}, tables 1–11	
Lβ:	10^{12}–10^{17} cm^{-3}, tables 12–22	
Lγ:	10^{12}–10^{16} cm^{-3}, tables 23–31	
Lδ:	$10^{1/2} \times 10^{11}$–10^{16} cm^{-3}, tables 32–41	
Hα:	10^{12}–10^{18} cm^{-3}, tables 42–54	
Hβ:	10^{11}–10^{17} cm^{-3}, tables 55–67	
Hγ:	10^{11}–$10^{1/2} \times 10^{16}$ cm^{-3}, tables 68–79	
Hδ:	$10^{1/2} \times 10^{10}$–10^{16} cm^{-3}, tables 80–91	

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      SUBROUTINE PLLYNN

C     A N POINT POLYNOMIAL INTERPOLATION SUBROUTINE

C     FOR THE POINT XXX TO BE INTERPOLATED THE NPOLY NEAREST KNOWN
C     POINTS ARE CHOSEN AND A POLYNOMIAL OF DEGREE NPOLY-1 IS FITTED
C     TO THESE POINTS
C     X AND Y ARE THE ARRAYS OF NUMX KNOWN POINTS ON THE CURVE
C     THE RESULT IS POLYN

      COMMON/45/X(100), Y(100), NUMX, NPOLY, POLYN, XXX
      POLYN = .0
      NM = (NPOLY+1)/2  $  NM1 = NM + 1  $  NUP = NUMX + NM1 - NPOLY
      DO 2 J = NM1,NUP
      IF (XXX.LE.X(J)) GO TO 4
    2 CONTINUE
      J = NUP
    4 L = J - NM
      LLL = L + NPOLY - 1
      DO 6 K = L,LLL
      TERM=1.0
      DO 5 M = L,LLL
      IF (K.EQ.M) GO TO 5
      TERM = TERM * (XXX-X(M))/(X(K)-X(M))
    5 CONTINUE
      TERM=Y(K)*TERM
    6 POLYN = POLYN + TERM
      RETURN
      END
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TABLE 1

N UPPER = 2   N LOWER = 1   WAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 1.000+013 CM**(-3)   DLAMBDA/DALPHA = 5.8020-001   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.264 K=12.14	5000 K RO/D=0.186 K=13.53	10000 K RO/D=0.132 K=14.91
0	1.254 1 (1.201 4)	8.869 0 (1.530 4)	6.283 0 (1.972 4)
1.585 -6	1.254 1 (1.191 4)	8.869 0 (1.510 4)	6.283 0 (1.930 4)
2.512 -6	1.254 1 (1.177 4)	8.869 0 (1.481 4)	6.283 0 (1.870 4)
3.981 -6	1.254 1 (1.143 4)	8.869 0 (1.414 4)	6.283 0 (1.734 4)
6.310 -6	1.254 1 (1.065 4)	8.869 0 (1.268 4)	6.283 0 (1.466 4)
1.000 -5	1.254 1 (9.100 3)	8.869 0 (1.007 4)	6.283 0 (1.057 4)
1.585 -5	1.254 1 (6.666 3)	8.869 0 (6.637 3)	6.283 0 (6.217 3)
2.512 -5	1.254 1 (3.988 3)	8.869 0 (3.581 3)	6.283 0 (3.058 3)
3.981 -5	1.254 1 (1.992 3)	8.869 0 (1.664 3)	6.283 0 (1.348 3)
6.310 -5	1.254 1 (8.901 2)	8.869 0 (7.165 2)	6.283 0 (5.653 2)
1.000 -4	1.254 1 (3.840 2)	8.869 0 (3.038 2)	6.283 0 (2.464 2)
1.585 -4	1.254 1 (1.762 2)	8.869 0 (1.374 2)	6.283 0 (1.116 2)
2.512 -4	1.254 1 (1.055 2)	8.869 0 (8.530 1)	6.283 0 (7.084 1)
3.981 -4	1.254 1 (1.032 2)	8.869 0 (8.895 1)	6.283 0 (7.859 1)
6.310 -4	1.254 1 (1.210 2)	8.868 0 (1.135 2)	6.283 0 (1.074 2)
1.000 -3	1.253 1 (1.013 2)	8.867 0 (1.038 2)	6.282 0 (1.052 2)
1.585 -3	1.252 1 (4.747 1)	8.864 0 (5.066 1)	6.281 0 (5.319 1)
2.512 -3	1.250 1 (1.505 1)	8.855 0 (1.568 1)	6.278 0 (1.617 1)
3.981 -3	1.244 1 (4.395 0)	8.834 0 (4.435 0)	6.271 0 (4.455 0)
6.310 -3	1.229 1 (1.323 0)	8.782 0 (1.310 0)	6.252 0 (1.296 0)
1.000 -2	1.193 1 (4.131 -1)	8.652 0 (4.030 -1)	6.206 0 (3.941 -1)
1.585 -2	1.107 1 (1.331 -1)	8.333 0 (1.277 -1)	6.090 0 (1.233 -1)
2.512 -2	9.172 0 (4.311 -2)	7.584 0 (4.119 -2)	5.810 0 (3.961 -2)
3.981 -2	5.719 0 (1.424 -2)	5.987 0 (1.349 -2)	5.161 0 (1.287 -2)
6.310 -2	1.747 0 (4.765 -3)	3.305 0 (4.472 -3)	3.034 0 (4.228 -3)
1.000 -1	9.077 -2 (1.610 -3)	7.439 -1 (1.498 -3)	1.017 0 (1.403 -3)
1.585 -1	7.134 -4 (5.475 -4)	1.822 -2 (5.066 -4)	2.788 -1 (4.703 -4)
2.512 -1	1.993 -4 (1.865 -4)	2.007 -4 (1.723 -4)	2.721 -3 (1.589 -4)
3.981 -1	6.486 -5 (6.322 -5)	6.186 -5 (5.872 -5)	6.044 -5 (5.405 -5)
6.310 -1	2.138 -5 (2.116 -5)	2.032 -5 (1.992 -5)	1.919 -5 (1.842 -5)
1.000 0	6.976 -6 (6.947 -6)	6.726 -6 (6.671 -6)	6.355 -6 (6.254 -6)
1.585 0	2.238 -6 (2.234 -6)	2.200 -6 (2.193 -6)	2.112 -6 (2.098 -6)
2.512 0	7.075 -7 (7.070 -7)	7.073 -7 (7.063 -7)	6.932 -7 (6.914 -7)
3.981 0	2.217 -7 (2.217 -7)	2.238 -7 (2.236 -7)	2.234 -7 (2.231 -7)
6.310 0	6.934 -8 (6.933 -8)	7.016 -8 (7.014 -8)	7.079 -8 (7.075 -8)
1.000 1	2.171 -8 (2.171 -8)	2.194 -8 (2.194 -8)	2.221 -8 (2.220 -8)
1.585 1	6.816 -9 (6.816 -9)	6.869 -9 (6.869 -9)	6.946 -9 (6.945 -9)
2.512 1	2.145 -9 (2.145 -9)	2.156 -9 (2.156 -9)	2.174 -9 (2.174 -9)
3.981 1	6.758-10 (6.758-10)	6.784-10 (6.784-10)	6.823-10 (6.823-10)
6.310 1		2.137-10 (2.137-10)	2.146-10 (2.146-10)
1.000 2			6.761-11 (6.761-11)
1.585 2			2.133-11 (2.133-11)

TABLE 2

N UPPER = 2   N LOWER = 1

WAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 3.162+013 CM**(-3)   DLAMBDA/DALPHA = 1.2499+000   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319 K=10.99	5000 K RO/D=0.226 K=12.38	10000 K RO/D=0.160 K=13.76	20000 K RO/D=0.113 K=15.15	40000 K RO/D=0.080 K=16.54
0	2.691 1 (9.011 3)	1.907 1 (1.137 4)	1.350 1 (1.450 4)	9.557 0 (1.880 4)	6.777 0 (2.455 4)
1.585 -6	2.691 1 (8.970 3)	1.907 1 (1.129 4)	1.350 1 (1.434 4)	9.557 0 (1.843 4)	6.777 0 (2.375 4)
2.512 -6	2.691 1 (8.909 3)	1.907 1 (1.117 4)	1.350 1 (1.409 4)	9.557 0 (1.791 4)	6.777 0 (2.263 4)
3.981 -6	2.691 1 (8.763 3)	1.907 1 (1.088 4)	1.350 1 (1.351 4)	9.557 0 (1.671 4)	6.777 0 (2.024 4)
6.310 -6	2.691 1 (8.412 3)	1.907 1 (1.021 4)	1.350 1 (1.223 4)	9.557 0 (1.431 4)	6.777 0 (1.599 4)
1.000 -5	2.691 1 (7.643 3)	1.907 1 (8.842 3)	1.350 1 (9.878 3)	9.557 0 (1.052 4)	6.777 0 (1.047 4)
1.585 -5	2.691 1 (6.216 3)	1.907 1 (6.616 3)	1.350 1 (6.664 3)	9.557 0 (6.323 3)	6.777 0 (5.616 3)
2.512 -5	2.691 1 (4.235 3)	1.907 1 (4.057 3)	1.350 1 (3.670 3)	9.557 0 (3.159 3)	6.777 0 (2.598 3)
3.981 -5	2.691 1 (2.358 3)	1.907 1 (2.063 3)	1.350 1 (1.729 3)	9.557 0 (1.404 3)	6.777 0 (1.109 3)
6.310 -5	2.691 1 (1.126 3)	1.907 1 (9.310 2)	1.350 1 (7.492 2)	9.557 0 (5.911 2)	6.777 0 (4.584 2)
1.000 -4	2.691 1 (5.005 2)	1.907 1 (4.024 2)	1.350 1 (3.180 2)	9.557 0 (2.480 2)	6.777 0 (2.091 2)
1.585 -4	2.690 1 (2.301 2)	1.907 1 (1.829 2)	1.350 1 (1.499 2)	9.557 0 (1.152 2)	6.777 0 (9.418 1)
2.512 -4	2.690 1 (1.321 2)	1.907 1 (1.060 2)	1.350 1 (8.788 1)	9.557 0 (7.142 1)	6.777 0 (6.060 1)
3.981 -4	2.690 1 (1.174 2)	1.906 1 (1.000 2)	1.350 1 (8.712 1)	9.556 0 (7.723 1)	6.777 0 (7.018 1)
6.310 -4	2.688 1 (1.260 2)	1.906 1 (1.181 2)	1.350 1 (1.110 2)	9.556 0 (1.056 2)	6.777 0 (1.013 2)
1.000 -3	2.685 1 (9.915 1)	1.905 1 (1.025 2)	1.350 1 (1.043 2)	9.554 0 (1.054 2)	6.776 0 (1.059 2)
1.585 -3	2.675 1 (4.568 1)	1.901 1 (4.915 1)	1.349 1 (5.195 1)	9.550 0 (5.421 1)	6.775 0 (5.590 1)
2.512 -3	2.652 1 (1.482 1)	1.893 1 (1.549 1)	1.346 1 (1.606 1)	9.539 0 (1.643 1)	6.771 0 (1.673 1)
3.981 -3	2.595 1 (4.434 0)	1.872 1 (4.476 0)	1.338 1 (4.518 0)	9.513 0 (4.496 0)	6.762 0 (4.492 0)
6.310 -3	2.457 1 (1.357 0)	1.822 1 (1.340 0)	1.320 1 (1.331 0)	9.448 0 (1.304 0)	6.739 0 (1.289 0)
1.000 -2	2.141 1 (4.305 -1)	1.700 1 (4.178 -1)	1.275 1 (4.063 -1)	9.286 0 (3.964 -1)	6.681 0 (3.881 -1)
1.585 -2	1.516 1 (1.407 -1)	1.429 1 (1.342 -1)	1.169 1 (1.284 -1)	8.890 0 (1.238 -1)	6.537 0 (1.204 -1)
2.512 -2	6.373 0 (4.604 -2)	9.250 0 (4.361 -2)	9.398 0 (4.156 -2)	7.970 0 (3.988 -2)	6.189 0 (3.854 -2)
3.981 -2	7.378 -1 (1.529 -2)	3.104 0 (1.443 -2)	5.433 0 (1.363 -2)	6.057 0 (1.297 -2)	5.395 0 (1.245 -2)
6.310 -2	9.908 -3 (5.193 -3)	2.053 -1 (4.839 -3)	1.374 0 (4.529 -3)	3.041 0 (4.270 -3)	3.021 0 (4.061 -3)
1.000 -1	1.939 -3 (1.766 -3)	2.230 -3 (1.637 -3)	4.539 -2 (1.520 -3)	5.395 -1 (1.420 -3)	1.607 0 (1.338 -3)
1.585 -1	6.223 -4 (6.010 -4)	5.993 -4 (5.573 -4)	6.123 -4 (5.147 -4)	7.630 -3 (4.766 -4)	1.827 -1 (4.446 -4)
2.512 -1	2.060 -4 (2.031 -4)	1.951 -4 (1.898 -4)	1.855 -4 (1.752 -4)	1.826 -4 (1.613 -4)	5.690 -4 (1.491 -4)
3.981 -1	6.806 -5 (6.768 -5)	6.487 -5 (6.417 -5)	6.100 -5 (5.969 -5)	5.741 -5 (5.490 -5)	5.546 -5 (5.042 -5)
6.310 -1	2.216 -5 (2.210 -5)	2.148 -5 (2.139 -5)	2.038 -5 (2.020 -5)	1.903 -5 (1.871 -5)	1.777 -5 (1.715 -5)
1.000 0	7.083 -6 (7.076 -6)	7.000 -6 (6.987 -6)	6.765 -6 (6.741 -6)	6.383 -6 (6.339 -6)	5.927 -6 (5.847 -6)
1.585 0	2.233 -6 (2.232 -6)	2.239 -6 (2.238 -6)	2.209 -6 (2.206 -6)	2.126 -6 (2.120 -6)	1.995 -6 (1.904 -6)
2.512 0	6.992 -7 (6.987 -7)	7.062 -7 (7.074 -7)	7.074 -7 (7.074 -7)	6.963 -7 (6.955 -7)	6.667 -7 (6.652 -7)
3.981 0	2.187 -7 (2.187 -7)	2.211 -7 (2.211 -7)	2.234 -7 (2.233 -7)	2.236 -7 (2.235 -7)	2.192 -7 (2.189 -7)
6.310 0	6.851 -8 (6.851 -8)	6.916 -8 (6.916 -8)	6.998 -8 (6.997 -8)	7.070 -8 (7.068 -8)	7.062 -8 (7.059 -8)
1.000 1	2.152 -8 (2.152 -8)	2.167 -8 (2.167 -8)	2.189 -8 (2.188 -8)	2.216 -8 (2.215 -8)	2.237 -8 (2.237 -8)
1.585 1	6.776 -9 (6.776 -9)	6.806 -9 (6.806 -9)	6.856 -9 (6.856 -9)	6.930 -9 (6.929 -9)	7.019 -9 (7.018 -9)
2.512 1		2.143 -9 (2.143 -9)	2.153 -9 (2.153 -9)	2.170 -9 (2.170 -9)	2.195 -9 (2.195 -9)
3.981 1		6.753 -10 (6.753 -10)	6.778 -10 (6.778 -10)	6.814 -10 (6.814 -10)	6.873 -10 (6.872 -10)
6.310 1			2.136 -10 (2.136 -10)	2.144 -10 (2.144 -10)	2.157 -10 (2.157 -10)
1.000 2				6.757 -11 (6.757 -11)	6.785 -11 (6.785 -11)
1.585 2				2.132 -11 (2.132 -11)	2.138 -11 (2.138 -11)
2.512 2					6.744 -12 (6.744 -12)

TABLE 3

ELECTRON DENSITY = 1.000+014 CM**(-3) N UPPER = 2 N LOWER = 1 WAVELENGTH = 1215.15 ANGSTROM

DLAMBDA/DALPHA = 2.6930+000 ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	2500 K K= 9.84 RO/D=0.387	5000 K K=11.23 RO/D=0.274	10000 K K=12.61 RO/D=0.193	20000 K K=14.00 RO/D=0.137	40000 K K=15.38 RO/D=0.097
0	5.730 1 (6.837 3)	4.079 1 (8.520 3)	2.896 1 (1.079 4)	2.055 1 (1.382 4)	1.454 1 (1.795 4)
1.585 -6	5.730 1 (6.819 3)	4.079 1 (8.486 3)	2.896 1 (1.072 4)	2.055 1 (1.367 4)	1.454 1 (1.763 4)
2.512 -6	5.730 1 (6.793 3)	4.079 1 (8.435 3)	2.896 1 (1.062 4)	2.055 1 (1.346 4)	1.454 1 (1.717 4)
3.981 -6	5.730 1 (6.727 3)	4.079 1 (8.309 3)	2.896 1 (1.037 4)	2.055 1 (1.295 4)	1.454 1 (1.612 4)
6.310 -6	5.730 1 (6.568 3)	4.079 1 (8.010 3)	2.896 1 (9.788 3)	2.055 1 (1.182 4)	1.454 1 (1.396 4)
1.000 -5	5.730 1 (6.201 3)	4.079 1 (7.345 3)	2.896 1 (8.582 3)	2.055 1 (9.698 3)	1.454 1 (1.046 4)
1.585 -5	5.730 1 (5.438 3)	4.079 1 (6.078 3)	2.896 1 (6.551 3)	2.055 1 (6.685 3)	1.454 1 (6.413 3)
2.512 -5	5.730 1 (4.156 3)	4.079 1 (4.243 3)	2.896 1 (4.113 3)	2.055 1 (3.756 3)	1.454 1 (3.256 3)
3.981 -5	5.730 1 (2.616 3)	4.079 1 (2.419 3)	2.896 1 (2.132 3)	2.055 1 (1.794 3)	1.454 1 (1.459 3)
6.310 -5	5.730 1 (1.366 3)	4.078 1 (1.172 3)	2.896 1 (9.717 2)	2.055 1 (7.822 2)	1.454 1 (6.168 2)
1.000 -4	5.729 1 (6.376 2)	4.078 1 (5.238 2)	2.896 1 (4.211 2)	2.055 1 (3.323 2)	1.454 1 (2.588 2)
1.585 -4	5.728 1 (2.372 2)	4.078 1 (2.390 2)	2.896 1 (1.900 2)	2.055 1 (1.571 2)	1.454 1 (1.188 2)
2.512 -4	5.726 1 (1.659 2)	4.077 1 (1.330 2)	2.896 1 (1.071 2)	2.055 1 (8.946 1)	1.454 1 (7.219 1)
3.981 -4	5.721 1 (1.344 2)	4.075 1 (1.138 2)	2.895 1 (9.769 1)	2.054 1 (8.573 1)	1.454 1 (7.621 1)
6.310 -4	5.706 1 (1.312 2)	4.070 1 (1.231 2)	2.893 1 (1.155 2)	2.054 1 (1.090 2)	1.454 1 (1.040 2)
1.000 -3	5.671 1 (9.655 1)	4.057 1 (1.008 2)	2.888 1 (1.034 2)	2.052 1 (1.047 2)	1.453 1 (1.056 2)
1.585 -3	5.582 1 (4.387 1)	4.025 1 (4.756 1)	2.877 1 (5.067 1)	2.048 1 (5.313 1)	1.452 1 (5.510 1)
2.512 -3	5.364 1 (1.460 1)	3.945 1 (1.533 1)	2.848 1 (1.590 1)	2.038 1 (1.636 1)	1.448 1 (1.666 1)
3.981 -3	4.856 1 (4.492 0)	3.752 1 (4.535 0)	2.777 1 (4.549 0)	2.012 1 (4.570 0)	1.439 1 (4.532 0)
6.310 -3	3.782 1 (1.402 0)	3.307 1 (1.381 0)	2.606 1 (1.357 0)	1.949 1 (1.342 0)	1.416 1 (1.312 0)
1.000 -2	2.023 1 (4.525 -1)	2.409 1 (4.369 -1)	2.222 1 (4.223 -1)	1.799 1 (4.094 -1)	1.360 1 (3.985 -1)
1.585 -2	4.292 0 (1.498 -1)	1.089 1 (1.424 -1)	1.489 1 (1.352 -1)	1.471 1 (1.292 -1)	1.230 1 (1.245 -1)
2.512 -2	1.512 -1 (4.966 -2)	1.523 0 (4.671 -2)	5.458 0 (4.411 -2)	8.880 0 (4.193 -2)	9.549 0 (4.015 -2)
3.981 -2	1.914 -2 (1.673 -2)	3.107 -2 (1.563 -2)	4.545 -1 (1.463 -2)	2.504 0 (1.378 -2)	5.057 0 (1.308 -2)
6.310 -2	5.963 -3 (5.682 -3)	5.859 -3 (5.287 -3)	7.012 -3 (4.913 -3)	1.098 -1 (4.585 -3)	1.027 0 (4.312 -3)
1.000 -1	1.967 -3 (1.930 -3)	1.868 -3 (1.799 -3)	1.803 -3 (1.665 -3)	1.881 -3 (1.542 -3)	2.061 -2 (1.436 -3)
1.585 -1	6.555 -4 (6.507 -4)	6.206 -4 (6.115 -4)	5.842 -4 (5.670 -4)	5.563 -4 (5.227 -4)	5.544 -4 (4.829 -4)
2.512 -1	2.166 -4 (2.159 -4)	2.073 -4 (2.061 -4)	1.951 -4 (1.929 -4)	1.823 -4 (1.781 -4)	1.718 -4 (1.636 -4)
3.981 -1	7.029 -5 (7.020 -5)	6.852 -5 (6.835 -5)	6.535 -5 (6.504 -5)	6.117 -5 (6.060 -5)	5.679 -5 (5.574 -5)
6.310 -1	2.240 -5 (2.239 -5)	2.223 -5 (2.221 -5)	2.163 -5 (2.159 -5)	2.054 -5 (2.046 -5)	1.912 -5 (1.898 -5)
1.000 0	7.048 -6 (7.047 -6)	7.083 -6 (7.080 -6)	7.025 -6 (7.019 -6)	6.813 -6 (6.802 -6)	6.438 -6 (6.419 -6)
1.585 0	2.206 -6 (2.205 -6)	2.228 -6 (2.228 -6)	2.240 -6 (2.239 -6)	2.217 -6 (2.216 -6)	2.142 -6 (2.139 -6)
2.512 0	6.900 -7 (6.900 -7)	6.972 -7 (6.971 -7)	7.048 -7 (7.047 -7)	7.081 -7 (7.079 -7)	6.992 -7 (6.908 -7)
3.981 0	2.163 -7 (2.163 -7)	2.181 -7 (2.181 -7)	2.205 -7 (2.205 -7)	2.230 -7 (2.230 -7)	2.238 -7 (2.238 -7)
6.310 0	6.798 -8 (6.798 -8)	6.838 -8 (6.838 -8)	6.900 -8 (6.900 -8)	6.981 -8 (6.981 -8)	7.060 -8 (7.059 -8)
1.000 1	2.141 -8 (2.141 -8)	2.149 -8 (2.149 -8)	2.163 -8 (2.163 -8)	2.184 -8 (2.184 -8)	2.211 -8 (2.211 -8)
1.585 1	6.771 -9 (6.771 -9)	6.771 -9 (6.771 -9)	6.798 -9 (6.798 -9)	6.845 -9 (6.845 -9)	6.915 -9 (6.915 -9)
2.512 1			2.141 -9 (2.141 -9)	2.151 -9 (2.151 -9)	2.167 -9 (2.167 -9)
3.981 1			6.750 -10 (6.750 -10)	6.773 -10 (6.773 -10)	6.806 -10 (6.806 -10)
6.310 1				2.135 -10 (2.135 -10)	2.143 -10 (2.143 -10)
1.000 2					6.753 -11 (6.753 -11)
1.585 2					2.131 -11 (2.131 -11)

46

TABLE 4

N UPPER = 2   N LOWER = 1   WAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.8017+000   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.469 K= 8.69	5000 K RO/D=0.331 K=10.07	10000 K RO/D=0.234 K=11.46	20000 K RO/D=0.166 K=12.85	40000 K RO/D=0.117 K=14.23
0	1.196 2 (5.254 3)	8.605 1 (6.450 3)	6.157 1 (8.072 3)	4.387 1 (1.027 4)	3.121 1 (1.319 4)
1.585 -6	1.196 2 (5.246 3)	8.605 1 (6.435 3)	6.157 1 (8.043 3)	4.387 1 (1.021 4)	3.121 1 (1.307 4)
2.512 -6	1.196 2 (5.234 3)	8.605 1 (6.413 3)	6.157 1 (8.000 3)	4.387 1 (1.012 4)	3.121 1 (1.288 4)
3.981 -6	1.196 2 (5.205 3)	8.605 1 (6.358 3)	6.157 1 (7.893 3)	4.387 1 (9.901 3)	3.121 1 (1.243 4)
6.310 -6	1.196 2 (5.132 3)	8.605 1 (6.224 3)	6.157 1 (7.636 3)	4.387 1 (9.396 3)	3.121 1 (1.143 4)
1.000 -5	1.196 2 (4.958 3)	8.605 1 (5.911 3)	6.157 1 (7.059 3)	4.387 1 (8.325 3)	3.121 1 (9.512 3)
1.585 -5	1.196 2 (4.568 3)	8.605 1 (5.249 3)	6.157 1 (5.933 3)	4.387 1 (6.474 3)	3.121 1 (6.689 3)
2.512 -5	1.196 2 (3.815 3)	8.605 1 (4.098 3)	6.157 1 (4.238 3)	4.387 1 (4.158 3)	3.121 1 (3.834 3)
3.981 -5	1.195 2 (2.705 3)	8.605 1 (2.648 3)	6.157 1 (2.473 3)	4.387 1 (2.195 3)	3.121 1 (1.856 3)
6.310 -5	1.195 2 (1.574 3)	8.605 1 (1.412 3)	6.157 1 (1.217 3)	4.387 1 (1.011 3)	3.121 1 (8.148 2)
1.000 -4	1.195 2 (7.864 2)	8.603 1 (6.653 2)	6.156 1 (5.473 2)	4.387 1 (4.398 2)	3.121 1 (3.466 2)
1.585 -4	1.194 2 (3.771 2)	8.600 1 (3.085 2)	6.155 1 (2.484 2)	4.387 1 (1.974 2)	3.121 1 (1.641 2)
2.512 -4	1.192 2 (2.063 2)	8.593 1 (1.672 2)	6.152 1 (1.347 2)	4.385 1 (1.087 2)	3.120 1 (9.123 1)
3.981 -4	1.187 2 (1.538 2)	8.573 1 (1.306 2)	6.145 1 (1.113 2)	4.383 1 (9.600 1)	3.119 1 (8.475 1)
6.310 -4	1.173 2 (1.360 2)	8.524 1 (1.285 2)	6.128 1 (1.204 2)	4.376 1 (1.132 2)	3.117 1 (1.072 2)
1.000 -3	1.141 2 (9.354 1)	8.403 1 (9.870 1)	6.083 1 (1.020 2)	4.361 1 (1.040 2)	3.111 1 (1.050 2)
1.585 -3	1.063 2 (4.208 1)	8.106 1 (4.593 1)	5.973 1 (4.927 1)	4.320 1 (5.202 1)	3.097 1 (5.417 1)
2.512 -3	8.915 1 (1.441 1)	7.407 1 (1.518 1)	5.705 1 (1.580 1)	4.221 1 (1.627 1)	3.061 1 (1.664 1)
3.981 -3	5.740 1 (4.575 0)	5.906 1 (4.617 0)	5.085 1 (4.627 0)	3.983 1 (4.615 0)	2.973 1 (4.616 0)
6.310 -3	1.947 1 (1.461 0)	3.355 1 (1.432 0)	3.809 1 (1.402 0)	3.441 1 (1.372 0)	2.762 1 (1.351 0)
1.000 -2	1.814 0 (4.794 -1)	8.345 0 (4.611 -1)	1.850 1 (4.430 -1)	2.385 1 (4.265 -1)	2.296 1 (4.123 -1)
1.585 -2	1.963 -1 (1.601 -1)	4.431 -1 (1.525 -1)	3.122 0 (1.440 -1)	9.523 0 (1.363 -1)	1.443 1 (1.300 -1)
2.512 -2	5.769 -2 (5.390 -2)	5.890 -2 (5.053 -2)	9.731 -2 (4.738 -2)	9.934 -2 (4.461 -2)	4.517 0 (4.230 -2)
3.981 -2	1.872 -2 (1.824 -2)	1.797 -2 (1.705 -2)	1.780 -2 (1.588 -2)	2.221 -2 (1.482 -2)	2.605 -2 (1.392 -2)
6.310 -2	6.243 -3 (6.181 -3)	5.909 -3 (5.791 -3)	5.607 -3 (5.380 -3)	5.445 -3 (4.987 -3)	5.836 -3 (4.642 -3)
1.000 -1	2.086 -3 (2.077 -3)	1.980 -3 (1.965 -3)	1.860 -3 (1.831 -3)	1.748 -3 (1.692 -3)	1.674 -3 (1.563 -3)
1.585 -1	6.880 -4 (6.869 -4)	6.620 -4 (6.599 -4)	6.254 -4 (6.215 -4)	5.837 -4 (5.763 -4)	5.445 -4 (5.306 -4)
2.512 -1	2.227 -4 (2.226 -4)	2.182 -4 (2.179 -4)	2.093 -4 (2.088 -4)	1.968 -4 (1.958 -4)	1.826 -4 (1.808 -4)
3.981 -1	7.082 -5 (7.080 -5)	7.051 -5 (7.047 -5)	6.899 -5 (6.892 -5)	6.597 -5 (6.584 -5)	6.172 -5 (6.147 -5)
6.310 -1	2.226 -5 (2.225 -5)	2.239 -5 (2.238 -5)	2.230 -5 (2.229 -5)	2.175 -5 (2.176 -5)	2.073 -5 (2.070 -5)
1.000 0	6.962 -6 (6.962 -6)	7.031 -6 (7.030 -6)	7.079 -6 (7.078 -6)	7.045 -6 (7.043 -6)	6.860 -6 (6.855 -6)
1.585 0	2.179 -6 (2.179 -6)	2.179 -6 (2.199 -6)	2.223 -6 (2.223 -6)	2.239 -6 (2.238 -6)	2.224 -6 (2.224 -6)
2.512 0	6.833 -7 (6.833 -7)	6.883 -7 (6.883 -7)	6.953 -7 (6.953 -7)	7.033 -7 (7.033 -7)	7.080 -7 (7.080 -7)
3.981 0	2.148 -7 (2.148 -7)	2.159 -7 (2.159 -7)	2.176 -7 (2.176 -7)	2.200 -7 (2.200 -7)	2.226 -7 (2.226 -7)
6.310 0		6.790 -8 (6.790 -8)	6.827 -8 (6.827 -8)	6.885 -8 (6.885 -8)	6.965 -8 (6.965 -8)
1.000 1			2.147 -8 (2.147 -8)	2.160 -8 (2.160 -8)	2.179 -8 (2.179 -8)
1.585 1			6.763 -9 (6.763 -9)	6.791 -9 (6.791 -9)	6.834 -9 (6.834 -9)
2.512 1				2.139 -9 (2.139 -9)	2.149 -9 (2.149 -9)
3.981 1					6.766 -10 (6.766 -10)
6.310 1					2.134 -10 (2.134 -10)

TABLE 5

N UPPER = 2   N LOWER = 1   WAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 1.000*015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 3.3593-00G*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K=7.54		5000 K RO/D=0.402 K=8.92		10000 K RO/D=0.284 K=10.31		20000 K RO/D=0.201 K=11.70		40000 K RO/D=0.142 K=13.08	
0	2.396 2	(4.117 3)	1.758 2	(4.948 3)	1.279 2	(6.100 3)	9.232 1	(7.670 3)	6.617 1	(9.790 3)
2.512 -6	2.396 2	(4.107 3)	1.758 2	(4.932 3)	1.279 2	(6.069 3)	9.232 1	(7.608 3)	6.617 1	(9.663 3)
3.981 -6	2.396 2	(4.093 3)	1.758 2	(4.907 3)	1.279 2	(6.022 3)	9.232 1	(7.516 3)	6.617 1	(9.474 3)
6.310 -6	2.396 2	(4.058 3)	1.758 2	(4.846 3)	1.279 2	(5.908 3)	9.232 1	(7.294 3)	6.617 1	(9.029 3)
1.000 -5	2.396 2	(3.973 3)	1.758 2	(4.699 3)	1.279 2	(5.640 3)	9.232 1	(6.791 3)	6.617 1	(8.076 3)
1.585 -5	2.396 2	(3.775 3)	1.758 2	(4.367 3)	1.279 2	(5.064 3)	9.232 1	(5.787 3)	6.617 1	(6.388 3)
2.512 -5	2.396 2	(3.356 3)	1.758 2	(3.709 3)	1.279 2	(4.031 3)	9.232 1	(4.222 3)	6.617 1	(4.192 3)
3.981 -5	2.395 2	(2.626 3)	1.758 2	(2.696 3)	1.279 2	(2.671 3)	9.231 1	(2.519 3)	6.617 1	(2.254 3)
6.310 -5	2.394 2	(1.710 3)	1.758 2	(1.609 3)	1.279 2	(1.454 3)	9.231 1	(1.260 3)	6.617 1	(1.050 3)
1.000 -4	2.391 2	(9.317 2)	1.756 2	(8.164 2)	1.279 2	(6.929 2)	9.229 1	(5.705 2)	6.616 1	(4.583 2)
1.585 -4	2.384 2	(4.869 2)	1.754 2	(3.910 2)	1.278 2	(3.206 2)	9.225 1	(2.581 2)	6.615 1	(2.049 2)
2.512 -4	2.366 2	(2.536 2)	1.747 2	(2.085 2)	1.275 2	(1.697 2)	9.216 1	(1.371 2)	6.611 1	(1.107 2)
3.981 -4	2.321 2	(1.763 2)	1.729 2	(1.504 2)	1.268 2	(1.279 2)	9.192 1	(1.095 2)	6.602 1	(9.484 1)
6.310 -4	2.213 2	(1.405 2)	1.687 2	(1.341 2)	1.252 2	(1.259 2)	9.131 1	(1.181 2)	6.580 1	(1.113 2)
1.000 -3	1.963 2	(9.039 1)	1.585 2	(9.630 1)	1.213 2	(1.003 2)	8.982 1	(1.029 2)	6.525 1	(1.044 2)
1.585 -3	1.459 2	(4.343 1)	1.356 2	(4.434 1)	1.118 2	(4.784 1)	8.617 1	(5.081 1)	6.389 1	(5.322 1)
2.512 -3	7.115 1	(1.427 1)	9.208 1	(1.508 1)	9.137 1	(1.573 1)	7.765 1	(1.623 1)	6.059 1	(1.660 1)
3.981 -3	1.506 1	(4.072 0)	3.597 1	(4.725 0)	5.521 1	(4.733 0)	5.982 1	(4.711 0)	5.304 1	(4.674 0)
6.310 -3	2.112 0	(1.527 0)	4.867 0	(1.497 0)	1.620 0	(1.461 0)	3.121 1	(1.422 0)	3.798 1	(1.385 0)
1.000 -2	5.614 -1	(5.105 -1)	6.206 -1	(4.907 -1)	1.302 0	(4.693 -1)	6.384 0	(4.488 -1)	1.650 1	(4.306 -1)
1.585 -2	1.772 -1	(1.708 -1)	1.768 -1	(1.641 -1)	1.835 -1	(1.549 -1)	3.056 -1	(1.455 -1)	2.157 0	(1.374 -1)
2.512 -2	5.923 -2	(5.846 -2)	5.658 -2	(5.498 -2)	5.456 -2	(5.140 -2)	5.464 -2	(4.805 -2)	7.096 -2	(4.512 -2)
3.981 -2	1.984 -2	(1.373 -2)	1.881 -2	(1.860 -2)	1.775 -2	(1.736 -2)	1.688 -2	(1.613 -2)	1.656 -2	(1.502 -2)
6.310 -2	6.625 -3	(6.610 -3)	6.319 -3	(6.292 -3)	5.948 -3	(5.897 -3)	5.566 -3	(5.470 -3)	5.244 -3	(5.060 -3)
1.000 -1	2.182 -3	(2.180 -3)	2.110 -3	(2.106 -3)	2.003 -3	(1.997 -3)	1.874 -3	(1.861 -3)	1.742 -3	(1.718 -3)
1.585 -1	7.053 -4	(7.050 -4)	6.933 -4	(6.928 -4)	6.690 -4	(6.681 -4)	6.324 -4	(6.307 -4)	5.884 -4	(5.853 -4)
2.512 -1	2.239 -4	(2.239 -4)	2.234 -4	(2.233 -4)	2.196 -4	(2.195 -4)	2.114 -4	(2.112 -4)	1.990 -4	(1.985 -4)
3.981 -1	7.033 -5	(7.032 -5)	7.076 -5	(7.075 -5)	7.067 -5	(7.065 -5)	6.942 -5	(6.939 -5)	6.660 -5	(6.655 -5)
6.310 -1	2.200 -5	(2.200 -5)	2.220 -5	(2.220 -5)	2.237 -5	(2.236 -5)	2.234 -5	(2.234 -5)	2.191 -5	(2.190 -5)
1.000 0	6.884 -6	(6.884 -6)	6.942 -6	(6.942 -6)	7.013 -6	(7.013 -6)	7.072 -6	(7.072 -6)	7.061 -6	(7.060 -6)
1.585 0	2.159 -6	(2.159 -6)	2.173 -6	(2.173 -6)	2.193 -6	(2.193 -6)	2.218 -6	(2.218 -6)	2.237 -6	(2.237 -6)
2.512 0			6.821 -7	(6.821 -7)	6.868 -7	(6.868 -7)	6.936 -7	(6.936 -7)	7.018 -7	(7.018 -7)
3.981 0			2.146 -7	(2.146 -7)	2.156 -7	(2.156 -7)	2.172 -7	(2.172 -7)	2.195 -7	(2.195 -7)
6.310 0					6.783 -8	(6.783 -8)	6.817 -8	(6.817 -8)	6.872 -8	(6.872 -8)
1.000 1							2.145 -8	(2.145 -8)	2.157 -8	(2.157 -8)
1.585 1							6.758 -9	(6.758 -9)	6.785 -9	(6.785 -9)
2.512 1									2.138 -9	(2.138 -9)

48

TABLE 6

N UPPER = 2   N LOWER = 1   WAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 3.162+015 CM**(-3)   DLAMBDA/DALPHA = 2.6329+001   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.688 K= 6.39	5000 K RO/D=0.487 K= 7.77	10000 K RO/D=0.344 K= 9.15	20000 K RO/D=0.243 K=10.54	40000 K RO/D=0.172 K=11.93
0	4.520 2 (3.302 3)	3.392 2 (3.858 3)	2.530 2 (4.662 3)	1.870 2 (5.783 3)	1.367 2 (7.298 3)
3.981 -6	4.520 2 (3.290 3)	3.392 2 (3.839 3)	2.530 2 (4.628 3)	1.870 2 (5.717 3)	1.367 2 (7.166 3)
6.310 -6	4.520 2 (3.272 3)	3.392 2 (3.810 3)	2.530 2 (4.577 3)	1.870 2 (5.619 3)	1.367 2 (6.975 3)
1.000 -5	4.520 2 (3.229 3)	3.392 2 (3.740 3)	2.530 2 (4.453 3)	1.870 2 (5.389 3)	1.367 2 (6.534 3)
1.585 -5	4.519 2 (3.125 3)	3.392 2 (3.574 3)	2.530 2 (4.170 3)	1.870 2 (4.885 3)	1.367 2 (5.637 3)
2.512 -5	4.518 2 (2.891 3)	3.391 2 (3.216 3)	2.530 2 (3.596 3)	1.870 2 (3.958 3)	1.367 2 (4.194 3)
3.981 -5	4.514 2 (2.437 3)	3.390 2 (2.573 3)	2.529 2 (2.675 3)	1.870 2 (2.683 3)	1.367 2 (2.558 3)
6.310 -5	4.505 2 (1.757 3)	3.386 2 (1.722 3)	2.528 2 (1.637 3)	1.869 2 (1.492 3)	1.367 2 (1.300 3)
1.000 -4	4.482 2 (1.054 3)	3.377 2 (9.589 2)	2.524 2 (8.450 2)	1.868 2 (7.192 2)	1.366 2 (5.932 2)
1.585 -4	4.425 2 (5.599 2)	3.355 2 (4.825 2)	2.516 2 (4.054 2)	1.865 2 (3.327 2)	1.365 2 (2.678 2)
2.512 -4	4.287 2 (3.058 2)	3.300 2 (2.567 2)	2.494 2 (2.119 2)	1.856 2 (1.729 2)	1.362 2 (1.403 2)
3.981 -4	3.959 2 (1.395 2)	3.166 2 (1.731 2)	2.441 2 (1.479 2)	1.836 2 (1.257 2)	1.354 2 (1.079 2)
6.310 -4	3.256 2 (1.442 2)	2.855 2 (1.395 2)	2.312 2 (1.318 2)	1.784 2 (1.235 2)	1.334 2 (1.159 2)
1.000 -3	2.048 2 (8.724 1)	2.214 2 (9.368 1)	2.019 2 (9.837 1)	1.662 2 (1.015 2)	1.286 2 (1.034 2)
1.585 -3	7.782 1 (3.395 1)	1.211 2 (4.283 1)	1.446 2 (4.641 1)	1.391 2 (4.954 1)	1.172 2 (5.216 1)
2.512 -3	1.991 1 (1.416 1)	3.496 1 (1.502 1)	6.533 1 (1.571 1)	8.966 1 (1.623 1)	9.293 1 (1.663 1)
3.981 -3	5.467 0 (4.784 0)	6.826 0 (4.860 0)	1.290 1 (4.874 0)	3.131 1 (4.848 0)	5.225 1 (4.801 0)
6.310 -3	1.682 0 (1.601 0)	1.760 0 (1.576 0)	2.023 0 (1.537 0)	3.845 0 (1.492 0)	1.308 1 (1.446 0)
1.000 -2	5.511 -1 (5.411 -1)	5.441 -1 (5.232 -1)	5.456 -1 (5.015 -1)	5.818 -1 (4.771 -1)	9.705 -1 (4.544 -1)
1.585 -2	1.832 -1 (1.317 -1)	1.791 -1 (1.764 -1)	1.728 -1 (1.676 -1)	1.675 -1 (1.570 -1)	1.701 -1 (1.470 -1)
2.512 -2	6.295 -2 (6.280 -2)	6.004 -2 (5.969 -2)	5.673 -2 (5.604 -2)	5.356 -2 (5.226 -2)	5.123 -2 (4.871 -2)
3.981 -2	2.100 -2 (2.097 -2)	2.014 -2 (2.010 -2)	1.904 -2 (1.895 -2)	1.783 -2 (1.766 -2)	1.669 -2 (1.638 -2)
6.310 -2	6.909 -3 (6.905 -3)	6.712 -3 (6.705 -3)	6.407 -3 (6.395 -3)	6.018 -3 (5.996 -3)	5.599 -3 (5.557 -3)
1.000 -1	2.231 -3 (2.231 -3)	2.200 -3 (2.199 -3)	2.134 -3 (2.132 -3)	2.029 -3 (2.026 -3)	1.896 -3 (1.890 -3)
1.585 -1	7.084 -4 (7.084 -4)	7.072 -4 (7.071 -4)	6.978 -4 (6.976 -4)	6.757 -4 (6.753 -4)	6.400 -4 (6.392 -4)
2.512 -1	2.224 -4 (2.224 -4)	2.237 -4 (2.237 -4)	2.238 -4 (2.237 -4)	2.209 -4 (2.208 -4)	2.133 -4 (2.133 -4)
3.981 -1	6.957 -5 (6.957 -5)	7.012 -5 (7.012 -5)	7.066 -5 (7.066 -5)	7.076 -5 (7.076 -5)	6.979 -5 (6.977 -5)
6.310 -1	2.177 -5 (2.177 -5)	2.193 -5 (2.193 -5)	2.214 -5 (2.214 -5)	2.233 -5 (2.233 -5)	2.237 -5 (2.237 -5)
1.000 0	6.829 -6 (6.829 -6)	6.867 -6 (6.867 -6)	6.923 -6 (6.923 -6)	6.996 -6 (6.996 -6)	7.063 -6 (7.063 -6)
1.585 0		2.155 -6 (2.155 -6)	2.169 -6 (2.169 -6)	2.188 -6 (2.188 -6)	2.213 -6 (2.213 -6)
2.512 0			6.810 -7 (6.810 -7)	6.855 -7 (6.855 -7)	6.921 -7 (6.921 -7)
3.981 0			2.144 -7 (2.144 -7)	2.153 -7 (2.153 -7)	2.168 -7 (2.168 -7)
6.310 0				6.777 -8 (6.777 -8)	6.809 -8 (6.809 -8)
1.000 1					2.143 -8 (2.143 -8)
1.585 1					6.755 -9 (6.755 -9)

TABLE 7

ELECTRON DENSITY = 1.000+016 CM**(-3) N UPPER = 2 N LOWER = 1 WAVELENGTH = 1215.15 ANGSTROM

DLAMBDA/DALPHA = 5.8020+001 ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.834 K=5.23	5000 K RO/D=0.589 K=6.62	10000 K RO/D=0.417 K=8.01	20000 K RO/D=0.295 K=9.39	40000 K RO/D=0.208 K=10.78
0	8.014 2 (2.739 3)	6.160 2 (3.082 3)	4.699 2 (3.631 3)	3.561 2 (4.417 3)	2.679 2 (5.504 3)
6.310 -6	8.013 2 (2.723 3)	6.159 2 (3.058 3)	4.699 2 (3.590 3)	3.561 2 (4.345 3)	2.679 2 (5.363 3)
1.000 -5	8.012 2 (2.699 3)	6.158 2 (3.023 3)	4.698 2 (3.531 3)	3.561 2 (4.239 3)	2.679 2 (5.162 3)
1.585 -5	8.007 2 (2.640 3)	6.157 2 (2.937 3)	4.698 2 (3.392 3)	3.561 2 (3.994 3)	2.679 2 (4.720 3)
2.512 -5	7.997 2 (2.505 3)	6.152 2 (2.743 3)	4.696 2 (3.086 3)	3.560 2 (3.488 3)	2.678 2 (3.883 3)
3.981 -5	7.970 2 (2.221 3)	6.141 2 (2.354 3)	4.692 2 (2.518 3)	3.559 2 (2.650 3)	2.677 2 (2.690 3)
6.310 -5	7.903 2 (1.736 3)	6.114 2 (1.743 3)	4.681 2 (1.730 3)	3.554 2 (1.661 3)	2.676 2 (1.527 3)
1.000 -4	7.738 2 (1.140 3)	6.046 2 (1.073 3)	4.654 2 (9.844 2)	3.544 2 (8.721 2)	2.672 2 (7.449 2)
1.585 -4	7.341 2 (6.469 2)	5.879 2 (5.760 2)	4.586 2 (4.988 2)	3.517 2 (4.200 2)	2.661 2 (3.451 2)
2.512 -4	6.450 2 (3.589 2)	5.484 2 (3.100 2)	4.423 2 (2.612 2)	3.451 2 (2.161 2)	2.635 2 (1.767 2)
3.981 -4	4.746 2 (2.222 2)	4.624 2 (1.975 2)	4.041 2 (1.709 2)	3.293 2 (1.463 2)	2.571 2 (1.246 2)
6.310 -4	2.497 2 (1.472 2)	3.107 2 (1.448 2)	3.242 2 (1.380 2)	2.929 2 (1.297 2)	2.417 2 (1.214 2)
1.000 -3	1.008 2 (8.407 1)	1.412 2 (9.114 1)	1.949 2 (9.634 1)	2.201 2 (9.999 1)	2.073 2 (1.024 2)
1.585 -3	4.171 1 (3.754 1)	5.108 1 (4.150 1)	7.343 1 (4.509 1)	1.137 2 (4.833 1)	1.423 2 (5.110 1)
2.512 -3	1.490 1 (1.405 1)	1.709 1 (1.501 1)	2.102 1 (1.574 1)	3.218 1 (1.629 1)	5.926 1 (1.670 1)
3.981 -3	5.010 0 (4.887 0)	5.291 0 (5.011 0)	5.699 0 (5.038 0)	6.761 0 (5.007 0)	1.615 1 (4.945 0)
6.310 -3	1.687 0 (1.670 0)	1.697 0 (1.661 0)	1.697 0 (1.623 0)	1.732 0 (1.571 0)	1.916 0 (1.516 0)
1.000 -2	5.726 -1 (5.703 -1)	5.632 -1 (5.588 -1)	5.457 -1 (5.367 -1)	5.286 -1 (5.106 -1)	5.217 -1 (4.845 -1)
1.585 -2	1.955 -1 (1.952 -1)	1.886 -1 (1.880 -1)	1.824 -1 (1.813 -1)	1.728 -1 (1.706 -1)	1.634 -1 (1.590 -1)
2.512 -2	6.635 -2 (6.631 -2)	6.414 -2 (6.407 -2)	6.103 -2 (6.086 -2)	5.736 -2 (5.705 -2)	5.364 -2 (5.309 -2)
3.981 -2	2.182 -2 (2.181 -2)	2.130 -2 (2.129 -2)	2.046 -2 (2.044 -2)	1.932 -2 (1.928 -2)	1.803 -2 (1.795 -2)
6.310 -2	7.055 -3 (7.054 -3)	6.970 -3 (6.969 -3)	6.790 -3 (6.787 -3)	6.494 -3 (6.488 -3)	6.099 -3 (6.090 -3)
1.000 -1	2.242 -3 (2.242 -3)	2.238 -3 (2.238 -3)	2.214 -3 (2.214 -3)	2.155 -3 (2.154 -3)	2.054 -3 (2.052 -3)
1.585 -1	7.045 -4 (7.045 -4)	7.076 -4 (7.076 -4)	7.082 -4 (7.082 -4)	7.013 -4 (7.012 -4)	6.816 -4 (6.814 -4)
2.512 -1	2.203 -4 (2.203 -4)	2.218 -4 (2.218 -4)	2.233 -4 (2.233 -4)	2.239 -4 (2.239 -4)	2.218 -4 (2.218 -4)
3.981 -1	6.893 -5 (6.893 -5)	6.934 -5 (6.934 -5)	6.992 -5 (6.992 -5)	7.054 -5 (7.054 -5)	7.081 -5 (7.080 -5)
6.310 -1		2.171 -5 (2.171 -5)	2.187 -5 (2.187 -5)	2.208 -5 (2.208 -5)	2.230 -5 (2.230 -5)
1.000 0			6.852 -6 (6.852 -6)	6.906 -6 (6.906 -6)	6.979 -6 (6.979 -6)
1.585 0			2.152 -6 (2.152 -6)	2.165 -6 (2.165 -6)	2.183 -6 (2.183 -6)
2.512 0				6.801 -7 (6.801 -7)	6.843 -7 (6.843 -7)
3.981 0					2.150 -7 (2.150 -7)
6.310 0					6.772 -8 (6.772 -8)

TABLE 8

N UPPER = 2   N LOWER = 1   HAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 3.162+016 CM**(-3)   DLAMBDA/DALPHA = 1.2499+002   ASYMPTOTE = 3.3593-008*DALPHA**(-5/2)

ALPHA	5000 K RO/D=0.714 K= 5.47		10000 K RO/D=0.505 K= 6.86		20000 K RO/D=0.357 K= 8.24		40000 K RO/D=0.252 K= 9.63	
0	1.042 3	(2.538 3)	8.268 2	(2.889 3)	6.424 2	(3.431 3)	4.928 2	(4.199 3)
6.310 -6	1.042 3	(2.526 3)	8.267 2	(2.869 3)	6.424 2	(3.397 3)	4.928 2	(4.136 3)
1.000 -5	1.041 3	(2.507 3)	8.265 2	(2.840 3)	6.423 2	(3.347 3)	4.927 2	(4.044 3)
1.585 -5	1.040 3	(2.460 3)	8.260 2	(2.770 3)	6.421 2	(3.229 3)	4.926 2	(3.851 3)
2.512 -5	1.037 3	(2.351 3)	8.247 2	(2.607 3)	6.415 2	(2.965 3)	4.924 2	(3.385 3)
3.981 -5	1.030 3	(2.115 3)	8.214 2	(2.272 3)	6.402 2	(2.461 3)	4.919 2	(2.621 3)
6.310 -5	1.011 3	(1.694 3)	8.133 2	(1.725 3)	6.368 2	(1.732 3)	4.906 2	(1.681 3)
1.000 -4	3.676 2	(1.145 3)	7.934 2	(1.089 3)	6.285 2	(1.007 3)	4.873 2	(8.973 2)
1.585 -4	8.674 2	(6.610 2)	7.458 2	(5.923 2)	6.082 2	(5.149 2)	4.791 2	(4.346 2)
2.512 -4	6.690 2	(3.643 2)	6.412 2	(3.158 2)	5.606 2	(2.668 2)	4.594 2	(2.210 2)
3.981 -4	3.861 2	(2.222 2)	4.508 2	(1.964 2)	4.599 2	(1.698 2)	4.139 2	(1.455 2)
6.310 -4	1.763 2	(1.495 2)	2.261 2	(1.446 2)	2.932 2	(1.365 2)	3.217 2	(1.278 2)
1.000 -3	9.278 1	(8.871 1)	1.024 2	(9.435 1)	1.307 2	(9.842 1)	1.834 2	(1.012 2)
1.585 -3	4.212 1	(4.032 1)	4.762 1	(4.393 1)	5.425 1	(4.720 1)	6.960 1	(5.007 1)
2.512 -3	1.539 1	(1.500 1)	1.672 1	(1.583 1)	1.852 1	(1.642 1)	2.173 1	(1.684 1)
3.981 -3	5.216 0	(5.160 0)	5.349 0	(5.227 0)	5.473 0	(5.204 0)	5.743 0	(5.131 0)
6.310 -3	1.753 0	(1.746 0)	1.735 0	(1.720 0)	1.699 0	(1.667 0)	1.668 0	(1.603 0)
1.000 -2	5.930 -1	(5.321 -1)	5.773 -1	(5.753 -1)	5.533 -1	(5.494 -1)	5.277 -1	(5.200 -1)
1.585 -2	1.983 -1	(1.982 -1)	1.943 -1	(1.941 -1)	1.858 -1	(1.853 -1)	1.742 -1	(1.733 -1)
2.512 -2	6.749 -2	(6.748 -2)	6.525 -2	(6.522 -2)	6.203 -2	(6.195 -2)	5.815 -2	(5.802 -2)
3.981 -2	2.205 -2	(2.205 -2)	2.157 -2	(2.157 -2)	2.075 -2	(2.074 -2)	1.960 -2	(1.958 -2)
6.310 -2	7.083 -3	(7.083 -3)	7.017 -3	(7.017 -3)	6.857 -3	(6.856 -3)	6.574 -3	(6.572 -3)
1.000 -1	2.240 -3	(2.240 -3)	2.242 -3	(2.242 -3)	2.225 -3	(2.224 -3)	2.172 -3	(2.172 -3)
1.585 -1	7.022 -4	(7.022 -4)	7.063 -4	(7.063 -4)	7.085 -4	(7.085 -4)	7.040 -4	(7.039 -4)
2.512 -1	2.195 -4	(2.195 -4)	2.211 -4	(2.211 -4)	2.229 -4	(2.229 -4)	2.240 -4	(2.239 -4)
3.981 -1	6.873 -5	(6.873 -5)	6.914 -5	(6.914 -5)	6.973 -5	(6.973 -5)	7.040 -5	(7.040 -5)
6.310 -1			2.166 -5	(2.166 -5)	2.181 -5	(2.181 -5)	2.202 -5	(2.202 -5)
1.000 0					6.839 -6	(6.839 -6)	6.891 -6	(6.891 -6)
1.585 0					2.149 -6	(2.149 -6)	2.161 -6	(2.161 -6)
2.512 0							6.794 -7	(6.794 -7)

TABLE 9

N UPPER = 2   N LOWER = 1   WAVELENGTH = 1215.15 ANGSTROM

ELECTRON DENSITY = 1.000+017 CM**(-3)   DLAMBDA/DALPHA = 2.6930+002   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	5000 K RO/D=0.865 K= 4.32	10000 K RO/D=0.612 K= 5.70	20000 K RO/D=0.433 K= 7.09	40000 K RO/D=0.306 K= 8.48
0	1.511 3 (2.183 3)	1.307 3 (2.367 3)	1.090 3 (2.723 3)	8.733 2 (3.255 3)
1.000 -5	1.508 3 (2.164 3)	1.305 3 (2.342 3)	1.089 3 (2.682 3)	8.729 2 (3.184 3)
1.585 -5	1.503 3 (2.135 3)	1.302 3 (2.304 3)	1.088 3 (2.622 3)	8.722 2 (3.082 3)
2.512 -5	1.491 3 (2.067 3)	1.294 3 (2.213 3)	1.084 3 (2.484 3)	8.706 2 (2.852 3)
3.981 -5	1.459 3 (1.914 3)	1.276 3 (2.015 3)	1.075 3 (2.194 3)	8.664 2 (2.404 3)
6.310 -5	1.384 3 (1.619 3)	1.233 3 (1.650 3)	1.052 3 (1.702 3)	8.562 2 (1.729 3)
1.000 -4	1.220 3 (1.179 3)	1.131 3 (1.147 3)	9.981 2 (1.101 3)	8.311 2 (1.027 3)
1.585 -4	9.133 2 (7.292 2)	9.206 2 (6.749 2)	8.765 2 (6.079 2)	7.718 2 (5.305 2)
2.512 -4	5.278 2 (4.139 2)	5.872 2 (3.713 2)	6.450 2 (3.225 2)	6.444 2 (2.729 2)
3.981 -4	2.693 2 (2.450 2)	2.846 2 (2.227 2)	3.448 2 (1.961 2)	4.256 2 (1.695 2)
6.310 -4	1.564 2 (1.532 2)	1.565 2 (1.508 2)	1.611 2 (1.439 2)	2.000 2 (1.350 2)
1.000 -3	8.715 1 (8.616 1)	9.390 1 (9.256 1)	9.830 1 (9.695 1)	1.019 2 (1.000 2)
1.585 -3	3.944 1 (3.906 1)	4.373 1 (4.293 1)	4.782 1 (4.621 1)	5.214 1 (4.912 1)
2.512 -3	1.501 1 (1.493 1)	1.611 1 (1.593 1)	1.701 1 (1.660 1)	1.797 1 (1.706 1)
3.981 -3	5.275 0 (5.263 0)	5.444 0 (5.419 0)	5.485 0 (5.430 0)	5.475 0 (5.359 0)
6.310 -3	1.812 0 (1.810 0)	1.813 0 (1.816 0)	1.781 0 (1.774 0)	1.722 0 (1.708 0)
1.000 -2	6.170 -1 (6.167 -1)	6.120 -1 (6.116 -1)	5.915 -1 (5.906 -1)	5.629 -1 (5.612 -1)
1.585 -2	2.106 -1 (2.106 -1)	2.042 -1 (2.041 -1)	1.993 -1 (1.992 -1)	1.889 -1 (1.887 -1)
2.512 -2	6.964 -2 (6.963 -2)	6.848 -2 (6.848 -2)	6.625 -2 (6.624 -2)	6.299 -2 (6.295 -2)
3.981 -2	2.241 -2 (2.241 -2)	2.223 -2 (2.223 -2)	2.180 -2 (2.179 -2)	2.101 -2 (2.101 -2)
6.310 -2	7.102 -3 (7.102 -3)	7.099 -3 (7.098 -3)	7.052 -3 (7.051 -3)	6.913 -3 (6.912 -3)
1.000 -1	2.228 -3 (2.228 -3)	2.236 -3 (2.236 -3)	2.242 -3 (2.242 -3)	2.232 -3 (2.232 -3)
1.585 -1	6.966 -4 (6.966 -4)	7.000 -4 (7.000 -4)	7.047 -4 (7.047 -4)	7.083 -4 (7.083 -4)
2.512 -1		2.188 -4 (2.188 -4)	2.204 -4 (2.204 -4)	2.224 -4 (2.224 -4)
3.981 -1		6.855 -5 (6.855 -5)	6.896 -5 (6.896 -5)	6.955 -5 (6.955 -5)
6.310 -1			2.162 -5 (2.162 -5)	2.177 -5 (2.177 -5)
1.000 -0				6.828 -6 (6.828 -6)
1.585 0				2.147 -6 (2.147 -6)

52

TABLE 10

ELECTRON DENSITY = 3.162+017 CM**(-3)   N UPPER = 2   N LOWER = 1   WAVELENGTH = 1215.15 ANGSTROM

DLAMBDA/DALPHA = 5.801+002   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	10000 K RO/D=0.741 K= 4.55		20000 K RO/D=0.524 K= 5.94		40000 K RO/D=0.371 K= 7.33	
0	1.660 3	(2.017 3)	1.552 3	(2.221 3)	1.383 3	(2.577 3)
1.585 -5	1.647 3	(1.979 3)	1.541 3	(2.167 3)	1.382 3	(2.492 3)
2.512 -5	1.625 3	(1.925 3)	1.527 3	(2.092 3)	1.373 3	(2.373 3)
3.981 -5	1.574 3	(1.801 3)	1.490 3	(1.925 3)	1.350 3	(2.120 3)
6.310 -5	1.457 3	(1.554 3)	1.403 3	(1.606 3)	1.295 3	(1.677 3)
1.000 -4	1.216 3	(1.165 3)	1.213 3	(1.145 3)	1.168 3	(1.110 3)
1.585 -4	8.375 2	(7.384 2)	8.743 2	(6.876 2)	9.141 2	(6.225 2)
2.512 -4	4.670 2	(4.219 2)	4.798 2	(3.788 2)	5.402 2	(3.296 2)
3.981 -4	2.571 2	(2.477 2)	2.440 2	(2.238 2)	2.468 2	(1.966 2)
6.310 -4	1.575 2	(1.563 2)	1.533 2	(1.514 2)	1.466 2	(1.431 2)
1.000 -3	9.117 1	(9.084 1)	9.610 1	(9.572 1)	9.920 1	(9.900 1)
1.585 -3	4.214 1	(4.197 1)	4.574 1	(4.539 1)	4.902 1	(4.632 1)
2.512 -3	1.601 1	(1.597 1)	1.690 1	(1.682 1)	1.753 1	(1.734 1)
3.981 -3	5.578 0	(5.572 0)	5.674 0	(5.662 0)	5.645 0	(5.620 0)
6.310 -3	1.896 0	(1.895 0)	1.882 0	(1.881 0)	1.828 0	(1.825 0)
1.000 -2	6.396 -1	(6.395 -1)	6.293 -1	(6.291 -1)	6.051 -1	(6.047 -1)
1.585 -2	2.113 -1	(2.113 -1)	2.099 -1	(2.098 -1)	2.033 -1	(2.033 -1)
2.512 -2	7.040 -2	(7.040 -2)	6.929 -2	(6.929 -2)	6.713 -2	(6.712 -2)
3.981 -2	2.249 -2	(2.249 -2)	2.236 -2	(2.236 -2)	2.198 -2	(2.198 -2)
6.310 -2	7.095 -3	(7.095 -3)	7.104 -3	(7.104 -3)	7.076 -3	(7.075 -3)
1.000 -1	2.221 -3	(2.221 -3)	2.232 -3	(2.232 -3)	2.242 -3	(2.242 -3)
1.585 -1	6.940 -4	(6.940 -4)	6.978 -4	(6.978 -4)	7.031 -4	(7.031 -4)
2.512 -1			2.182 -4	(2.162 -4)	2.198 -4	(2.198 -4)
3.981 -1					6.880 -5	(6.880 -5)
6.310 -1					2.158 -5	(2.158 -5)

TABLE 11

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 1.2500+003   WAVELENGTH = 1215.15 ANGSTROM

N UPPER = 2   N LOWER = 1   ASYMPTOTE = 3.3593-006*DALPHA**(-5/2)

ALPHA	10000 K RO/D=0.898 K= 3.40	20000 K RO/D=0.635 K= 4.79	40000 K RO/D=0.449 K= 6.17
0	1.738 3 (1.819 3)	1.716 3 (1.880 3)	1.728 3 (2.094 3)
1.585 −5	1.718 3 (1.793 3)	1.697 3 (1.850 3)	1.710 3 (2.051 3)
2.512 −5	1.689 3 (1.754 3)	1.670 3 (1.805 3)	1.685 3 (1.986 3)
3.981 −5	1.618 3 (1.666 3)	1.604 3 (1.703 3)	1.625 3 (1.843 3)
6.310 −5	1.464 3 (1.481 3)	1.457 3 (1.493 3)	1.486 3 (1.563 3)
1.000 −4	1.180 3 (1.166 3)	1.177 3 (1.148 3)	1.209 3 (1.140 3)
1.585 −4	8.002 2 (7.805 2)	7.881 2 (7.458 2)	7.966 2 (6.988 2)
2.512 −4	4.698 2 (4.611 2)	4.481 2 (4.300 2)	4.260 2 (3.867 2)
3.981 −4	2.697 2 (2.676 2)	2.546 2 (2.505 2)	2.334 2 (2.254 2)
6.310 −4	1.604 2 (1.601 2)	1.590 2 (1.586 2)	1.524 2 (1.516 2)
1.000 −3	8.868 1 (8.860 1)	9.481 1 (9.472 1)	9.833 1 (9.827 1)
1.585 −3	4.063 1 (4.060 1)	4.471 1 (4.463 1)	4.783 1 (4.767 1)
2.512 −3	1.580 1 (1.579 1)	1.698 1 (1.696 1)	1.770 1 (1.765 1)
3.981 −3	5.617 0 (5.516 0)	5.861 0 (5.858 0)	5.895 0 (5.890 0)
6.310 −3	1.933 0 (1.932 0)	1.971 0 (1.971 0)	1.942 0 (1.941 0)
1.000 −2	6.526 −1 (6.526 −1)	6.589 −1 (6.588 −1)	6.490 −1 (6.490 −1)
1.585 −2	2.223 −1 (2.223 −1)	2.159 −1 (2.159 −1)	2.145 −1 (2.145 −1)
2.512 −2	7.124 −2 (7.124 −2)	7.096 −2 (7.096 −2)	6.994 −2 (6.994 −2)
3.981 −2	2.254 −2 (2.254 −2)	2.254 −2 (2.254 −2)	2.245 −2 (2.245 −2)
6.310 −2	7.067 −3 (7.067 −3)	7.081 −3 (7.081 −3)	7.102 −3 (7.102 −3)
1.000 −1		2.213 −3 (2.213 −3)	2.226 −3 (2.226 −3)
1.585 −1		6.918 −4 (6.918 −4)	6.958 −4 (6.958 −4)
2.512 −1			2.177 −4 (2.177 −4)

TABLE 12

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 1.000+012 CM**(-3)   DLAMBDA/DALPHA = 1.2500-001   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.180 K=13.17		5000 K RO/D=0.127 K=14.56		10000 K RO/D=0.090 K=15.94	
0	3.209 0	(1.444 1)	2.271 0	(1.065 1)	1.606 0	(7.924 0)
1.000 -5	3.209 0	(1.457 1)	2.271 0	(1.078 1)	1.606 0	(8.064 0)
1.585 -5	3.209 0	(1.478 1)	2.271 0	(1.098 1)	1.606 0	(8.259 0)
2.512 -5	3.209 0	(1.526 1)	2.271 0	(1.143 1)	1.606 0	(8.687 0)
3.981 -5	3.209 0	(1.635 1)	2.271 0	(1.242 1)	1.606 0	(9.583 0)
6.310 -5	3.209 0	(1.875 1)	2.271 0	(1.456 1)	1.606 0	(1.153 1)
1.000 -4	3.209 0	(2.416 1)	2.271 0	(1.945 1)	1.606 0	(1.609 1)
1.585 -4	3.209 0	(3.671 1)	2.271 0	(3.103 1)	1.606 0	(2.705 1)
2.512 -4	3.209 0	(6.520 1)	2.271 0	(5.769 1)	1.606 0	(5.251 1)
3.981 -4	3.209 0	(1.220 2)	2.271 0	(1.120 2)	1.606 0	(1.051 2)
6.310 -4	3.209 0	(2.013 2)	2.271 0	(1.923 2)	1.606 0	(1.858 2)
1.000 -3	3.209 0	(2.322 2)	2.271 0	(2.320 2)	1.606 0	(2.317 2)
1.585 -3	3.209 0	(1.613 2)	2.271 0	(1.653 2)	1.606 0	(1.683 2)
2.512 -3	3.208 0	(7.658 1)	2.270 0	(7.892 1)	1.606 0	(8.061 1)
3.981 -3	3.207 0	(2.676 1)	2.270 0	(2.747 1)	1.606 0	(2.799 1)
6.310 -3	3.205 0	(7.875 0)	2.269 0	(7.897 0)	1.606 0	(7.903 0)
1.000 -2	3.198 0	(2.331 0)	2.267 0	(2.294 0)	1.605 0	(2.262 0)
1.585 -2	3.183 0	(7.189 -1)	2.262 0	(6.979 -1)	1.603 0	(6.810 -1)
2.512 -2	3.144 0	(2.280 -1)	2.248 0	(2.191 -1)	1.598 0	(2.118 -1)
3.981 -2	3.048 0	(7.429 -2)	2.213 0	(7.070 -2)	1.586 0	(6.778 -2)
6.310 -2	2.821 0	(2.459 -2)	2.129 0	(2.319 -2)	1.555 0	(2.205 -2)
1.000 -1	2.322 0	(8.246 -3)	1.931 0	(7.709 -3)	1.481 0	(7.261 -3)
1.585 -1	1.424 0	(2.791 -3)	1.512 0	(2.590 -3)	1.311 0	(2.417 -3)
2.512 -1	4.173 -1	(9.496 -4)	8.177 -1	(8.773 -4)	9.637 -1	(8.123 -4)
3.981 -1	1.951 -2	(3.228 -4)	1.748 -1	(2.985 -4)	4.451 -1	(2.751 -4)
6.310 -1	1.394 -4	(1.088 -4)	3.753 -3	(1.015 -4)	6.401 -2	(9.362 -5)
1.000 0	3.864 -5	(3.614 -5)	3.967 -5	(3.426 -5)	5.317 -4	(3.185 -5)
1.585 0	1.209 -5	(1.177 -5)	1.201 -5	(1.139 -5)	1.200 -5	(1.076 -5)
2.512 0	3.803 -6	(3.762 -6)	3.794 -6	(3.716 -6)	3.736 -6	(3.585 -6)
3.981 0	1.191 -6	(1.186 -6)	1.199 -6	(1.189 -6)	1.191 -6	(1.172 -6)
6.310 0	3.723 -7	(3.717 -7)	3.766 -7	(3.753 -7)	3.783 -7	(3.758 -7)
1.000 1	1.164 -7	(1.163 -7)	1.178 -7	(1.176 -7)	1.191 -7	(1.188 -7)
1.585 1	3.647 -8	(3.646 -8)	3.683 -8	(3.681 -8)	3.728 -8	(3.724 -8)
2.512 1	1.146 -8	(1.145 -8)	1.154 -8	(1.154 -8)	1.166 -8	(1.165 -8)
3.981 1	3.606 -9	(3.606 -9)	3.624 -9	(3.624 -9)	3.652 -9	(3.651 -9)
6.310 1	1.137 -9	(1.137 -9)	1.141 -9	(1.141 -9)	1.147 -9	(1.147 -9)
1.000 2	3.588-10	(3.588-10)	3.596-10	(3.596-10)	3.609-10	(3.609-10)
1.585 2	1.135-10	(1.135-10)	1.135-10	(1.135-10)	1.138-10	(1.138-10)
2.512 2	3.584-11	(3.584-11)	3.584-11	(3.584-11)	3.590-11	(3.590-11)
3.981 2					1.134-11	(1.134-11)

TABLE 13

N UPPER = 3   N LOWER = 1

WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 3.162+012 CM**(-3)   DLAMBDA/DALPHA = 2.6929-001   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.218 K=12.02	5000 K RO/D=0.154 K=13.41	10000 K RO/D=0.109 K=14.79	20000 K RO/D=0.077 K=16.18	40000 K RO/D=0.054 K=17.57
0	6.889 0 (1.980 1)	4.882 0 (1.462 1)	3.456 0 (1.089 1)	2.446 0 (8.152 0)	1.731 0 (6.108 0)
1.000 -5	6.889 0 (1.994 1)	4.882 0 (1.474 1)	3.456 0 (1.102 1)	2.446 0 (8.285 0)	1.731 0 (6.252 0)
1.585 -5	6.889 0 (2.013 1)	4.882 0 (1.493 1)	3.456 0 (1.121 1)	2.446 0 (8.474 0)	1.731 0 (6.440 0)
2.512 -5	6.889 0 (2.060 1)	4.882 0 (1.538 1)	3.456 0 (1.164 1)	2.446 0 (8.891 0)	1.731 0 (6.832 0)
3.981 -5	6.889 0 (2.172 1)	4.882 0 (1.640 1)	3.456 0 (1.259 1)	2.446 0 (9.767 0)	1.731 0 (7.635 0)
6.310 -5	6.889 0 (2.425 1)	4.882 0 (1.867 1)	3.456 0 (1.464 1)	2.446 0 (1.166 1)	1.731 0 (9.417 0)
1.000 -4	6.889 0 (2.993 1)	4.882 0 (2.374 1)	3.456 0 (1.932 1)	2.446 0 (1.608 1)	1.731 0 (1.367 1)
1.585 -4	6.889 0 (4.283 1)	4.882 0 (3.551 1)	3.456 0 (3.036 1)	2.446 0 (2.666 1)	1.731 0 (2.398 1)
2.512 -4	6.889 0 (7.163 1)	4.882 0 (6.230 1)	3.456 0 (5.584 1)	2.446 0 (5.131 1)	1.731 0 (4.803 1)
3.981 -4	6.889 0 (1.281 2)	4.882 0 (1.164 2)	3.456 0 (1.082 2)	2.446 0 (1.025 2)	1.731 0 (9.858 1)
6.310 -4	6.889 0 (2.043 2)	4.881 0 (1.945 2)	3.456 0 (1.873 2)	2.446 0 (1.822 2)	1.731 0 (1.786 2)
1.000 -3	6.888 0 (2.295 2)	4.881 0 (2.300 2)	3.456 0 (2.301 2)	2.446 0 (2.302 2)	1.731 0 (2.302 2)
1.585 -3	6.887 0 (1.582 2)	4.881 0 (1.629 2)	3.456 0 (1.664 2)	2.446 0 (1.691 2)	1.731 0 (1.711 2)
2.512 -3	6.883 0 (7.529 1)	4.879 0 (7.797 1)	3.455 0 (7.993 1)	2.446 0 (8.133 1)	1.730 0 (8.233 1)
3.981 -3	6.873 0 (2.659 1)	4.876 0 (2.735 1)	3.454 0 (2.792 1)	2.445 0 (2.833 1)	1.730 0 (2.862 1)
6.310 -3	6.848 0 (7.392 0)	4.867 0 (8.001 0)	3.451 0 (7.990 0)	2.444 0 (7.969 0)	1.730 0 (7.946 0)
1.000 -2	6.787 0 (2.406 0)	4.845 0 (2.358 0)	3.443 0 (2.313 0)	2.441 0 (2.275 0)	1.729 0 (2.244 0)
1.585 -2	6.635 0 (7.535 -1)	4.791 0 (7.260 -1)	3.424 0 (7.033 -1)	2.434 0 (6.850 -1)	1.726 0 (6.705 -1)
2.512 -2	6.269 0 (2.419 -1)	4.656 0 (2.306 -1)	3.375 0 (2.211 -1)	2.417 0 (2.132 -1)	1.720 0 (2.069 -1)
3.981 -2	5.436 0 (7.977 -2)	4.335 0 (7.522 -2)	3.257 0 (7.142 -2)	2.374 0 (6.831 -2)	1.705 0 (6.581 -2)
6.310 -2	3.801 0 (2.668 -2)	3.623 0 (2.494 -2)	2.977 0 (2.347 -2)	2.270 0 (2.225 -2)	1.667 0 (2.127 -2)
1.000 -1	1.549 0 (9.023 -3)	2.308 0 (8.381 -3)	2.375 0 (7.817 -3)	2.027 0 (7.343 -3)	1.575 0 (6.955 -3)
1.585 -1	1.653 -1 (3.067 -3)	7.448 -1 (2.841 -3)	1.347 0 (2.631 -3)	1.526 0 (2.449 -3)	1.367 0 (2.297 -3)
2.512 -1	1.917 -3 (1.040 -3)	4.457 -2 (9.667 -4)	3.245 -1 (8.924 -4)	7.479 -1 (8.244 -4)	9.565 -1 (7.660 -4)
3.981 -1	3.631 -4 (3.496 -4)	4.365 -4 (3.281 -4)	9.472 -3 (3.038 -4)	1.249 -1 (2.796 -4)	3.904 -1 (2.577 -4)
6.310 -1	1.196 -4 (1.155 -4)	1.185 -4 (1.103 -4)	1.215 -4 (1.032 -4)	1.517 -3 (9.518 -5)	4.118 -2 (8.731 -5)
1.000 0	3.794 -5 (3.740 -5)	3.750 -5 (3.646 -5)	3.672 -5 (3.472 -5)	3.640 -5 (3.235 -5)	1.826 -4 (2.972 -5)
1.585 0	1.197 -5 (1.190 -5)	1.195 -5 (1.182 -5)	1.175 -5 (1.149 -5)	1.139 -5 (1.090 -5)	1.107 -5 (1.011 -5)
2.512 0	3.753 -6 (3.744 -6)	3.781 -6 (3.763 -6)	3.766 -6 (3.732 -6)	3.681 -6 (3.617 -6)	3.533 -6 (3.413 -6)
3.981 0	1.173 -6 (1.172 -6)	1.186 -6 (1.184 -6)	1.194 -6 (1.190 -6)	1.186 -6 (1.177 -6)	1.152 -6 (1.136 -6)
6.310 0	3.670 -7 (3.666 -7)	3.710 -7 (3.707 -7)	3.752 -7 (3.747 -7)	3.772 -7 (3.761 -7)	3.770 -7 (3.709 -7)
1.000 1	1.151 -7 (1.151 -7)	1.161 -7 (1.160 -7)	1.174 -7 (1.173 -7)	1.187 -7 (1.186 -7)	1.191 -7 (1.188 -7)
1.585 1	3.618 -8 (3.617 -8)	3.640 -8 (3.639 -8)	3.673 -8 (3.672 -8)	3.717 -8 (3.715 -8)	3.757 -8 (3.754 -8)
2.512 1	1.139 -8 (1.139 -8)	1.144 -8 (1.144 -8)	1.152 -8 (1.152 -8)	1.163 -8 (1.163 -8)	1.177 -8 (1.177 -8)
3.981 1	3.593 -9 (3.593 -9)	3.604 -9 (3.604 -9)	3.620 -9 (3.620 -9)	3.645 -9 (3.645 -9)	3.684 -9 (3.683 -9)
6.310 1	1.134 -9 (1.134 -9)	1.136 -9 (1.136 -9)	1.140 -9 (1.140 -9)	1.145 -9 (1.145 -9)	1.154 -9 (1.154 -9)
1.000 2		3.587 -10 (3.587 -10)	3.594 -10 (3.594 -10)	3.606 -10 (3.606 -10)	3.625 -10 (3.625 -10)
1.585 2			1.134 -10 (1.134 -10)	1.137 -10 (1.137 -10)	1.141 -10 (1.141 -10)
2.512 2			3.583 -11 (3.583 -11)	3.588 -11 (3.588 -11)	3.597 -11 (3.597 -11)
3.981 2				1.133 -11 (1.133 -11)	1.135 -11 (1.135 -11)
6.310 2					3.584 -12 (3.584 -12)
1.000 3					1.133 -12 (1.133 -12)

TABLE 14

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 1.000@013 CM**(-3)   DLAMBDA/DALPHA = 5.8020-001   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.264 K=10.87		5000 K RO/D=0.186 K=12.26		10000 K RO/D=0.132 K=13.64		20000 K RO/D=0.093 K=15.03		40000 K RO/D=0.066 K=16.41	
0	1.470 1	(2.690 1)	1.045 1	(1.990 1)	7.419 0	(1.487 1)	5.258 0	(1.116 1)	3.723 0	(8.380 0)
1.000 -5	1.470 1	(2.702 1)	1.045 1	(2.002 1)	7.419 0	(1.499 1)	5.258 0	(1.128 1)	3.723 0	(8.509 0)
1.585 -5	1.470 1	(2.721 1)	1.045 1	(2.020 1)	7.419 0	(1.517 1)	5.258 0	(1.146 1)	3.723 0	(8.691 0)
2.512 -5	1.470 1	(2.767 1)	1.045 1	(2.063 1)	7.419 0	(1.559 1)	5.258 0	(1.188 1)	3.723 0	(9.098 0)
3.981 -5	1.470 1	(2.879 1)	1.045 1	(2.166 1)	7.419 0	(1.656 1)	5.258 0	(1.280 1)	3.723 0	(9.958 0)
6.310 -5	1.470 1	(3.140 1)	1.045 1	(2.402 1)	7.419 0	(1.871 1)	5.258 0	(1.478 1)	3.723 0	(1.181 1)
1.000 -4	1.470 1	(3.731 1)	1.045 1	(2.928 1)	7.419 0	(2.352 1)	5.258 0	(1.928 1)	3.723 0	(1.610 1)
1.585 -4	1.470 1	(5.053 1)	1.045 1	(4.123 1)	7.419 0	(3.463 1)	5.258 0	(2.987 1)	3.723 0	(2.638 1)
2.512 -4	1.470 1	(7.942 1)	1.045 1	(6.798 1)	7.419 0	(6.000 1)	5.258 0	(5.436 1)	3.723 0	(5.034 1)
3.981 -4	1.470 1	(1.349 2)	1.045 1	(1.213 2)	7.419 0	(1.117 2)	5.258 0	(1.050 2)	3.723 0	(1.004 2)
6.310 -4	1.470 1	(2.067 2)	1.045 1	(1.963 2)	7.419 0	(1.885 2)	5.258 0	(1.829 2)	3.723 0	(1.791 2)
1.000 -3	1.469 1	(2.257 2)	1.045 1	(2.270 2)	7.418 0	(2.277 2)	5.257 0	(2.283 2)	3.723 0	(2.287 2)
1.585 -3	1.468 1	(1.548 2)	1.044 1	(1.600 2)	7.416 0	(1.641 2)	5.257 0	(1.673 2)	3.723 0	(1.697 2)
2.512 -3	1.464 1	(7.391 1)	1.043 1	(7.694 1)	7.411 0	(7.919 1)	5.255 0	(8.081 1)	3.722 0	(8.196 1)
3.981 -3	1.454 1	(2.649 1)	1.040 1	(2.729 1)	7.399 0	(2.790 1)	5.251 0	(2.833 1)	3.721 0	(2.863 1)
6.310 -3	1.431 1	(8.198 0)	1.031 1	(8.152 0)	7.368 0	(8.119 0)	5.240 0	(8.075 0)	3.717 0	(8.028 0)
1.000 -2	1.373 1	(2.528 0)	1.010 1	(2.443 0)	7.292 0	(2.384 0)	5.213 0	(2.332 0)	3.707 0	(2.288 0)
1.585 -2	1.238 1	(8.060 -1)	9.586 0	(7.631 -1)	7.103 0	(7.333 -1)	5.144 0	(7.087 -1)	3.683 0	(6.888 -1)
2.512 -2	9.552 0	(2.594 -1)	8.409 0	(2.455 -1)	6.650 0	(2.333 -1)	4.977 0	(2.231 -1)	3.622 0	(2.146 -1)
3.981 -2	4.986 0	(8.652 -2)	6.053 0	(8.101 -2)	5.637 0	(7.620 -2)	4.581 0	(7.215 -2)	3.475 0	(6.882 -2)
6.310 -2	9.925 -1	(2.315 -2)	2.656 0	(2.714 -2)	3.722 0	(2.532 -2)	3.720 0	(2.376 -2)	3.131 0	(2.245 -2)
1.000 -1	2.982 -2	(9.888 -3)	3.432 -1	(9.190 -3)	1.315 0	(8.522 -3)	2.205 0	(7.927 -3)	2.409 0	(7.421 -3)
1.585 -1	3.804 -3	(3.345 -3)	5.998 -3	(3.123 -3)	9.943 -2	(2.892 -3)	5.941 -1	(2.672 -3)	1.247 0	(2.479 -3)
2.512 -1	1.174 -3	(1.119 -3)	1.167 -3	(1.058 -3)	1.364 -3	(9.639 -4)	2.315 -2	(9.074 -4)	2.394 -1	(8.359 -4)
3.981 -1	3.752 -4	(3.681 -4)	3.676 -4	(3.540 -4)	3.600 -4	(3.334 -4)	3.713 -4	(3.089 -4)	4.156 -3	(2.838 -4)
6.310 -1	1.196 -4	(1.187 -4)	1.182 -4	(1.164 -4)	1.150 -4	(1.117 -4)	1.112 -4	(1.047 -4)	1.100 -4	(9.662 -5)
1.000 0	3.775 -5	(3.763 -5)	3.775 -5	(3.752 -5)	3.719 -5	(3.674 -5)	3.597 -5	(3.514 -5)	3.438 -5	(3.280 -5)
1.585 0	1.183 -5	(1.181 -5)	1.193 -5	(1.190 -5)	1.191 -5	(1.185 -5)	1.169 -5	(1.158 -5)	1.123 -5	(1.102 -5)
2.512 0	3.699 -6	(3.697 -6)	3.739 -6	(3.735 -6)	3.769 -6	(3.762 -6)	3.758 -6	(3.744 -6)	3.672 -6	(3.644 -6)
3.981 0	1.158 -6	(1.157 -6)	1.169 -6	(1.169 -6)	1.182 -6	(1.182 -6)	1.191 -6	(1.190 -6)	1.185 -6	(1.181 -6)
6.310 0	3.633 -7	(3.633 -7)	3.661 -7	(3.660 -7)	3.699 -7	(3.698 -7)	3.742 -7	(3.739 -7)	3.767 -7	(3.762 -7)
1.000 1	1.143 -7	(1.143 -7)	1.149 -7	(1.149 -7)	1.158 -7	(1.158 -7)	1.171 -7	(1.171 -7)	1.185 -7	(1.184 -7)
1.585 1	3.601 -8	(3.600 -8)	3.614 -8	(3.614 -8)	3.634 -8	(3.634 -8)	3.665 -8	(3.665 -8)	3.708 -8	(3.707 -8)
2.512 1	1.136 -8	(1.136 -8)	1.139 -8	(1.139 -8)	1.143 -8	(1.143 -8)	1.150 -8	(1.150 -8)	1.161 -8	(1.160 -8)
3.981 1			3.592 -9	(3.592 -9)	3.601 -9	(3.601 -9)	3.616 -9	(3.616 -9)	3.640 -9	(3.640 -9)
6.310 1			1.134 -9	(1.134 -9)	1.136 -9	(1.136 -9)	1.139 -9	(1.139 -9)	1.144 -9	(1.144 -9)
1.000 2					3.586-10	(3.586-10)	3.592-10	(3.592-10)	3.603-10	(3.603-10)
1.585 2							1.134-10	(1.134-10)	1.136-10	(1.136-10)
2.512 2							3.583-11	(3.583-11)	3.587-11	(3.587-11)
3.981 2									1.133-11	(1.133-11)

TABLE 15

ELECTRON DENSITY = 3.162+013 CM**(-3)   N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

DLAMBDA/DALPHA = 1.2499+000   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319 K= 9.72	5000 K RO/D=0.226 K=11.10	10000 K RO/D=0.160 K=12.49	20000 K RO/D=0.113 K=13.88	40000 K RO/D=0.080 K=15.26
0	3.074 1 (3.605 1)	2.211 1 (2.680 1)	1.581 1 (2.012 1)	1.125 1 (1.517 1)	7.988 0 (1.145 1)
1.000 -5	3.074 1 (3.617 1)	2.211 1 (2.692 1)	1.581 1 (2.023 1)	1.125 1 (1.528 1)	7.988 0 (1.156 1)
1.585 -5	3.074 1 (3.635 1)	2.211 1 (2.708 1)	1.581 1 (2.039 1)	1.125 1 (1.545 1)	7.988 0 (1.173 1)
2.512 -5	3.074 1 (3.680 1)	2.211 1 (2.750 1)	1.581 1 (2.080 1)	1.125 1 (1.584 1)	7.988 0 (1.213 1)
3.981 -5	3.074 1 (3.789 1)	2.211 1 (2.851 1)	1.581 1 (2.176 1)	1.125 1 (1.677 1)	7.988 0 (1.301 1)
6.310 -5	3.074 1 (4.051 1)	2.211 1 (3.088 1)	1.581 1 (2.396 1)	1.125 1 (1.883 1)	7.988 0 (1.494 1)
1.000 -4	3.074 1 (4.654 1)	2.211 1 (3.628 1)	1.581 1 (2.889 1)	1.125 1 (2.342 1)	7.988 0 (1.929 1)
1.585 -4	3.073 1 (5.395 1)	2.211 1 (4.835 1)	1.581 1 (4.006 1)	1.125 1 (3.400 1)	7.988 0 (2.952 1)
2.512 -4	3.073 1 (8.359 1)	2.211 1 (7.485 1)	1.581 1 (6.512 1)	1.125 1 (5.818 1)	7.988 0 (5.317 1)
3.981 -4	3.072 1 (1.421 2)	2.210 1 (1.267 2)	1.580 1 (1.157 2)	1.125 1 (1.079 2)	7.988 0 (1.024 2)
6.310 -4	3.070 1 (2.082 2)	2.210 1 (1.975 2)	1.580 1 (1.893 2)	1.125 1 (1.834 2)	7.988 0 (1.792 2)
1.000 -3	3.064 1 (2.209 2)	2.208 1 (2.229 2)	1.579 1 (2.244 2)	1.125 1 (2.255 2)	7.987 0 (2.265 2)
1.585 -3	3.050 1 (1.509 2)	2.203 1 (1.568 2)	1.578 1 (1.615 2)	1.124 1 (1.652 2)	7.984 0 (1.681 2)
2.512 -3	3.015 1 (7.249 1)	2.190 1 (7.585 1)	1.573 1 (7.839 1)	1.122 1 (8.024 1)	7.978 0 (8.157 1)
3.981 -3	2.929 1 (2.646 1)	2.157 1 (2.731 1)	1.561 1 (2.794 1)	1.118 1 (2.839 1)	7.963 0 (2.869 1)
6.310 -3	2.722 1 (8.379 0)	2.078 1 (8.359 0)	1.532 1 (8.302 0)	1.107 1 (8.229 0)	7.924 0 (8.152 0)
1.000 -2	2.267 1 (2.630 0)	1.892 1 (2.554 0)	1.460 1 (2.478 0)	1.081 1 (2.409 0)	7.829 0 (2.349 0)
1.585 -2	1.435 1 (8.523 -1)	1.495 1 (8.108 -1)	1.296 1 (7.730 -1)	1.018 1 (7.407 -1)	7.594 0 (7.139 -1)
2.512 -2	4.640 0 (2.804 -1)	8.294 0 (2.642 -1)	9.595 0 (2.492 -1)	8.745 0 (2.360 -1)	7.035 0 (2.249 -1)
3.981 -2	3.766 -1 (9.432 -2)	1.936 0 (8.812 -2)	4.524 0 (8.232 -2)	5.975 0 (7.720 -2)	5.807 0 (7.285 -2)
6.310 -2	3.853 -2 (3.183 -2)	8.706 -2 (2.972 -2)	7.056 -1 (2.762 -2)	2.301 0 (2.570 -2)	3.589 0 (2.403 -2)
1.000 -1	1.145 -2 (1.073 -2)	1.160 -2 (1.007 -2)	1.861 -2 (9.361 -3)	2.182 -1 (8.663 -3)	1.075 0 (8.031 -3)
1.585 -1	3.668 -3 (3.576 -3)	3.578 -3 (3.400 -3)	3.541 -3 (3.180 -3)	4.265 -3 (2.942 -3)	5.521 -2 (2.712 -3)
2.512 -1	1.183 -3 (1.171 -3)	1.156 -3 (1.133 -3)	1.118 -3 (1.074 -3)	1.087 -3 (1.000 -3)	1.136 -3 (9.214 -4)
3.981 -1	3.776 -4 (3.761 -4)	3.737 -4 (3.706 -4)	3.638 -4 (3.581 -4)	3.492 -4 (3.383 -4)	3.346 -4 (3.136 -4)
6.310 -1	1.191 -4 (1.189 -4)	1.193 -4 (1.189 -4)	1.173 -4 (1.171 -4)	1.143 -4 (1.129 -4)	1.088 -4 (1.062 -4)
1.000 0	3.732 -5 (3.732 -5)	3.764 -5 (3.758 -5)	3.769 -5 (3.759 -5)	3.717 -5 (3.698 -5)	3.585 -5 (3.549 -5)
1.585 0	1.167 -5 (1.167 -5)	1.179 -5 (1.178 -5)	1.190 -5 (1.188 -5)	1.190 -5 (1.188 -5)	1.170 -5 (1.165 -5)
2.512 0	3.655 -6 (3.655 -6)	3.688 -6 (3.687 -6)	3.727 -6 (3.726 -6)	3.761 -6 (3.758 -6)	3.758 -6 (3.752 -6)
3.981 0	1.147 -6 (1.147 -6)	1.155 -6 (1.155 -6)	1.166 -6 (1.166 -6)	1.179 -6 (1.179 -6)	1.190 -6 (1.189 -6)
6.310 0	3.611 -7 (3.627 -7)	3.627 -7 (3.627 -7)	3.653 -7 (3.653 -7)	3.689 -7 (3.689 -7)	3.733 -7 (3.732 -7)
1.000 1	1.138 -7 (1.138 -7)	1.142 -7 (1.142 -7)	1.147 -7 (1.147 -7)	1.156 -7 (1.156 -7)	1.168 -7 (1.168 -7)
1.585 1		3.597 -8 (3.597 -8)	3.610 -8 (3.609 -8)	3.629 -8 (3.628 -8)	3.658 -8 (3.658 -8)
2.512 1		1.135 -8 (1.135 -8)	1.138 -8 (1.138 -8)	1.142 -8 (1.142 -8)	1.148 -8 (1.148 -8)
3.981 1			3.590 -9 (3.590 -9)	3.599 -9 (3.599 -9)	3.613 -9 (3.613 -9)
6.310 1				1.135 -9 (1.135 -9)	1.138 -9 (1.138 -9)
1.000 2				3.585 -10 (3.585 -10)	3.591 -10 (3.591 -10)
1.585 2					1.134 -10 (1.134 -10)

58

TABLE 16

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/DALPHA = 2.6930+000   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

Entries are given as mantissa and power of ten (e.g. "6.106 1" = 6.106×10^{1}); the value in parentheses is the second tabulated quantity.

ALPHA	2500 K RO/D=0.387 K= 8.57	5000 K RO/D=0.274 K= 9.95	10000 K RO/D=0.193 K=11.34	20000 K RO/D=0.137 K=12.73	40000 K RO/D=0.097 K=14.11
0	6.106 1 (4.748 1)	4.521 1 (3.557 1)	3.296 1 (2.689 1)	2.376 1 (2.040 1)	1.701 1 (1.547 1)
1.585 -5	6.106 1 (4.776 1)	4.521 1 (3.584 1)	3.296 1 (2.715 1)	2.376 1 (2.066 1)	1.701 1 (1.573 1)
2.512 -5	6.106 1 (4.819 1)	4.521 1 (3.623 1)	3.296 1 (2.753 1)	2.376 1 (2.104 1)	1.701 1 (1.612 1)
3.981 -5	6.106 1 (4.924 1)	4.521 1 (3.720 1)	3.296 1 (2.845 1)	2.376 1 (2.194 1)	1.701 1 (1.700 1)
6.310 -5	6.106 1 (5.179 1)	4.521 1 (3.953 1)	3.296 1 (3.063 1)	2.376 1 (2.401 1)	1.701 1 (1.898 1)
1.000 -4	6.106 1 (5.777 1)	4.521 1 (4.493 1)	3.296 1 (3.561 1)	2.376 1 (2.867 1)	1.701 1 (2.340 1)
1.585 -4	6.105 1 (7.110 1)	4.521 1 (5.698 1)	3.296 1 (4.676 1)	2.376 1 (3.921 1)	1.700 1 (3.354 1)
2.512 -4	6.102 1 (9.900 1)	4.519 1 (8.289 1)	3.295 1 (7.128 1)	2.376 1 (6.287 1)	1.700 1 (5.672 1)
3.981 -4	6.094 1 (1.494 2)	4.517 1 (1.324 2)	3.294 1 (1.199 2)	2.376 1 (1.110 2)	1.700 1 (1.047 2)
6.310 -4	6.076 1 (2.084 2)	4.509 1 (1.977 2)	3.291 1 (1.893 2)	2.375 1 (1.832 2)	1.700 1 (1.789 2)
1.000 -3	6.030 1 (2.149 2)	4.491 1 (2.177 2)	3.285 1 (2.199 2)	2.372 1 (2.218 2)	1.699 1 (2.235 2)
1.585 -3	5.916 1 (1.466 2)	4.446 1 (1.531 2)	3.267 1 (1.584 2)	2.366 1 (1.626 2)	1.697 1 (1.660 2)
2.512 -3	5.639 1 (7.108 1)	4.333 1 (7.473 1)	3.224 1 (7.755 1)	2.350 1 (7.965 1)	1.691 1 (8.115 1)
3.981 -3	5.001 1 (2.652 1)	4.064 1 (2.742 1)	3.118 1 (2.607 1)	2.309 1 (2.853 1)	1.676 1 (2.883 1)
6.310 -3	3.709 1 (8.656 0)	3.461 1 (8.630 0)	2.866 1 (8.550 0)	2.212 1 (8.443 0)	1.640 1 (8.328 0)
1.000 -2	1.785 1 (2.781 0)	2.318 1 (2.694 0)	2.322 1 (2.601 0)	1.984 1 (2.512 0)	1.552 1 (2.432 0)
1.585 -2	3.471 0 (9.157 -1)	8.690 0 (8.699 -1)	1.372 1 (8.243 -1)	1.511 1 (7.830 -1)	1.351 1 (7.477 -1)
2.512 -2	4.155 -1 (3.041 -1)	1.019 0 (2.865 -1)	3.779 0 (2.691 -1)	7.659 0 (2.529 -1)	9.541 0 (2.386 -1)
3.981 -2	1.122 -1 (1.025 -1)	1.194 -1 (9.624 -2)	2.542 -1 (8.978 -2)	1.445 0 (8.363 -2)	3.999 0 (7.014 -2)
6.310 -2	3.556 -2 (3.435 -2)	3.484 -2 (3.245 -2)	3.543 -2 (3.029 -2)	5.756 -2 (2.810 -2)	4.742 -1 (2.606 -2)
1.000 -1	1.156 -2 (1.140 -2)	1.120 -2 (1.090 -2)	1.084 -2 (1.026 -2)	1.072 -2 (9.528 -3)	1.336 -2 (8.796 -3)
1.585 -1	3.740 -3 (3.719 -3)	3.657 -3 (3.617 -3)	3.527 -3 (3.452 -3)	3.377 -3 (3.234 -3)	3.273 -3 (2.908 -3)
2.512 -1	1.194 -3 (1.191 -3)	1.183 -3 (1.178 -3)	1.155 -3 (1.145 -3)	1.108 -3 (1.089 -3)	1.051 -3 (1.015 -3)
3.981 -1	3.764 -4 (3.760 -4)	3.773 -4 (3.766 -4)	3.740 -4 (3.727 -4)	3.641 -4 (3.616 -4)	3.472 -4 (3.426 -4)
6.310 -1	1.179 -4 (1.178 -4)	1.188 -4 (1.187 -4)	1.192 -4 (1.190 -4)	1.181 -4 (1.177 -4)	1.145 -4 (1.139 -4)
1.000 0	3.685 -5 (3.685 -5)	3.720 -5 (3.719 -5)	3.754 -5 (3.752 -5)	3.767 -5 (3.763 -5)	3.724 -5 (3.715 -5)
1.585 0	1.155 -5 (1.154 -5)	1.164 -5 (1.164 -5)	1.175 -5 (1.175 -5)	1.187 -5 (1.186 -5)	1.190 -5 (1.189 -5)
2.512 0	3.626 -6 (3.626 -6)	3.647 -6 (3.647 -6)	3.678 -6 (3.677 -6)	3.717 -6 (3.717 -6)	3.755 -6 (3.753 -6)
3.981 0	1.141 -6 (1.141 -6)	1.146 -6 (1.146 -6)	1.153 -6 (1.153 -6)	1.163 -6 (1.163 -6)	1.177 -6 (1.176 -6)
6.310 0	3.597 -7 (3.597 -7)	3.607 -7 (3.607 -7)	3.622 -7 (3.622 -7)	3.646 -7 (3.646 -7)	3.681 -7 (3.681 -7)
1.000 1		1.137 -7 (1.137 -7)	1.140 -7 (1.140 -7)	1.145 -7 (1.145 -7)	1.154 -7 (1.154 -7)
1.585 1			3.595 -8 (3.595 -8)	3.606 -8 (3.606 -8)	3.624 -8 (3.624 -8)
2.512 1			1.135 -8 (1.135 -8)	1.137 -8 (1.137 -8)	1.141 -8 (1.141 -8)
3.981 1				3.589 -9 (3.589 -9)	3.596 -9 (3.596 -9)
6.310 1					1.135 -9 (1.135 -9)
1.000 2					3.584 -10 (3.584 -10)

TABLE 17

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.601+000   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.469 K=7.41	5000 K RO/D=0.331 K=8.80	10000 K RO/D=0.234 K=10.19	20000 K RO/D=0.166 K=11.57	40000 K RO/D=0.117 K=12.96
0	1.074 2 (6.115 1)	8.465 1 (4.634 1)	6.475 1 (3.538 1)	4.829 1 (2.708 1)	3.534 1 (2.070 1)
1.585 -5	1.074 2 (6.142 1)	8.465 1 (4.659 1)	6.475 1 (3.562 1)	4.829 1 (2.732 1)	3.534 1 (2.094 1)
2.512 -5	1.074 2 (6.182 1)	8.464 1 (4.696 1)	6.475 1 (3.597 1)	4.829 1 (2.767 1)	3.534 1 (2.130 1)
3.981 -5	1.074 2 (6.281 1)	8.464 1 (4.787 1)	6.475 1 (3.684 1)	4.829 1 (2.852 1)	3.534 1 (2.215 1)
6.310 -5	1.074 2 (6.523 1)	8.464 1 (5.009 1)	6.475 1 (3.894 1)	4.829 1 (3.055 1)	3.534 1 (2.412 1)
1.000 -4	1.074 2 (7.097 1)	8.462 1 (5.533 1)	6.474 1 (4.383 1)	4.829 1 (3.519 1)	3.534 1 (2.856 1)
1.585 -4	1.073 2 (8.384 1)	8.459 1 (6.709 1)	6.473 1 (5.479 1)	4.829 1 (4.558 1)	3.534 1 (3.357 1)
2.512 -4	1.071 2 (1.103 2)	8.451 1 (9.196 1)	6.469 1 (7.846 1)	4.827 1 (6.848 1)	3.534 1 (6.107 1)
3.981 -4	1.067 2 (1.565 2)	8.431 1 (1.381 2)	6.461 1 (1.245 2)	4.824 1 (1.144 2)	3.532 1 (1.072 2)
6.310 -4	1.056 2 (2.074 2)	8.379 1 (1.968 2)	6.438 1 (1.684 2)	4.815 1 (1.822 2)	3.529 1 (1.780 2)
1.000 -3	1.029 2 (2.082 2)	8.252 1 (2.114 2)	6.383 1 (2.142 2)	4.792 1 (2.169 2)	3.520 1 (2.193 2)
1.585 -3	9.642 1 (1.421 2)	7.942 1 (1.490 2)	6.247 1 (1.549 2)	4.737 1 (1.597 2)	3.499 1 (1.636 2)
2.512 -3	8.204 1 (6.974 1)	7.215 1 (7.363 1)	5.919 1 (7.671 1)	4.600 1 (7.903 1)	3.446 1 (8.073 1)
3.981 -3	5.522 1 (2.668 1)	5.684 1 (2.764 1)	5.170 1 (2.832 1)	4.275 1 (2.878 1)	3.315 1 (2.906 1)
6.310 -3	2.224 1 (8.979 0)	3.178 1 (8.967 0)	3.693 1 (8.872 0)	3.558 1 (8.730 0)	3.009 1 (8.570 0)
1.000 -2	4.635 0 (2.950 0)	8.678 0 (2.864 0)	1.630 1 (2.757 0)	2.253 1 (2.647 0)	2.361 1 (2.543 0)
1.585 -2	1.121 0 (9.833 -1)	1.334 0 (9.390 -1)	2.780 0 (8.878 -1)	7.418 0 (8.376 -1)	1.291 1 (7.924 -1)
2.512 -2	3.442 -1 (3.279 -1)	3.450 -1 (3.114 -1)	3.756 -1 (2.928 -1)	7.474 -1 (2.739 -1)	2.971 0 (2.563 -1)
3.981 -2	1.120 -1 (1.100 -1)	1.085 -1 (1.046 -1)	1.061 -1 (9.820 -2)	1.091 -1 (9.142 -2)	1.786 -1 (8.487 -2)
6.310 -2	3.658 -2 (3.631 -2)	3.545 -2 (3.493 -2)	3.404 -2 (3.305 -2)	3.277 -2 (3.085 -2)	3.256 -2 (2.855 -2)
1.000 -1	1.184 -2 (1.181 -2)	1.160 -2 (1.153 -2)	1.123 -2 (1.107 -2)	1.068 -2 (1.043 -2)	1.015 -2 (9.682 -3)
1.585 -1	3.778 -3 (3.773 -3)	3.750 -3 (3.741 -3)	3.671 -3 (3.654 -3)	3.531 -3 (3.499 -3)	3.342 -3 (3.282 -3)
2.512 -1	1.190 -3 (1.190 -3)	1.193 -3 (1.192 -3)	1.186 -3 (1.184 -3)	1.160 -3 (1.155 -3)	1.111 -3 (1.102 -3)
3.981 -1	3.725 -4 (3.725 -4)	3.754 -4 (3.752 -4)	3.770 -4 (3.767 -4)	3.747 -4 (3.742 -4)	3.656 -4 (3.645 -4)
6.310 -1	1.165 -4 (1.165 -4)	1.175 -4 (1.174 -4)	1.185 -4 (1.185 -4)	1.191 -4 (1.190 -4)	1.183 -4 (1.182 -4)
1.000 0	3.650 -5 (3.649 -5)	3.675 -5 (3.675 -5)	3.709 -5 (3.708 -5)	3.745 -5 (3.744 -5)	3.765 -5 (3.764 -5)
1.585 0	1.146 -5 (1.146 -5)	1.152 -5 (1.152 -5)	1.161 -5 (1.161 -5)	1.172 -5 (1.172 -5)	1.185 -5 (1.184 -5)
2.512 0	3.609 -6 (3.609 -6)	3.621 -6 (3.620 -6)	3.640 -6 (3.640 -6)	3.669 -6 (3.669 -6)	3.708 -6 (3.708 -6)
3.981 0		1.140 -6 (1.140 -6)	1.144 -6 (1.144 -6)	1.151 -6 (1.151 -6)	1.161 -6 (1.161 -6)
6.310 0		3.594 -7 (3.594 -7)	3.603 -7 (3.603 -7)	3.618 -7 (3.618 -7)	3.640 -7 (3.640 -7)
1.000 1			1.136 -7 (1.136 -7)	1.139 -7 (1.139 -7)	1.144 -7 (1.144 -7)
1.585 1				3.593 -8 (3.593 -8)	3.604 -8 (3.604 -8)
2.512 1				1.134 -8 (1.134 -8)	1.136 -8 (1.136 -8)
3.981 1					3.587 -9 (3.587 -9)

60

TABLE 18

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 1.000+015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K= 6.26	5000 K RO/D=0.402 K= 7.65	10000 K RO/D=0.284 K= 9.04	20000 K RO/D=0.201 K=10.42	40000 K RO/D=0.142 K=11.81
0	1.503 2 (7.675 1)	1.310 2 (5.900 1)	1.101 2 (4.564 1)	8.870 1 (3.535 1)	6.871 1 (2.731 1)
2.512 -5	1.503 2 (7.736 1)	1.310 2 (5.956 1)	1.101 2 (4.618 1)	8.870 1 (3.589 1)	6.871 1 (2.785 1)
3.981 -5	1.503 2 (7.827 1)	1.310 2 (6.040 1)	1.101 2 (4.699 1)	8.870 1 (3.668 1)	6.871 1 (2.865 1)
6.310 -5	1.503 2 (8.050 1)	1.310 2 (6.246 1)	1.101 2 (4.895 1)	8.869 1 (3.860 1)	6.870 1 (3.055 1)
1.000 -4	1.502 2 (8.583 1)	1.309 2 (6.737 1)	1.101 2 (5.360 1)	8.868 1 (4.308 1)	6.870 1 (3.492 1)
1.585 -4	1.500 2 (9.785 1)	1.308 2 (7.849 1)	1.100 2 (6.410 1)	8.864 1 (5.316 1)	6.868 1 (4.470 1)
2.512 -4	1.496 2 (1.223 2)	1.305 2 (1.018 2)	1.098 2 (8.650 1)	8.855 1 (7.500 1)	6.864 1 (6.627 1)
3.981 -4	1.484 2 (1.634 2)	1.297 2 (1.437 2)	1.093 2 (1.290 2)	8.831 1 (1.180 2)	6.853 1 (1.099 2)
6.310 -4	1.456 2 (2.056 2)	1.277 2 (1.948 2)	1.082 2 (1.864 2)	8.772 1 (1.803 2)	6.827 1 (1.761 2)
1.000 -3	1.386 2 (2.011 2)	1.228 2 (2.042 2)	1.053 2 (2.074 2)	8.626 1 (2.107 2)	6.761 1 (2.139 2)
1.585 -3	1.214 2 (1.376 2)	1.113 2 (1.447 2)	9.842 1 (1.509 2)	8.270 1 (1.562 2)	6.599 1 (1.607 2)
2.512 -3	8.513 1 (6.347 1)	8.675 1 (7.260 1)	8.313 1 (7.591 1)	7.443 1 (7.844 1)	6.208 1 (8.031 1)
3.981 -3	3.755 1 (2.689 1)	4.718 1 (2.797 1)	5.484 1 (2.871 1)	5.728 1 (2.916 1)	5.330 1 (2.941 1)
6.310 -3	1.110 1 (9.318 0)	1.418 1 (9.362 0)	2.110 1 (9.271 0)	3.031 1 (9.101 0)	3.650 1 (8.894 0)
1.000 -2	3.334 0 (3.121 0)	3.547 0 (3.055 0)	4.336 0 (2.946 0)	7.554 0 (2.818 0)	1.463 1 (2.689 0)
1.585 -2	1.073 0 (1.047 0)	1.067 0 (1.013 0)	1.078 0 (9.620 -1)	1.209 0 (9.053 -1)	2.210 0 (8.501 -1)
2.512 -2	3.524 -1 (3.488 -1)	3.430 -1 (3.361 -1)	3.323 -1 (3.187 -1)	3.260 -1 (2.988 -1)	3.411 -1 (2.784 -1)
3.981 -2	1.162 -1 (1.157 -1)	1.129 -1 (1.120 -1)	1.083 -1 (1.066 -1)	1.033 -1 (1.001 -1)	9.937 -2 (9.294 -2)
6.310 -2	3.755 -2 (3.749 -2)	3.687 -2 (3.675 -2)	3.569 -2 (3.547 -2)	3.404 -2 (3.362 -2)	3.215 -2 (3.136 -2)
1.000 -1	1.197 -2 (1.196 -2)	1.189 -2 (1.188 -2)	1.168 -2 (1.165 -2)	1.127 -2 (1.122 -2)	1.069 -2 (1.058 -2)
1.585 -1	3.769 -3 (3.768 -3)	3.778 -3 (3.776 -3)	3.760 -3 (3.756 -3)	3.692 -3 (3.684 -3)	3.553 -3 (3.539 -3)
2.512 -1	1.179 -3 (1.179 -3)	1.187 -3 (1.187 -3)	1.192 -3 (1.192 -3)	1.188 -3 (1.187 -3)	1.165 -3 (1.163 -3)
3.981 -1	3.687 -4 (3.687 -4)	3.713 -4 (3.713 -4)	3.743 -4 (3.743 -4)	3.766 -4 (3.765 -4)	3.754 -4 (3.752 -4)
6.310 -1	1.155 -4 (1.155 -4)	1.161 -4 (1.161 -4)	1.171 -4 (1.171 -4)	1.182 -4 (1.182 -4)	1.190 -4 (1.190 -4)
1.000 0	3.626 -5 (3.626 -5)	3.641 -5 (3.641 -5)	3.665 -5 (3.665 -5)	3.698 -5 (3.698 -5)	3.737 -5 (3.737 -5)
1.585 0		1.144 -5 (1.144 -5)	1.150 -5 (1.150 -5)	1.158 -5 (1.158 -5)	1.169 -5 (1.169 -5)
2.512 0		3.604 -6 (3.604 -6)	3.616 -6 (3.616 -6)	3.633 -6 (3.633 -6)	3.661 -6 (3.661 -6)
3.981 0			1.139 -6 (1.139 -6)	1.143 -6 (1.143 -6)	1.149 -6 (1.149 -6)
6.310 0				3.601 -7 (3.601 -7)	3.614 -7 (3.614 -7)
1.000 1				1.136 -7 (1.136 -7)	1.139 -7 (1.139 -7)
1.585 1					3.592 -8 (3.592 -8)

TABLE 19

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 3.162+015 CM**(-3)   DLAMBDA/DALPHA = 2.6929+001   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.688 K= 5.11		5000 K RO/D=0.487 K= 6.50		10000 K RO/D=0.344 K= 7.88		20000 K RO/D=0.243 K= 9.27		40000 K RO/D=0.172 K=10.66	
0	1.571 2	(9.370 1)	1.496 2	(7.316 1)	1.423 2	(5.750 1)	1.304 2	(4.521 1)	1.133 2	(3.539 1)
3.981 -5	1.571 2	(9.506 1)	1.496 2	(7.439 1)	1.423 2	(5.871 1)	1.304 2	(4.641 1)	1.133 2	(3.661 1)
6.310 -5	1.572 2	(9.708 1)	1.496 2	(7.624 1)	1.422 2	(6.049 1)	1.304 2	(4.817 1)	1.133 2	(3.838 1)
1.000 -4	1.574 2	(1.019 2)	1.497 2	(8.069 1)	1.422 2	(6.475 1)	1.304 2	(5.235 1)	1.132 2	(4.254 1)
1.585 -4	1.579 2	(1.128 2)	1.498 2	(9.084 1)	1.421 2	(7.448 1)	1.302 2	(6.185 1)	1.132 2	(5.191 1)
2.512 -4	1.592 2	(1.349 2)	1.500 2	(1.120 2)	1.419 2	(9.512 1)	1.300 2	(8.224 1)	1.130 2	(7.227 1)
3.981 -4	1.618 2	(1.704 2)	1.504 2	(1.491 2)	1.413 2	(1.333 2)	1.292 2	(1.215 2)	1.125 2	(1.128 2)
6.310 -4	1.656 2	(2.040 2)	1.507 2	(1.920 2)	1.397 2	(1.834 2)	1.275 2	(1.773 2)	1.112 2	(1.734 2)
1.000 -3	1.639 2	(1.944 2)	1.481 2	(1.968 2)	1.353 2	(1.997 2)	1.230 2	(2.033 2)	1.082 2	(2.073 2)
1.585 -3	1.343 2	(1.331 2)	1.307 2	(1.404 2)	1.213 2	(1.467 2)	1.122 2	(1.523 2)	1.008 2	(1.572 2)
2.512 -3	7.387 1	(6.718 1)	8.276 1	(7.166 1)	8.794 1	(7.519 1)	8.797 1	(7.791 1)	8.445 1	(7.994 1)
3.981 -3	2.892 1	(2.703 1)	3.275 1	(2.838 1)	3.895 1	(2.922 1)	4.726 1	(2.970 1)	5.438 1	(2.992 1)
6.310 -3	9.923 0	(9.608 0)	1.049 1	(9.780 0)	1.140 1	(9.738 0)	1.382 1	(9.560 0)	1.978 1	(9.309 0)
1.000 -2	3.309 0	(3.266 0)	3.340 0	(3.249 0)	3.351 0	(3.158 0)	3.451 0	(3.024 0)	3.998 0	(2.873 0)
1.585 -2	1.102 0	(1.096 0)	1.094 0	(1.082 0)	1.064 0	(1.041 0)	1.030 0	(9.841 -1)	1.017 0	(9.214 -1)
2.512 -2	3.645 -1	(3.637 -1)	3.587 -1	(3.571 -1)	3.470 -1	(3.440 -1)	3.314 -1	(3.257 -1)	3.153 -1	(3.043 -1)
3.981 -2	1.193 -1	(1.192 -1)	1.175 -1	(1.173 -1)	1.142 -1	(1.138 -1)	1.093 -1	(1.085 -1)	1.032 -1	(1.018 -1)
6.310 -2	3.800 -2	(3.798 -2)	3.777 -2	(3.774 -2)	3.718 -2	(3.712 -2)	3.604 -2	(3.594 -2)	3.430 -2	(3.411 -2)
1.000 -1	1.196 -2	(1.196 -2)	1.198 -2	(1.197 -2)	1.193 -2	(1.192 -2)	1.175 -2	(1.174 -2)	1.136 -2	(1.134 -2)
1.585 -1	3.742 -3	(3.742 -3)	3.759 -3	(3.759 -3)	3.775 -3	(3.774 -3)	3.768 -3	(3.766 -3)	3.710 -3	(3.707 -3)
2.512 -1	1.169 -3	(1.169 -3)	1.175 -3	(1.175 -3)	1.183 -3	(1.183 -3)	1.191 -3	(1.191 -3)	1.190 -3	(1.190 -3)
3.981 -1	3.659 -4	(3.659 -4)	3.675 -4	(3.675 -4)	3.701 -4	(3.701 -4)	3.733 -4	(3.733 -4)	3.762 -4	(3.761 -4)
6.310 -1	1.148 -4	(1.148 -4)	1.152 -4	(1.152 -4)	1.158 -4	(1.158 -4)	1.168 -4	(1.168 -4)	1.179 -4	(1.179 -4)
1.000 0			3.620 -5	(3.620 -5)	3.634 -5	(3.634 -5)	3.656 -5	(3.656 -5)	3.689 -5	(3.689 -5)
1.585 0					1.143 -5	(1.143 -5)	1.148 -5	(1.148 -5)	1.156 -5	(1.156 -5)
2.512 0					3.601 -6	(3.601 -6)	3.612 -6	(3.612 -6)	3.628 -6	(3.628 -6)
3.981 0							1.138 -6	(1.138 -6)	1.142 -6	(1.142 -6)
6.310 0									3.599 -7	(3.599 -7)
1.000 1									1.135 -7	(1.135 -7)

TABLE 20

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.8020+001   ASYMPTOTE = 1.7888-05*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.834 K= 3.96	5000 K RO/D=0.589 K= 5.35	10000 K RO/D=0.417 K= 6.73	20000 K RO/D=0.295 K= 8.12	40000 K RO/D=0.208 K= 9.51
0	1.418 2 (1.117 2)	1.311 2 (8.812 1)	1.307 2 (7.051 1)	1.347 2 (5.643 1)	1.364 2 (4.490 1)
3.981 -5	1.422 2 (1.130 2)	1.313 2 (8.921 1)	1.309 2 (7.157 1)	1.347 2 (5.748 1)	1.364 2 (4.599 1)
6.310 -5	1.427 2 (1.148 2)	1.317 2 (9.084 1)	1.310 2 (7.313 1)	1.348 2 (5.904 1)	1.364 2 (4.759 1)
1.000 -4	1.442 2 (1.192 2)	1.325 2 (9.477 1)	1.314 2 (7.690 1)	1.349 2 (6.280 1)	1.364 2 (5.140 1)
1.585 -4	1.476 2 (1.292 2)	1.346 2 (1.038 2)	1.325 2 (8.559 1)	1.353 2 (7.144 1)	1.364 2 (6.010 1)
2.512 -4	1.553 2 (1.489 2)	1.394 2 (1.224 2)	1.350 2 (1.040 2)	1.361 2 (8.995 1)	1.364 2 (7.889 1)
3.981 -4	1.702 2 (1.794 2)	1.497 2 (1.544 2)	1.406 2 (1.374 2)	1.381 2 (1.249 2)	1.364 2 (1.155 2)
6.310 -4	1.882 2 (2.047 2)	1.659 2 (1.895 2)	1.507 2 (1.797 2)	1.418 2 (1.734 2)	1.361 2 (1.696 2)
1.000 -3	1.829 2 (1.892 2)	1.730 2 (1.898 2)	1.593 2 (1.917 2)	1.452 2 (1.950 2)	1.341 2 (1.933 2)
1.585 -3	1.305 2 (1.287 2)	1.373 2 (1.361 2)	1.393 2 (1.423 2)	1.340 2 (1.481 2)	1.240 2 (1.533 2)
2.512 -3	6.687 1 (6.546 1)	7.358 1 (7.074 1)	8.012 1 (7.457 1)	8.680 1 (7.746 1)	9.056 1 (7.963 1)
3.981 -3	2.721 1 (2.684 1)	2.956 1 (2.874 1)	3.164 1 (2.983 1)	3.441 1 (3.039 1)	3.939 1 (3.060 1)
6.310 -3	9.799 0 (9.735 0)	1.030 1 (1.016 1)	1.055 1 (1.024 1)	1.077 1 (1.010 1)	1.133 1 (9.823 0)
1.000 -2	3.356 0 (3.347 0)	3.448 0 (3.418 0)	3.416 0 (3.375 0)	3.338 0 (3.257 0)	3.262 0 (3.095 0)
1.585 -2	1.140 0 (1.139 0)	1.139 0 (1.136 0)	1.120 0 (1.115 0)	1.077 0 (1.067 0)	1.023 0 (1.004 0)
2.512 -2	3.708 -1 (3.705 -1)	3.720 -1 (3.716 -1)	3.654 -1 (3.647 -1)	3.525 -1 (3.511 -1)	3.343 -1 (3.318 -1)
3.981 -2	1.208 -1 (1.207 -1)	1.204 -1 (1.203 -1)	1.188 -1 (1.187 -1)	1.156 -1 (1.154 -1)	1.105 -1 (1.101 -1)
6.310 -2	3.808 -2 (3.808 -2)	3.807 -2 (3.807 -2)	3.793 -2 (3.792 -2)	3.744 -2 (3.742 -2)	3.636 -2 (3.632 -2)
1.000 -1	1.191 -2 (1.191 -2)	1.194 -2 (1.194 -2)	1.197 -2 (1.197 -2)	1.196 -2 (1.195 -2)	1.181 -2 (1.180 -2)
1.585 -1	3.719 -3 (3.719 -3)	3.728 -3 (3.728 -3)	3.748 -3 (3.748 -3)	3.769 -3 (3.769 -3)	3.772 -3 (3.771 -3)
2.512 -1	1.162 -3 (1.162 -3)	1.165 -3 (1.165 -3)	1.171 -3 (1.171 -3)	1.180 -3 (1.180 -3)	1.189 -3 (1.189 -3)
3.981 -1		3.648 -4 (3.648 -4)	3.664 -4 (3.664 -4)	3.690 -4 (3.690 -4)	3.724 -4 (3.724 -4)
6.310 -1		1.146 -4 (1.146 -4)	1.149 -4 (1.149 -4)	1.155 -4 (1.155 -4)	1.165 -4 (1.165 -4)
1.000 0			3.615 -5 (3.615 -5)	3.628 -5 (3.628 -5)	3.649 -5 (3.649 -5)
1.585 0				1.142 -5 (1.142 -5)	1.146 -5 (1.146 -5)
2.512 0				3.598 -6 (3.598 -6)	3.608 -6 (3.608 -6)
3.981 0					1.137 -6 (1.137 -6)

63

TABLE 21

N UPPER = 3   N LOWER = 1   MAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 3.162+016 CM**(-3)   DLAMBDA/DALPHA = 1   1.2499+002   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	5000 K RO/0=0.714 K= 4.20			10000 K RO/D=0.505 K= 5.58			20000 K RO/0=0.357 K= 6.97			40000 K RO/0=0.252 K= 8.35		
0												
3.981 -5	1.175	2	(1.034 2)	1.068	2	(8.400 1)	1.05b	2	(6.852 1)	1.125	2	(5.557 1)
6.310 -5	1.180	2	(1.044 2)	1.072	2	(8.490 1)	1.059	2	(6.942 1)	1.127	2	(5.651 1)
1.000 -4	1.188	2	(1.058 2)	1.078	2	(8.623 1)	1.063	2	(7.076 1)	1.129	2	(5.790 1)
1.000 -4	1.209	2	(1.093 2)	1.093	2	(8.948 1)	1.073	2	(7.401 1)	1.135	2	(6.127 1)
1.585 -4	1.258	2	(1.172 2)	1.130	2	(9.700 1)	1.093	2	(8.157 1)	1.150	2	(6.905 1)
2.512 -4	1.368	2	(1.336 2)	1.215	2	(1.130 2)	1.159	2	(9.781 1)	1.186	2	(8.588 1)
3.981 -4	1.573	2	(1.010 2)	1.389	2	(1.415 2)	1.291	2	(1.281 2)	1.267	2	(1.182 2)
6.310 -4	1.818	2	(1.888 2)	1.648	2	(1.763 2)	1.516	2	(1.690 2)	1.419	2	(1.650 2)
1.000 -3	1.812	2	(1.344 2)	1.763	2	(1.841 2)	1.692	2	(1.864 2)	1.583	2	(1.905 2)
1.585 -3	1.328	2	(1.322 2)	1.386	2	(1.382 2)	1.430	2	(1.437 2)	1.440	2	(1.490 2)
2.512 -3	7.013	1	(6.954 1)	7.517	1	(7.399 1)	7.954	1	(7.713 1)	8.423	1	(7.942 1)
3.981 -3	2.898	1	(2.881 1)	3.078	1	(3.041 1)	3.197	1	(3.120 1)	3.311	1	(3.145 1)
6.310 -3	1.041	1	(1.038 1)	1.077	1	(1.071 1)	1.082	1	(1.068 1)	1.071	1	(1.042 1)
1.000 -2	3.529	0	(3.224 0)	3.575	0	(3.566 0)	3.511	0	(3.493 0)	3.380	0	(3.344 0)
1.585 -2	1.168	0	(1.167 0)	1.174	0	(1.173 0)	1.147	0	(1.145 0)	1.095	0	(1.090 0)
2.512 -2	3.788	-1	(3.787 -1)	3.785	-1	(3.763 -1)	3.715	-1	(3.712 -1)	3.578	-1	(3.572 -1)
3.981 -2	1.215	-1	(1.215 -1)	1.211	-1	(1.211 -1)	1.198	-1	(1.197 -1)	1.167	-1	(1.167 -1)
6.310 -2	3.805	-2	(3.804 -2)	3.808	-2	(3.808 -2)	3.803	-2	(3.802 -2)	3.764	-2	(3.763 -2)
1.000 -1	1.187	-2	(1.187 -2)	1.190	-2	(1.190 -2)	1.195	-2	(1.195 -2)	1.197	-2	(1.196 -2)
1.585 -1	3.702	-3	(3.702 -3)	3.713	-3	(3.713 -3)	3.736	-3	(3.736 -3)	3.763	-3	(3.763 -3)
2.512 -1	1.158	-3	(1.158 -3)	1.161	-3	(1.161 -3)	1.167	-3	(1.167 -3)	1.177	-3	(1.177 -3)
3.981 -1				3.639	-4	(3.639 -4)	3.655	-4	(3.655 -4)	3.681	-4	(3.681 -4)
6.310 -1							1.147	-4	(1.147 -4)	1.153	-4	(1.153 -4)
1.000 0							3.610	-5	(3.610 -5)	3.623	-5	(3.623 -5)
1.585 0										1.140	-5	(1.140 -5)

TABLE 22

N UPPER = 3   N LOWER = 1   WAVELENGTH = 1025.07 ANGSTROM

ELECTRON DENSITY = 1.000+017 CM**(-3)   DLAMBDA/DALPHA = 2.693D+002   ASYMPTOTE = 1.7888-005*DALPHA**(-5/2)

ALPHA	5000 K RO/D=0.865 K= 3.04		10000 K RO/D=0.612 K= 4.43		20000 K RO/D=0.433 K= 5.82		40000 K RO/D=0.306 K= 7.20	
0	1.230 2	(1.195 2)	1.030 2	(9.737 1)	9.113 1	(8.084 1)	8.585 1	(6.690 1)
3.981 -5	1.237 2	(1.204 2)	1.036 2	(9.813 1)	9.164 1	(8.159 1)	8.629 1	(6.770 1)
6.310 -5	1.249 2	(1.217 2)	1.045 2	(9.927 1)	9.241 1	(8.271 1)	8.694 1	(6.887 1)
1.000 -4	1.277 2	(1.250 2)	1.067 2	(1.020 2)	9.430 1	(8.544 1)	8.854 1	(7.173 1)
1.585 -4	1.342 2	(1.324 2)	1.120 2	(1.085 2)	9.890 1	(9.184 1)	9.242 1	(7.842 1)
2.512 -4	1.479 2	(1.475 2)	1.236 2	(1.221 2)	1.093 2	(1.056 2)	1.016 2	(9.297 1)
3.981 -4	1.705 2	(1.717 2)	1.451 2	(1.463 2)	1.302 2	(1.312 2)	1.207 2	(1.207 2)
6.310 -4	1.916 2	(1.932 2)	1.718 2	(1.745 2)	1.601 2	(1.649 2)	1.516 2	(1.601 2)
1.000 -3	1.816 2	(1.821 2)	1.767 2	(1.782 2)	1.747 2	(1.782 2)	1.734 2	(1.813 2)
1.585 -3	1.285 2	(1.283 2)	1.346 2	(1.344 2)	1.395 2	(1.394 2)	1.443 2	(1.445 2)
2.512 -3	6.744 1	(6.731 1)	7.348 1	(7.324 1)	7.736 1	(7.687 1)	8.036 1	(7.934 1)
3.981 -3	2.819 1	(2.816 1)	3.084 1	(3.076 1)	3.217 1	(3.201 1)	3.277 1	(3.244 1)
6.310 -3	1.029 1	(1.029 1)	1.104 1	(1.103 1)	1.126 1	(1.123 1)	1.114 1	(1.107 1)
1.000 -2	3.523 0	(3.522 0)	3.696 0	(3.694 0)	3.706 0	(3.702 0)	3.605 0	(3.597 0)
1.585 -2	1.185 0	(1.185 0)	1.206 0	(1.206 0)	1.204 0	(1.204 0)	1.170 0	(1.169 0)
2.512 -2	3.783 -1	(3.783 -1)	3.847 -1	(3.846 -1)	3.836 -1	(3.836 -1)	3.765 -1	(3.764 -1)
3.981 -2	1.216 -1	(1.216 -1)	1.218 -1	(1.218 -1)	1.216 -1	(1.216 -1)	1.205 -1	(1.205 -1)
6.310 -2	3.797 -2	(3.797 -2)	3.795 -2	(3.795 -2)	3.804 -2	(3.804 -2)	3.807 -2	(3.807 -2)
1.000 -1	1.183 -2	(1.183 -2)	1.182 -2	(1.182 -2)	1.186 -2	(1.186 -2)	1.193 -2	(1.193 -2)
1.585 -1			3.686 -3	(3.686 -3)	3.700 -3	(3.700 -3)	3.726 -3	(3.726 -3)
2.512 -1			1.154 -3	(1.154 -3)	1.157 -3	(1.157 -3)	1.164 -3	(1.164 -3)
3.981 -1					3.631 -4	(3.631 -4)	3.647 -4	(3.647 -4)
6.310 -1							1.146 -4	(1.146 -4)
1.000 0							3.606 -5	(3.606 -5)

TABLE 23

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 1.000*012 CM**(-3)   DLAMBDA/DALPHA =   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.180	K=11.40	5000 K RO/D=0.127	K=12.79	10000 K RO/D=0.090	K=14.18	20000 K RO/D=0.063	K=15.56	40000 K RO/D=0.045	K=16.95
0	3.375 0	6.208 2)	2.391 0	7.823 2)	1.692 0	9.944 2)	1.197 0	1.286 3)	8.467 -1	1.678 3)
6.310 -6	3.375 0	6.196 2)	2.391 0	7.797 2)	1.692 0	9.897 2)	1.197 0	1.274 3)	8.467 -1	1.652 3)
1.000 -5	3.375 0	6.177 2)	2.391 0	7.758 2)	1.692 0	9.820 2)	1.197 0	1.257 3)	8.467 -1	1.615 3)
1.585 -5	3.375 0	6.129 2)	2.391 0	7.663 2)	1.692 0	9.629 2)	1.197 0	1.216 3)	8.467 -1	1.528 3)
2.512 -5	3.375 0	6.013 2)	2.391 0	7.433 2)	1.692 0	9.175 2)	1.197 0	1.124 3)	8.467 -1	1.377 3)
3.981 -5	3.375 0	5.740 2)	2.391 0	6.913 2)	1.692 0	8.198 2)	1.197 0	9.442 2)	8.467 -1	1.037 3)
6.310 -5	3.375 0	5.155 2)	2.391 0	5.882 2)	1.692 0	6.468 2)	1.197 0	6.743 2)	8.467 -1	6.582 2)
1.000 -4	3.375 0	4.111 2)	2.391 0	4.287 2)	1.692 0	4.235 2)	1.197 0	3.939 2)	8.467 -1	3.444 2)
1.585 -4	3.375 0	2.745 2)	2.391 0	2.573 2)	1.692 0	2.292 2)	1.197 0	1.950 2)	8.467 -1	1.590 2)
2.512 -4	3.375 0	1.543 2)	2.391 0	1.328 2)	1.692 0	1.107 2)	1.197 0	8.994 1)	8.467 -1	7.131 1)
3.981 -4	3.375 0	8.225 1)	2.391 0	6.836 1)	1.692 0	5.607 1)	1.197 0	4.569 1)	8.467 -1	3.724 1)
6.310 -4	3.375 0	5.420 1)	2.391 0	4.633 1)	1.692 0	3.993 1)	1.197 0	3.483 1)	8.467 -1	3.063 1)
1.000 -3	3.375 0	5.534 1)	2.391 0	5.051 1)	1.692 0	4.681 1)	1.197 0	4.412 1)	8.467 -1	4.206 1)
1.585 -3	3.375 0	7.037 1)	2.391 0	6.751 1)	1.692 0	6.543 1)	1.197 0	6.395 1)	8.467 -1	6.231 1)
2.512 -3	3.374 0	7.444 1)	2.391 0	7.443 1)	1.692 0	7.438 1)	1.197 0	7.435 1)	8.467 -1	7.434 1)
3.981 -3	3.373 0	4.943 1)	2.390 0	5.085 1)	1.692 0	5.190 1)	1.197 0	5.269 1)	8.466 -1	5.327 1)
6.310 -3	3.370 0	2.009 1)	2.389 0	2.063 1)	1.692 0	2.103 1)	1.197 0	2.132 1)	8.466 -1	2.152 1)
1.000 -2	3.363 0	6.187 0)	2.387 0	6.183 0)	1.691 0	6.168 0)	1.196 0	6.104 0)	8.465 -1	6.073 0)
1.585 -2	3.345 0	1.849 0)	2.380 0	1.805 0)	1.688 0	1.765 0)	1.196 0	1.706 0)	8.462 -1	1.667 0)
2.512 -2	3.300 0	5.755 -1)	2.364 0	5.522 -1)	1.683 0	5.324 -1)	1.193 0	5.084 -1)	8.455 -1	4.940 -1)
3.981 -2	3.189 0	1.333 -1)	2.324 0	1.729 -1)	1.668 0	1.641 -1)	1.188 0	1.570 -1)	8.437 -1	1.512 -1)
6.310 -2	2.926 0	6.062 -2)	2.226 0	5.661 -2)	1.633 0	5.321 -2)	1.176 0	5.043 -2)	8.391 -1	4.817 -2)
1.000 -1	2.358 0	2.037 -2)	1.997 0	1.892 -2)	1.547 0	1.764 -2)	1.144 0	1.656 -2)	8.278 -1	1.568 -2)
1.585 -1	1.371 0	6.901 -3)	1.522 0	6.394 -3)	1.350 0	5.921 -3)	1.069 0	5.510 -3)	8.001 -1	5.195 -3)
2.512 -1	3.525 -1	2.336 -3)	7.691 -1	2.173 -3)	9.589 -1	2.007 -3)	9.007 -1	1.854 -3)	7.344 -1	1.726 -3)
3.981 -1	1.260 -2	7.330 -4)	1.390 -1	7.367 -4)	4.764 -1	6.830 -4)	5.860 -1	6.290 -4)	5.923 -1	5.735 -4)
6.310 -1	3.079 -4	2.580 -4)	2.213 -2	2.472 -4)	1.992 -1	2.318 -4)	1.992 -1	2.142 -4)	3.452 -1	1.960 -4)
1.000 0	8.467 -5	6.330 -5)	9.279 -5	8.149 -5)	3.121 -4	7.787 -5)	1.332 -2	7.277 -5)	8.893 -2	6.635 -5)
1.585 0	2.710 -5	2.044 -5)	2.765 -5	2.633 -5)	2.841 -5	2.571 -5)	4.507 -5	2.448 -5)	2.977 -3	2.277 -5)
2.512 0	8.384 -6	8.302 -6)	8.524 -6	8.360 -6)	8.646 -6	8.318 -6)	8.753 -6	8.100 -6)	9.622 -6	7.670 -6)
3.981 0	2.607 -6	2.626 -6)	2.646 -6	2.626 -6)	2.685 -6	2.644 -6)	2.707 -6	2.626 -6)	2.705 -6	2.547 -6)
6.310 0	8.143 -7	8.131 -7)	8.240 -7	8.215 -7)	8.359 -7	8.308 -7)	8.463 -7	8.360 -7)	8.484 -7	8.283 -7)
1.000 1	2.553 -7	2.551 -7)	2.575 -7	2.572 -7)	2.606 -7	2.600 -7)	2.643 -7	2.630 -7)	2.669 -7	2.643 -7)
1.585 1	8.025 -8	8.023 -8)	8.072 -8	8.068 -8)	8.145 -8	8.137 -8)	8.246 -8	8.230 -8)	8.358 -8	8.329 -8)
2.512 1	2.528 -8	2.528 -8)	2.538 -8	2.538 -8)	2.553 -8	2.552 -8)	2.578 -8	2.576 -8)	2.611 -8	2.607 -8)
3.981 1	7.973 -9	7.373 -9)	7.995 -9	7.994 -9)	8.028 -9	8.027 -9)	8.080 -9	8.078 -9)	8.162 -9	8.157 -9)
6.310 1	2.517 -9	2.517 -9)	2.521 -9	2.521 -9)	2.529 -9	2.528 -9)	2.540 -9	2.540 -9)	2.558 -9	2.557 -9)
1.000 2	7.952-10	7.952-10)	7.961-10	7.960-10)	7.974-10	7.974-10)	7.998-10	7.998-10)	8.037-10	8.037-10)
1.585 2	2.515-10	2.515-10)	2.515-10	2.515-10)	2.518-10	2.517-10)	2.522-10	2.522-10)	2.531-10	2.530-10)
2.512 2	7.947-11	7.947-11)	7.947-11	7.947-11)	7.953-11	7.953-11)	7.962-11	7.962-11)	7.979-11	7.979-11)
3.981 2					2.513-11	2.513-11)	2.515-11	2.515-11)	2.518-11	2.518-11)
6.310 2							7.948-12	7.948-12)	7.955-12	7.955-12)
1.000 3							2.512-12	2.512-12)	2.514-12	2.514-12)

TABLE 24

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 3.162*012 CM**(-3)   DLAMBDA/DALPHA = 2.6929-001   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K		5000 K		10000 K		20000 K		40000 K	
	RO/D=0.218	K=10.25	RO/D=0.154	K=11.64	RO/D=0.109	K=13.02	RO/D=0.077	K=14.41	RO/D=0.054	K=15.80
0	7.210 0	(4.732 2)	5.125 0	(5.874 2)	3.635 0	(7.407 2)	2.575 0	(9.441 2)	1.822 0	(1.225 3)
1.000 -5	7.210 0	(4.719 2)	5.125 0	(5.848 2)	3.635 0	(7.352 2)	2.575 0	(9.333 2)	1.822 0	(1.200 3)
1.585 -5	7.210 0	(4.699 2)	5.125 0	(5.807 2)	3.635 0	(7.271 2)	2.575 0	(9.169 2)	1.822 0	(1.164 3)
2.512 -5	7.210 0	(4.649 2)	5.125 0	(5.709 2)	3.635 0	(7.075 2)	2.575 0	(8.776 2)	1.822 0	(1.083 3)
3.981 -5	7.210 0	(4.527 2)	5.124 0	(5.476 2)	3.635 0	(6.627 2)	2.575 0	(7.920 2)	1.822 0	(9.224 2)
6.310 -5	7.210 0	(4.246 2)	5.124 0	(4.968 2)	3.635 0	(5.719 2)	2.575 0	(6.362 2)	1.822 0	(6.723 2)
1.000 -4	7.210 0	(3.679 2)	5.124 0	(4.036 2)	3.635 0	(4.262 2)	2.575 0	(4.267 2)	1.822 0	(4.012 2)
1.585 -4	7.210 0	(2.769 2)	5.124 0	(2.762 2)	3.635 0	(2.620 2)	2.575 0	(2.358 2)	1.822 0	(2.015 2)
2.512 -4	7.210 0	(1.748 2)	5.124 0	(1.583 2)	3.635 0	(1.375 2)	2.575 0	(1.151 2)	1.822 0	(9.354 1)
3.981 -4	7.210 0	(9.339 1)	5.124 0	(8.473 1)	3.635 0	(7.073 1)	2.575 0	(5.812 1)	1.822 0	(4.722 1)
6.310 -4	7.209 0	(6.383 1)	5.124 0	(5.461 1)	3.635 0	(4.683 1)	2.575 0	(4.041 1)	1.822 0	(3.518 1)
1.000 -3	7.209 0	(5.383 1)	5.124 0	(5.412 1)	3.635 0	(4.971 1)	2.575 0	(4.637 1)	1.820 0	(4.375 1)
1.585 -3	7.207 0	(7.176 1)	5.123 0	(6.857 1)	3.634 0	(6.615 1)	2.575 0	(6.443 1)	1.822 0	(6.324 1)
2.512 -3	7.202 0	(7.371 1)	5.122 0	(7.383 1)	3.634 0	(7.388 1)	2.574 0	(7.392 1)	1.822 0	(7.400 1)
3.981 -3	7.191 0	(4.855 1)	5.118 0	(5.014 1)	3.632 0	(5.135 1)	2.574 0	(5.226 1)	1.822 0	(5.294 1)
6.310 -3	7.163 0	(2.003 1)	5.108 0	(2.060 1)	3.629 0	(2.102 1)	2.573 0	(2.133 1)	1.821 0	(2.154 1)
1.000 -2	7.092 0	(6.341 0)	5.082 0	(6.320 0)	3.620 0	(6.283 0)	2.570 0	(6.241 0)	1.820 0	(6.158 0)
1.585 -2	6.918 0	(1.938 0)	5.019 0	(1.881 0)	3.597 0	(1.828 0)	2.562 0	(1.782 0)	1.817 0	(1.718 0)
2.512 -2	6.499 0	(6.133 -1)	4.863 0	(5.846 -1)	3.541 0	(5.591 -1)	2.542 0	(5.375 -1)	1.810 0	(5.119 -1)
3.981 -2	5.555 0	(1.989 -1)	4.494 0	(1.863 -1)	3.403 0	(1.753 -1)	2.492 0	(1.660 -1)	1.792 0	(1.583 -1)
6.310 -2	3.747 0	(6.628 -2)	3.685 0	(6.165 -2)	3.080 0	(5.747 -2)	2.370 0	(5.390 -2)	1.748 0	(5.092 -2)
1.000 -1	1.399 0	(2.230 -2)	2.239 0	(2.074 -2)	2.398 0	(1.924 -2)	2.090 0	(1.790 -2)	1.641 0	(1.675 -2)
1.585 -1	1.256 -1	(7.514 -3)	6.436 -1	(7.027 -3)	1.279 0	(6.511 -3)	1.525 0	(6.021 -3)	1.402 0	(5.584 -3)
2.512 -1	3.421 -3	(2.506 -3)	3.093 -2	(2.374 -3)	2.651 -1	(2.212 -3)	6.911 -1	(2.043 -3)	9.446 -1	(1.882 -3)
3.981 -1	3.944 -4	(8.216 -4)	9.621 -4	(7.925 -4)	6.052 -3	(7.485 -4)	9.522 -2	(6.951 -4)	3.482 -1	(6.391 -4)
6.310 -1	2.730 -4	(2.041 -4)	2.776 -4	(2.598 -4)	2.877 -4	(2.502 -4)	9.588 -4	(2.355 -4)	2.878 -2	(2.176 -4)
1.000 0	8.466 -5	(8.355 -5)	8.572 -5	(8.350 -5)	8.646 -5	(8.207 -5)	8.768 -5	(7.881 -5)	1.469 -4	(7.382 -5)
1.585 0	2.634 -5	(2.620 -5)	2.669 -5	(2.641 -5)	2.695 -5	(2.639 -5)	2.698 -5	(2.590 -5)	2.689 -5	(2.476 -5)
2.512 0	8.212 -6	(8.194 -6)	8.316 -6	(8.281 -6)	8.422 -6	(8.352 -6)	8.478 -6	(8.340 -6)	8.424 -6	(8.157 -6)
3.981 0	2.568 -6	(2.566 -6)	2.595 -6	(2.590 -6)	2.628 -6	(2.619 -6)	2.659 -6	(2.642 -6)	2.668 -6	(2.633 -6)
6.310 0	8.059 -7	(8.056 -7)	8.119 -7	(8.113 -7)	8.204 -7	(8.194 -7)	8.310 -7	(8.288 -7)	8.401 -7	(8.357 -7)
1.000 1	2.535 -7	(2.535 -7)	2.548 -7	(2.547 -7)	2.568 -7	(2.566 -7)	2.596 -7	(2.593 -7)	2.630 -7	(2.624 -7)
1.585 1	7.988 -8	(7.988 -8)	8.016 -8	(8.016 -8)	8.058 -8	(8.056 -8)	8.123 -8	(8.120 -8)	8.218 -8	(8.211 -8)
2.512 1	2.520 -8	(2.520 -8)	2.526 -8	(2.526 -8)	2.535 -8	(2.535 -8)	2.549 -8	(2.549 -8)	2.572 -8	(2.571 -8)
3.981 1	7.958 -9	(7.958 -9)	7.969 -9	(7.969 -9)	7.988 -9	(7.988 -9)	8.019 -9	(8.019 -9)	8.067 -9	(8.066 -9)
6.310 1	2.516 -9	(2.514 -9)	2.516 -9	(2.516 -9)	2.520 -9	(2.526 -9)	2.526 -9	(2.526 -9)	2.537 -9	(2.537 -9)
1.000 2	7.951-10	(7.951-10)	7.951-10	(7.951-10)	7.958-10	(7.958-10)	7.971-10	(7.971-10)	7.993-10	(7.993-10)
1.585 2	2.514-10				2.514-10	(2.514-10)	2.517-10	(2.517-10)	2.521-10	(2.521-10)
2.512 2	7.946-11				7.946-11	(7.946-11)	7.951-11	(7.951-11)	7.960-11	(7.960-11)
3.981 2							2.513-11	(2.513-11)	2.515-11	(2.515-11)
6.310 2									7.947-12	(7.947-12)
1.000 3									2.512-12	(2.512-12)

TABLE 25

N UPPER = 4   N LOWER = 1

ELECTRON DENSITY = 1.000+13 CM**(-3)   WAVELENGTH = 971.77 ANGSTROM

DLAMBDA/DALPHA = 5.8020-001   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.264 K= 9.10	5000 K RO/U=3.186 K=10.49	10000 K RO/D=0.132 K=11.87	20000 K RO/D=0.093 K=13.26	40000 K RO/D=0.066 K=14.65
0	1.515 1 (3.673 2)	1.087 1 (4.474 2)	7.758 0 (5.559 2)	5.515 0 (7.012 2)	3.913 0 (9.008 2)
1.000 -5	1.515 1 (3.666 2)	1.087 1 (4.463 2)	7.758 0 (5.537 2)	5.515 0 (6.966 2)	3.913 0 (8.908 2)
1.585 -5	1.515 1 (3.657 2)	1.087 1 (4.446 2)	7.758 0 (5.503 2)	5.515 0 (6.897 2)	3.913 0 (8.764 2)
2.512 -5	1.515 1 (3.634 2)	1.087 1 (4.403 2)	7.758 0 (5.420 2)	5.515 0 (6.730 2)	3.913 0 (8.418 2)
3.981 -5	1.515 1 (3.579 2)	1.087 1 (4.300 2)	7.758 0 (5.222 2)	5.515 0 (6.344 2)	3.913 0 (7.660 2)
6.310 -5	1.515 1 (3.447 2)	1.087 1 (4.061 2)	7.758 0 (4.783 2)	5.515 0 (5.548 2)	3.913 0 (6.250 2)
1.000 -4	1.515 1 (3.156 2)	1.087 1 (3.567 2)	7.758 0 (3.954 2)	5.515 0 (4.227 2)	3.913 0 (4.284 2)
1.585 -4	1.515 1 (2.614 2)	1.087 1 (2.744 2)	7.758 0 (2.772 2)	5.515 0 (2.664 2)	3.913 0 (2.416 2)
2.512 -4	1.515 1 (1.857 2)	1.087 1 (1.775 2)	7.757 0 (1.624 2)	5.515 0 (1.422 2)	3.913 0 (1.194 2)
3.981 -4	1.515 1 (1.153 2)	1.087 1 (1.019 2)	7.757 0 (8.744 1)	5.515 0 (7.329 1)	3.913 0 (6.012 1)
6.310 -4	1.515 1 (7.453 1)	1.087 1 (6.437 1)	7.757 0 (5.532 1)	5.515 0 (4.752 1)	3.913 0 (4.093 1)
1.000 -3	1.514 1 (6.505 1)	1.087 1 (5.847 1)	7.756 0 (5.324 1)	5.515 0 (4.913 1)	3.912 0 (4.594 1)
1.585 -3	1.512 1 (7.322 1)	1.086 1 (6.965 1)	7.754 0 (6.696 1)	5.514 0 (6.498 1)	3.912 0 (6.360 1)
2.512 -3	1.508 1 (7.280 1)	1.085 1 (7.303 1)	7.748 0 (7.319 1)	5.512 0 (7.334 1)	3.911 0 (7.350 1)
3.981 -3	1.497 1 (4.763 1)	1.081 1 (4.936 1)	7.734 0 (5.072 1)	5.507 0 (5.177 1)	3.910 0 (5.256 1)
6.310 -3	1.471 1 (2.002 1)	1.071 1 (2.062 1)	7.699 0 (2.107 1)	5.494 0 (2.138 1)	3.905 0 (2.159 1)
1.000 -2	1.407 1 (6.538 0)	1.047 1 (6.500 0)	7.611 0 (6.434 0)	5.463 0 (6.358 0)	3.894 0 (6.279 0)
1.585 -2	1.259 1 (2.041 0)	9.890 0 (1.968 0)	7.395 0 (1.897 0)	5.384 0 (1.832 0)	3.866 0 (1.776 0)
2.512 -2	3.518 0 (6.551 -1)	8.573 0 (6.208 -1)	6.878 0 (5.884 -1)	5.191 0 (5.598 -1)	3.795 0 (5.353 -1)
3.981 -2	4.741 0 (7.166 -1)	5.991 0 (2.027 -1)	5.735 0 (1.895 -1)	4.736 0 (1.778 -1)	3.624 0 (1.678 -1)
6.310 -2	8.734 -1 (7.233 -2)	2.449 0 (6.753 -2)	3.635 0 (6.276 -2)	3.762 0 (5.839 -2)	3.229 0 (5.457 -2)
1.000 -1	4.296 -2 (2.415 -2)	2.802 -1 (2.272 -2)	1.163 0 (2.114 -2)	2.112 0 (1.959 -2)	2.415 0 (1.816 -2)
1.585 -1	3.006 -3 (8.011 -3)	1.078 -2 (7.634 -3)	7.464 -2 (7.155 -3)	4.987 -1 (6.631 -3)	1.165 0 (6.115 -3)
2.512 -1	2.732 -3 (2.613 -3)	2.776 -3 (2.535 -3)	2.989 -3 (2.411 -3)	1.611 -2 (2.251 -3)	1.883 -1 (2.076 -3)
3.981 -1	8.518 -4 (8.368 -4)	8.563 -4 (8.267 -4)	8.600 -4 (8.014 -4)	8.844 -4 (7.599 -4)	2.846 -3 (7.061 -4)
6.310 -1	2.660 -4 (2.041 -4)	2.683 -4 (2.645 -4)	2.687 -4 (2.614 -4)	2.673 -4 (2.529 -4)	2.678 -4 (2.387 -4)
1.000 0	8.295 -5 (8.271 -5)	8.390 -5 (8.342 -5)	8.455 -5 (8.361 -5)	8.439 -5 (8.256 -5)	8.313 -5 (7.961 -5)
1.585 0	2.590 -5 (2.587 -5)	2.619 -5 (2.613 -5)	2.649 -5 (2.637 -5)	2.667 -5 (2.643 -5)	2.650 -5 (2.604 -5)
2.512 0	8.108 -6 (8.104 -6)	8.180 -6 (8.173 -6)	8.274 -6 (8.259 -6)	8.369 -6 (8.339 -6)	8.412 -6 (8.353 -6)
3.981 0	2.546 -6 (2.545 -6)	2.562 -6 (2.561 -6)	2.586 -6 (2.584 -6)	2.616 -6 (2.612 -6)	2.646 -6 (2.638 -6)
6.310 0	8.012 -7 (8.012 -7)	8.045 -7 (8.044 -7)	8.099 -7 (8.097 -7)	8.178 -7 (8.173 -7)	8.279 -7 (8.269 -7)
1.000 1	2.525 -7 (2.525 -7)	2.533 -7 (2.533 -7)	2.544 -7 (2.544 -7)	2.562 -7 (2.561 -7)	2.588 -7 (2.587 -7)
1.585 1	7.967 -8 (7.967 -8)	7.982 -8 (7.982 -8)	8.007 -8 (8.007 -8)	8.045 -8 (8.045 -8)	8.106 -8 (8.105 -8)
2.512 1	2.516 -8 (2.516 -8)	2.519 -8 (2.519 -8)	2.524 -8 (2.524 -8)	2.533 -8 (2.533 -8)	2.546 -8 (2.545 -8)
3.981 1		7.956 -9 (7.956 -9)	7.966 -9 (7.966 -9)	7.983 -9 (7.982 -9)	8.012 -9 (8.012 -9)
6.310 1			2.516 -9 (2.516 -9)	2.519 -9 (2.519 -9)	2.525 -9 (2.525 -9)
1.000 2			7.949-10 (7.949-10)	7.956-10 (7.956-10)	7.966-10 (7.968-10)
1.585 2				2.514-10 (2.514-10)	2.516-10 (2.516-10)
2.512 2					7.950-11 (7.950-11)
3.981 2					2.513-11 (2.513-11)

TABLE 26

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 3.162+013 CM**(-3)   DLAMBDA/DALPHA = 1.2499+000   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319 K=7.95	5000 K RO/D=0.226 K=9.33	10000 K RO/D=0.160 K=10.72	20000 K RO/D=0.113 K=12.11	40000 K RO/D=0.080 K=13.49
0	3.047 1 (2.312 2)	2.242 1 (3.464 2)	1.627 1 (4.225 2)	1.169 1 (5.257 2)	8.347 0 (6.671 2)
1.585 -5	3.047 1 (2.305 2)	2.242 1 (3.451 2)	1.627 1 (4.201 2)	1.169 1 (5.210 2)	8.347 0 (6.573 2)
2.512 -5	3.047 1 (2.294 2)	2.242 1 (3.432 2)	1.627 1 (4.165 2)	1.169 1 (5.139 2)	8.347 0 (6.429 2)
3.981 -5	3.047 1 (2.868 2)	2.242 1 (3.386 2)	1.627 1 (4.078 2)	1.169 1 (4.970 2)	8.347 0 (6.093 2)
6.310 -5	3.047 1 (2.805 2)	2.242 1 (3.274 2)	1.627 1 (3.876 2)	1.169 1 (4.593 2)	8.347 0 (5.389 2)
1.000 -4	3.047 1 (2.659 2)	2.242 1 (3.026 2)	1.627 1 (3.447 2)	1.169 1 (3.861 2)	8.347 0 (4.183 2)
1.585 -4	3.047 1 (2.357 2)	2.242 1 (2.550 2)	1.626 1 (2.708 2)	1.169 1 (2.773 2)	8.347 0 (2.696 2)
2.512 -4	3.047 1 (1.856 2)	2.241 1 (1.856 2)	1.626 1 (1.794 2)	1.169 1 (1.661 2)	8.347 0 (1.464 2)
3.981 -4	3.046 1 (1.274 2)	2.240 1 (1.172 2)	1.626 1 (1.045 2)	1.169 1 (9.025 1)	8.347 0 (7.568 1)
6.310 -4	3.044 1 (8.538 1)	2.240 1 (7.506 1)	1.626 1 (6.523 1)	1.169 1 (5.624 1)	8.347 0 (4.825 1)
1.000 -3	3.038 1 (7.386 1)	2.238 1 (6.355 1)	1.625 1 (5.752 1)	1.168 1 (5.262 1)	8.346 0 (4.870 1)
1.585 -3	3.024 1 (7.475 1)	2.232 1 (7.084 1)	1.623 1 (6.782 1)	1.168 1 (6.559 1)	8.342 0 (6.398 1)
2.512 -3	2.988 1 (7.173 1)	2.219 1 (7.205 1)	1.618 1 (7.229 1)	1.166 1 (7.255 1)	8.335 0 (7.283 1)
3.981 -3	2.900 1 (4.670 1)	2.184 1 (4.855 1)	1.605 1 (5.003 1)	1.161 1 (5.120 1)	8.318 0 (5.211 1)
6.310 -3	2.692 1 (2.308 1)	2.099 1 (2.071 1)	1.572 1 (2.117 1)	1.149 1 (2.149 1)	8.274 0 (2.170 1)
1.000 -2	2.233 1 (6.788 0)	1.902 1 (6.747 0)	1.494 1 (6.663 0)	1.119 1 (6.558 0)	8.164 0 (6.447 0)
1.585 -2	1.406 1 (2.174 0)	1.485 1 (2.095 0)	1.313 1 (2.010 0)	1.048 1 (1.929 0)	7.896 0 (1.854 0)
2.512 -2	4.632 0 (7.070 -1)	8.030 0 (6.709 -1)	9.513 0 (6.334 -1)	8.880 0 (5.982 -1)	7.261 0 (5.666 -1)
3.981 -2	5.322 -1 (2.349 -1)	1.839 0 (2.213 -1)	4.267 0 (2.067 -1)	5.868 0 (1.928 -1)	5.882 0 (1.802 -1)
6.310 -2	3.229 -2 (7.792 -2)	1.348 -1 (7.370 -2)	6.261 -1 (6.884 -2)	2.090 0 (6.392 -2)	3.469 0 (5.927 -2)
1.000 -1	2.721 -2 (2.561 -2)	2.788 -2 (2.454 -2)	3.402 -2 (2.314 -2)	1.792 -1 (2.154 -2)	9.299 -1 (1.991 -2)
1.585 -1	8.509 -3 (8.310 -3)	8.493 -3 (8.101 -3)	8.544 -3 (7.751 -3)	9.272 -3 (7.283 -3)	4.227 -2 (6.743 -3)
2.512 -1	8.677 -3 (8.052 -3)	2.678 -3 (2.628 -3)	2.659 -3 (2.562 -3)	2.638 -3 (2.446 -3)	2.702 -3 (2.287 -3)
3.981 -1	8.384 -4 (8.352 -4)	8.439 -4 (8.375 -4)	8.434 -4 (8.309 -4)	8.335 -4 (8.093 -4)	8.166 -4 (7.698 -4)
6.310 -1	2.618 -4 (2.614 -4)	2.644 -4 (2.635 -4)	2.662 -4 (2.646 -4)	2.657 -4 (2.626 -4)	2.611 -4 (2.552 -4)
1.000 0	8.173 -5 (8.174 -5)	8.258 -5 (8.247 -5)	8.345 -5 (8.325 -5)	8.405 -5 (8.364 -5)	8.370 -5 (8.291 -5)
1.585 0	2.562 -5 (2.561 -5)	2.581 -5 (2.580 -5)	2.608 -5 (2.605 -5)	2.637 -5 (2.632 -5)	2.654 -5 (2.644 -5)
2.512 0	8.045 -6 (8.044 -6)	8.089 -6 (8.087 -6)	8.155 -6 (8.152 -6)	8.243 -6 (8.236 -6)	8.338 -6 (8.325 -6)
3.981 0	2.533 -6 (2.533 -6)	2.542 -6 (2.541 -6)	2.556 -6 (2.556 -6)	2.578 -6 (2.577 -6)	2.608 -6 (2.606 -6)
6.310 0	7.982 -7 (7.982 -7)	8.003 -7 (8.002 -7)	8.034 -7 (8.033 -7)	8.082 -7 (8.081 -7)	8.157 -7 (8.155 -7)
1.000 1	2.519 -7 (2.519 -7)	2.523 -7 (2.523 -7)	2.530 -7 (2.530 -7)	2.540 -7 (2.540 -7)	2.557 -7 (2.557 -7)
1.585 1	7.964 -8 (7.964 -8)	7.964 -8 (7.964 -8)	7.978 -8 (7.977 -8)	8.000 -8 (8.000 -8)	8.036 -8 (8.035 -8)
2.512 1	2.515 -8 (2.515 -8)	2.515 -8 (2.515 -8)	2.518 -8 (2.518 -8)	2.522 -8 (2.522 -8)	2.530 -8 (2.530 -8)
3.981 1			7.954 -9 (7.954 -9)	7.963 -9 (7.963 -9)	7.978 -9 (7.978 -9)
6.310 1				2.515 -9 (2.515 -9)	2.518 -9 (2.518 -9)
1.000 2				7.948 -10 (7.948 -10)	7.954 -10 (7.954 -10)
1.585 2					2.513 -10 (2.513 -10)

69

TABLE 27

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/DALPHA = 2.693+000   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.387 K= 6.80		5000 K RO/D=0.274 K= 8.18		10000 K RO/D=0.193 K= 9.57		20000 K RO/D=0.137 K=10.96		40000 K RO/D=0.097 K=12.34	
0	5.536 1	(2.373 2)	4.294 1	(2.740 2)	3.246 1	(3.265 2)	2.400 1	(3.991 2)	1.746 1	(4.998 2)
2.512 -5	5.536 1	(2.365 2)	4.294 1	(2.726 2)	3.246 1	(3.239 2)	2.400 1	(3.941 2)	1.746 1	(4.897 2)
3.981 -5	5.536 1	(2.352 2)	4.294 1	(2.704 2)	3.246 1	(3.200 2)	2.400 1	(3.868 2)	1.746 1	(4.751 2)
6.310 -5	5.536 1	(2.321 2)	4.294 1	(2.652 2)	3.246 1	(3.107 2)	2.400 1	(3.695 2)	1.746 1	(4.422 2)
1.000 -4	5.535 1	(2.246 2)	4.294 1	(2.529 2)	3.245 1	(2.896 2)	2.400 1	(3.325 2)	1.746 1	(3.771 2)
1.585 -4	5.535 1	(2.082 2)	4.293 1	(2.271 2)	3.245 1	(2.482 2)	2.400 1	(2.666 2)	1.746 1	(2.766 2)
2.512 -4	5.532 1	(1.773 2)	4.292 1	(1.826 2)	3.245 1	(1.849 2)	2.400 1	(1.810 2)	1.746 1	(1.692 2)
3.981 -4	5.526 1	(1.341 2)	4.290 1	(1.279 2)	3.244 1	(1.190 2)	2.399 1	(1.071 2)	1.746 1	(9.285 1)
6.310 -4	5.511 1	(9.514 1)	4.283 1	(8.567 1)	3.241 1	(7.595 1)	2.398 1	(6.634 1)	1.746 1	(5.719 1)
1.000 -3	5.473 1	(7.696 1)	4.266 1	(6.921 1)	3.234 1	(6.253 1)	2.395 1	(5.689 1)	1.745 1	(5.219 1)
1.585 -3	5.379 1	(7.639 1)	4.225 1	(7.215 1)	3.217 1	(6.880 1)	2.388 1	(6.626 1)	1.742 1	(6.442 1)
2.512 -3	5.150 1	(7.063 1)	4.122 1	(7.093 1)	3.173 1	(7.122 1)	2.371 1	(7.154 1)	1.736 1	(7.195 1)
3.981 -3	4.621 1	(4.583 1)	3.875 1	(4.773 1)	3.068 1	(4.931 1)	2.329 1	(5.058 1)	1.719 1	(5.160 1)
6.310 -3	3.538 1	(2.019 1)	3.321 1	(2.087 1)	2.818 1	(2.135 1)	2.226 1	(2.167 1)	1.679 1	(2.187 1)
1.000 -2	1.878 1	(7.066 0)	2.271 1	(7.045 0)	2.279 1	(6.951 0)	1.987 1	(6.821 0)	1.583 1	(6.672 0)
1.585 -2	5.003 0	(2.315 0)	9.222 0	(2.243 0)	1.349 1	(2.150 0)	1.496 1	(2.053 0)	1.364 1	(1.958 0)
2.512 -2	9.820 -1	(7.591 -1)	1.584 0	(7.265 -1)	3.899 0	(6.871 -1)	7.404 0	(6.463 -1)	9.407 0	(6.073 -1)
3.981 -2	2.728 -1	(2.511 -1)	2.900 -1	(2.402 -1)	4.241 -1	(2.261 -1)	1.410 0	(2.109 -1)	3.742 0	(1.960 -1)
6.310 -2	8.485 -2	(8.215 -2)	8.462 -2	(7.924 -2)	8.644 -2	(7.508 -2)	1.080 -1	(7.018 -2)	4.312 -1	(6.500 -2)
1.000 -1	2.681 -2	(2.646 -2)	2.657 -2	(2.590 -2)	2.622 -2	(2.492 -2)	2.619 -2	(2.356 -2)	2.884 -2	(2.191 -2)
1.585 -1	8.458 -3	(8.414 -3)	8.440 -3	(8.354 -3)	8.347 -3	(8.181 -3)	8.181 -3	(7.861 -3)	8.026 -3	(7.396 -3)
2.512 -1	2.651 -3	(2.645 -3)	2.664 -3	(2.653 -3)	2.661 -3	(2.639 -3)	2.626 -3	(2.585 -3)	2.555 -3	(2.476 -3)
3.981 -1	8.278 -4	(8.271 -4)	8.347 -4	(8.333 -4)	8.402 -4	(8.374 -4)	8.393 -4	(8.339 -4)	8.260 -4	(8.157 -4)
6.310 -1	2.586 -4	(2.585 -4)	2.608 -4	(2.606 -4)	2.633 -4	(2.629 -4)	2.652 -4	(2.645 -4)	2.648 -4	(2.634 -4)
1.000 0	8.100 -5	(8.099 -5)	8.151 -5	(8.151 -5)	8.227 -5	(8.223 -5)	8.313 -5	(8.305 -5)	8.379 -5	(8.362 -5)
1.585 0	2.544 -5	(2.544 -5)	2.556 -5	(2.555 -5)	2.574 -5	(2.573 -5)	2.599 -5	(2.598 -5)	2.628 -5	(2.626 -5)
2.512 0	8.009 -6	(8.009 -6)	8.033 -6	(8.033 -6)	8.073 -6	(8.072 -6)	8.133 -6	(8.132 -6)	8.219 -6	(8.216 -6)
3.981 0	2.524 -6	(2.524 -6)	2.530 -6	(2.530 -6)	2.538 -6	(2.538 -6)	2.551 -6	(2.551 -6)	2.572 -6	(2.572 -6)
6.310 0	7.966 -7	(7.966 -7)	7.977 -7	(7.977 -7)	7.996 -7	(7.996 -7)	8.024 -7	(8.024 -7)	8.069 -7	(8.069 -7)
1.000 1			2.518 -7	(2.518 -7)	2.522 -7	(2.522 -7)	2.528 -7	(2.528 -7)	2.538 -7	(2.537 -7)
1.585 1					7.961 -8	(7.961 -8)	7.973 -8	(7.973 -8)	7.994 -8	(7.994 -8)
2.512 1					2.515 -8	(2.515 -8)	2.517 -8	(2.517 -8)	2.521 -8	(2.521 -8)
3.981 1							7.952 -9	(7.952 -9)	7.961 -9	(7.961 -9)
6.310 1									2.515 -9	(2.515 -9)
1.000 2									7.947 -10	(7.947 -10)

TABLE 28

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.d017+000   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K K= 5.65 RO/D=0.469	5000 K K= 7.03 RO/D=0.331	10000 K K= 8.42 RO/D=0.234	20000 K K= 9.81 RO/D=0.166	40000 K K=11.19 RO/D=0.117
0	8.458 1 (2.001 2)	7.076 1 (2.227 2)	5.762 1 (2.578 2)	4.536 1 (3.079 2)	3.458 1 (3.792 2)
3.981 -5	8.458 1 (1.991 2)	7.076 1 (2.209 2)	5.761 1 (2.548 2)	4.536 1 (3.025 2)	3.458 1 (3.686 2)
6.310 -5	8.457 1 (1.974 2)	7.076 1 (2.184 2)	5.761 1 (2.504 2)	4.535 1 (2.947 2)	3.458 1 (3.536 2)
1.000 -4	8.455 1 (1.335 2)	7.075 1 (2.123 2)	5.761 1 (2.403 2)	4.535 1 (2.769 2)	3.458 1 (3.213 2)
1.585 -4	3.451 1 (1.844 2)	7.072 1 (1.986 2)	5.760 1 (2.183 2)	4.535 1 (2.409 2)	3.458 1 (2.622 2)
2.512 -4	8.440 1 (1.658 2)	7.067 1 (1.720 2)	5.757 1 (1.791 2)	4.534 1 (1.837 2)	3.458 1 (1.820 2)
3.981 -4	8.412 1 (1.357 2)	7.053 1 (1.328 2)	5.750 1 (1.283 2)	4.530 1 (1.207 2)	3.456 1 (1.094 2)
6.310 -4	8.344 1 (1.028 2)	7.018 1 (9.482 1)	5.733 1 (8.630 1)	4.522 1 (7.708 1)	3.453 1 (6.745 1)
1.000 -3	3.176 1 (8.292 1)	6.930 1 (7.511 1)	5.689 1 (6.811 1)	4.503 1 (6.189 1)	3.444 1 (5.646 1)
1.585 -3	7.773 1 (7.816 1)	6.717 1 (7.361 1)	5.583 1 (6.992 1)	4.453 1 (6.705 1)	3.423 1 (6.494 1)
2.512 -3	6.873 1 (6.363 1)	6.214 1 (6.980 1)	5.324 1 (7.001 1)	4.332 1 (7.035 1)	3.371 1 (7.085 1)
3.981 -3	5.155 1 (4.502 1)	5.136 1 (4.696 1)	4.730 1 (4.857 1)	4.042 1 (4.992 1)	3.243 1 (5.103 1)
6.310 -3	2.797 1 (2.033 1)	3.283 1 (2.110 1)	3.540 1 (2.162 1)	3.401 1 (2.135 1)	2.944 1 (2.212 1)
1.000 -2	9.663 0 (7.336 0)	1.287 1 (7.377 0)	1.792 1 (7.299 0)	2.226 1 (7.151 0)	2.313 1 (6.965 0)
1.585 -2	2.749 0 (2.447 0)	3.166 0 (2.400 0)	4.605 0 (2.313 0)	8.258 0 (2.205 0)	1.277 1 (2.091 0)
2.512 -2	3.397 -1 (8.038 -1)	8.578 -1 (7.816 -1)	9.268 -1 (7.462 -1)	1.336 0 (7.035 -1)	3.207 0 (6.583 -1)
3.981 -2	2.671 -1 (2.626 -1)	2.655 -1 (2.566 -1)	2.635 -1 (2.454 -1)	2.705 -1 (2.310 -1)	3.472 -1 (2.148 -1)
6.310 -2	8.512 -2 (6.454 -2)	8.439 -2 (8.323 -2)	8.272 -2 (8.047 -2)	8.082 -2 (7.644 -2)	8.036 -2 (7.141 -2)
1.000 -1	2.686 -2 (2.678 -2)	2.677 -2 (2.662 -2)	2.644 -2 (2.615 -2)	2.582 -2 (2.527 -2)	2.497 -2 (2.392 -2)
1.585 -1	8.409 -3 (8.400 -3)	8.437 -3 (8.419 -3)	8.424 -3 (8.387 -3)	8.321 -3 (8.249 -3)	8.089 -3 (7.953 -3)
2.512 -1	2.624 -3 (2.623 -3)	2.641 -3 (2.639 -3)	2.656 -3 (2.652 -3)	2.656 -3 (2.647 -3)	2.620 -3 (2.603 -3)
3.981 -1	8.192 -4 (6.191 -4)	8.247 -4 (8.244 -4)	8.316 -4 (8.310 -4)	8.378 -4 (8.366 -4)	8.381 -4 (8.358 -4)
6.310 -1	2.564 -4 (2.564 -4)	2.578 -4 (2.578 -4)	2.599 -4 (2.598 -4)	2.623 -4 (2.622 -4)	2.646 -4 (2.643 -4)
1.000 0	8.050 -5 (8.050 -5)	8.081 -5 (8.081 -5)	8.130 -5 (8.199 -5)	8.201 -5 (8.199 -5)	8.289 -5 (8.285 -5)
1.585 0	2.534 -5 (2.534 -5)	2.540 -5 (2.540 -5)	2.551 -5 (2.551 -5)	2.567 -5 (2.567 -5)	2.592 -5 (2.591 -5)
2.512 0	7.984 -6 (7.984 -6)	7.999 -6 (7.999 -6)	8.022 -6 (8.022 -6)	8.058 -6 (8.058 -6)	8.116 -6 (8.115 -6)
3.981 0		2.522 -6 (2.522 -6)	2.527 -6 (2.527 -6)	2.535 -6 (2.535 -6)	2.548 -6 (2.547 -6)
6.310 0			7.972 -7 (7.988 -7)	7.988 -7 (7.988 -7)	8.016 -7 (8.016 -7)
1.000 1			2.517 -7 (2.517 -7)	2.520 -7 (2.520 -7)	2.526 -7 (2.526 -7)
1.585 1				7.958 -8 (7.958 -8)	7.970 -8 (7.970 -8)
2.512 1					2.517 -8 (2.517 -8)
3.981 1					7.951 -9 (7.951 -9)

71

TABLE 29

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 1.000E015 CM**(-3)   DLAMBDA/DALPHA = 1.2500E+001   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K= 4.50		5000 K RO/D=0.402 K= 5.88		10000 K RO/D=0.284 K= 7.27		20000 K RO/D=0.201 K= 8.65		40000 K RO/D=0.142 K=10.04	
0	1.100 2	(1.760 2)	9.643 1	(1.870 2)	8.439 1	(2.089 2)	7.247 1	(2.427 2)	6.018 1	(2.924 2)
3.981 -5	1.100 2	(1.754 2)	9.642 1	(1.861 2)	8.439 1	(2.075 2)	7.247 1	(2.402 2)	6.018 1	(2.878 2)
6.310 -5	1.100 2	(1.744 2)	9.641 1	(1.848 2)	8.438 1	(2.055 2)	7.247 1	(2.367 2)	6.018 1	(2.811 2)
1.000 -4	1.099 2	(1.722 2)	9.637 1	(1.817 2)	8.436 1	(2.005 2)	7.246 1	(2.282 2)	6.017 1	(2.658 2)
1.585 -4	1.097 2	(1.668 2)	9.629 1	(1.743 2)	8.432 1	(1.891 2)	7.243 1	(2.096 2)	6.016 1	(2.342 2)
2.512 -4	1.093 2	(1.552 2)	9.607 1	(1.588 2)	8.420 1	(1.665 2)	7.237 1	(1.754 2)	6.013 1	(1.821 2)
3.981 -4	1.082 2	(1.345 2)	9.553 1	(1.324 2)	8.392 1	(1.313 2)	7.222 1	(1.285 2)	6.005 1	(1.221 2)
6.310 -4	1.056 2	(1.082 2)	9.420 1	(1.015 2)	8.321 1	(9.480 1)	7.184 1	(8.711 1)	5.985 1	(7.816 1)
1.000 -3	9.974 1	(8.843 1)	9.102 1	(8.079 1)	8.148 1	(7.387 1)	7.089 1	(6.744 1)	5.936 1	(6.149 1)
1.585 -3	8.798 1	(8.018 1)	8.389 1	(7.526 1)	7.736 1	(7.123 1)	6.857 1	(6.802 1)	5.813 1	(6.560 1)
2.512 -3	6.952 1	(6.886 1)	7.003 1	(6.879 1)	6.826 1	(6.880 1)	6.314 1	(6.904 1)	5.518 1	(6.953 1)
3.981 -3	4.632 1	(4.426 1)	4.889 1	(4.628 1)	5.131 1	(4.789 1)	5.166 1	(4.927 1)	4.848 1	(5.041 1)
6.310 -3	2.215 1	(2.037 1)	2.486 1	(2.136 1)	2.826 1	(2.197 1)	3.242 1	(2.232 1)	3.533 1	(2.248 1)
1.000 -2	7.937 0	(7.536 0)	8.622 0	(7.707 0)	9.822 0	(7.687 0)	1.241 1	(7.548 0)	1.696 1	(7.334 0)
1.585 -2	2.603 0	(2.545 0)	2.672 0	(2.548 0)	2.757 0	(2.486 0)	3.035 0	(2.382 0)	4.125 0	(2.256 0)
2.512 -2	8.417 -1	(8.340 -1)	8.437 -1	(8.282 -1)	8.350 -1	(8.037 -1)	8.297 -1	(7.656 -1)	8.625 -1	(7.184 -1)
3.981 -2	2.694 -1	(2.683 -1)	2.698 -1	(2.679 -1)	2.654 -1	(2.616 -1)	2.579 -1	(2.504 -1)	2.501 -1	(2.353 -1)
6.310 -2	8.541 -2	(8.528 -2)	8.558 -2	(8.532 -2)	8.464 -2	(8.413 -2)	8.258 -2	(8.160 -2)	7.945 -2	(7.762 -2)
1.000 -1	2.681 -2	(2.679 -2)	2.685 -2	(2.682 -2)	2.679 -2	(2.673 -2)	2.649 -2	(2.637 -2)	2.579 -2	(2.556 -2)
1.585 -1	8.348 -3	(8.346 -3)	8.384 -3	(8.380 -3)	8.421 -3	(8.413 -3)	8.424 -3	(8.408 -3)	8.331 -3	(8.300 -3)
2.512 -1	2.602 -3	(2.602 -3)	2.614 -3	(2.613 -3)	2.632 -3	(2.631 -3)	2.650 -3	(2.648 -3)	2.655 -3	(2.651 -3)
3.981 -1	8.133 -4	(8.133 -4)	8.165 -4	(8.164 -4)	8.218 -4	(8.217 -4)	8.288 -4	(8.286 -4)	8.359 -4	(8.354 -4)
6.310 -1	2.551 -4	(2.551 -4)	2.558 -4	(2.558 -4)	2.571 -4	(2.571 -4)	2.590 -4	(2.590 -4)	2.616 -4	(2.615 -4)
1.000 0	3.021 -5	(8.021 -5)	8.036 -5	(8.036 -5)	8.064 -5	(8.064 -5)	8.110 -5	(8.110 -5)	8.179 -5	(8.178 -5)
1.585 0			2.530 -5	(2.530 -5)	2.537 -5	(2.536 -5)	2.546 -5	(2.546 -5)	2.562 -5	(2.562 -5)
2.512 0			7.978 -6	(7.978 -6)	7.991 -6	(7.991 -6)	8.013 -6	(8.013 -6)	8.047 -6	(8.046 -6)
3.981 0					2.521 -6	(2.521 -6)	2.525 -6	(2.525 -6)	2.533 -6	(2.533 -6)
6.310 0							7.968 -7	(7.968 -7)	7.983 -7	(7.983 -7)
1.000 1							2.516 -7	(2.516 -7)	2.519 -7	(2.519 -7)
1.585 1									7.956 -8	(7.956 -8)

72

TABLE 30

N UPPER = 4   N LOWER = 1   WAVELENGTH = 971.77 ANGSTROM

ELECTRON DENSITY = 3.162+015 CM**(-3)   DLAMBDA/DALPHA = 2.6929+001   ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K (RO/D=0.668, K= 3.34)	5000 K (RO/D=0.487, K= 4.73)	10000 K (RO/D=0.344, K= 6.12)	20000 K (RO/D=0.243, K= 7.50)	40000 K (RO/D=0.172, K= 8.89)
0	1.331 2 (1.633 2)	1.183 2 (1.634 2)	1.063 2 (1.748 2)	9.558 1 (1.963 2)	8.546 1 (2.302 2)
3.981 -5	1.331 2 (1.629 2)	1.183 2 (1.629 2)	1.063 2 (1.741 2)	9.557 1 (1.952 2)	8.545 1 (2.281 2)
6.310 -5	1.330 2 (1.623 2)	1.182 2 (1.622 2)	1.063 2 (1.731 2)	9.555 1 (1.935 2)	8.545 1 (2.251 2)
1.000 -4	1.327 2 (1.608 2)	1.181 2 (1.604 2)	1.062 2 (1.705 2)	9.551 1 (1.894 2)	8.543 1 (2.179 2)
1.585 -4	1.320 2 (1.572 2)	1.177 2 (1.562 2)	1.060 2 (1.646 2)	9.542 1 (1.801 2)	8.538 1 (2.020 2)
2.512 -4	1.302 2 (1.492 2)	1.167 2 (1.469 2)	1.055 2 (1.518 2)	9.518 1 (1.608 2)	8.525 1 (1.717 2)
3.981 -4	1.261 2 (1.339 2)	1.144 2 (1.295 2)	1.043 2 (1.291 2)	9.458 1 (1.296 2)	8.494 1 (1.283 2)
6.310 -4	1.173 2 (1.125 2)	1.091 2 (1.057 2)	1.014 2 (1.005 2)	9.311 1 (9.491 1)	8.417 1 (8.784 1)
1.000 -3	1.022 2 (9.361 1)	9.850 1 (8.584 1)	9.502 1 (7.929 1)	8.965 1 (7.309 1)	8.229 1 (6.702 1)
1.585 -3	8.463 1 (8.263 1)	8.288 1 (7.715 1)	8.320 1 (7.276 1)	8.215 1 (6.922 1)	7.786 1 (6.646 1)
2.512 -3	6.736 1 (6.840 1)	6.703 1 (6.808 1)	6.716 1 (6.775 1)	6.856 1 (6.774 1)	6.832 1 (6.812 1)
3.981 -3	4.396 1 (4.333 1)	4.641 1 (4.567 1)	4.790 1 (4.731 1)	4.921 1 (4.864 1)	5.120 1 (4.980 1)
6.310 -3	2.050 1 (2.012 1)	2.232 1 (2.155 1)	2.392 1 (2.235 1)	2.581 1 (2.278 1)	2.832 1 (2.295 1)
1.000 -2	7.652 0 (7.570 0)	8.150 0 (7.969 0)	8.463 0 (8.078 0)	8.849 0 (7.994 0)	9.701 0 (7.776 0)
1.585 -2	2.594 0 (2.582 0)	2.686 0 (2.660 0)	2.701 0 (2.647 0)	2.681 0 (2.570 0)	2.680 0 (2.445 0)
2.512 -2	8.469 -1 (8.453 -1)	8.629 -1 (8.595 -1)	8.582 -1 (8.513 -1)	8.384 -1 (8.250 -1)	8.090 -1 (7.828 -1)
3.981 -2	2.695 -1 (2.693 -1)	2.737 -1 (2.732 -1)	2.731 -1 (2.722 -1)	2.677 -1 (2.660 -1)	2.579 -1 (2.546 -1)
6.310 -2	8.517 -2 (8.514 -2)	8.590 -2 (8.584 -2)	8.597 -2 (8.585 -2)	8.508 -2 (8.485 -2)	8.293 -2 (8.250 -2)
1.000 -1	2.671 -2 (2.671 -2)	2.675 -2 (2.674 -2)	2.682 -2 (2.681 -2)	2.682 -2 (2.680 -2)	2.658 -2 (2.652 -2)
1.585 -1	8.304 -3 (8.304 -3)	8.315 -3 (8.315 -3)	8.356 -3 (8.354 -3)	8.404 -3 (8.400 -3)	8.424 -3 (8.417 -3)
2.512 -1	2.589 -3 (2.589 -3)	2.592 -3 (2.592 -3)	2.604 -3 (2.604 -3)	2.623 -3 (2.623 -3)	2.644 -3 (2.643 -3)
3.981 -1	8.102 -4 (8.102 -4)	8.109 -4 (8.109 -4)	8.139 -4 (8.139 -4)	8.191 -4 (8.190 -4)	8.264 -4 (8.263 -4)
6.310 -1	2.544 -4 (2.544 -4)	2.545 -4 (2.545 -4)		2.564 -4 (2.564 -4)	2.583 -4 (2.583 -4)
1.000 0		8.011 -5 (8.011 -5)	8.024 -5 (8.024 -5)	8.050 -5 (8.050 -5)	8.094 -5 (8.093 -5)
1.585 0			2.527 -5 (2.527 -5)	2.534 -5 (2.534 -5)	2.543 -5 (2.545 -5)
2.512 0			7.973 -6 (7.973 -6)	7.984 -6 (7.984 -6)	8.005 -6 (8.005 -6)
3.981 0				2.519 -6 (2.519 -6)	2.524 -6 (2.524 -6)
6.310 0					7.965 -7 (7.965 -7)
1.000 1					2.516 -7 (2.516 -7)

TABLE 31

N UPPER = 4   N LOWER = 1

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.8020+001   WAVELENGTH = 971.77 ANGSTROM

ASYMPTOTE = 3.9706-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.834 K= 2.19	5000 K RO/D=0.589 K= 3.58	10000 K RO/D=0.417 K= 4.97	20000 K RO/D=0.295 K= 6.35	40000 K RO/D=0.208 K= 7.74
0	1.538 2 (1.644 2)	1.349 2 (1.500 2)	1.253 2 (1.519 2)	1.165 2 (1.637 2)	1.069 2 (1.860 2)
6.310 -5	1.533 2 (1.635 2)	1.346 2 (1.492 2)	1.250 2 (1.509 2)	1.163 2 (1.624 2)	1.068 2 (1.836 2)
1.000 -4	1.526 2 (1.621 2)	1.341 2 (1.481 2)	1.247 2 (1.496 2)	1.162 2 (1.603 2)	1.067 2 (1.802 2)
1.585 -4	1.508 2 (1.590 2)	1.330 2 (1.454 2)	1.239 2 (1.463 2)	1.157 2 (1.556 2)	1.065 2 (1.723 2)
2.512 -4	1.466 2 (1.518 2)	1.303 2 (1.393 2)	1.220 2 (1.389 2)	1.145 2 (1.451 2)	1.058 2 (1.558 2)
3.981 -4	1.374 2 (1.381 2)	1.241 2 (1.271 2)	1.175 2 (1.246 2)	1.116 2 (1.257 2)	1.043 2 (1.278 2)
6.310 -4	1.213 2 (1.183 2)	1.120 2 (1.085 2)	1.081 2 (1.034 2)	1.051 2 (9.956 1)	1.007 2 (9.494 1)
1.000 -3	1.019 2 (9.960 1)	9.476 1 (9.032 1)	9.255 1 (8.393 1)	9.296 1 (7.827 1)	9.299 1 (7.257 1)
1.585 -3	8.619 1 (8.609 1)	8.016 1 (7.942 1)	7.703 1 (7.455 1)	7.716 1 (7.068 1)	7.397 1 (6.759 1)
2.512 -3	6.801 1 (6.609 1)	6.738 1 (6.776 1)	6.615 1 (6.703 1)	6.509 1 (6.661 1)	6.538 1 (6.672 1)
3.981 -3	4.179 1 (4.162 1)	4.519 1 (4.499 1)	4.705 1 (4.683 1)	4.829 1 (4.813 1)	4.900 1 (4.922 1)
6.310 -3	1.925 1 (1.317 1)	2.163 1 (2.147 1)	2.302 1 (2.268 1)	2.398 1 (2.330 1)	2.490 1 (2.351 1)
1.000 -2	7.299 0 (7.282 0)	8.111 0 (8.073 0)	8.487 0 (8.404 0)	8.619 0 (8.444 0)	8.637 0 (8.272 0)
1.585 -2	2.517 0 (2.515 0)	2.718 0 (2.712 0)	2.784 0 (2.772 0)	2.768 0 (2.744 0)	2.692 0 (2.644 0)
2.512 -2	8.317 -1 (8.314 -1)	8.731 -1 (8.724 -1)	8.841 -1 (8.826 -1)	8.757 -1 (8.727 -1)	8.489 -1 (8.431 -1)
3.981 -2	2.683 -1 (2.083 -1)	2.739 -1 (2.738 -1)	2.772 -1 (2.770 -1)	2.761 -1 (2.757 -1)	2.703 -1 (2.695 -1)
6.310 -2	8.527 -2 (8.526 -2)	8.551 -2 (8.550 -2)	8.610 -2 (8.613 -2)	8.621 -2 (8.616 -2)	8.544 -2 (8.534 -2)
1.000 -1	2.670 -2 (2.670 -2)	2.662 -2 (2.661 -2)	2.667 -2 (2.667 -2)	2.678 -2 (2.677 -2)	2.683 -2 (2.682 -2)
1.585 -1	6.303 -3 (8.303 -3)	8.266 -3 (8.265 -3)	8.282 -3 (8.281 -3)	8.326 -3 (8.326 -3)	8.385 -3 (8.384 -3)
2.512 -1	2.589 -3 (2.589 -3)	2.579 -3 (2.579 -3)	2.583 -3 (2.583 -3)	2.595 -3 (2.595 -3)	2.615 -3 (2.615 -3)
3.981 -1		8.078 -4 (8.078 -4)	8.087 -4 (8.087 -4)	8.116 -4 (8.116 -4)	8.169 -4 (8.168 -4)
6.310 -1			2.541 -4 (2.541 -4)	2.547 -4 (2.547 -4)	2.559 -4 (2.559 -4)
1.000 0			7.999 -5 (7.999 -5)	8.014 -5 (8.014 -5)	8.038 -5 (8.035 -5)
1.585 0				2.525 -5 (2.525 -5)	2.531 -5 (2.531 -5)
2.512 0					7.979 -6 (7.979 -6)
3.981 0					2.518 -6 (2.518 -6)

74

TABLE 32

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 3.162+011 CM**(-3)   DLAMBDA/DALPHA = 5.8017-002   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.148 K=12.35	5000 K RO/D=0.105 K=13.73	10000 K RO/D=0.074 K=15.12	20000 K RO/D=0.052 K=16.50	40000 K RO/D=0.037 K=17.89
0	1.606 0 (2.181 1)	1.138 0 (1.727 1)	8.040 -1 (1.359 1)	5.698 -1 (1.064 1)	4.026 -1 (8.175 0)
2.512 -5	1.606 0 (2.188 1)	1.138 0 (1.735 1)	8.040 -1 (1.367 1)	5.698 -1 (1.073 1)	4.026 -1 (8.293 0)
3.981 -5	1.606 0 (2.199 1)	1.138 0 (1.746 1)	8.040 -1 (1.379 1)	5.698 -1 (1.086 1)	4.026 -1 (8.440 0)
6.310 -5	1.606 0 (2.226 1)	1.138 0 (1.775 1)	8.040 -1 (1.409 1)	5.698 -1 (1.117 1)	4.026 -1 (8.777 0)
1.000 -4	1.606 0 (2.294 1)	1.138 0 (1.846 1)	8.040 -1 (1.483 1)	5.698 -1 (1.192 1)	4.026 -1 (9.558 0)
1.585 -4	1.606 0 (2.457 1)	1.138 0 (2.016 1)	8.040 -1 (1.659 1)	5.698 -1 (1.372 1)	4.026 -1 (1.141 1)
2.512 -4	1.606 0 (2.842 1)	1.138 0 (2.418 1)	8.040 -1 (2.076 1)	5.698 -1 (1.802 1)	4.026 -1 (1.582 1)
3.981 -4	1.606 0 (3.704 1)	1.138 0 (3.326 1)	8.040 -1 (3.026 1)	5.698 -1 (2.790 1)	4.026 -1 (2.604 1)
6.310 -4	1.606 0 (5.401 1)	1.138 0 (5.140 1)	8.040 -1 (4.943 1)	5.698 -1 (4.795 1)	4.026 -1 (4.690 1)
1.000 -3	1.606 0 (7.741 1)	1.138 0 (7.715 1)	8.040 -1 (7.719 1)	5.698 -1 (7.742 1)	4.026 -1 (7.623 1)
1.585 -3	1.606 0 (8.618 1)	1.138 0 (8.802 1)	8.040 -1 (8.844 1)	5.698 -1 (9.104 1)	4.026 -1 (9.243 1)
2.512 -3	1.606 0 (6.713 1)	1.138 0 (6.808 1)	8.040 -1 (6.865 1)	5.698 -1 (6.913 1)	4.026 -1 (6.954 1)
3.981 -3	1.606 0 (4.869 1)	1.138 0 (4.870 1)	8.040 -1 (4.868 1)	5.698 -1 (4.867 1)	4.026 -1 (4.866 1)
6.310 -3	1.605 0 (3.066 1)	1.138 0 (3.119 1)	8.040 -1 (3.158 1)	5.698 -1 (3.186 1)	4.026 -1 (3.207 1)
1.000 -2	1.604 0 (1.274 1)	1.138 0 (1.295 1)	8.039 -1 (1.310 1)	5.698 -1 (1.320 1)	4.026 -1 (1.327 1)
1.585 -2	1.603 0 (3.933 0)	1.137 0 (3.896 0)	8.036 -1 (3.859 0)	5.697 -1 (3.826 0)	4.025 -1 (3.797 0)
2.512 -2	1.598 0 (1.174 0)	1.135 0 (1.137 0)	8.030 -1 (1.105 0)	5.695 -1 (1.080 0)	4.025 -1 (1.059 0)
3.981 -2	1.585 0 (3.666 -1)	1.131 0 (3.496 -1)	8.014 -1 (3.352 -1)	5.689 -1 (3.235 -1)	4.023 -1 (3.140 -1)
6.310 -2	1.555 0 (1.177 -1)	1.120 0 (1.106 -1)	7.975 -1 (1.045 -1)	5.675 -1 (9.953 -2)	4.018 -1 (9.545 -2)
1.000 -1	1.481 0 (3.890 -2)	1.093 0 (3.621 -2)	7.878 -1 (3.388 -2)	5.640 -1 (3.197 -2)	4.005 -1 (3.041 -2)
1.585 -1	1.309 0 (1.310 -2)	1.027 0 (1.214 -2)	7.639 -1 (1.128 -2)	5.554 -1 (1.054 -2)	3.975 -1 (9.933 -3)
2.512 -1	9.619 -1 (4.432 -3)	8.804 -1 (4.111 -3)	7.071 -1 (3.799 -3)	5.343 -1 (3.522 -3)	3.899 -1 (3.286 -3)
3.981 -1	4.435 -1 (1.492 -3)	5.973 -1 (1.395 -3)	5.823 -1 (1.289 -3)	4.849 -1 (1.189 -3)	3.714 -1 (1.100 -3)
6.310 -1	6.385 -2 (4.957 -4)	2.255 -1 (4.704 -4)	3.575 -1 (4.382 -4)	3.799 -1 (4.074 -4)	3.287 -1 (3.714 -4)
1.000 0	7.032 -3 (1.617 -4)	1.969 -2 (1.564 -4)	1.050 -1 (1.480 -4)	2.058 -1 (1.374 -4)	2.419 -1 (1.262 -4)
1.585 0	5.821 -5 (5.176 -5)	1.079 -4 (5.106 -5)	4.905 -3 (4.929 -5)	4.415 -2 (4.646 -5)	1.120 -1 (4.296 -5)
2.512 0	1.709 -5 (1.634 -5)	1.792 -5 (1.636 -5)	2.175 -5 (1.611 -5)	9.444 -4 (1.551 -5)	1.619 -2 (1.455 -5)
3.981 0	5.214 -6 (5.124 -6)	5.352 -6 (5.167 -6)	5.549 -6 (5.169 -6)	5.951 -6 (5.080 -6)	1.321 -4 (4.867 -6)
6.310 0	1.615 -6 (1.604 -6)	1.643 -6 (1.621 -6)	1.680 -6 (1.633 -6)	1.726 -6 (1.633 -6)	1.793 -6 (1.599 -6)
1.000 1	5.041 -7 (5.027 -7)	5.101 -7 (5.073 -7)	5.185 -7 (5.128 -7)	5.284 -7 (5.170 -7)	5.384 -7 (5.155 -7)
1.585 1	1.581 -7 (1.579 -7)	1.594 -7 (1.590 -7)	1.612 -7 (1.606 -7)	1.637 -7 (1.623 -7)	1.664 -7 (1.635 -7)
2.512 1	4.972 -8 (4.970 -8)	4.999 -8 (4.995 -8)	5.040 -8 (5.031 -8)	5.100 -8 (5.082 -8)	5.175 -8 (5.140 -8)
3.981 1	1.567 -8 (1.567 -8)	1.573 -8 (1.572 -8)	1.581 -8 (1.580 -8)	1.595 -8 (1.593 -8)	1.614 -8 (1.610 -8)
6.310 1	4.944 -9 (4.944 -9)	4.955 -9 (4.955 -9)	4.974 -9 (4.973 -9)	5.003 -9 (5.000 -9)	5.048 -9 (5.043 -9)
1.000 2	1.561 -9 (1.561 -9)	1.564 -9 (1.564 -9)	1.567 -9 (1.567 -9)	1.574 -9 (1.573 -9)	1.584 -9 (1.583 -9)
1.585 2	4.933 -10 (4.933 -10)	4.938 -10 (4.938 -10)	4.945 -10 (4.945 -10)	4.958 -10 (4.957 -10)	4.980 -10 (4.979 -10)
2.512 2	1.559 -10 (1.559 -10)	1.560 -10 (1.560 -10)	1.562 -10 (1.562 -10)	1.564 -10 (1.564 -10)	1.558 -10 (1.558 -10)
3.981 2		4.931 -11 (4.931 -11)	4.934 -11 (4.939 -11)	4.939 -11 (4.939 -11)	4.948 -11 (4.948 -11)
6.310 2			1.559 -11 (1.559 -11)	1.560 -11 (1.560 -11)	1.562 -11 (1.562 -11)
1.000 3			4.929 -12 (4.929 -12)	4.931 -12 (4.931 -12)	4.935 -12 (4.935 -12)
1.585 3				1.559 -12 (1.559 -12)	1.559 -12 (1.559 -12)
2.512 3					4.929 -13 (4.929 -13)
3.981 3					1.558 -13 (1.558 -13)

TABLE 33

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 1.000+012 CM**(-3)   DLAMBDA/DALPHA = 1.2500-001   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.180 K=11.19		5000 K RO/D=0.127 K=12.58		10000 K RO/D=0.090 K=13.97		20000 K RO/D=0.063 K=15.35		40000 K RO/D=0.045 K=16.74	
0	3.442 0	(2.739 1)	2.442 0	(2.209 1)	1.731 0	(1.766 1)	1.225 0	(1.401 1)	8.677 -1	(1.099 1)
3.981 -5	3.442 0	(2.754 1)	2.442 0	(2.226 1)	1.731 0	(1.784 1)	1.225 0	(1.420 1)	8.677 -1	(1.120 1)
6.310 -5	3.442 0	(2.778 1)	2.442 0	(2.251 1)	1.731 0	(1.812 1)	1.225 0	(1.449 1)	8.677 -1	(1.150 1)
1.000 -4	3.442 0	(2.836 1)	2.442 0	(2.314 1)	1.731 0	(1.879 1)	1.225 0	(1.519 1)	8.677 -1	(1.223 1)
1.585 -4	3.442 0	(2.977 1)	2.442 0	(2.466 1)	1.731 0	(2.040 1)	1.225 0	(1.689 1)	8.677 -1	(1.398 1)
2.512 -4	3.442 0	(3.312 1)	2.442 0	(2.825 1)	1.731 0	(2.422 1)	1.225 0	(2.090 1)	8.677 -1	(1.816 1)
3.981 -4	3.442 0	(4.058 1)	2.442 0	(3.633 1)	1.731 0	(3.285 1)	1.225 0	(3.004 1)	8.677 -1	(2.777 1)
6.310 -4	3.442 0	(5.518 1)	2.442 0	(5.238 1)	1.731 0	(5.023 1)	1.225 0	(4.858 1)	8.677 -1	(4.735 1)
1.000 -3	3.442 0	(7.527 1)	2.442 0	(7.519 1)	1.731 0	(7.542 1)	1.225 0	(7.582 1)	8.676 -1	(7.641 1)
1.585 -3	3.442 0	(8.296 1)	2.442 0	(8.496 1)	1.731 0	(8.704 1)	1.225 0	(8.823 1)	8.676 -1	(9.045 1)
2.512 -3	3.441 0	(6.659 1)	2.442 0	(6.708 1)	1.731 0	(6.789 1)	1.225 0	(6.854 1)	8.676 -1	(6.907 1)
3.981 -3	3.440 0	(4.841 1)	2.441 0	(4.850 1)	1.731 0	(4.854 1)	1.225 0	(4.855 1)	8.676 -1	(4.857 1)
6.310 -3	3.437 0	(3.036 1)	2.440 0	(3.095 1)	1.731 0	(3.140 1)	1.225 0	(3.172 1)	8.676 -1	(3.196 1)
1.000 -2	3.429 0	(1.280 1)	2.437 0	(1.301 1)	1.730 0	(1.316 1)	1.224 0	(1.326 1)	8.674 -1	(1.332 1)
1.585 -2	3.410 0	(4.065 0)	2.430 0	(4.011 0)	1.727 0	(3.954 0)	1.223 0	(3.902 0)	8.671 -1	(3.856 0)
2.512 -2	3.362 0	(1.241 0)	2.413 0	(1.193 0)	1.721 0	(1.151 0)	1.221 0	(1.116 0)	8.664 -1	(1.087 0)
3.981 -2	3.244 0	(3.935 -1)	2.370 0	(3.725 -1)	1.706 0	(3.540 -1)	1.216 0	(3.386 -1)	8.644 -1	(3.258 -1)
6.310 -2	2.966 0	(1.282 -1)	2.266 0	(1.198 -1)	1.668 0	(1.122 -1)	1.202 0	(1.058 -1)	8.595 -1	(1.004 -1)
1.000 -1	2.368 0	(4.262 -2)	2.024 0	(3.960 -2)	1.576 0	(3.679 -2)	1.168 0	(3.436 -2)	8.474 -1	(3.232 -2)
1.585 -1	1.347 0	(1.432 -2)	1.523 0	(1.334 -2)	1.466 0	(1.236 -2)	1.088 0	(1.146 -2)	8.177 -1	(1.067 -2)
2.512 -1	3.288 -1	(4.794 -3)	7.470 -1	(4.508 -3)	9.554 -1	(4.184 -3)	9.094 -1	(3.864 -3)	7.475 -1	(3.572 -3)
3.981 -1	1.152 -1	(1.584 -3)	1.258 -1	(1.513 -3)	3.892 -1	(1.418 -3)	5.797 -1	(1.312 -3)	5.967 -1	(1.208 -3)
6.310 -1	6.071 -4	(5.140 -4)	2.088 -3	(5.005 -4)	4.125 -2	(4.768 -4)	1.873 -1	(4.455 -4)	3.388 -1	(4.105 -4)
1.000 0	1.741 -4	(1.639 -4)	1.842 -4	(1.624 -4)	3.490 -4	(1.579 -4)	1.113 -2	(1.500 -4)	1.181 -2	(1.395 -4)
1.585 0	5.286 -5	(5.162 -5)	5.432 -5	(5.179 -5)	5.654 -5	(5.130 -5)	7.024 -5	(4.976 -5)	2.365 -3	(4.707 -5)
2.512 0	1.632 -5	(1.617 -5)	1.662 -5	(1.631 -5)	1.700 -5	(1.637 -5)	1.746 -5	(1.619 -5)	1.865 -5	(1.565 -5)
3.981 0	5.080 -6	(5.061 -6)	5.149 -6	(5.111 -6)	5.237 -6	(5.159 -6)	5.329 -6	(5.174 -6)	5.416 -6	(5.105 -6)
6.310 0	1.589 -6	(1.587 -6)	1.605 -6	(1.600 -6)	1.626 -6	(1.617 -6)	1.651 -6	(1.632 -6)	1.673 -6	(1.635 -6)
1.000 1	4.990 -7	(4.987 -7)	5.025 -7	(5.018 -7)	5.074 -7	(5.062 -7)	5.140 -7	(5.116 -7)	5.213 -7	(5.164 -7)
1.585 1	1.571 -7	(1.570 -7)	1.578 -7	(1.577 -7)	1.589 -7	(1.587 -7)	1.605 -7	(1.602 -7)	1.626 -7	(1.620 -7)
2.512 1	4.952 -8	(4.352 -8)	4.967 -8	(4.966 -8)	4.990 -8	(4.988 -8)	5.026 -8	(5.022 -8)	5.079 -8	(5.072 -8)
3.981 1	1.563 -8	(1.563 -8)	1.566 -8	(1.566 -8)	1.571 -8	(1.571 -8)	1.579 -8	(1.578 -8)	1.591 -8	(1.590 -8)
6.310 1	4.936 -9	(4.936 -9)	4.942 -9	(4.942 -9)	4.969 -9	(4.942 -9)	4.995 -9	(4.968 -9)	4.995 -9	(4.994 -9)
1.000 2	1.560 -9	(1.560 -9)	1.561 -9	(1.561 -9)	1.563 -9	(1.563 -9)	1.566 -9	(1.566 -9)	1.572 -9	(1.572 -9)
1.585 2	4.932-10	(4.932-10)	4.932-10	(4.932-10)	4.936-10	(4.936-10)	4.943-10	(4.943-10)	4.955-10	(4.954-10)
2.512 2	1.559-10	(1.559-10)	1.559-10	(1.559-10)	1.560-10	(1.560-10)	1.561-10	(1.561-10)	1.563-10	(1.563-10)
3.981 2					4.930-11	(4.930-11)	4.933-11	(4.933-11)	4.938-11	(4.938-11)
6.310 2							1.559-11	(1.559-11)	1.560-11	(1.560-11)
1.000 3							4.929-12	(4.929-12)	4.931-12	(4.931-12)
1.585 3									1.559-12	(1.559-12)

TABLE 34

ELECTRON DENSITY = 3.162+312 CM**(-3)   N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

DLAMBDA/DALPHA = 2.6929-001   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.218	K=10.04	5000 K RO/D=0.154	K=11.43	10000 K RO/D=0.109	K=12.82	20000 K RO/D=0.077	K=14.20	40000 K RO/D=0.054	K=15.59
0	7.285 0	(3.341 1)	5.205 0	(2.754 1)	3.705 0	(2.246 1)	2.629 0	(1.812 1)	1.864 0	(1.441 1)
3.981 -5	7.285 0	(3.354 1)	5.205 0	(2.768 1)	3.705 0	(2.262 1)	2.629 0	(1.829 1)	1.864 0	(1.459 1)
6.310 -5	7.285 0	(3.373 1)	5.205 0	(2.790 1)	3.705 0	(2.285 1)	2.629 0	(1.855 1)	1.864 0	(1.487 1)
1.000 -4	7.285 0	(3.420 1)	5.205 0	(2.843 1)	3.705 0	(2.344 1)	2.629 0	(1.919 1)	1.864 0	(1.556 1)
1.585 -4	7.285 0	(3.536 1)	5.205 0	(2.972 1)	3.705 0	(2.486 1)	2.629 0	(2.073 1)	1.864 0	(1.719 1)
2.512 -4	7.285 0	(3.812 1)	5.205 0	(3.280 1)	3.705 0	(2.823 1)	2.629 0	(2.435 1)	1.864 0	(2.106 1)
3.981 -4	7.285 0	(4.427 1)	5.204 0	(3.969 1)	3.705 0	(3.582 1)	2.629 0	(3.258 1)	1.864 0	(2.989 1)
6.310 -4	7.285 0	(5.626 1)	5.204 0	(5.334 1)	3.705 0	(5.104 1)	2.629 0	(4.925 1)	1.864 0	(4.788 1)
1.000 -3	7.284 0	(7.276 1)	5.204 0	(7.278 1)	3.705 0	(7.320 1)	2.629 0	(7.384 1)	1.864 0	(7.463 1)
1.585 -3	7.282 0	(7.436 1)	5.203 0	(8.149 1)	3.704 0	(8.378 1)	2.629 0	(8.597 1)	1.864 0	(8.833 1)
2.512 -3	7.278 0	(6.539 1)	5.202 0	(6.612 1)	3.704 0	(6.704 1)	2.629 0	(6.769 1)	1.864 0	(6.843 1)
3.981 -3	7.266 0	(4.808 1)	5.198 0	(4.820 1)	3.702 0	(4.831 1)	2.628 0	(4.837 1)	1.863 0	(4.843 1)
6.310 -3	7.236 0	(3.005 1)	5.187 0	(3.070 1)	3.698 0	(3.120 1)	2.627 0	(3.157 1)	1.863 0	(3.185 1)
1.000 -2	7.163 0	(1.291 1)	5.160 0	(1.312 1)	3.689 0	(1.327 1)	2.624 0	(1.336 1)	1.861 0	(1.340 1)
1.585 -2	6.982 0	(4.232 0)	5.093 0	(4.161 0)	3.665 0	(4.080 0)	2.615 0	(4.001 0)	1.858 0	(3.927 0)
2.512 -2	6.547 0	(1.319 0)	4.930 0	(1.260 0)	3.605 0	(1.205 0)	2.594 0	(1.156 0)	1.851 0	(1.114 0)
3.981 -2	5.571 0	(4.233 -1)	4.542 0	(3.986 -1)	3.459 0	(3.754 -1)	2.541 0	(3.551 -1)	1.831 0	(3.378 -1)
6.310 -2	3.717 0	(1.397 -1)	3.697 0	(1.308 -1)	3.117 0	(1.219 -1)	2.411 0	(1.140 -1)	1.784 0	(1.070 -1)
1.000 -1	1.358 0	(4.041 -2)	2.207 0	(4.342 -2)	2.402 0	(4.032 -2)	2.114 0	(3.741 -2)	1.671 0	(3.483 -2)
1.585 -1	1.243 -1	(1.540 -2)	6.106 -1	(1.457 -2)	1.249 0	(1.358 -2)	1.521 0	(1.258 -2)	1.416 0	(1.163 -2)
2.512 -1	6.565 -3	(5.058 -3)	3.010 -1	(4.860 -3)	2.440 -1	(4.583 -3)	6.656 -1	(4.260 -3)	9.351 -1	(3.927 -3)
3.981 -1	1.774 -3	(1.633 -3)	1.914 -3	(1.598 -3)	6.048 -3	(1.533 -3)	8.482 -2	(1.441 -3)	3.304 -1	(1.334 -3)
6.310 -1	5.357 -4	(5.188 -4)	5.504 -4	(5.160 -4)	5.775 -4	(5.047 -4)	1.102 -2	(4.831 -4)	2.472 -2	(4.522 -4)
1.000 0	1.652 -4	(1.631 -4)	1.681 -4	(1.639 -4)	1.715 -4	(1.630 -4)	1.766 -4	(1.592 -4)	2.247 -4	(1.519 -4)
1.585 0	5.130 -5	(5.104 -5)	5.203 -5	(5.151 -5)	5.284 -5	(5.179 -5)	5.359 -5	(5.149 -5)	5.436 -5	(5.016 -5)
2.512 0	1.601 -5	(1.598 -5)	1.619 -5	(1.613 -5)	1.641 -5	(1.628 -5)	1.663 -5	(1.637 -5)	1.677 -5	(1.625 -5)
3.981 0	5.016 -6	(5.098 -6)	5.057 -6	(5.098 -6)	5.115 -6	(5.098 -6)	5.182 -6	(5.149 -6)	5.241 -6	(5.175 -6)
6.310 0	1.576 -6	(1.576 -6)	1.585 -6	(1.584 -6)	1.598 -6	(1.596 -6)	1.617 -6	(1.613 -6)	1.638 -6	(1.629 -6)
1.000 1	4.963 -7	(4.963 -7)	4.983 -7	(4.981 -7)	5.012 -7	(5.009 -7)	5.056 -7	(5.050 -7)	5.115 -7	(5.105 -7)
1.585 1	1.565 -7	(1.565 -7)	1.569 -7	(1.569 -7)	1.576 -7	(1.575 -7)	1.585 -7	(1.584 -7)	1.600 -7	(1.599 -7)
2.512 1	4.941 -8	(4.341 -8)	4.949 -8	(4.949 -8)	4.962 -8	(4.961 -8)	4.983 -8	(4.983 -8)	5.016 -8	(5.014 -8)
3.981 1	1.561 -8	(1.561 -8)	1.562 -8	(1.562 -8)	1.565 -8	(1.565 -8)	1.569 -8	(1.569 -8)	1.577 -8	(1.576 -8)
6.310 1			4.935 -9	(4.935 -9)	4.941 -9	(4.941 -9)	4.949 -9	(4.949 -9)	4.964 -9	(4.964 -9)
1.000 2			1.560 -9	(1.560 -9)	1.561 -9	(1.561 -9)	1.562 -9	(1.562 -9)	1.565 -9	(1.565 -9)
1.585 2					4.932 -10	(4.932 -10)	4.935 -10	(4.935 -10)	4.941 -10	(4.941 -10)
2.512 2							1.560 -10	(1.560 -10)	1.561 -10	(1.561 -10)
3.981 2							4.930 -11	(4.930 -11)	4.932 -11	(4.932 -11)
6.310 2									1.559 -11	(1.559 -11)

77

TABLE 35

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 1.000*10¹³ CM**(-3)   DLAMBDA/DALPHA = 5.8020-001   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.264 K=8.89	5000 K RO/D=0.186 K=10.28	10000 K RO/D=0.132 K=11.66	20000 K RO/D=0.093 K=13.05	40000 K RO/D=0.066 K=14.44
0	1.493 1 (3.946 1)	1.087 1 (3.333 1)	7.829 0 (2.781 1)	5.601 0 (2.291 1)	3.986 0 (1.857 1)
6.310 -5	1.493 1 (3.370 1)	1.087 1 (3.361 1)	7.829 0 (2.814 1)	5.601 0 (2.328 1)	3.986 0 (1.898 1)
1.000 -4	1.493 1 (4.006 1)	1.087 1 (3.404 1)	7.829 0 (2.862 1)	5.601 0 (2.383 1)	3.986 0 (1.958 1)
1.585 -4	1.493 1 (4.096 1)	1.087 1 (3.508 1)	7.829 0 (2.982 1)	5.601 0 (2.517 1)	3.986 0 (2.105 1)
2.512 -4	1.493 1 (4.309 1)	1.087 1 (3.757 1)	7.823 0 (3.265 1)	5.601 0 (2.833 1)	3.986 0 (2.452 1)
3.981 -4	1.493 1 (4.788 1)	1.087 1 (4.316 1)	7.829 0 (3.905 1)	5.601 0 (3.548 1)	3.986 0 (3.240 1)
6.310 -4	1.492 1 (5.719 1)	1.087 1 (5.421 1)	7.829 0 (5.183 1)	5.601 0 (4.993 1)	3.986 0 (4.844 1)
1.000 -3	1.492 1 (7.010 1)	1.087 1 (7.005 1)	7.828 0 (7.056 1)	5.601 0 (7.139 1)	3.986 0 (7.245 1)
1.585 -3	1.490 1 (7.556 1)	1.086 1 (7.760 1)	7.825 0 (8.004 1)	5.600 0 (8.259 1)	3.986 0 (8.509 1)
2.512 -3	1.486 1 (6.400 1)	1.084 1 (6.479 1)	7.820 0 (6.572 1)	5.598 0 (6.669 1)	3.985 0 (6.733 1)
3.981 -3	1.476 1 (4.761 1)	1.080 1 (4.794 1)	7.805 0 (4.794 1)	5.592 0 (4.811 1)	3.983 0 (4.823 1)
6.310 -3	1.450 1 (2.977 1)	1.071 1 (3.046 1)	7.769 0 (3.099 1)	5.579 0 (3.140 1)	3.978 0 (3.171 1)
1.000 -2	1.387 1 (1.307 1)	1.046 1 (1.329 1)	7.677 0 (1.342 1)	5.546 0 (1.350 1)	3.966 0 (1.353 1)
1.585 -2	1.242 0 (4.437 0)	9.876 0 (4.358 0)	7.453 0 (4.257 0)	5.463 0 (4.155 0)	3.936 0 (4.055 0)
2.512 -2	9.414 0 (1.416 0)	8.544 0 (1.353 0)	6.919 0 (4.286 0)	5.260 0 (1.225 0)	3.861 0 (1.170 0)
3.981 -2	4.746 -1 (4.588 -1)	5.946 0 (4.332 -1)	5.740 0 (4.066 -1)	4.783 0 (3.818 -1)	3.680 0 (3.596 -1)
6.310 -2	3.485 -1 (1.512 -1)	2.423 0 (1.428 -1)	3.597 0 (1.334 -1)	3.769 0 (1.242 -1)	3.263 0 (1.156 -1)
1.000 -1	7.752 -2 (4.369 -2)	2.976 -1 (4.722 -2)	1.128 0 (4.423 -2)	2.074 0 (4.108 -2)	2.411 0 (3.001 -2)
1.585 -1	1.813 -2 (1.616 -2)	2.087 -2 (1.561 -2)	7.806 -2 (1.481 -2)	4.706 -1 (1.384 -2)	1.131 0 (1.279 -2)
2.512 -1	5.420 -3 (5.190 -3)	5.570 -3 (5.104 -3)	5.997 -3 (4.921 -3)	1.721 -2 (4.657 -3)	1.719 -1 (4.331 -3)
3.981 -1	1.672 -3 (1.643 -3)	1.695 -3 (1.638 -3)	1.725 -3 (1.610 -3)	1.795 -3 (1.552 -3)	3.398 -3 (1.463 -3)
6.310 -1	5.192 -4 (5.157 -4)	5.256 -4 (5.185 -4)	5.315 -4 (5.173 -4)	5.365 -4 (5.084 -4)	5.458 -4 (4.885 -4)
1.000 0	1.617 -4 (1.613 -4)	1.636 -4 (1.627 -4)	1.655 -4 (1.637 -4)	1.670 -4 (1.634 -4)	1.673 -4 (1.603 -4)
1.585 0	5.054 -5 (5.048 -5)	5.101 -5 (5.090 -5)	5.161 -5 (5.139 -5)	5.220 -5 (5.175 -5)	5.250 -5 (5.161 -5)
2.512 0	1.584 -5 (1.584 -5)	1.595 -5 (1.594 -5)	1.611 -5 (1.608 -5)	1.630 -5 (1.624 -5)	1.647 -5 (1.636 -5)
3.981 0	4.981 -6 (4.980 -6)	5.005 -6 (5.003 -6)	5.041 -6 (5.038 -6)	5.092 -6 (5.085 -6)	5.153 -6 (5.139 -6)
6.310 0	1.569 -6 (1.569 -6)	1.574 -6 (1.574 -6)	1.582 -6 (1.581 -6)	1.594 -6 (1.593 -6)	1.611 -6 (1.609 -6)
1.000 1	4.948 -7 (4.348 -7)	4.959 -7 (4.959 -7)	4.977 -7 (4.976 -7)	5.002 -7 (5.001 -7)	5.043 -7 (5.041 -7)
1.585 1	1.562 -7 (1.562 -7)	1.564 -7 (1.564 -7)	1.568 -7 (1.568 -7)	1.574 -7 (1.574 -7)	1.583 -7 (1.582 -7)
2.512 1	4.935 -8 (4.335 -8)	4.939 -8 (4.939 -8)	4.946 -8 (4.946 -8)	4.958 -8 (4.958 -8)	4.978 -8 (4.978 -8)
3.981 1		1.560 -8 (1.560 -8)	1.562 -8 (1.562 -8)	1.564 -8 (1.564 -8)	1.568 -8 (1.568 -8)
6.310 1			1.559 -9 (1.559 -9)	4.939 -9 (4.939 -9)	4.947 -9 (4.947 -9)
1.000 2				1.560 -9 (1.560 -9)	1.562 -9 (1.562 -9)
1.585 2				4.931-10 (4.931-10)	4.934-10 (4.934-10)
2.512 2					1.559-10 (1.559-10)
3.981 2					4.929-11 (4.929-11)

78

TABLE 36

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 3.162*013 CM**(-3)   DLAMBDA/DALPHA = 1.2499*000   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319 K= 7.74	5000 K RO/D=0.226 K= 9.13	10000 K RO/D=0.160 K=10.51	20000 K RO/D=0.113 K=11.90	40000 K RO/D=0.080 K=13.29
0	2.818 1 (4.504 1)	2.146 1 (3.902 1)	1.596 1 (3.340 1)	1.166 1 (2.819 1)	8.417 0 (2.336 1)
1.000 -4	2.818 1 (4.548 1)	2.146 1 (3.955 1)	1.596 1 (3.404 1)	1.166 1 (2.894 1)	8.417 0 (2.422 1)
1.585 -4	2.818 1 (4.613 1)	2.146 1 (4.034 1)	1.596 1 (3.498 1)	1.166 1 (3.004 1)	8.417 0 (2.548 1)
2.512 -4	2.818 1 (4.767 1)	2.146 1 (4.223 1)	1.596 1 (3.723 1)	1.166 1 (3.266 1)	8.417 0 (2.847 1)
3.981 -4	2.817 1 (5.116 1)	2.146 1 (4.650 1)	1.596 1 (4.233 1)	1.166 1 (3.860 1)	8.417 0 (3.525 1)
6.310 -4	2.815 1 (5.799 1)	2.145 1 (5.496 1)	1.596 1 (5.254 1)	1.166 1 (5.058 1)	8.416 0 (4.901 1)
1.000 -3	2.810 1 (6.754 1)	2.143 1 (6.720 1)	1.595 1 (6.764 1)	1.166 1 (6.855 1)	8.415 0 (6.982 1)
1.585 -3	2.798 1 (7.183 1)	2.138 1 (7.348 1)	1.593 1 (7.587 1)	1.165 1 (7.859 1)	8.412 0 (8.147 1)
2.512 -3	2.768 1 (6.247 1)	2.125 1 (6.319 1)	1.588 1 (6.420 1)	1.163 1 (6.530 1)	8.405 0 (6.637 1)
3.981 -3	2.695 1 (4.711 1)	2.094 1 (4.735 1)	1.575 1 (4.756 1)	1.158 1 (4.777 1)	8.387 0 (4.793 1)
6.310 -3	2.518 1 (2.953 1)	2.016 1 (3.023 1)	1.544 1 (3.079 1)	1.146 1 (3.122 1)	8.341 0 (3.156 1)
1.000 -2	2.127 1 (1.328 1)	1.835 1 (1.352 1)	1.467 1 (1.364 1)	1.116 1 (1.370 1)	8.228 0 (1.371 1)
1.585 -2	1.406 1 (4.663 0)	1.451 1 (4.592 0)	1.292 1 (4.479 0)	1.044 1 (4.353 0)	7.951 0 (4.223 0)
2.512 -2	5.354 0 (1.518 0)	8.141 0 (1.459 0)	9.413 0 (1.386 0)	8.836 0 (1.313 0)	7.295 0 (1.244 0)
3.981 -2	9.188 -1 (4.331 -1)	2.137 0 (4.706 -1)	4.311 0 (4.432 -1)	5.821 0 (4.150 -1)	5.878 0 (3.879 -1)
6.310 -2	1.892 -1 (1.607 -1)	2.492 -1 (1.544 -1)	7.183 -1 (1.458 -1)	2.079 0 (1.362 -1)	3.426 0 (1.263 -1)
1.000 -1	5.511 -2 (5.195 -2)	5.708 -2 (5.038 -2)	6.662 -2 (4.801 -2)	2.033 -1 (4.507 -2)	9.019 -1 (4.179 -2)
1.585 -1	1.693 -2 (1.654 -2)	1.707 -2 (1.630 -2)	1.738 -2 (1.581 -2)	1.874 -2 (1.505 -2)	4.861 -2 (1.407 -2)
2.512 -1	5.264 -3 (5.215 -3)	5.301 -3 (5.205 -3)	5.326 -3 (5.135 -3)	5.359 -3 (4.978 -3)	5.554 -3 (4.724 -3)
3.981 -1	1.639 -3 (1.633 -3)	1.654 -3 (1.642 -3)	1.665 -3 (1.641 -3)	1.667 -3 (1.620 -3)	1.660 -3 (1.568 -3)
6.310 -1	5.110 -4 (5.103 -4)	5.158 -4 (5.143 -4)	5.209 -4 (5.178 -4)	5.242 -4 (5.182 -4)	5.229 -4 (5.112 -4)
1.000 0	1.597 -4 (1.596 -4)	1.610 -4 (1.608 -4)	1.626 -4 (1.623 -4)	1.643 -4 (1.635 -4)	1.652 -4 (1.637 -4)
1.585 0	5.009 -5 (5.008 -5)	5.039 -5 (5.036 -5)	5.081 -5 (5.077 -5)	5.135 -5 (5.126 -5)	5.188 -5 (5.169 -5)
2.512 0	1.575 -5 (1.575 -5)	1.581 -5 (1.581 -5)	1.591 -5 (1.591 -5)	1.605 -5 (1.604 -5)	1.623 -5 (1.621 -5)
3.981 0	4.960 -6 (4.960 -6)	4.975 -6 (4.975 -6)	4.996 -6 (4.995 -6)	5.029 -6 (5.027 -6)	5.077 -6 (5.074 -6)
6.310 0	1.565 -6 (1.565 -6)	1.567 -6 (1.567 -6)	1.572 -6 (1.572 -6)	1.579 -6 (1.579 -6)	1.590 -6 (1.590 -6)
1.000 1	4.940 -7 (4.940 -7)	4.946 -7 (4.945 -7)	4.945 -7 (4.955 -7)	4.971 -7 (4.970 -7)	4.995 -7 (4.995 -7)
1.585 1	1.562 -7 (1.562 -7)	1.562 -7 (1.562 -7)	1.563 -7 (1.563 -7)	1.567 -7 (1.567 -7)	1.572 -7 (1.572 -7)
2.512 1	4.934 -8 (4.934 -8)	4.934 -8 (4.934 -8)	4.938 -8 (4.938 -8)	4.944 -8 (4.944 -8)	4.955 -8 (4.955 -8)
3.981 1			1.560 -8 (1.560 -8)	1.561 -8 (1.561 -8)	1.564 -8 (1.564 -8)
6.310 1				4.933 -9 (4.933 -9)	4.938 -9 (4.938 -9)
1.000 2				1.559 -9 (1.559 -9)	1.560 -9 (1.560 -9)
1.585 2					4.931-10 (4.931-10)

TABLE 37

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/ALPHA = 2.6930+000   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.387 K= 6.59	5000 K RO/D=0.274 K= 7.97	10000 K RO/D=0.193 K= 9.36	20000 K RO/D=0.137 K=10.75	40000 K RO/D=0.097 K=12.13
0	4.508 1 (4.980 1)	3.724 1 (4.416 1)	2.967 1 (3.878 1)	2.283 1 (3.360 1)	1.708 1 (2.056 1)
1.000 -4	4.508 1 (5.010 1)	3.724 1 (4.453 1)	2.967 1 (3.926 1)	2.283 1 (3.418 1)	1.708 1 (2.925 1)
1.585 -4	4.507 1 (5.054 1)	3.724 1 (4.509 1)	2.967 1 (3.995 1)	2.283 1 (3.503 1)	1.708 1 (3.028 1)
2.512 -4	4.506 1 (5.159 1)	3.723 1 (4.643 1)	2.967 1 (4.163 1)	2.283 1 (3.708 1)	1.708 1 (3.272 1)
3.981 -4	4.502 1 (5.398 1)	3.721 1 (4.947 1)	2.966 1 (4.544 1)	2.283 1 (4.174 1)	1.708 1 (3.828 1)
6.310 -4	4.493 1 (5.870 1)	3.716 1 (5.555 1)	2.964 1 (5.312 1)	2.282 1 (5.115 1)	1.708 1 (4.956 1)
1.000 -3	4.470 1 (6.539 1)	3.704 1 (6.449 1)	2.958 1 (6.464 1)	2.279 1 (6.547 1)	1.707 1 (6.682 1)
1.585 -3	4.413 1 (6.851 1)	3.675 1 (6.995 1)	2.944 1 (7.148 1)	2.273 1 (7.415 1)	1.704 1 (7.725 1)
2.512 -3	4.275 1 (6.093 1)	3.601 1 (6.141 1)	2.909 1 (6.239 1)	2.258 1 (6.360 1)	1.698 1 (6.490 1)
3.981 -3	3.948 1 (4.662 1)	3.424 1 (4.682 1)	2.822 1 (4.706 1)	2.219 1 (4.729 1)	1.682 1 (4.758 1)
6.310 -3	3.247 1 (2.935 1)	3.019 1 (3.006 1)	2.617 1 (3.062 1)	2.127 1 (3.105 1)	1.644 1 (3.141 1)
1.000 -2	2.047 1 (1.351 1)	2.220 1 (1.380 1)	2.169 1 (1.393 1)	1.911 1 (1.398 1)	1.551 1 (1.395 1)
1.585 -2	7.886 0 (4.885 0)	1.086 1 (4.852 0)	1.371 1 (4.744 0)	1.464 1 (4.601 0)	1.341 1 (4.442 0)
2.512 -2	2.028 0 (1.612 0)	2.769 0 (1.570 0)	4.784 0 (1.501 0)	7.628 0 (1.421 0)	9.324 0 (1.338 0)
3.981 -2	5.660 -1 (5.215 -1)	6.079 -1 (5.061 -1)	8.000 -1 (4.822 -1)	1.748 0 (4.535 -1)	3.830 0 (4.229 -1)
6.310 -2	1.723 -1 (1.670 -1)	1.744 -1 (1.636 -1)	1.804 -1 (1.574 -1)	2.146 -1 (1.488 -1)	5.330 -1 (1.387 -1)
1.000 -1	5.372 -2 (5.306 -2)	5.374 -2 (5.241 -2)	5.364 -2 (5.099 -2)	5.418 -2 (4.878 -2)	5.892 -2 (4.583 -2)
1.585 -1	1.670 -2 (1.662 -2)	1.676 -2 (1.659 -2)	1.673 -2 (1.640 -2)	1.661 -2 (1.598 -2)	1.651 -2 (1.526 -2)
2.512 -1	5.196 -3 (5.186 -3)	5.230 -3 (5.209 -3)	5.254 -3 (5.212 -3)	5.244 -3 (5.163 -3)	5.182 -3 (5.025 -3)
3.981 -1	1.619 -3 (1.617 -3)	1.631 -3 (1.628 -3)	1.644 -3 (1.639 -3)	1.653 -3 (1.643 -3)	1.648 -3 (1.628 -3)
6.310 -1	5.057 -4 (5.056 -4)	5.090 -4 (5.087 -4)	5.135 -4 (5.128 -4)	5.182 -4 (5.169 -4)	5.211 -4 (5.185 -4)
1.000 0	1.585 -4 (1.585 -4)	1.593 -4 (1.592 -4)	1.604 -4 (1.604 -4)	1.620 -4 (1.618 -4)	1.636 -4 (1.633 -4)
1.585 0	4.982 -5 (4.982 -5)	4.999 -5 (4.999 -5)	5.026 -5 (5.025 -5)	5.065 -5 (5.063 -5)	5.117 -5 (5.113 -5)
2.512 0	1.569 -5 (1.569 -5)	1.573 -5 (1.573 -5)	1.579 -5 (1.578 -5)	1.588 -5 (1.587 -5)	1.601 -5 (1.601 -5)
3.981 0	4.949 -6 (4.949 -6)	4.956 -6 (4.956 -6)	4.969 -6 (4.969 -6)	4.989 -6 (4.988 -6)	5.019 -6 (5.019 -6)
6.310 0		1.564 -6 (1.566 -6)	1.566 -6 (1.566 -6)	1.571 -6 (1.566 -6)	1.577 -6 (1.577 -6)
1.000 1		4.938 -7 (4.938 -7)	4.943 -7 (4.943 -7)	4.952 -7 (4.952 -7)	4.966 -7 (4.966 -7)
1.585 1			1.561 -7 (1.561 -7)	1.563 -7 (1.563 -7)	1.566 -7 (1.566 -7)
2.512 1				4.936 -8 (4.936 -8)	4.942 -8 (4.942 -8)
3.981 1				1.560 -8 (1.560 -8)	1.561 -8 (1.561 -8)
6.310 1					4.933 -9 (4.933 -9)

80

TABLE 38

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.8017+000   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.469 K= 5.44		5000 K RO/D=0.331 K= 6.82		10000 K RO/D=0.234 K= 8.21		20000 K RO/D=0.166 K= 9.60		40000 K RO/D=0.117 K=10.96	
0	5.740 1	(5.364 1)	5.191 1	(4.840 1)	4.574 1	(4.353 1)	3.869 1	(3.872 1)	3.130 1	(3.381 1)
1.585 -4	5.738 1	(5.412 1)	5.189 1	(4.902 1)	4.573 1	(4.433 1)	3.869 1	(3.975 1)	3.130 1	(3.512 1)
2.512 -4	5.734 1	(5.481 1)	5.187 1	(4.990 1)	4.571 1	(4.549 1)	3.868 1	(4.124 1)	3.130 1	(3.700 1)
3.981 -4	5.726 1	(5.637 1)	5.181 1	(5.193 1)	4.567 1	(4.815 1)	3.866 1	(4.465 1)	3.129 1	(4.128 1)
6.310 -4	5.706 1	(5.950 1)	5.166 1	(5.604 1)	4.558 1	(5.355 1)	3.860 1	(5.160 1)	3.126 1	(5.003 1)
1.000 -3	5.656 1	(6.399 1)	5.129 1	(6.220 1)	4.534 1	(6.183 1)	3.847 1	(6.236 1)	3.119 1	(6.362 1)
1.585 -3	5.531 1	(6.600 1)	5.038 1	(6.584 1)	4.475 1	(6.719 1)	3.813 1	(6.951 1)	3.103 1	(7.259 1)
2.512 -3	5.224 1	(5.963 1)	4.816 1	(5.961 1)	4.330 1	(6.038 1)	3.731 1	(6.159 1)	3.061 1	(6.304 1)
3.981 -3	4.515 1	(4.620 1)	4.305 1	(4.630 1)	3.990 1	(4.649 1)	3.532 1	(4.675 1)	2.960 1	(4.705 1)
6.310 -3	3.175 1	(2.920 1)	3.276 1	(2.996 1)	3.262 1	(3.049 1)	3.082 1	(3.092 1)	2.720 1	(3.126 1)
1.000 -2	1.568 1	(1.370 1)	1.784 1	(1.411 1)	2.029 1	(1.429 1)	2.211 1	(1.433 1)	2.206 1	(1.427 1)
1.585 -2	5.562 0	(5.063 0)	6.256 0	(5.111 0)	7.679 0	(5.038 0)	1.030 1	(4.897 0)	1.325 1	(4.714 0)
2.512 -2	1.754 0	(1.683 0)	1.827 0	(1.672 0)	1.979 0	(1.620 0)	2.525 0	(1.543 0)	4.214 0	(1.453 0)
3.981 -2	5.490 -1	(5.399 -1)	5.532 -1	(5.347 -1)	5.563 -1	(5.184 -1)	5.764 -1	(4.938 -1)	6.981 -1	(4.630 -1)
6.310 -2	1.711 -1	(1.699 -1)	1.717 -1	(1.694 -1)	1.708 -1	(1.663 -1)	1.692 -1	(1.603 -1)	1.698 -1	(1.515 -1)
1.000 -1	5.342 -2	(5.328 -2)	5.358 -2	(5.329 -2)	5.334 -2	(5.277 -2)	5.268 -2	(5.155 -2)	5.162 -2	(4.945 -2)
1.585 -1	1.657 -2	(1.655 -2)	1.664 -2	(1.660 -2)	1.668 -2	(1.661 -2)	1.663 -2	(1.649 -2)	1.639 -2	(1.612 -2)
2.512 -1	5.147 -3	(5.145 -3)	5.174 -3	(5.170 -3)	5.209 -3	(5.200 -3)	5.232 -3	(5.215 -3)	5.218 -3	(5.183 -3)
3.981 -1	1.605 -3	(1.605 -3)	1.613 -3	(1.612 -3)	1.624 -3	(1.623 -3)	1.638 -3	(1.635 -3)	1.647 -3	(1.643 -3)
6.310 -1	5.024 -4	(5.023 -4)	5.042 -4	(5.041 -4)	5.073 -4	(5.072 -4)	5.116 -4	(5.113 -4)	5.164 -4	(5.158 -4)
1.000 0	1.578 -4	(1.578 -4)	1.582 -4	(1.582 -4)	1.589 -4	(1.589 -4)	1.600 -4	(1.599 -4)	1.615 -4	(1.614 -4)
1.585 0	4.966 -5	(4.966 -5)	4.976 -5	(4.976 -5)	4.991 -5	(4.990 -5)	5.015 -5	(5.015 -5)	5.053 -5	(5.052 -5)
2.512 0	1.566 -5	(1.566 -5)	1.568 -5	(1.568 -5)	1.571 -5	(1.571 -5)	1.576 -5	(1.576 -5)	1.585 -5	(1.585 -5)
3.981 0			4.946 -6	(4.946 -6)	4.952 -6	(4.952 -6)	4.964 -6	(4.964 -6)	4.983 -6	(4.983 -6)
6.310 0					1.563 -6	(1.563 -6)	1.565 -6	(1.565 -6)	1.569 -6	(1.569 -6)
1.000 1					4.937 -7	(4.937 -7)	4.941 -7	(4.941 -7)	4.949 -7	(4.949 -7)
1.585 1							1.561 -7	(1.561 -7)	1.562 -7	(1.562 -7)
2.512 1									4.935 -8	(4.935 -8)
3.981 1									1.560 -8	(1.560 -8)

TABLE 39

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 1.000+015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K= 4.29	5000 K RO/D=0.402 K= 5.67	10000 K RO/D=0.284 K= 7.06	20000 K RO/D=0.201 K= 8.44	40000 K RO/D=0.142 K= 9.83
0	6.105 1 (5.692 1)	5.760 1 (5.169 1)	5.501 1 (4.732 1)	5.166 1 (4.310 1)	4.680 1 (3.867 1)
1.585 -4	6.106 1 (5.724 1)	5.759 1 (5.207 1)	5.500 1 (4.784 1)	5.165 1 (4.379 1)	4.679 1 (3.960 1)
2.512 -4	6.106 1 (5.769 1)	5.758 1 (5.263 1)	5.498 1 (4.858 1)	5.163 1 (4.479 1)	4.678 1 (4.094 1)
3.981 -4	6.107 1 (5.873 1)	5.754 1 (5.392 1)	5.492 1 (5.031 1)	5.157 1 (4.711 1)	4.674 1 (4.402 1)
6.310 -4	6.108 1 (6.081 1)	5.744 1 (5.656 1)	5.477 1 (5.386 1)	5.143 1 (5.189 1)	4.663 1 (5.037 1)
1.000 -3	6.100 1 (6.378 1)	5.717 1 (6.059 1)	5.439 1 (5.944 1)	5.108 1 (5.947 1)	4.638 1 (6.044 1)
1.585 -3	6.028 1 (6.481 1)	5.633 1 (6.302 1)	5.344 1 (6.334 1)	5.022 1 (6.500 1)	4.575 1 (6.775 1)
2.512 -3	5.670 1 (5.896 1)	5.360 1 (5.803 1)	5.095 1 (5.832 1)	4.810 1 (5.933 1)	4.422 1 (6.084 1)
3.981 -3	4.625 1 (4.595 1)	4.576 1 (4.587 1)	4.475 1 (4.593 1)	4.313 1 (4.614 1)	4.060 1 (4.646 1)
6.310 -3	2.968 1 (2.898 1)	3.102 1 (2.990 1)	3.214 1 (3.044 1)	3.290 1 (3.083 1)	3.290 1 (3.115 1)
1.000 -2	1.413 1 (1.371 1)	1.522 1 (1.439 1)	1.633 1 (1.468 1)	1.791 1 (1.475 1)	2.004 1 (1.468 1)
1.585 -2	5.237 0 (5.137 0)	5.543 0 (5.325 0)	5.800 0 (5.332 0)	6.254 0 (5.224 0)	7.353 0 (5.037 0)
2.512 -2	1.730 0 (1.715 0)	1.780 0 (1.749 0)	1.793 0 (1.728 0)	1.806 0 (1.670 0)	1.885 0 (1.583 0)
3.981 -2	5.491 -1 (5.472 -1)	5.568 -1 (5.528 -1)	5.547 -1 (5.467 -1)	5.461 -1 (5.304 -1)	5.355 -1 (5.042 -1)
6.310 -2	1.707 -1 (1.704 -1)	1.723 -1 (1.717 -1)	1.724 -1 (1.714 -1)	1.706 -1 (1.686 -1)	1.665 -1 (1.628 -1)
1.000 -1	5.306 -2 (5.303 -2)	5.343 -2 (5.337 -2)	5.353 -2 (5.341 -2)	5.329 -2 (5.304 -2)	5.248 -2 (5.199 -2)
1.585 -1	1.647 -2 (1.647 -2)	1.651 -2 (1.650 -2)	1.659 -2 (1.657 -2)	1.665 -2 (1.661 -2)	1.660 -2 (1.655 -2)
2.512 -1	5.116 -3 (5.115 -3)	5.127 -3 (5.126 -3)	5.155 -3 (5.153 -3)	5.191 -3 (5.187 -3)	5.220 -3 (5.212 -3)
3.981 -1	1.597 -3 (1.597 -3)	1.599 -3 (1.599 -3)	1.607 -3 (1.607 -3)	1.618 -3 (1.618 -3)	1.633 -3 (1.632 -3)
6.310 -1	5.005 -4 (5.005 -4)	5.011 -4 (5.011 -4)	5.023 -4 (5.029 -4)	5.058 -4 (5.057 -4)	5.100 -4 (5.099 -4)
1.000 0	1.574 -4 (1.574 -4)	1.575 -4 (1.575 -4)	1.579 -4 (1.579 -4)	1.585 -4 (1.585 -4)	1.596 -4 (1.596 -4)
1.585 0		4.960 -5 (4.960 -5)	4.963 -5 (4.969 -5)	4.983 -5 (4.983 -5)	5.006 -5 (5.006 -5)
2.512 0		1.565 -5 (1.565 -5)	1.566 -5 (1.566 -5)	1.569 -5 (1.569 -5)	1.574 -5 (1.574 -5)
3.981 0			4.943 -6 (4.943 -6)	4.949 -6 (4.949 -6)	4.960 -6 (4.960 -6)
6.310 0				1.562 -6 (1.562 -6)	1.564 -6 (1.564 -6)
1.000 1				4.935 -7 (4.935 -7)	4.939 -7 (4.939 -7)
1.585 1					1.560 -7 (1.560 -7)

TABLE 40

ELECTRON DENSITY = 3.162*015 CM**(-3)   N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

DLAMBDA/DALPHA = 2.6929*001   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.688 K= 3.13		5000 K RO/D=0.487 K= 4.52		10000 K RO/D=0.344 K= 5.91		20000 K RO/D=0.243 K= 7.29		40000 K RO/D=0.172 K= 8.68	
0	6.246 1	(6.074 1)	5.709 1	(5.433 1)	5.504 1	(5.014 1)	5.444 1	(4.649 1)	5.397 1	(4.274 1)
2.512 -4	6.268 1	(6.133 1)	5.723 1	(5.492 1)	5.511 1	(5.090 1)	5.446 1	(4.754 1)	5.394 1	(4.423 1)
3.981 -4	6.239 1	(6.212 1)	5.742 1	(5.573 1)	5.522 1	(5.195 1)	5.447 1	(4.899 1)	5.390 1	(4.628 1)
6.310 -4	6.364 1	(6.368 1)	5.787 1	(5.741 1)	5.545 1	(5.415 1)	5.450 1	(5.204 1)	5.380 1	(5.055 1)
1.000 -3	6.462 1	(6.578 1)	5.863 1	(5.999 1)	5.589 1	(5.769 1)	5.453 1	(5.701 1)	5.354 1	(5.751 1)
1.585 -3	6.451 1	(6.591 1)	5.908 1	(6.142 1)	5.620 1	(6.029 1)	5.429 1	(6.098 1)	5.282 1	(6.309 1)
2.512 -3	5.918 1	(5.955 1)	5.606 1	(5.703 1)	5.421 1	(5.647 1)	5.249 1	(5.703 1)	5.074 1	(5.838 1)
3.981 -3	4.602 1	(4.589 1)	4.575 1	(4.561 1)	4.563 1	(4.546 1)	4.552 1	(4.553 1)	4.491 1	(4.581 1)
6.310 -3	2.853 1	(2.836 1)	3.005 1	(2.982 1)	3.085 1	(3.046 1)	3.155 1	(3.084 1)	3.239 1	(3.110 1)
1.000 -2	1.340 1	(1.331 1)	1.468 1	(1.451 1)	1.538 1	(1.504 1)	1.591 1	(1.522 1)	1.656 1	(1.516 1)
1.585 -2	5.039 0	(5.018 0)	5.486 0	(5.439 0)	5.679 0	(5.581 0)	5.757 0	(5.553 0)	5.821 0	(5.395 0)
2.512 -2	1.693 0	(1.690 0)	1.794 0	(1.788 0)	1.824 0	(1.810 0)	1.812 0	(1.783 0)	1.772 0	(1.715 0)
3.981 -2	5.428 -1	(5.424 -1)	5.610 -1	(5.601 -1)	5.657 -1	(5.639 -1)	5.612 -1	(5.577 -1)	5.472 -1	(5.404 -1)
6.310 -2	1.694 -1	(1.693 -1)	1.719 -1	(1.718 -1)	1.733 -1	(1.731 -1)	1.734 -1	(1.729 -1)	1.713 -1	(1.704 -1)
1.000 -1	5.274 -2	(5.273 -2)	5.309 -2	(5.308 -2)	5.337 -2	(5.335 -2)	5.349 -2	(5.343 -2)	5.331 -2	(5.320 -2)
1.585 -1	1.645 -2	(1.645 -2)	1.640 -2	(1.640 -2)	1.645 -2	(1.645 -2)	1.654 -2	(1.653 -2)	1.662 -2	(1.660 -2)
2.512 -1	5.109 -3	(5.109 -3)	5.094 -3	(5.094 -3)	5.108 -3	(5.107 -3)	5.136 -3	(5.135 -3)	5.175 -3	(5.174 -3)
3.981 -1	1.595 -3	(1.595 -3)	1.592 -3	(1.591 -3)	1.595 -3	(1.595 -3)	1.602 -3	(1.602 -3)	1.614 -3	(1.613 -3)
6.310 -1			4.994 -4	(4.994 -4)	5.001 -4	(5.001 -4)	5.017 -4	(5.017 -4)	5.046 -4	(5.046 -4)
1.000 0			1.572 -4	(1.572 -4)	1.573 -4	(1.573 -4)	1.576 -4	(1.576 -4)	1.583 -4	(1.583 -4)
1.585 0					4.956 -5	(4.956 -5)	4.963 -5	(4.963 -5)	4.978 -5	(4.978 -5)
2.512 0							1.565 -5	(1.565 -5)	1.568 -5	(1.568 -5)
3.981 0							4.941 -6	(4.941 -6)	4.947 -6	(4.947 -6)
6.310 0									1.562 -6	(1.562 -6)

TABLE 41

N UPPER = 5   N LOWER = 1   WAVELENGTH = 948.89 ANGSTROM

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.8020+001   ASYMPTOTE = 7.7915-005*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.834 K= 1.98		5000 K RO/D=0.589 K= 3.37		10000 K RO/D=0.417 K= 4.76		20000 K RO/D=0.295 K= 6.14		40000 K RO/D=0.208 K= 7.53	
0	6.875 1	(6.811 1)	5.787 1	(5.717 1)	5.357 1	(5.225 1)	5.173 1	(4.887 1)	5.170 1	(4.579 1)
3.981 -4	7.000 1	(6.877 1)	5.855 1	(5.817 1)	5.415 1	(5.333 1)	5.224 1	(5.033 1)	5.205 1	(4.794 1)
6.310 -4	7.138 1	(7.152 1)	5.939 1	(5.934 1)	5.491 1	(5.465 1)	5.292 1	(5.213 1)	5.253 1	(5.058 1)
1.000 -3	7.298 1	(7.346 1)	6.071 1	(6.111 1)	5.626 1	(5.682 1)	5.423 1	(5.517 1)	5.349 1	(5.504 1)
1.585 -3	7.175 1	(7.214 1)	6.120 1	(6.174 1)	5.736 1	(5.838 1)	5.565 1	(5.776 1)	5.470 1	(5.897 1)
2.512 -3	6.278 1	(6.282 1)	5.701 1	(5.719 1)	5.476 1	(5.518 1)	5.396 1	(5.493 1)	5.360 1	(5.588 1)
3.981 -3	4.590 1	(4.585 1)	4.566 1	(4.563 1)	4.522 1	(4.516 1)	4.512 1	(4.500 1)	4.543 1	(4.515 1)
6.310 -3	2.658 1	(2.653 1)	2.952 1	(2.947 1)	3.056 1	(3.049 1)	3.103 1	(3.092 1)	3.136 1	(3.113 1)
1.000 -2	1.197 1	(1.195 1)	1.430 1	(1.426 1)	1.534 1	(1.526 1)	1.581 1	(1.567 1)	1.598 1	(1.570 1)
1.585 -2	4.501 0	(4.497 0)	5.387 0	(5.377 0)	5.754 0	(5.732 0)	5.881 0	(5.836 0)	5.844 0	(5.752 0)
2.512 -2	1.548 0	(1.547 0)	1.778 0	(1.776 0)	1.857 0	(1.853 0)	1.875 0	(1.868 0)	1.844 0	(1.831 0)
3.981 -2	5.111 -1	(5.110 -1)	5.576 -1	(5.575 -1)	5.710 -1	(5.706 -1)	5.742 -1	(5.734 -1)	5.680 -1	(5.664 -1)
6.310 -2	1.643 -1	(1.643 -1)	1.708 -1	(1.708 -1)	1.728 -1	(1.727 -1)	1.741 -1	(1.739 -1)	1.742 -1	(1.740 -1)
1.000 -1	5.255 -2	(5.255 -2)	5.275 -2	(5.275 -2)	5.302 -2	(5.302 -2)	5.324 -2	(5.323 -2)	5.341 -2	(5.339 -2)
1.585 -1	1.654 -2	(1.654 -2)	1.636 -2	(1.636 -2)	1.633 -2	(1.633 -2)	1.639 -2	(1.638 -2)	1.649 -2	(1.649 -2)
2.512 -1	5.156 -3	(5.156 -3)	5.083 -3	(5.083 -3)	5.075 -3	(5.075 -3)	5.089 -3	(5.089 -3)	5.120 -3	(5.120 -3)
3.981 -1			1.589 -3	(1.589 -3)	1.587 -3	(1.587 -3)	1.590 -3	(1.590 -3)	1.598 -3	(1.598 -3)
6.310 -1					4.985 -4	(4.985 -4)	4.991 -4	(4.991 -4)	5.008 -4	(5.008 -4)
1.000 0					1.569 -4	(1.569 -4)	1.571 -4	(1.571 -4)	1.574 -4	(1.574 -4)
1.585 0							4.951 -5	(4.951 -5)	4.959 -5	(4.959 -5)
2.512 0									1.564 -5	(1.564 -5)
3.981 0									4.939 -6	(4.939 -6)

TABLE 42

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 1.000•012 CM••(-3)   DLAMBDA/ALPHA = 1.2500-001   ASYMPTOTE = 1.2803-003•DALPHA••(-5/2)

ALPHA	2500 K RO/D=0.180 K=14.56		5000 K RO/D=0.127 K=15.95	
0	4.986 -1	(8.771 1)	3.534 -1	(1.033 2)
6.310 -5	4.986 -1	(8.755 1)	3.534 -1	(1.030 2)
1.000 -4	4.986 -1	(8.730 1)	3.534 -1	(1.026 2)
1.585 -4	4.986 -1	(8.670 1)	3.534 -1	(1.015 2)
2.512 -4	4.986 -1	(8.521 1)	3.534 -1	(9.903 1)
3.981 -4	4.986 -1	(8.170 1)	3.534 -1	(9.330 1)
6.310 -4	4.986 -1	(7.413 1)	3.534 -1	(8.162 1)
1.000 -3	4.986 -1	(6.047 1)	3.534 -1	(6.258 1)
1.585 -3	4.986 -1	(4.217 1)	3.534 -1	(4.045 1)
2.512 -3	4.986 -1	(2.534 1)	3.534 -1	(2.282 1)
3.981 -3	4.986 -1	(1.459 1)	3.534 -1	(1.275 1)
6.310 -3	4.986 -1	(9.698 0)	3.534 -1	(8.653 0)
1.000 -2	4.986 -1	(8.104 0)	3.534 -1	(7.694 0)
1.585 -2	4.985 -1	(6.694 0)	3.533 -1	(6.684 0)
2.512 -2	4.984 -1	(4.567 0)	3.533 -1	(4.573 0)
3.981 -2	4.980 -1	(3.009 0)	3.532 -1	(3.016 0)
6.310 -2	4.970 -1	(1.626 0)	3.528 -1	(1.677 0)
1.000 -1	4.947 -1	(5.369 -1)	3.520 -1	(6.189 -1)
1.585 -1	4.889 -1	(1.757 -1)	3.499 -1	(1.784 -1)
2.512 -1	4.745 -1	(5.106 -2)	3.447 -1	(5.090 -2)
3.981 -1	4.403 -1	(1.551 -2)	3.320 -1	(1.530 -2)
6.310 -1	3.649 -1	(4.928 -3)	3.022 -1	(4.781 -3)
1.000 0	2.278 -1	(1.589 -3)	2.385 -1	(1.529 -3)
1.585 0	6.389 -2	(5.171 -4)	1.317 -1	(4.928 -4)
2.512 0	3.799 -3	(1.713 -4)	2.970 -2	(1.618 -4)
3.981 0	7.190 -5	(5.737 -5)	7.744 -4	(5.368 -5)
6.310 0	2.073 -5	(1.338 -5)	2.092 -5	(1.798 -5)
1.000 1	6.758 -6	(6.589 -6)	6.404 -6	(6.075 -6)
1.585 1	2.264 -6	(2.242 -6)	2.106 -6	(2.064 -6)
2.512 1	7.616 -7	(7.586 -7)	7.082 -7	(7.026 -7)
3.981 1	2.539 -7	(2.535 -7)	2.388 -7	(2.380 -7)
6.310 1	8.324 -8	(8.319 -8)	7.977 -8	(7.967 -8)
1.000 2	2.680 -8	(2.679 -8)	2.622 -8	(2.621 -8)
1.585 2	8.495 -9	(8.495 -9)	8.459 -9	(8.458 -9)
2.512 2	2.669 -9	(2.669 -9)	2.687 -9	(2.686 -9)
3.981 2	8.360 -10	(8.360 -10)	8.449 -10	(8.449 -10)
6.310 2	2.619 -10	(2.619 -10)	2.647 -10	(2.647 -10)
1.000 3	8.222 -11	(8.222 -11)	8.291 -11	(8.291 -11)
1.585 3	2.587 -11	(2.587 -11)	2.602 -11	(2.602 -11)
2.512 3	8.149 -12	(8.149 -12)	8.184 -12	(8.184 -12)
3.981 3	2.571 -12	(2.571 -12)	2.578 -12	(2.578 -12)
6.310 3	8.117 -13	(8.117 -13)	8.151 -13	(8.151 -13)
1.000 4			2.567 -13	(2.567 -13)

TABLE 43

N UPPER = 3 N LOWER = 2 WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 3.162E012 CM**(-3) DLAMBDA/DALPHA = 2.6929-001 ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.218 K=13.41		5000 K RO/D=0.154 K=14.80		10000 K RO/D=0.109 K=16.18		20000 K RO/D=0.077 K=17.57	
0	1.061 0	(6.798 1)	7.560 -1	(8.324 1)	5.365 -1	(1.042 2)	3.805 -1	(1.297 2)
6.310 -5	1.061 0	(6.791 1)	7.560 -1	(8.310 1)	5.365 -1	(1.039 2)	3.805 -1	(1.292 2)
1.000 -4	1.061 0	(6.781 1)	7.560 -1	(8.289 1)	5.365 -1	(1.035 2)	3.805 -1	(1.284 2)
1.585 -4	1.061 0	(6.755 1)	7.560 -1	(8.238 1)	5.365 -1	(1.024 2)	3.805 -1	(1.263 2)
2.512 -4	1.061 0	(6.691 1)	7.560 -1	(8.111 1)	5.365 -1	(9.983 1)	3.805 -1	(1.212 2)
3.981 -4	1.061 0	(6.536 1)	7.560 -1	(7.810 1)	5.365 -1	(9.392 1)	3.805 -1	(1.101 2)
6.310 -4	1.061 0	(6.180 1)	7.560 -1	(7.151 1)	5.365 -1	(8.193 1)	3.805 -1	(8.980 1)
1.000 -3	1.061 0	(5.449 1)	7.560 -1	(5.930 1)	5.365 -1	(6.253 1)	3.805 -1	(6.217 1)
1.585 -3	1.061 0	(4.252 1)	7.560 -1	(4.225 1)	5.365 -1	(4.020 1)	3.805 -1	(3.626 1)
2.512 -3	1.061 0	(2.853 1)	7.559 -1	(2.585 1)	5.365 -1	(2.256 1)	3.805 -1	(1.906 1)
3.981 -3	1.061 0	(1.743 1)	7.559 -1	(1.495 1)	5.365 -1	(1.255 1)	3.805 -1	(1.045 1)
6.310 -3	1.061 0	(1.127 1)	7.559 -1	(9.801 0)	5.365 -1	(8.497 0)	3.805 -1	(7.445 0)
1.000 -2	1.061 0	(8.611 0)	7.558 -1	(8.067 0)	5.364 -1	(7.597 0)	3.805 -1	(7.060 0)
1.585 -2	1.060 0	(6.708 0)	7.556 -1	(6.683 0)	5.364 -1	(6.676 0)	3.804 -1	(7.086 0)
2.512 -2	1.059 0	(4.582 0)	7.551 -1	(4.580 0)	5.362 -1	(4.568 0)	3.804 -1	(4.571 0)
3.981 -2	1.055 0	(2.980 0)	7.538 -1	(3.015 0)	5.357 -1	(3.017 0)	3.802 -1	(3.009 0)
6.310 -2	1.046 0	(1.595 0)	7.505 -1	(1.653 0)	5.346 -1	(1.695 0)	3.798 -1	(1.722 0)
1.000 -1	1.024 0	(5.873 -1)	7.424 -1	(6.104 -1)	5.316 -1	(6.281 -1)	3.788 -1	(6.407 -1)
1.585 -1	9.697 -1	(1.763 -1)	7.224 -1	(1.785 -1)	5.244 -1	(1.799 -1)	3.762 -1	(1.806 -1)
2.512 -1	8.465 -1	(5.212 -2)	6.745 -1	(5.160 -2)	5.066 -1	(5.108 -2)	3.697 -1	(5.068 -2)
3.981 -1	6.020 -1	(1.604 -2)	5.678 -1	(1.567 -2)	4.645 -1	(1.535 -2)	3.540 -1	(1.520 -2)
6.310 -1	2.567 -1	(5.099 -3)	3.685 -1	(4.922 -3)	3.736 -1	(4.778 -3)	3.173 -1	(4.696 -3)
1.000 0	3.169 -2	(1.658 -3)	1.249 -1	(1.586 -3)	2.164 -1	(1.527 -3)	2.412 -1	(1.488 -3)
1.585 0	8.649 -4	(5.442 -4)	8.836 -3	(5.156 -4)	5.510 -2	(4.919 -4)	1.211 -1	(4.704 -4)
2.512 0	2.000 -4	(1.818 -4)	2.218 -4	(1.707 -4)	1.980 -3	(1.614 -4)	2.157 -2	(1.529 -4)
3.981 0	6.355 -5	(6.135 -5)	6.154 -5	(5.714 -5)	6.355 -5	(5.354 -5)	3.495 -4	(5.020 -5)
6.310 0	2.113 -5	(2.084 -5)	1.984 -5	(1.930 -5)	1.900 -5	(1.793 -5)	1.889 -5	(1.663 -5)
1.000 1	7.128 -6	(7.090 -6)	6.629 -6	(6.558 -6)	6.191 -6	(6.056 -6)	5.818 -6	(5.557 -6)
1.585 1	2.405 -6	(2.399 -6)	2.241 -6	(2.232 -6)	2.075 -6	(2.058 -6)	1.905 -6	(1.872 -6)
2.512 1	8.025 -7	(8.018 -7)	7.569 -7	(7.556 -7)	7.027 -7	(7.003 -7)	6.391 -7	(6.348 -7)
3.981 1	2.633 -7	(2.632 -7)	2.529 -7	(2.527 -7)	2.376 -7	(2.373 -7)	2.163 -7	(2.157 -7)
6.310 1	8.477 -8	(8.475 -8)	8.308 -8	(8.305 -8)	7.954 -8	(7.950 -8)	7.316 -8	(7.309 -8)
1.000 2	2.687 -8	(2.687 -8)	2.678 -8	(2.677 -8)	2.618 -8	(2.617 -8)	2.452 -8	(2.451 -8)
1.585 2	8.442 -9	(8.442 -9)	8.497 -9	(8.497 -9)	8.454 -9	(8.454 -9)	8.089 -9	(8.088 -9)
2.512 2	2.644 -9	(2.644 -9)	2.671 -9	(2.671 -9)	2.687 -9	(2.687 -9)	2.620 -9	(2.619 -9)
3.981 2	8.282 -10	(8.282 -10)	8.365 -10	(8.365 -10)	8.452 -10	(8.452 -10)	8.344 -10	(8.343 -10)
6.310 2	2.600 -10	(2.600 -10)	2.620 -10	(2.620 -10)	2.648 -10	(2.648 -10)	2.629 -10	(2.628 -10)
1.000 3	8.179 -11	(8.179 -11)	8.225 -11	(8.225 -11)	8.295 -11	(8.295 -11)	8.240 -11	(8.240 -11)
1.585 3	2.577 -11	(2.577 -11)	2.587 -11	(2.587 -11)	2.603 -11	(2.603 -11)	2.581 -11	(2.581 -11)
2.512 3	8.129 -12	(8.129 -12)	8.150 -12	(8.150 -12)	8.186 -12	(8.186 -12)	8.099 -12	(8.099 -12)
3.981 3			2.571 -12	(2.571 -12)	2.573 -12	(2.578 -12)	2.546 -12	(2.546 -12)
6.310 3					8.132 -13	(8.132 -13)	8.019 -13	(8.019 -13)
1.000 4					2.567 -13	(2.567 -13)	2.529 -13	(2.529 -13)
1.585 4					7.983 -14	(7.983 -14)		

86

TABLE 44

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 1.000+013 CM**(-3)   DLAMBDA/DALPHA = 5.0020-001   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K, RO/D=0.264, K=12.26	5000 K, RO/D=0.186, K=13.65	10000 K, RO/D=0.132, K=15.03	20000 K, RO/D=0.093, K=16.42	40000 K, RO/D=0.066, K=17.81
0	2.215 0 (5.429 1)	1.595 0 (6.459 1)	1.141 0 (7.910 1)	8.131 -1 (9.921 1)	5.777 -1 (1.271 2)
1.000 -4	2.215 0 (5.421 1)	1.595 0 (6.445 1)	1.141 0 (7.880 1)	8.131 -1 (9.859 1)	5.777 -1 (1.258 2)
1.585 -4	2.215 0 (5.410 1)	1.595 0 (6.423 1)	1.141 0 (7.836 1)	8.131 -1 (9.768 1)	5.777 -1 (1.238 2)
2.512 -4	2.215 0 (5.381 1)	1.595 0 (6.368 1)	1.141 0 (7.728 1)	8.131 -1 (9.545 1)	5.777 -1 (1.191 2)
3.981 -4	2.215 0 (5.311 1)	1.595 0 (6.236 1)	1.141 0 (7.470 1)	8.131 -1 (9.032 1)	5.777 -1 (1.088 2)
6.310 -4	2.215 0 (5.142 1)	1.595 0 (5.929 1)	1.141 0 (6.898 1)	8.131 -1 (7.970 1)	5.777 -1 (8.969 1)
1.000 -3	2.215 0 (4.769 1)	1.595 0 (5.289 1)	1.141 0 (5.809 1)	8.131 -1 (6.197 1)	5.777 -1 (6.297 1)
1.585 -3	2.215 0 (4.060 1)	1.595 0 (4.204 1)	1.141 0 (4.228 1)	8.131 -1 (4.068 1)	5.777 -1 (3.712 1)
2.512 -3	2.215 0 (3.032 1)	1.595 0 (2.878 1)	1.141 0 (2.636 1)	8.131 -1 (2.317 1)	5.777 -1 (1.957 1)
3.981 -3	2.215 0 (2.003 1)	1.595 0 (1.777 1)	1.141 0 (1.535 1)	8.131 -1 (1.292 1)	5.777 -1 (1.065 1)
6.310 -3	2.214 0 (1.296 1)	1.594 0 (1.141 1)	1.141 0 (9.942 0)	8.130 -1 (8.620 0)	5.776 -1 (7.476 0)
1.000 -2	2.211 0 (9.205 0)	1.594 0 (8.597 0)	1.141 0 (8.052 0)	8.129 -1 (7.581 0)	5.776 -1 (7.192 0)
1.585 -2	2.206 0 (6.763 0)	1.592 0 (6.699 0)	1.140 0 (6.673 0)	8.127 -1 (6.663 0)	5.775 -1 (6.689 0)
2.512 -2	2.193 0 (4.603 0)	1.587 0 (4.575 0)	1.139 0 (4.568 0)	8.120 -1 (4.569 0)	5.773 -1 (4.577 0)
3.981 -2	2.160 0 (2.991 0)	1.574 0 (3.009 0)	1.134 0 (3.019 0)	8.104 -1 (3.018 0)	5.767 -1 (3.013 0)
6.310 -2	2.079 0 (1.561 0)	1.544 0 (1.628 0)	1.123 0 (1.677 0)	8.063 -1 (1.712 0)	5.752 -1 (1.737 0)
1.000 -1	1.889 0 (5.780 -1)	1.470 0 (6.030 -1)	1.095 0 (6.225 -1)	7.962 -1 (6.373 -1)	5.716 -1 (6.482 -1)
1.585 -1	1.487 0 (1.774 -1)	1.300 0 (1.797 -1)	1.029 0 (1.811 -1)	7.714 -1 (1.818 -1)	5.626 -1 (1.821 -1)
2.512 -1	8.188 -1 (5.351 -2)	9.548 -1 (5.282 -2)	8.791 -1 (5.210 -2)	7.125 -1 (5.142 -2)	5.405 -1 (5.083 -2)
3.981 -1	1.924 -1 (1.069 -2)	4.424 -1 (1.622 -2)	5.927 -1 (1.579 -2)	5.836 -1 (1.544 -2)	4.889 -1 (1.514 -2)
6.310 -1	1.181 -2 (6.378 -3)	6.826 -2 (5.153 -3)	2.215 -1 (4.962 -3)	3.538 -1 (4.806 -3)	3.798 -1 (4.682 -3)
1.000 0	2.034 -3 (1.769 -3)	2.786 -3 (1.677 -3)	2.040 -2 (1.600 -3)	1.013 -1 (1.537 -3)	2.016 -1 (1.487 -3)
1.585 0	6.177 -4 (5.875 -4)	6.145 -4 (5.518 -4)	7.059 -4 (5.213 -4)	4.988 -3 (4.962 -4)	4.140 -2 (4.758 -4)
2.512 0	2.018 -4 (1.981 -4)	1.919 -4 (1.847 -4)	1.877 -4 (1.729 -4)	1.981 -4 (1.631 -4)	9.808 -4 (1.551 -4)
3.981 0	6.776 -5 (6.727 -5)	6.336 -5 (6.242 -5)	5.980 -5 (5.800 -5)	5.777 -5 (5.419 -5)	5.881 -5 (5.105 -5)
6.310 0	2.292 -5 (2.285 -5)	2.134 -5 (2.122 -5)	1.985 -5 (1.962 -5)	1.862 -5 (1.818 -5)	1.784 -5 (1.696 -5)
1.000 1	7.722 -6 (7.713 -6)	7.230 -6 (7.213 -6)	6.703 -6 (6.672 -6)	6.207 -6 (6.149 -6)	5.797 -6 (5.687 -6)
1.585 1	2.568 -6 (2.566 -6)	2.437 -6 (2.435 -6)	2.273 -6 (2.269 -6)	2.099 -6 (2.091 -6)	1.936 -6 (1.922 -6)
2.512 1	8.383 -7 (8.381 -7)	8.108 -7 (8.105 -7)	7.671 -7 (7.665 -7)	(obscured)	6.551 -7 (6.532 -7)
3.981 1	2.687 -7 (2.686 -7)	2.648 -7 (2.648 -7)	2.555 -7 (2.554 -7)	(obscured)	2.226 -7 (2.223 -7)
6.310 1	8.490 -8 (8.490 -8)	8.490 -8 (8.490 -8)	8.356 -8 (8.355 -8)	(obscured)	7.533 -8 (7.530 -8)
1.000 2	2.663 -8 (2.663 -8)	2.684 -8 (2.684 -8)	2.683 -8 (2.682 -8)	(obscured)	2.520 -8 (2.520 -8)
1.585 2	8.338 -9 (8.338 -9)	8.423 -9 (8.423 -9)	8.489 -9 (8.489 -9)	(obscured)	8.288 -9 (8.288 -9)
2.512 2	2.613 -9 (2.613 -9)	2.637 -9 (2.637 -9)	2.665 -9 (2.665 -9)	(obscured)	2.674 -9 (2.674 -9)
3.981 2	8.208 -10 (8.208 -10)	8.266 -10 (8.266 -10)	8.346 -10 (8.346 -10)	(obscured)	8.494 -10 (8.494 -10)
6.310 2	2.583 -10 (2.583 -10)	2.596 -10 (2.596 -10)	2.610 -10 (2.616 -10)	(obscured)	2.671 -10 (2.671 -10)
1.000 3	8.142 -11 (8.142 -11)	8.170 -11 (8.170 -11)	8.214 -11 (8.214 -11)	(8.599 -11)	8.369 -11 (8.369 -11)
1.585 3	2.575 -11 (2.575 -11)	2.575 -11 (2.575 -11)	2.584 -11 (2.584 -11)	8.179 -12 (8.179 -12)	2.622 -11 (2.622 -11)
2.512 3	8.126 -12 (8.126 -12)	8.126 -12 (8.126 -12)	8.145 -12 (8.145 -12)	2.576 -12 (2.576 -12)	8.229 -12 (8.229 -12)
3.981 3			2.570 -12 (2.570 -12)	8.129 -13 (8.129 -13)	2.588 -12 (2.588 -12)
6.310 3				2.567 -13 (2.567 -13)	8.152 -13 (8.152 -13)
1.000 4					2.571 -13 (2.571 -13)
1.585 4					8.118 -14 (8.118 -14)

TABLE 45

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 3.162+013 CM**(-3)   DLAMBDA/DALPHA = 1.2499+000   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319 K=11.11		5000 K RO/D=0.226 K=12.50		10000 K RO/D=0.160 K=13.88		20000 K RO/D=0.113 K=15.27		40000 K RO/D=0.080 K=16.65	
0	4.397 0	(4.485 1)	3.250 0	(5.154 1)	2.369 0	(6.134 1)	1.712 0	(7.525 1)	1.227 0	(9.486 1)
1.585 -4	4.397 0	(4.476 1)	3.250 0	(5.137 1)	2.369 0	(6.103 1)	1.712 0	(7.462 1)	1.227 0	(9.354 1)
2.512 -4	4.397 0	(4.463 1)	3.250 0	(5.113 1)	2.369 0	(6.057 1)	1.712 0	(7.369 1)	1.227 0	(9.160 1)
3.981 -4	4.397 0	(4.429 1)	3.250 0	(5.054 1)	2.369 0	(5.945 1)	1.712 0	(7.147 1)	1.227 0	(8.709 1)
6.310 -4	4.397 0	(4.346 1)	3.250 0	(4.910 1)	2.369 0	(5.682 1)	1.712 0	(6.648 1)	1.227 0	(7.761 1)
1.000 -3	4.397 0	(4.154 1)	3.250 0	(4.589 1)	2.369 0	(5.124 1)	1.712 0	(5.678 1)	1.227 0	(6.133 1)
1.585 -3	4.397 0	(3.751 1)	3.250 0	(3.963 1)	2.369 0	(4.148 1)	1.712 0	(4.216 1)	1.227 0	(4.104 1)
2.512 -3	4.395 0	(3.060 1)	3.250 0	(3.019 1)	2.369 0	(2.899 1)	1.712 0	(2.678 1)	1.227 0	(2.372 1)
3.981 -3	4.393 0	(2.198 1)	3.248 0	(2.025 1)	2.369 0	(1.812 1)	1.712 0	(1.573 1)	1.227 0	(1.327 1)
6.310 -3	4.386 0	(1.459 1)	3.246 0	(1.311 1)	2.368 0	(1.158 1)	1.712 0	(1.010 1)	1.227 0	(8.748 0)
1.000 -2	4.368 0	(9.373 0)	3.239 0	(9.219 0)	2.365 0	(8.605 0)	1.711 0	(8.050 0)	1.227 0	(7.574 0)
1.585 -2	4.324 0	(6.876 0)	3.222 0	(6.759 0)	2.358 0	(6.694 0)	1.708 0	(6.647 0)	1.226 0	(6.641 0)
2.512 -2	4.216 0	(4.540 0)	3.179 0	(4.594 0)	2.342 0	(4.575 0)	1.702 0	(4.625 0)	1.224 0	(4.596 0)
3.981 -2	3.955 0	(2.971 0)	3.074 0	(3.023 0)	2.302 0	(3.008 0)	1.687 0	(3.018 0)	1.218 0	(3.018 0)
6.310 -2	3.374 0	(1.513 0)	2.826 0	(1.598 0)	2.203 0	(1.656 0)	1.649 0	(1.691 0)	1.204 0	(1.726 0)
1.000 -1	2.279 0	(5.691 -1)	2.291 0	(5.938 -1)	1.974 0	(6.171 -1)	1.559 0	(6.327 -1)	1.170 0	(6.455 -1)
1.585 -1	8.946 -1	(1.793 -1)	1.361 0	(1.815 -1)	1.439 0	(1.828 -1)	1.352 0	(1.835 -1)	1.088 0	(1.835 -1)
2.512 -1	1.384 -1	(5.529 -2)	3.921 -1	(5.443 -2)	7.576 -1	(5.349 -2)	9.477 -1	(5.258 -2)	9.074 -1	(5.174 -2)
3.981 -1	2.183 -2	(1.753 -2)	3.723 -2	(1.695 -2)	1.478 -1	(1.640 -2)	3.913 -1	(1.592 -2)	5.754 -1	(1.552 -2)
6.310 -1	6.148 -3	(5.730 -3)	6.397 -3	(5.454 -3)	9.090 -3	(5.210 -3)	4.721 -2	(5.004 -3)	1.850 -1	(4.834 -3)
1.000 0	1.954 -3	(1.904 -3)	1.897 -3	(1.796 -3)	1.912 -3	(1.698 -3)	2.283 -3	(1.616 -3)	1.251 -2	(1.548 -3)
1.585 0	6.460 -4	(6.594 -4)	6.101 -4	(5.974 -4)	5.844 -4	(5.596 -4)	5.781 -4	(5.271 -4)	6.260 -4	(5.003 -4)
2.512 0	2.175 -4	(2.167 -4)	2.033 -4	(2.017 -4)	1.907 -4	(1.876 -4)	1.811 -4	(1.752 -4)	1.767 -4	(1.647 -4)
3.981 0	7.359 -5	(7.347 -5)	6.874 -5	(6.852 -5)	6.391 -5	(6.351 -5)	5.962 -5	(5.886 -5)	5.629 -5	(5.482 -5)
6.310 0	2.473 -5	(2.472 -5)	2.328 -5	(2.325 -5)	2.165 -5	(2.160 -5)	2.004 -5	(1.994 -5)	1.861 -5	(1.842 -5)
1.000 1	8.194 -6	(8.192 -6)	7.828 -6	(7.824 -6)	7.341 -6	(7.333 -6)	6.796 -6	(6.782 -6)	6.264 -6	(6.239 -6)
1.585 1	2.664 -6	(2.663 -6)	2.592 -6	(2.592 -6)	2.469 -6	(2.469 -6)	2.306 -6	(2.304 -6)	2.126 -6	(2.122 -6)
2.512 1	8.506 -7	(8.505 -7)	8.423 -7	(8.422 -7)	8.183 -7	(8.181 -7)	7.768 -7	(7.765 -7)	7.221 -7	(7.216 -7)
3.981 1	2.682 -7	(2.682 -7)	2.688 -7	(2.688 -7)	2.661 -7	(2.660 -7)	2.578 -7	(2.578 -7)	2.436 -7	(2.436 -7)
6.310 1	8.405 -8	(8.405 -8)	8.476 -8	(8.476 -8)	8.498 -8	(8.498 -8)	8.396 -8	(8.395 -8)	8.104 -8	(8.103 -8)
1.000 2	2.631 -8	(2.631 -8)	2.657 -8	(2.657 -8)	2.680 -8	(2.680 -8)	2.686 -8	(2.685 -8)	2.647 -8	(2.646 -8)
1.585 2	8.250 -9	(8.250 -9)	8.319 -9	(8.319 -9)	8.403 -9	(8.403 -9)	8.479 -9	(8.479 -9)	8.485 -9	(8.485 -9)
2.512 2	2.593 -9	(2.593 -9)	2.608 -9	(2.608 -9)	2.631 -9	(2.631 -9)	2.660 -9	(2.660 -9)	2.683 -9	(2.683 -9)
3.981 2	8.163 -10	(8.163 -10)	8.198 -10	(8.198 -10)	8.251 -10	(8.251 -10)	8.328 -10	(8.328 -10)	8.421 -10	(8.421 -10)
6.310 2	2.573 -10	(2.573 -10)	2.581 -10	(2.581 -10)	2.593 -10	(2.593 -10)	2.611 -10	(2.611 -10)	2.637 -10	(2.637 -10)
1.000 3			8.137 -11	(8.137 -11)	8.163 -11	(8.163 -11)	8.204 -11	(8.204 -11)	8.266 -11	(8.266 -11)
1.585 3					2.573 -11	(2.573 -11)	2.582 -11	(2.582 -11)	2.596 -11	(2.596 -11)
2.512 3					8.122 -12	(8.122 -12)	8.140 -12	(8.140 -12)	8.171 -12	(8.171 -12)
3.981 3							2.569 -12	(2.569 -12)	2.575 -12	(2.575 -12)
6.310 3									8.126 -13	(8.126 -13)
1.000 4									2.566 -13	(2.566 -13)

TABLE 46

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/DALPHA = 2.6930+000   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K, K= 9.96, RO/D=0.387		5000 K, K=11.34, RO/D=0.274		10000 K, K=12.73, RO/D=0.193		20000 K, K=14.12, RO/D=0.137		40000 K, K=15.50, RO/D=0.097	
0	8.041 0	(3.841 1)	6.165 0	(4.257 1)	4.656 0	(4.905 1)	3.468 0	(5.849 1)	2.538 0	(7.208 1)
2.512 -4	8.041 0	(3.829 1)	6.165 0	(4.238 1)	4.656 0	(4.871 1)	3.468 0	(5.783 1)	2.538 0	(7.073 1)
3.981 -4	8.041 0	(3.811 1)	6.165 0	(4.210 1)	4.656 0	(4.821 1)	3.467 0	(5.687 1)	2.538 0	(6.879 1)
6.310 -4	8.040 0	(3.767 1)	6.165 0	(4.140 1)	4.656 0	(4.699 1)	3.467 0	(5.460 1)	2.538 0	(6.439 1)
1.000 -3	8.039 0	(3.663 1)	6.164 0	(3.977 1)	4.656 0	(4.422 1)	3.467 0	(4.970 1)	2.538 0	(5.566 1)
1.585 -3	8.036 0	(3.431 1)	6.163 0	(3.628 1)	4.655 0	(3.870 1)	3.467 0	(4.089 1)	2.538 0	(4.208 1)
2.512 -3	8.028 0	(2.981 1)	6.159 0	(3.010 1)	4.654 0	(3.004 1)	3.467 0	(2.915 1)	2.538 0	(2.721 1)
3.981 -3	8.007 0	(2.309 1)	6.151 0	(2.210 1)	4.651 0	(2.048 1)	3.465 0	(1.846 1)	2.537 0	(1.610 1)
6.310 -3	7.957 0	(1.598 1)	6.130 0	(1.472 1)	4.642 0	(1.329 1)	3.462 0	(1.177 1)	2.536 0	(1.026 1)
1.000 -2	7.831 0	(1.058 1)	6.078 0	(9.918 0)	4.621 0	(9.258 0)	3.454 0	(8.629 0)	2.533 0	(8.063 0)
1.585 -2	7.526 0	(7.062 0)	5.949 0	(6.882 0)	4.569 0	(6.760 0)	3.433 0	(6.687 0)	2.525 0	(6.648 0)
2.512 -2	6.818 0	(4.693 0)	5.639 0	(4.637 0)	4.439 0	(4.596 0)	3.381 0	(4.583 0)	2.505 0	(4.573 0)
3.981 -2	5.357 0	(2.949 0)	4.935 0	(2.998 0)	4.130 0	(3.020 0)	3.254 0	(3.048 0)	2.455 0	(3.023 0)
6.310 -2	3.066 0	(1.491 0)	3.562 0	(1.568 0)	3.452 0	(1.621 0)	2.956 0	(1.680 0)	2.334 0	(1.713 0)
1.000 -1	1.027 -1	(5.619 -1)	1.670 0	(5.902 -1)	2.221 0	(6.126 -1)	2.326 0	(6.302 -1)	2.057 0	(6.431 -1)
1.585 -1	2.436 -1	(1.815 -1)	3.879 -1	(1.845 -1)	7.926 -1	(1.856 -1)	1.288 0	(1.858 -1)	1.501 0	(1.856 -1)
2.512 -1	6.380 -2	(5.752 -2)	7.272 -2	(5.648 -2)	1.171 -1	(5.530 -2)	3.222 -1	(5.410 -2)	6.877 -1	(5.299 -2)
3.981 -1	1.927 -2	(1.856 -2)	1.937 -2	(1.787 -2)	2.069 -2	(1.718 -2)	3.016 -2	(1.657 -2)	1.102 -1	(1.603 -2)
6.310 -1	6.237 -3	(6.151 -3)	6.005 -3	(5.832 -3)	5.880 -3	(5.528 -3)	6.031 -3	(5.264 -3)	7.522 -3	(5.040 -3)
1.000 0	2.078 -3	(2.067 -3)	1.964 -3	(1.943 -3)	1.864 -3	(1.823 -3)	1.801 -3	(1.718 -3)	1.803 -3	(1.629 -3)
1.585 0	6.985 -4	(6.970 -4)	6.547 -4	(6.518 -4)	6.130 -4	(6.076 -4)	5.778 -4	(5.674 -4)	5.532 -4	(5.328 -4)
2.512 0	2.358 -4	(2.356 -4)	2.212 -4	(2.209 -4)	2.061 -4	(2.054 -4)	1.919 -4	(1.906 -4)	1.799 -4	(1.774 -4)
3.981 0	7.903 -5	(7.900 -5)	7.482 -5	(7.477 -5)	6.987 -5	(6.977 -5)	6.475 -5	(6.457 -5)	6.001 -5	(5.968 -5)
6.310 0	2.609 -5	(2.609 -5)	2.507 -5	(2.507 -5)	2.365 -5	(2.364 -5)	2.198 -5	(2.196 -5)	2.028 -5	(2.024 -5)
1.000 1	8.453 -6	(8.453 -6)	8.267 -6	(8.266 -6)	7.928 -6	(7.926 -6)	7.449 -6	(7.446 -6)	6.892 -6	(6.886 -6)
1.585 1	2.692 -6	(2.691 -6)	2.674 -6	(2.674 -6)	2.614 -6	(2.614 -6)	2.499 -6	(2.499 -6)	2.338 -6	(2.337 -6)
2.512 1	8.472 -7	(8.472 -7)	8.506 -7	(8.506 -7)	8.453 -7	(8.453 -7)	8.247 -7	(8.247 -7)	7.855 -7	(7.854 -7)
3.981 1	2.653 -7	(2.653 -7)	2.676 -7	(2.676 -7)	2.689 -7	(2.689 -7)	2.670 -7	(2.670 -7)	2.598 -7	(2.597 -7)
6.310 1	8.307 -8	(8.307 -8)	8.382 -8	(8.382 -8)	8.460 -8	(8.460 -8)	8.499 -8	(8.499 -8)	8.427 -8	(8.427 -8)
1.000 2	2.606 -8	(2.606 -8)	2.625 -8	(2.625 -8)	2.650 -8	(2.650 -8)	2.676 -8	(2.676 -8)	2.687 -8	(2.687 -8)
1.585 2	8.191 -9	(8.191 -9)	8.235 -9	(8.235 -9)	8.300 -9	(8.300 -9)	8.385 -9	(8.385 -9)	8.468 -9	(8.468 -9)
2.512 2	2.579 -9	(2.579 -9)	2.589 -9	(2.589 -9)	2.604 -9	(2.604 -9)	2.626 -9	(2.626 -9)	2.654 -9	(2.654 -9)
3.981 2			8.154-10	(8.154-10)	8.188-10	(8.188-10)	8.238-10	(8.238-10)	8.312-10	(8.312-10)
6.310 2					2.579-10	(2.579-10)	2.590-10	(2.590-10)	2.607-10	(2.607-10)
1.000 3					8.133-11	(8.133-11)	8.156-11	(8.156-11)	8.195-11	(8.195-11)
1.585 3					2.572-11	(2.572-11)	2.572-11	(2.572-11)	2.580-11	(2.580-11)
2.512 3									8.136-12	(8.136-12)
3.981 3									2.568-12	(2.568-12)

TABLE 47

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.8017+000   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.469 K= 8.81	5000 K RO/D=0.331 K=10.19	10000 K RO/D=0.234 K=11.58	20000 K RO/D=0.166 K=12.97	40000 K RO/D=0.117 K=14.35
0	1.333 1 (3.394 1)	1.062 1 (3.639 1)	8.353 0 (4.050 1)	6.475 0 (4.678 1)	4.942 0 (5.603 1)
3.981 -4	1.332 1 (3.377 1)	1.061 1 (3.615 1)	8.352 0 (4.010 1)	6.475 0 (4.606 1)	4.942 0 (5.461 1)
6.310 -4	1.332 1 (3.352 1)	1.061 1 (3.578 1)	8.352 0 (3.951 1)	6.475 0 (4.502 1)	4.942 0 (5.263 1)
1.000 -3	1.331 1 (3.290 1)	1.061 1 (3.491 1)	8.350 0 (3.812 1)	6.474 0 (4.262 1)	4.942 0 (4.829 1)
1.585 -3	1.329 1 (3.147 1)	1.060 1 (3.292 1)	8.346 0 (3.510 1)	6.473 0 (3.775 1)	4.941 0 (4.030 1)
2.512 -3	1.324 1 (2.856 1)	1.058 1 (2.899 1)	8.337 0 (2.958 1)	6.468 0 (2.983 1)	4.940 0 (2.925 1)
3.981 -3	1.311 1 (2.340 1)	1.052 1 (2.286 1)	8.313 0 (2.202 1)	6.459 0 (2.068 1)	4.936 0 (1.877 1)
6.310 -3	1.280 1 (1.699 1)	1.038 1 (1.604 1)	8.255 0 (1.487 1)	6.434 0 (1.348 1)	4.925 0 (1.195 1)
1.000 -2	1.205 1 (1.128 1)	1.005 1 (1.065 1)	8.109 0 (9.982 0)	6.372 0 (9.309 0)	4.900 0 (8.661 0)
1.585 -2	1.042 1 (7.321 0)	9.261 0 (7.081 0)	7.750 0 (6.894 0)	6.220 0 (6.702 0)	4.836 0 (6.681 0)
2.512 -2	7.471 0 (4.765 0)	7.604 0 (4.695 0)	6.947 0 (4.635 0)	5.856 0 (4.591 0)	4.681 0 (4.583 0)
3.981 -2	3.950 0 (2.922 0)	4.876 0 (2.984 0)	5.324 0 (3.018 0)	5.043 0 (3.027 0)	4.314 0 (3.066 0)
6.310 -2	1.688 0 (1.449 0)	2.146 0 (1.539 0)	2.929 0 (1.615 0)	3.510 0 (1.661 0)	3.522 0 (1.700 0)
1.000 -1	6.165 -1 (5.535 -1)	7.246 -1 (5.771 -1)	9.846 -1 (6.093 -1)	1.547 0 (6.291 -1)	2.148 0 (6.412 -1)
1.585 -1	1.951 -1 (1.856 -1)	2.099 -1 (1.882 -1)	2.454 -1 (1.893 -1)	3.539 -1 (1.891 -1)	6.950 -1 (1.884 -1)
2.512 -1	6.145 -2 (6.023 -2)	6.167 -2 (5.906 -2)	6.328 -2 (5.763 -2)	6.984 -2 (5.610 -2)	1.009 -1 (5.466 -2)
3.981 -1	1.991 -2 (1.975 -2)	1.930 -2 (1.900 -2)	1.880 -2 (1.819 -2)	1.868 -2 (1.742 -2)	1.959 -2 (1.672 -2)
6.310 -1	6.641 -3 (6.622 -3)	6.324 -3 (6.286 -3)	6.008 -3 (5.934 -3)	5.750 -3 (5.604 -3)	5.610 -3 (5.317 -3)
1.000 0	2.244 -3 (2.242 -3)	2.114 -3 (2.109 -3)	1.987 -3 (1.978 -3)	1.868 -3 (1.850 -3)	1.772 -3 (1.737 -3)
1.585 0	7.541 -4 (7.537 -4)	7.117 -4 (7.111 -4)	6.655 -4 (6.642 -4)	6.199 -4 (6.176 -4)	5.793 -4 (5.748 -4)
2.512 0	2.519 -4 (2.519 -4)	2.399 -4 (2.398 -4)	2.252 -4 (2.250 -4)	2.093 -4 (2.090 -4)	1.939 -4 (1.934 -4)
3.981 0	8.293 -5 (8.292 -5)	8.011 -5 (8.010 -5)	7.603 -5 (7.600 -5)	7.100 -5 (7.096 -5)	6.565 -5 (6.558 -5)
6.310 0	2.680 -5 (2.680 -5)	2.631 -5 (2.631 -5)	2.538 -5 (2.538 -5)	2.400 -5 (2.399 -5)	2.231 -5 (2.230 -5)
1.000 1	8.517 -6 (8.517 -6)	8.481 -6 (8.481 -6)	8.329 -6 (8.329 -6)	8.018 -6 (8.017 -6)	7.549 -6 (7.548 -6)
1.585 1	2.678 -6 (2.678 -6)	2.690 -6 (2.690 -6)	2.682 -6 (2.682 -6)	2.632 -6 (2.632 -6)	2.525 -6 (2.525 -6)
2.512 1	8.383 -7 (8.383 -7)	8.452 -7 (8.452 -7)	8.501 -7 (8.501 -7)	8.475 -7 (8.475 -7)	8.301 -7 (8.301 -7)
3.981 1	2.624 -7 (2.624 -7)	2.646 -7 (2.646 -7)	2.670 -7 (2.670 -7)	2.687 -7 (2.687 -7)	2.677 -7 (2.677 -7)
6.310 1	8.233 -8 (8.233 -8)	8.287 -8 (8.287 -8)	8.361 -8 (8.361 -8)	8.443 -8 (8.443 -8)	8.498 -8 (8.498 -8)
1.000 2	2.589 -8 (2.589 -8)	2.601 -8 (2.601 -8)	2.619 -8 (2.619 -8)	2.644 -8 (2.644 -8)	2.671 -8 (2.671 -8)
1.585 2	8.181 -9 (8.181 -9)	8.181 -9 (8.181 -9)	8.221 -9 (8.221 -9)	8.283 -9 (8.283 -9)	8.367 -9 (8.367 -9)
2.512 2	2.577 -9 (2.577 -9)	2.577 -9 (2.577 -9)	2.587 -9 (2.587 -9)	2.600 -9 (2.600 -9)	2.621 -9 (2.621 -9)
3.981 2			8.148-10 (8.148-10)	8.180-10 (8.180-10)	8.226-10 (8.226-10)
6.310 2				2.577-10 (2.577-10)	2.588-10 (2.588-10)
1.000 3				8.129-11 (8.129-11)	8.151-11 (8.151-11)
1.585 3					2.571-11 (2.571-11)

TABLE 48

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 1.000+015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K=7.06	5000 K RO/D=0.402 K=9.04	10000 K RO/D=0.284 K=10.43	20000 K RO/D=0.201 K=11.81	40000 K RO/D=0.142 K=13.20
0	1.962 1 (3.076 1)	1.655 1 (3.206 1)	1.360 1 (3.459 1)	1.097 1 (3.867 1)	8.716 0 (4.487 1)
3.981 -4	1.962 1 (3.065 1)	1.655 1 (3.192 1)	1.360 1 (3.438 1)	1.097 1 (3.832 1)	8.715 0 (4.425 1)
6.310 -4	1.961 1 (3.049 1)	1.654 1 (3.171 1)	1.360 1 (3.407 1)	1.097 1 (3.782 1)	8.714 0 (4.334 1)
1.000 -3	1.959 1 (3.009 1)	1.652 1 (3.119 1)	1.359 1 (3.333 1)	1.097 1 (3.663 1)	8.713 0 (4.124 1)
1.585 -3	1.953 1 (2.914 1)	1.647 1 (2.999 1)	1.356 1 (3.163 1)	1.096 1 (3.400 1)	8.708 0 (3.689 1)
2.512 -3	1.933 1 (2.707 1)	1.634 1 (2.744 1)	1.350 1 (2.820 1)	1.093 1 (2.936 1)	8.697 0 (2.960 1)
3.981 -3	1.869 1 (2.319 1)	1.603 1 (2.292 1)	1.336 1 (2.262 1)	1.087 1 (2.201 1)	8.669 0 (2.084 1)
6.310 -3	1.719 1 (1.762 1)	1.527 1 (1.694 1)	1.299 1 (1.611 1)	1.070 1 (1.502 1)	8.599 0 (1.365 1)
1.000 -2	1.435 1 (1.192 1)	1.359 1 (1.135 1)	1.214 1 (1.073 1)	1.031 1 (1.006 1)	8.427 0 (9.366 0)
1.585 -2	9.803 0 (7.635 0)	1.041 1 (7.355 0)	1.032 1 (7.108 0)	9.405 0 (6.909 0)	8.013 0 (6.766 0)
2.512 -2	5.506 0 (4.852 0)	6.256 0 (4.779 0)	7.187 0 (4.698 0)	7.551 0 (4.634 0)	7.077 0 (4.594 0)
3.981 -2	3.019 0 (2.892 0)	3.255 0 (2.972 0)	3.793 0 (3.012 0)	4.684 0 (3.031 0)	5.264 0 (3.030 0)
6.310 -2	1.461 0 (1.416 0)	1.595 0 (1.508 0)	1.755 0 (1.583 0)	2.091 0 (1.650 0)	2.771 0 (1.669 0)
1.000 -1	5.664 -1 (5.544 -1)	6.100 -1 (5.833 -1)	6.600 -1 (6.008 -1)	7.545 -1 (6.266 -1)	9.392 -1 (6.410 -1)
1.585 -1	1.919 -1 (1.899 -1)	1.975 -1 (1.932 -1)	2.036 -1 (1.946 -1)	2.148 -1 (1.937 -1)	2.425 -1 (1.927 -1)
2.512 -1	6.339 -2 (6.314 -2)	6.272 -2 (6.219 -2)	6.165 -2 (6.052 -2)	6.097 -2 (5.868 -2)	6.176 -2 (5.684 -2)
3.981 -1	2.108 -2 (2.105 -2)	2.039 -2 (2.032 -2)	1.956 -2 (1.943 -2)	1.876 -2 (1.850 -2)	1.814 -2 (1.763 -2)
6.310 -1	7.109 -3 (7.104 -3)	6.803 -3 (6.794 -3)	6.436 -3 (6.419 -3)	6.065 -3 (6.033 -3)	5.737 -3 (5.675 -3)
1.000 0	2.409 -3 (2.409 -3)	2.291 -3 (2.290 -3)	2.158 -3 (2.156 -3)	2.016 -3 (2.012 -3)	1.883 -3 (1.875 -3)
1.585 0	8.014 -4 (8.013 -4)	7.680 -4 (7.679 -4)	7.251 -4 (7.248 -4)	6.767 -4 (6.762 -4)	6.281 -4 (6.271 -4)
2.512 0	2.632 -4 (2.632 -4)	2.554 -4 (2.554 -4)	2.438 -4 (2.438 -4)	2.290 -4 (2.289 -4)	2.124 -4 (2.123 -4)
3.981 0	8.492 -5 (8.491 -5)	8.363 -5 (8.362 -5)	8.103 -5 (8.108 -5)	7.714 -5 (7.713 -5)	7.207 -5 (7.205 -5)
6.310 0	2.696 -5 (2.696 -5)	2.688 -5 (2.688 -5)	2.649 -5 (2.649 -5)	2.566 -5 (2.565 -5)	2.432 -5 (2.431 -5)
1.000 1	8.470 -6 (8.470 -6)	8.509 -6 (8.509 -6)	8.499 -6 (8.498 -6)	8.379 -6 (8.379 -6)	8.095 -6 (8.095 -6)
1.585 1	2.651 -6 (2.651 -6)	2.670 -6 (2.670 -6)	2.687 -6 (2.687 -6)	2.686 -6 (2.686 -6)	2.646 -6 (2.646 -6)
2.512 1	8.298 -7 (8.298 -7)	8.358 -7 (8.358 -7)	8.430 -7 (8.430 -7)	8.492 -7 (8.492 -7)	8.489 -7 (8.489 -7)
3.981 1	2.603 -7 (2.603 -7)	2.618 -7 (2.618 -7)	2.639 -7 (2.639 -7)	2.664 -7 (2.664 -7)	2.685 -7 (2.685 -7)
6.310 1	8.185 -8 (8.185 -8)	8.218 -8 (8.218 -8)	8.269 -8 (8.269 -8)	8.341 -8 (8.341 -8)	8.427 -8 (8.427 -8)
1.010 2		2.586 -8 (2.586 -8)	2.597 -8 (2.597 -8)	2.614 -8 (2.614 -8)	2.638 -8 (2.638 -8)
1.585 2			8.171 -9 (8.171 -9)	8.210 -9 (8.210 -9)	8.269 -9 (8.269 -9)
2.512 2			2.575 -9 (2.575 -9)	2.584 -9 (2.584 -9)	2.597 -9 (2.597 -9)
3.981 2				8.143 -10 (8.143 -10)	8.172 -10 (8.172 -10)
6.310 2					2.575 -10 (2.575 -10)
1.000 3					8.126 -11 (8.126 -11)

TABLE 49

ELECTRON DENSITY = 3.162+015 CM**(-3)   N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

DLAMBDA/DALPHA = 2.6929+001   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.688 K=6.50		5000 K RO/D=0.487 K=7.89		10000 K RO/D=0.344 K=9.28		20000 K RO/D=0.243 K=10.66		40000 K RO/D=0.172 K=12.05	
0	2.449 1	(2.846 1)	2.228 1	(2.890 1)	1.971 1	(3.039 1)	1.644 1	(3.301 1)	1.407 1	(3.712 1)
6.310 -4	2.441 1	(2.827 1)	2.223 1	(2.868 1)	1.969 1	(3.009 1)	1.649 1	(3.257 1)	1.406 1	(3.638 1)
1.000 -3	2.430 1	(2.799 1)	2.216 1	(2.836 1)	1.966 1	(2.966 1)	1.656 1	(3.194 1)	1.405 1	(3.534 1)
1.585 -3	2.401 1	(2.731 1)	2.197 1	(2.758 1)	1.959 1	(2.865 1)	1.669 1	(3.047 1)	1.402 1	(3.302 1)
2.512 -3	2.332 1	(2.578 1)	2.149 1	(2.584 1)	1.934 1	(2.646 1)	1.691 1	(2.745 1)	1.395 1	(2.856 1)
3.981 -3	2.172 1	(2.274 1)	2.037 1	(2.248 1)	1.861 1	(2.245 1)	1.678 1	(2.238 1)	1.377 1	(2.197 1)
6.310 -3	1.849 1	(1.794 1)	1.796 1	(1.743 1)	1.700 1	(1.689 1)	1.524 1	(1.617 1)	1.334 1	(1.514 1)
1.000 -2	1.348 1	(1.246 1)	1.370 1	(1.197 1)	1.389 1	(1.143 1)	1.363 1	(1.081 1)	1.235 1	(1.013 1)
1.585 -2	8.436 0	(7.967 0)	8.654 0	(7.684 0)	9.276 0	(7.397 0)	9.907 0	(7.138 0)	1.026 0	(6.926 0)
2.512 -2	5.056 0	(4.945 0)	5.113 0	(4.885 0)	5.310 0	(4.791 0)	5.926 0	(4.702 0)	6.905 0	(4.635 0)
3.981 -2	2.886 0	(2.860 0)	3.004 0	(2.958 0)	3.099 0	(3.010 0)	3.237 0	(3.033 0)	3.639 0	(3.039 0)
6.310 -2	1.394 0	(1.384 0)	1.500 0	(1.461 0)	1.595 0	(1.561 0)	1.685 0	(1.622 0)	1.799 0	(1.676 0)
1.000 -1	5.526 -1	(5.502 -1)	5.892 -1	(5.837 -1)	6.221 -1	(6.104 -1)	6.496 -1	(6.239 -1)	6.958 -1	(6.424 -1)
1.585 -1	1.927 -1	(1.922 -1)	1.998 -1	(1.989 -1)	2.024 -1	(2.004 -1)	2.038 -1	(1.997 -1)	2.062 -1	(1.973 -1)
2.512 -1	6.611 -2	(6.606 -2)	6.563 -2	(6.552 -2)	6.431 -2	(6.408 -2)	6.248 -2	(6.200 -2)	6.061 -2	(5.965 -2)
3.981 -1	2.230 -2	(2.229 -2)	2.177 -2	(2.175 -2)	2.090 -2	(2.088 -2)	1.989 -2	(1.983 -2)	1.890 -2	(1.879 -2)
6.310 -1	7.534 -3	(7.533 -3)	7.311 -3	(7.309 -3)	6.963 -3	(6.960 -3)	6.553 -3	(6.546 -3)	6.140 -3	(6.126 -3)
1.000 0	2.545 -3	(2.545 -3)	2.458 -3	(2.458 -3)	2.337 -3	(2.337 -3)	2.198 -3	(2.197 -3)	2.046 -3	(2.044 -3)
1.585 0	8.341 -4	(8.340 -4)	8.136 -4	(8.135 -4)	7.812 -4	(7.811 -4)	7.378 -4	(7.377 -4)	6.875 -4	(6.873 -4)
2.512 0	2.690 -4	(2.690 -4)	2.655 -4	(2.655 -4)	2.586 -4	(2.586 -4)	2.474 -4	(2.474 -4)	2.324 -4	(2.324 -4)
3.981 0	8.540 -5	(8.540 -5)	8.517 -5	(8.517 -5)	8.417 -5	(8.417 -5)	8.191 -5	(8.191 -5)	7.812 -5	(7.812 -5)
6.310 0	2.683 -5	(2.683 -5)	2.693 -5	(2.693 -5)	2.692 -5	(2.692 -5)	2.663 -5	(2.663 -5)	2.588 -5	(2.588 -5)
1.000 1	8.393 -6	(8.393 -6)	8.445 -6	(8.445 -6)	8.496 -6	(8.496 -6)	8.508 -6	(8.508 -6)	8.417 -6	(8.417 -6)
1.585 1	2.626 -6	(2.626 -6)	2.642 -6	(2.642 -6)	2.663 -6	(2.663 -6)	2.683 -6	(2.683 -6)	2.689 -6	(2.689 -6)
2.512 1	8.237 -7	(8.237 -7)	8.276 -7	(8.276 -7)	8.334 -7	(8.334 -7)	8.409 -7	(8.409 -7)	8.481 -7	(8.481 -7)
3.981 1			2.598 -7	(2.598 -7)	2.612 -7	(2.612 -7)	2.633 -7	(2.633 -7)	2.658 -7	(2.658 -7)
6.310 1					8.205 -8	(8.205 -8)	8.253 -8	(8.253 -8)	8.323 -8	(8.323 -8)
1.000 2					2.583 -8	(2.583 -8)	2.593 -8	(2.593 -8)	2.609 -8	(2.609 -8)
1.585 2							8.164 -9	(8.164 -9)	8.200 -9	(8.200 -9)
2.512 2									2.582 -9	(2.582 -9)
3.981 2									8.138-10	(8.138-10)

TABLE 50

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.8020+001   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.834 K= 5.35		5000 K RO/D=0.589 K= 6.74		10000 K RO/D=0.417 K= 8.13		20000 K RO/D=0.295 K= 9.51		40000 K RO/D=0.208 K=10.90	
0	2.600 1	(2.695 1)	2.478 1	(2.655 1)	2.385 1	(2.729 1)	2.247 1	(2.895 1)	2.027 1	(3.168 1)
1.000 -3	2.571 1	(2.658 1)	2.454 1	(2.617 1)	2.365 1	(2.683 1)	2.233 1	(2.834 1)	2.022 1	(3.075 1)
1.585 -3	2.529 1	(2.606 1)	2.418 1	(2.563 1)	2.335 1	(2.618 1)	2.211 1	(2.747 1)	2.014 1	(2.947 1)
2.512 -3	2.431 1	(2.484 1)	2.333 1	(2.438 1)	2.264 1	(2.472 1)	2.158 1	(2.557 1)	1.984 1	(2.678 1)
3.981 -3	2.216 1	(2.234 1)	2.145 1	(2.182 1)	2.101 1	(2.181 1)	2.031 1	(2.200 1)	1.894 1	(2.213 1)
6.310 -3	1.828 1	(1.812 1)	1.788 1	(1.759 1)	1.776 1	(1.723 1)	1.765 1	(1.683 1)	1.711 1	(1.620 1)
1.000 -2	1.310 1	(1.289 1)	1.288 1	(1.246 1)	1.287 1	(1.201 1)	1.317 1	(1.150 1)	1.357 1	(1.089 1)
1.585 -2	8.368 0	(8.271 0)	8.224 0	(8.033 0)	8.125 0	(7.740 0)	8.242 0	(7.442 0)	8.800 0	(7.170 0)
2.512 -2	5.051 0	(5.027 0)	5.054 0	(5.007 0)	5.006 0	(4.913 0)	4.991 0	(4.803 0)	5.115 0	(4.707 0)
3.981 -2	2.828 0	(2.823 0)	2.957 0	(2.947 0)	3.028 0	(3.011 0)	3.072 0	(3.040 0)	3.116 0	(3.049 0)
6.310 -2	1.353 0	(1.351 0)	1.463 0	(1.459 0)	1.548 0	(1.541 0)	1.620 0	(1.607 0)	1.681 0	(1.657 0)
1.000 -1	5.456 -1	(5.451 -1)	5.848 -1	(5.836 -1)	6.141 -1	(6.116 -1)	6.389 -1	(6.337 -1)	6.567 -1	(6.455 -1)
1.585 -1	1.959 -1	(1.958 -1)	2.038 -1	(2.036 -1)	2.060 -1	(2.056 -1)	2.081 -1	(2.072 -1)	2.068 -1	(2.049 -1)
2.512 -1	6.833 -2	(6.833 -2)	6.909 -2	(6.907 -2)	6.812 -2	(6.808 -2)	6.596 -2	(6.586 -2)	6.345 -2	(6.325 -2)
3.981 -1	2.325 -2	(2.325 -2)	2.313 -2	(2.313 -2)	2.244 -2	(2.243 -2)	2.140 -2	(2.139 -2)	2.023 -2	(2.020 -2)
6.310 -1	7.853 -3	(7.853 -3)	7.757 -3	(7.757 -3)	7.501 -3	(7.500 -3)	7.115 -3	(7.114 -3)	6.667 -3	(6.663 -3)
1.000 0	2.636 -3	(2.636 -3)	2.590 -3	(2.590 -3)	2.504 -3	(2.504 -3)	2.386 -3	(2.385 -3)	2.234 -3	(2.234 -3)
1.585 0	8.516 -4	(8.516 -4)	8.428 -4	(8.428 -4)	8.241 -4	(8.241 -4)	7.928 -4	(7.928 -4)	7.492 -4	(7.492 -4)
2.512 0	2.708 -4	(2.708 -4)	2.700 -4	(2.700 -4)	2.673 -4	(2.673 -4)	2.612 -4	(2.612 -4)	2.505 -4	(2.505 -4)
3.981 0	8.515 -5	(8.515 -5)	8.532 -5	(8.532 -5)	8.530 -5	(8.530 -5)	8.458 -5	(8.458 -5)	8.259 -5	(8.259 -5)
6.310 0	2.663 -5	(2.663 -5)	2.674 -5	(2.674 -5)	2.688 -5	(2.688 -5)	2.694 -5	(2.694 -5)	2.674 -5	(2.674 -5)
1.000 1	8.328 -6	(8.328 -6)	8.363 -6	(8.363 -6)	8.419 -6	(8.419 -6)	8.480 -6	(8.480 -6)	8.511 -6	(8.511 -6)
1.585 1	2.619 -6	(2.619 -6)	2.619 -6	(2.619 -6)	2.634 -6	(2.634 -6)	2.656 -6	(2.656 -6)	2.679 -6	(2.679 -6)
2.512 1	8.219 -7	(8.219 -7)	8.219 -7	(8.219 -7)	8.256 -7	(8.256 -7)	8.314 -7	(8.314 -7)	8.390 -7	(8.390 -7)
3.981 1					2.594 -7	(2.594 -7)	2.607 -7	(2.607 -7)	2.627 -7	(2.627 -7)
6.310 1							8.194 -8	(8.194 -8)	8.239 -8	(8.239 -8)
1.000 2							2.580 -8	(2.580 -8)	2.590 -8	(2.590 -8)
1.585 2									8.157 -9	(8.157 -9)

TABLE 51

ELECTRON DENSITY = 3.162+016 CM**(-3)   N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

DLAMBDA/DALPHA = 1.2499+002   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	5000 K RO/O=0.714 K= 5.59	10000 K RO/O=0.505 K= 6.97	20000 K RO/O=0.357 K= 8.36	40000 K RO/O=0.252 K= 9.75
0	2.453 1	2.420 1	2.433 1	2.428 1
1.000 -3	2.427 1	2.395 1	2.408 1	2.405 1
1.585 -3	2.390 1	2.358 1	2.371 1	2.370 1
2.512 -3	2.302 1	2.271 1	2.283 1	2.287 1
3.981 -3	2.111 1	2.081 1	2.089 1	2.101 1
6.310 -3	1.764 1	1.734 1	1.730 1	1.743 1
1.000 -2	1.291 1	1.261 1	1.240 1	1.236 1
1.585 -2	8.399 0	8.181 0	7.956 0	7.801 0
2.512 -2	5.136 0	5.079 0	4.980 0	4.894 0
3.981 -2	2.937 0	3.021 0	3.059 0	3.075 0
6.310 -2	1.438 0	1.528 0	1.597 0	1.651 0
1.000 -1	5.835 -1	6.169 -1	6.395 -1	6.566 -1
1.585 -1	2.093 -1	2.152 -1	2.148 -1	2.139 -1
2.512 -1	7.188 -2	7.196 -2	7.026 -2	6.744 -2
3.981 -1	2.422 -2	2.392 -2	2.307 -2	2.186 -2
6.310 -1	8.081 -3	7.961 -3	7.670 -3	7.252 -3
1.000 0	2.675 -3	2.629 -3	2.544 -3	2.424 -3
1.585 0	8.567 -4	8.494 -4	8.327 -4	8.028 -4
2.512 0	2.708 -4	2.705 -4	2.686 -4	2.633 -4
3.981 0	8.487 -5	8.516 -5	8.533 -5	8.487 -5
6.310 0	2.652 -5	2.665 -5	2.682 -5	2.693 -5
1.000 1	8.299 -6	8.336 -6	8.395 -6	8.464 -6
1.585 1		2.612 -6	2.627 -6	2.649 -6
2.512 1		8.204 -7	8.240 -7	8.296 -7
3.981 1			2.590 -7	2.603 -7
6.310 1				8.185 -8
1.000 2				2.578 -8

TABLE 52

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 1.000+017 CM**(-3)   DLAMBDA/DALPHA = 2.6930+002   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	5000 K RO/D=0.865 K= 4.44	10000 K RO/D=0.612 K= 5.82	20000 K RO/D=0.433 K= 7.21	40000 K RO/D=0.306 K= 8.60
0	2.397 1 (2.403 1)	2.301 1 (2.313 1)	2.327 1 (2.353 1)	2.411 1 (2.476 1)
1.585 -3	2.340 1 (2.345 1)	2.249 1 (2.259 1)	2.269 1 (2.291 1)	2.344 1 (2.396 1)
2.512 -3	2.260 1 (2.264 1)	2.175 1 (2.182 1)	2.188 1 (2.204 1)	2.251 1 (2.287 1)
3.981 -3	2.086 1 (2.088 1)	2.012 1 (2.015 1)	2.013 1 (2.019 1)	2.050 1 (2.062 1)
6.310 -3	1.765 1 (1.764 1)	1.708 1 (1.708 1)	1.691 1 (1.688 1)	1.692 1 (1.681 1)
1.000 -2	1.313 1 (1.311 1)	1.278 1 (1.275 1)	1.248 1 (1.242 1)	1.220 1 (1.206 1)
1.585 -2	8.615 0 (8.605 0)	8.452 0 (8.434 0)	8.197 0 (8.162 0)	7.916 0 (7.848 0)
2.512 -2	5.211 0 (5.208 0)	5.213 0 (5.208 0)	5.113 0 (5.103 0)	4.982 0 (4.963 0)
3.981 -2	2.907 0 (2.907 0)	3.028 0 (3.027 0)	3.075 0 (3.074 0)	3.088 0 (3.085 0)
6.310 -2	1.404 0 (1.404 0)	1.514 0 (1.514 0)	1.587 0 (1.587 0)	1.641 0 (1.641 0)
1.000 -1	5.759 -1 (5.759 -1)	6.204 -1 (6.203 -1)	6.474 -1 (6.471 -1)	6.637 -1 (6.631 -1)
1.585 -1	2.102 -1 (2.102 -1)	2.222 -1 (2.222 -1)	2.256 -1 (2.256 -1)	2.232 -1 (2.231 -1)
2.512 -1	7.326 -2 (7.326 -2)	7.531 -2 (7.530 -2)	7.465 -2 (7.464 -2)	7.226 -2 (7.225 -2)
3.981 -1	2.479 -2 (2.479 -2)	2.510 -2 (2.510 -2)	2.463 -2 (2.463 -2)	2.362 -2 (2.362 -2)
6.310 -1	8.251 -3 (8.251 -3)	8.283 -3 (8.283 -3)	8.138 -3 (8.138 -3)	7.817 -3 (7.817 -3)
1.000 0	2.715 -3 (2.715 -3)	2.704 -3 (2.704 -3)	2.661 -3 (2.661 -3)	2.578 -3 (2.578 -3)
1.585 0	8.609 -4 (8.609 -4)	8.596 -4 (8.596 -4)	8.541 -4 (8.541 -4)	8.394 -4 (8.394 -4)
2.512 0	2.701 -4 (2.701 -4)	2.704 -4 (2.704 -4)	2.706 -4 (2.706 -4)	2.695 -4 (2.695 -4)
3.981 0	8.440 -5 (8.440 -5)	8.456 -5 (8.456 -5)	8.497 -5 (8.497 -5)	8.530 -5 (8.530 -5)
6.310 0		2.642 -5 (2.642 -5)	2.657 -5 (2.657 -5)	2.677 -5 (2.677 -5)
1.000 1		8.273 -6 (8.273 -6)	8.312 -6 (8.312 -6)	8.374 -6 (8.374 -6)
1.585 1			2.606 -6 (2.606 -6)	2.622 -6 (2.622 -6)
2.512 1				8.226 -7 (8.226 -7)
3.981 1				2.587 -7 (2.587 -7)

TABLE 53

N UPPER = 3   N LOWER = 2   WAVELENGTH = 6562.81 ANGSTROM

ELECTRON DENSITY = 3.162*017 CM**(-3)   DLAMBDA/DALPHA = 5.8017+002   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	10000 K RO/D=0.741 K= 4.67		20000 K RO/D=0.524 K= 6.06		40000 K RO/D=0.371 K= 7.44	
0	2.203 1	(2.205 1)	2.166 1	(2.170 1)	2.230 1	(2.241 1)
1.585 -3	2.160 1	(2.161 1)	2.122 1	(2.126 1)	2.179 1	(2.188 1)
2.512 -3	2.098 1	(2.099 1)	2.061 1	(2.063 1)	2.107 1	(2.113 1)
3.981 -3	1.960 1	(1.961 1)	1.923 1	(1.924 1)	1.949 1	(1.952 1)
6.310 -3	1.695 1	(1.695 1)	1.658 1	(1.658 1)	1.656 1	(1.655 1)
1.000 -2	1.297 1	(1.297 1)	1.266 1	(1.266 1)	1.240 1	(1.238 1)
1.585 -2	8.703 0	(8.699 0)	8.504 0	(8.496 0)	8.228 0	(8.213 0)
2.512 -2	5.332 0	(5.330 0)	5.280 0	(5.277 0)	5.147 0	(5.142 0)
3.981 -2	3.027 0	(3.027 0)	3.102 0	(3.102 0)	3.120 0	(3.119 0)
6.310 -2	1.495 0	(1.495 0)	1.583 0	(1.583 0)	1.640 0	(1.640 0)
1.000 -1	6.184 -1	(6.184 -1)	6.552 -1	(6.552 -1)	6.754 -1	(6.752 -1)
1.585 -1	2.252 -1	(2.252 -1)	2.337 -1	(2.337 -1)	2.347 -1	(2.346 -1)
2.512 -1	7.727 -2	(7.727 -2)	7.842 -2	(7.842 -2)	7.704 -2	(7.704 -2)
3.981 -1	2.577 -2	(2.577 -2)	2.584 -2	(2.584 -2)	2.525 -2	(2.525 -2)
6.310 -1	8.445 -3	(8.445 -3)	8.454 -3	(8.454 -3)	8.283 -3	(8.283 -3)
1.000 0	2.737 -3	(2.737 -3)	2.724 -3	(2.724 -3)	2.685 -3	(2.685 -3)
1.585 0	8.612 -4	(8.612 -4)	8.608 -4	(8.608 -4)	8.572 -4	(8.572 -4)
2.512 0	2.692 -4	(2.692 -4)	2.698 -4	(2.698 -4)	2.706 -4	(2.706 -4)
3.981 0	8.401 -5	(8.401 -5)	8.427 -5	(8.427 -5)	8.477 -5	(8.477 -5)
6.310 0			2.634 -5	(2.634 -5)	2.650 -5	(2.650 -5)
1.000 1			8.252 -6	(8.252 -6)	8.293 -6	(8.293 -6)
1.585 1					2.602 -6	(2.602 -6)

TABLE 54

ELECTRON DENSITY = 1.000+018 CM**(-3)   N UPPER = 3   N LOWER = 2   DLAMBDA/ALPHA = 1.2803-003*DALPHA**(-5/2)   WAVELENGTH = 6562.81 ANGSTROM

DLAMBDA/ALPHA = 1.2500+003   ASYMPTOTE = 1.2803-003*DALPHA**(-5/2)

ALPHA	10000 K RO/D=0.898 K= 3.52		20000 K RO/D=0.635 K= 4.91		40000 K RO/D=0.443 K= 6.29	
0	2.212 1	(2.212 1)	2.047 1	(2.048 1)	2.054 1	(2.056 1)
1.585 -3	2.169 1	(2.170 1)	2.013 1	(2.014 1)	2.017 1	(2.019 1)
2.512 -3	2.110 1	(2.110 1)	1.965 1	(1.965 1)	1.965 1	(1.966 1)
3.981 -3	1.975 1	(1.975 1)	1.853 1	(1.854 1)	1.846 1	(1.847 1)
6.310 -3	1.713 1	(1.713 1)	1.631 1	(1.631 1)	1.613 1	(1.614 1)
1.000 -2	1.316 1	(1.316 1)	1.279 1	(1.279 1)	1.254 1	(1.254 1)
1.585 -2	8.836 0	(8.835 0)	8.766 0	(8.765 0)	8.544 0	(8.540 0)
2.512 -2	5.366 0	(5.366 0)	5.431 0	(5.431 0)	5.336 0	(5.334 0)
3.981 -2	2.984 0	(2.984 0)	3.126 0	(3.126 0)	3.163 0	(3.163 0)
6.310 -2	1.448 0	(1.448 0)	1.575 0	(1.575 0)	1.643 0	(1.643 0)
1.000 -1	6.006 -1	(6.005 -1)	6.581 -1	(6.581 -1)	6.872 -1	(6.871 -1)
1.585 -1	2.213 -1	(2.213 -1)	2.386 -1	(2.386 -1)	2.440 -1	(2.440 -1)
2.512 -1	7.676 -2	(7.676 -2)	8.082 -2	(8.082 -2)	8.059 -2	(8.059 -2)
3.981 -1	2.577 -2	(2.577 -2)	2.658 -2	(2.658 -2)	2.653 -2	(2.653 -2)
6.310 -1	8.469 -3	(8.469 -3)	8.605 -3	(8.605 -3)	8.587 -3	(8.587 -3)
1.000 0	2.742 -3	(2.742 -3)	2.749 -3	(2.749 -3)	2.738 -3	(2.738 -3)
1.585 0	8.604 -4	(8.604 -4)	8.601 -4	(8.601 -4)	8.610 -4	(8.610 -4)
2.512 0	2.685 -4	(2.685 -4)	2.682 -4	(2.682 -4)	2.692 -4	(2.692 -4)
3.981 0			8.368 -5	(8.368 -5)	8.402 -5	(8.402 -5)
6.310 0					2.627 -5	(2.627 -5)
1.000 1					8.236 -6	(8.236 -6)

97

TABLE 55

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 1.000+011 CM**(-3)

DLAMBDA/DALPHA = 2.6930-002   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.122 K=14.73	5000 K RO/D=0.087 K=16.12	10000 K RO/D=0.061 K=17.50
0	1.456 -1 (4.316 -1)	1.030 -1 (3.253 -1)	7.287 -2 (2.432 -1)
1.585 -4	1.456 -1 (4.327 -1)	1.030 -1 (3.265 -1)	7.287 -2 (2.448 -1)
2.512 -4	1.456 -1 (4.343 -1)	1.030 -1 (3.282 -1)	7.287 -2 (2.466 -1)
3.981 -4	1.456 -1 (4.383 -1)	1.030 -1 (3.323 -1)	7.287 -2 (2.511 -1)
6.310 -4	1.456 -1 (4.483 -1)	1.030 -1 (3.422 -1)	7.287 -2 (2.613 -1)
1.000 -3	1.456 -1 (4.726 -1)	1.030 -1 (3.659 -1)	7.287 -2 (2.850 -1)
1.585 -3	1.456 -1 (5.303 -1)	1.030 -1 (4.213 -1)	7.287 -2 (3.392 -1)
2.512 -3	1.456 -1 (6.658 -1)	1.030 -1 (5.516 -1)	7.287 -2 (4.668 -1)
3.981 -3	1.456 -1 (9.807 -1)	1.030 -1 (8.575 -1)	7.287 -2 (7.681 -1)
6.310 -3	1.456 -1 (1.676 0)	1.030 -1 (1.539 0)	7.287 -2 (1.443 0)
1.000 -2	1.456 -1 (2.999 0)	1.030 -1 (2.846 0)	7.287 -2 (2.741 0)
1.585 -2	1.456 -1 (4.848 0)	1.030 -1 (4.692 0)	7.287 -2 (4.586 0)
2.512 -2	1.456 -1 (6.328 0)	1.030 -1 (6.228 0)	7.287 -2 (6.172 0)
3.981 -2	1.456 -1 (5.390 0)	1.030 -1 (6.002 0)	7.287 -2 (6.013 0)
6.310 -2	1.455 -1 (3.797 0)	1.030 -1 (3.862 0)	7.287 -2 (3.911 0)
1.000 -1	1.455 -1 (1.666 0)	1.030 -1 (1.704 0)	7.286 -2 (1.732 0)
1.585 -1	1.453 -1 (5.304 -1)	1.029 -1 (5.370 -1)	7.284 -2 (5.415 -1)
2.512 -1	1.450 -1 (1.509 -1)	1.028 -1 (1.501 -1)	7.280 -2 (1.494 -1)
3.981 -1	1.440 -1 (4.484 -2)	1.024 -1 (4.409 -2)	7.268 -2 (4.349 -2)
6.310 -1	1.417 -1 (1.390 -2)	1.016 -1 (1.354 -2)	7.239 -2 (1.325 -2)
1.000 0	1.362 -1 (4.422 -3)	9.961 -2 (4.268 -3)	7.166 -2 (4.146 -3)
1.585 0	1.231 -1 (1.411 -3)	9.471 -2 (1.348 -3)	6.987 -2 (1.299 -3)
2.512 0	9.561 -2 (4.651 -4)	8.344 -2 (4.406 -4)	6.558 -2 (4.210 -4)
3.981 0	7.067 -2 (1.552 -4)	6.069 -2 (1.457 -4)	5.593 -2 (1.379 -4)
6.310 0	1.031 -2 (5.231 -5)	2.730 -2 (4.866 -5)	3.749 -2 (4.564 -5)
1.000 1	2.121 -4 (1.776 -5)	3.684 -3 (1.640 -5)	1.373 -2 (1.524 -5)
1.585 1	6.918 -6 (6.045 -6)	3.125 -5 (5.566 -6)	1.107 -3 (5.135 -6)
2.512 1	2.154 -6 (2.051 -6)	2.101 -6 (1.895 -6)	4.166 -6 (1.742 -6)
3.981 1	7.024 -7 (6.890 -7)	6.089 -7 (6.437 -7)	6.423 -7 (5.930 -7)
6.310 1	2.293 -7 (2.275 -7)	2.198 -7 (2.165 -7)	2.078 -7 (2.015 -7)
1.000 2	7.392 -8 (7.368 -8)	7.210 -8 (7.166 -8)	6.874 -8 (6.792 -8)
1.585 2	2.348 -8 (2.345 -8)	2.331 -8 (2.325 -8)	2.264 -8 (2.253 -8)
2.512 2	7.380 -9 (7.376 -9)	7.421 -9 (7.413 -9)	7.349 -9 (7.334 -9)
3.981 2	2.310 -9 (2.309 -9)	2.336 -9 (2.335 -9)	2.345 -9 (2.343 -9)
6.310 2	7.231-10 (7.230-10)	7.313-10 (7.312-10)	7.392-10 (7.390-10)
1.000 3	2.268-10 (2.268-10)	2.289-10 (2.289-10)	2.316-10 (2.316-10)
1.585 3	7.131-11 (7.131-11)	7.178-11 (7.178-11)	7.249-11 (7.248-11)
2.512 3	2.246-11 (2.246-11)	2.256-11 (2.256-11)	2.272-11 (2.272-11)
3.981 3	7.083-12 (7.083-12)	7.105-12 (7.105-12)	7.140-12 (7.140-12)
6.310 3	2.236-12 (2.236-12)	2.240-12 (2.240-12)	2.248-12 (2.248-12)
1.000 4	7.063-13 (7.063-13)	7.072-13 (7.072-13)	7.088-13 (7.088-13)
1.585 4	2.232-13 (2.232-13)	2.234-13 (2.234-13)	2.237-13 (2.237-13)
2.512 4		7.059-14 (7.059-14)	7.065-14 (7.065-14)
3.981 4			2.232-14 (2.232-14)
6.310 4			7.056-15 (7.056-15)

98

TABLE 56

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 3.162+011 CM**(-3)   OLAMBDA/DALPHA = 5.8017-002   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.148 K=13.58	5000 K RO/D=0.105 K=14.96	10000 K RO/D=0.074 K=16.35	20000 K RO/D=0.052 K=17.74	40000 K RO/D=0.037 K=19.12
0	3.115 -1 (5.818 -1)	2.213 -1 (4.410 -1)	1.565 -1 (3.354 -1)	1.111 -1 (2.524 -1)	7.848 -2 (1.876 -1)
1.585 -4	3.115 -1 (5.828 -1)	2.213 -1 (4.420 -1)	1.565 -1 (3.364 -1)	1.111 -1 (2.539 -1)	7.848 -2 (1.889 -1)
2.512 -4	3.115 -1 (5.844 -1)	2.213 -1 (4.435 -1)	1.565 -1 (3.380 -1)	1.111 -1 (2.557 -1)	7.848 -2 (1.908 -1)
3.981 -4	3.115 -1 (5.882 -1)	2.213 -1 (4.473 -1)	1.565 -1 (3.419 -1)	1.111 -1 (2.599 -1)	7.848 -2 (1.951 -1)
6.310 -4	3.115 -1 (5.979 -1)	2.213 -1 (4.568 -1)	1.565 -1 (3.514 -1)	1.111 -1 (2.699 -1)	7.848 -2 (2.052 -1)
1.000 -3	3.115 -1 (6.215 -1)	2.213 -1 (4.799 -1)	1.565 -1 (3.742 -1)	1.111 -1 (2.928 -1)	7.848 -2 (2.282 -1)
1.585 -3	3.115 -1 (6.785 -1)	2.213 -1 (5.349 -1)	1.565 -1 (4.278 -1)	1.111 -1 (3.458 -1)	7.848 -2 (2.809 -1)
2.512 -3	3.115 -1 (8.125 -1)	2.213 -1 (6.641 -1)	1.565 -1 (5.536 -1)	1.111 -1 (4.701 -1)	7.848 -2 (4.054 -1)
3.981 -3	3.115 -1 (1.122 0)	2.213 -1 (9.643 -1)	1.565 -1 (8.490 -1)	1.111 -1 (7.636 -1)	7.848 -2 (6.996 -1)
6.310 -3	3.115 -1 (1.800 0)	2.213 -1 (1.630 0)	1.565 -1 (1.509 0)	1.111 -1 (1.422 0)	7.848 -2 (1.360 0)
1.000 -2	3.115 -1 (3.091 0)	2.213 -1 (2.908 0)	1.565 -1 (2.785 0)	1.111 -1 (2.702 0)	7.848 -2 (2.560 0)
1.585 -2	3.114 -1 (4.907 0)	2.213 -1 (4.735 0)	1.565 -1 (4.536 0)	1.111 -1 (4.591 0)	7.848 -2 (4.473 0)
2.512 -2	3.114 -1 (6.317 0)	2.212 -1 (6.234 0)	1.565 -1 (6.147 0)	1.111 -1 (6.121 0)	7.848 -2 (6.068 0)
3.981 -2	3.113 -1 (5.919 0)	2.212 -1 (5.975 0)	1.565 -1 (5.992 0)	1.111 -1 (6.001 0)	7.847 -2 (6.021 0)
6.310 -2	3.111 -1 (3.754 0)	2.211 -1 (3.826 0)	1.565 -1 (3.882 0)	1.111 -1 (3.925 0)	7.847 -2 (3.956 0)
1.000 -1	3.105 -1 (1.647 0)	2.209 -1 (1.690 0)	1.564 -1 (1.722 0)	1.111 -1 (1.745 0)	7.846 -2 (1.761 0)
1.585 -1	3.091 -1 (5.316 -1)	2.204 -1 (5.384 -1)	1.562 -1 (5.469 -1)	1.110 -1 (5.459 -1)	7.844 -2 (5.477 -1)
2.512 -1	3.055 -1 (1.538 -1)	2.191 -1 (1.524 -1)	1.558 -1 (1.512 -1)	1.108 -1 (1.501 -1)	7.838 -2 (1.493 -1)
3.981 -1	2.967 -1 (4.622 -2)	2.159 -1 (4.519 -2)	1.546 -1 (4.434 -2)	1.104 -1 (4.367 -2)	7.824 -2 (4.313 -2)
6.310 -1	2.757 -1 (1.449 -2)	2.081 -1 (1.401 -2)	1.518 -1 (1.362 -2)	1.094 -1 (1.330 -2)	7.787 -2 (1.306 -2)
1.000 0	2.292 -1 (4.663 -3)	1.897 -1 (4.459 -3)	1.443 -1 (4.296 -3)	1.069 -1 (4.167 -3)	7.697 -2 (4.065 -3)
1.585 0	1.443 -1 (1.507 -3)	1.503 -1 (1.426 -3)	1.283 -1 (1.360 -3)	1.008 -1 (1.307 -3)	7.475 -2 (1.265 -3)
2.512 0	4.530 -2 (5.023 -4)	8.378 -2 (4.709 -4)	9.616 -2 (4.451 -4)	8.703 -2 (4.244 -4)	6.945 -2 (4.079 -4)
3.981 0	2.664 -3 (1.693 -4)	1.939 -2 (1.574 -4)	4.605 -2 (1.475 -4)	6.018 -2 (1.393 -4)	5.774 -2 (1.328 -4)
6.310 0	7.151 -5 (5.751 -5)	5.588 -4 (5.315 -5)	7.283 -3 (4.935 -5)	2.383 -2 (4.618 -5)	3.630 -2 (4.360 -5)
1.000 1	2.093 -5 (1.957 -5)	2.098 -5 (1.806 -5)	9.254 -5 (1.666 -5)	2.340 -3 (1.545 -5)	1.132 -2 (1.444 -5)
1.585 1	6.797 -6 (6.623 -6)	6.481 -6 (6.148 -6)	6.338 -6 (5.861 -6)	1.349 -5 (5.213 -6)	6.125 -4 (4.827 -6)
2.512 1	2.237 -6 (2.214 -6)	2.126 -6 (2.083 -6)	2.009 -6 (1.927 -6)	1.932 -6 (1.770 -6)	2.377 -6 (1.627 -6)
3.981 1	7.297 -7 (7.266 -7)	7.029 -7 (6.971 -7)	6.643 -7 (6.536 -7)	6.229 -7 (6.028 -7)	5.910 -7 (5.520 -7)
6.310 1	2.343 -7 (2.339 -7)	2.300 -7 (2.292 -7)	2.206 -7 (2.191 -7)	2.073 -7 (2.046 -7)	1.929 -7 (1.879 -7)
1.000 2	7.415 -8 (7.410 -8)	7.399 -8 (7.389 -8)	7.240 -8 (7.221 -8)	6.910 -8 (6.874 -8)	6.452 -8 (6.386 -8)
1.585 2	2.327 -8 (2.326 -8)	2.345 -8 (2.344 -8)	2.336 -8 (2.333 -8)	2.276 -8 (2.272 -8)	2.160 -8 (2.151 -8)
2.512 2	7.280 -9 (7.279 -9)	7.363 -9 (7.361 -9)	7.416 -9 (7.412 -9)	7.368 -9 (7.361 -9)	7.145 -9 (7.133 -9)
3.981 2	2.280 -9 (2.280 -9)	2.304 -9 (2.304 -9)	2.331 -9 (2.330 -9)	2.345 -9 (2.344 -9)	2.322 -9 (2.320 -9)
6.310 2	7.157 -10 (7.157-10)	7.216 -10 (7.216-10)	7.295 -10 (7.295-10)	7.378 -10 (7.377-10)	7.412 -10 (7.410-10)
1.000 3	2.252 -10 (2.252-10)	2.264 -10 (2.264-10)	2.284 -10 (2.284-10)	2.310 -10 (2.310-10)	2.337 -10 (2.336-10)
1.585 3	7.095 -11 (7.095-11)	7.124 -11 (7.124-11)	7.167 -11 (7.167-11)	7.233 -11 (7.233-11)	7.321 -11 (7.320-11)
2.512 3	2.238 -11 (2.238-11)	2.244 -11 (2.244-11)	2.254 -11 (2.254-11)	2.269 -11 (2.269-11)	2.292 -11 (2.291-11)
3.981 3	7.066 -12 (7.068-12)	7.080 -12 (7.080-12)	7.099 -12 (7.099-12)	7.133 -12 (7.133-12)	7.184 -12 (7.184-12)
6.310 3	2.233 -12 (2.233-12)	2.235 -12 (2.235-12)	2.239 -12 (2.239-12)	2.246 -12 (2.246-12)	2.258 -12 (2.258-12)
1.000 4		7.062 -13 (7.062-13)	7.070 -13 (7.070-13)	7.083 -13 (7.083-13)	7.108 -13 (7.108-13)
1.585 4			2.233 -13 (2.233-13)	2.236 -13 (2.236-13)	2.241 -13 (2.241-13)
2.512 4			7.058 -14 (7.058-14)	7.063 -14 (7.063-14)	7.073 -14 (7.073-14)
3.981 4				2.232 -14 (2.232-14)	2.258 -14 (2.234-14)
6.310 4					7.059 -15 (7.059-15)

TABLE 57

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 1.0000012 CM**(-3)   DLAMBDA/DALPHA = 1.2500-001   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.180 K=12.43	5000 K RO/D=0.127 K=13.81	10000 K RO/D=0.090 K=15.20	20000 K RO/D=0.063 K=16.59	40000 K RO/D=0.045 K=17.97
0	6.592 -1 (7.756 -1)	4.720 -1 (5.913 -1)	3.352 -1 (4.524 -1)	2.380 -1 (3.462 -1)	1.688 -1 (2.614 -1)
2.512 -4	6.592 -1 (7.780 -1)	4.720 -1 (5.937 -1)	3.352 -1 (4.548 -1)	2.380 -1 (3.487 -1)	1.688 -1 (2.645 -1)
3.981 -4	6.592 -1 (7.816 -1)	4.720 -1 (5.973 -1)	3.352 -1 (4.585 -1)	2.380 -1 (3.524 -1)	1.688 -1 (2.686 -1)
6.310 -4	6.592 -1 (7.908 -1)	4.720 -1 (6.064 -1)	3.352 -1 (4.675 -1)	2.380 -1 (3.616 -1)	1.688 -1 (2.783 -1)
1.000 -3	6.592 -1 (8.133 -1)	4.720 -1 (6.286 -1)	3.352 -1 (4.895 -1)	2.380 -1 (3.836 -1)	1.688 -1 (3.007 -1)
1.585 -3	6.592 -1 (8.682 -1)	4.720 -1 (6.821 -1)	3.352 -1 (5.422 -1)	2.380 -1 (4.355 -1)	1.688 -1 (3.524 -1)
2.512 -3	6.592 -1 (9.985 -1)	4.720 -1 (8.085 -1)	3.352 -1 (6.660 -1)	2.380 -1 (5.576 -1)	1.688 -1 (4.740 -1)
3.981 -3	6.591 -1 (1.298 0)	4.720 -1 (1.100 0)	3.352 -1 (9.538 -1)	2.380 -1 (8.439 -1)	1.688 -1 (7.609 -1)
6.310 -3	6.591 -1 (1.952 0)	4.720 -1 (1.743 0)	3.352 -1 (1.593 0)	2.380 -1 (1.485 0)	1.688 -1 (1.405 0)
1.000 -2	6.591 -1 (3.198 0)	4.720 -1 (2.982 0)	3.352 -1 (2.832 0)	2.380 -1 (2.731 0)	1.688 -1 (2.666 0)
1.585 -2	6.589 -1 (4.961 0)	4.719 -1 (4.760 0)	3.352 -1 (4.628 0)	2.380 -1 (4.498 0)	1.688 -1 (4.465 0)
2.512 -2	6.586 -1 (6.326 0)	4.718 -1 (6.223 0)	3.351 -1 (6.090 0)	2.379 -1 (6.075 0)	1.688 -1 (6.075 0)
3.981 -2	6.577 -1 (5.829 0)	4.715 -1 (5.934 0)	3.350 -1 (5.955 0)	2.379 -1 (5.980 0)	1.688 -1 (5.991 0)
6.310 -2	6.555 -1 (3.701 0)	4.707 -1 (3.790 0)	3.347 -1 (3.851 0)	2.378 -1 (3.898 0)	1.688 -1 (3.936 0)
1.000 -1	6.501 -1 (1.629 0)	4.687 -1 (1.676 0)	3.340 -1 (1.712 0)	2.376 -1 (1.738 0)	1.687 -1 (1.756 0)
1.585 -1	6.366 -1 (5.343 -1)	4.637 -1 (5.412 -1)	3.322 -1 (5.457 -1)	2.369 -1 (5.483 -1)	1.684 -1 (5.498 -1)
2.512 -1	6.039 -1 (1.577 -1)	4.515 -1 (1.558 -1)	3.278 -1 (1.539 -1)	2.353 -1 (1.522 -1)	1.679 -1 (1.509 -1)
3.981 -1	5.291 -1 (4.807 -2)	4.222 -1 (4.670 -2)	3.169 -1 (4.554 -2)	2.313 -1 (4.459 -2)	1.664 -1 (4.384 -2)
6.310 -1	3.797 -1 (1.527 -2)	3.566 -1 (1.464 -2)	2.910 -1 (1.412 -2)	2.216 -1 (1.370 -2)	1.629 -1 (1.336 -2)
1.000 0	1.659 -1 (4.922 -3)	2.336 -1 (4.714 -3)	2.350 -1 (4.499 -3)	1.990 -1 (4.326 -3)	1.543 -1 (4.187 -3)
1.585 0	2.215 -2 (1.629 -3)	8.120 -2 (1.527 -3)	1.374 -1 (1.442 -3)	1.519 -1 (1.372 -3)	1.348 -1 (1.316 -3)
2.512 0	8.343 -4 (5.463 -4)	8.269 -3 (5.100 -4)	3.596 -2 (4.772 -4)	7.718 -2 (4.499 -4)	9.592 -2 (4.277 -4)
3.981 0	2.045 -4 (1.806 -4)	2.210 -4 (1.722 -4)	1.438 -3 (1.598 -4)	1.418 -2 (1.487 -4)	4.084 -2 (1.406 -4)
6.310 0	6.546 -5 (6.318 -5)	6.299 -5 (5.853 -5)	6.392 -5 (5.405 -5)	2.661 -4 (5.006 -5)	4.824 -3 (4.669 -5)
1.000 1	2.162 -5 (2.132 -5)	2.046 -5 (1.990 -5)	1.947 -5 (1.838 -5)	1.918 -5 (1.693 -5)	4.270 -5 (1.565 -5)
1.585 1	7.132 -6 (7.091 -6)	6.794 -6 (6.719 -6)	6.392 -6 (6.252 -6)	6.023 -6 (5.757 -6)	5.823 -6 (5.287 -6)
2.512 1	2.330 -6 (2.314 -6)	2.247 -6 (2.237 -6)	2.132 -6 (2.113 -6)	1.994 -6 (1.959 -6)	1.862 -6 (1.797 -6)
3.981 1	7.419 -7 (7.412 -7)	7.323 -7 (7.309 -7)	7.072 -7 (7.047 -7)	6.677 -7 (6.631 -7)	6.204 -7 (6.119 -7)
6.310 1	2.341 -7 (2.340 -7)	2.345 -7 (2.343 -7)	2.309 -7 (2.306 -7)	2.222 -7 (2.215 -7)	2.085 -7 (2.074 -7)
1.000 2	7.336 -8 (7.335 -8)	7.403 -8 (7.401 -8)	7.408 -8 (7.403 -8)	7.276 -8 (7.267 -8)	6.962 -8 (6.947 -8)
1.585 2	2.296 -8 (2.295 -8)	2.321 -8 (2.320 -8)	2.342 -8 (2.341 -8)	2.339 -8 (2.338 -8)	2.289 -8 (2.286 -8)
2.512 2	7.194 -9 (7.193 -9)	7.262 -9 (7.262 -9)	7.408 -9 (7.344 -9)	7.408 -9 (7.407 -9)	7.383 -9 (7.381 -9)
3.981 2	2.260 -9 (2.260 -9)	2.276 -9 (2.276 -9)	2.298 -9 (2.298 -9)	2.325 -9 (2.325 -9)	2.344 -9 (2.343 -9)
6.310 2	7.113 -10 (7.113 -10)	7.147 -10 (7.147 -10)	7.201 -10 (7.201 -10)	7.278 -10 (7.278 -10)	7.364 -10 (7.364 -10)
1.000 3	2.242 -10 (2.242 -10)	2.250 -10 (2.250 -10)	2.261 -10 (2.261 -10)	2.280 -10 (2.280 -10)	2.305 -10 (2.305 -10)
1.585 3	7.075 -11 (7.075 -11)	7.091 -11 (7.091 -11)	7.116 -11 (7.116 -11)	7.157 -11 (7.157 -11)	7.220 -11 (7.220 -11)
2.512 3	2.234 -11 (2.234 -11)	2.237 -11 (2.237 -11)	2.243 -11 (2.243 -11)	2.251 -11 (2.251 -11)	2.266 -11 (2.266 -11)
3.981 3		7.066 -12 (7.066 -12)	7.077 -12 (7.077 -12)	7.095 -12 (7.095 -12)	7.126 -12 (7.126 -12)
6.310 3		2.233 -12 (2.233 -12)	2.235 -12 (2.235 -12)	2.238 -12 (2.238 -12)	2.245 -12 (2.245 -12)
1.000 4			7.060 -13 (7.060 -13)	7.068 -13 (7.068 -13)	7.081 -13 (7.081 -13)
1.585 4				2.233 -13 (2.233 -13)	2.236 -13 (2.236 -13)
2.512 4				7.057 -14 (7.057 -14)	7.062 -14 (7.062 -14)

TABLE 58

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 3.162+012 CM**(-3)   DLAMBDA/DALPHA = 2.6929-001   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.218 K=11.28	5000 K RO/D=0.154 K=12.66	10000 K RO/D=0.109 K=14.05	20000 K RO/D=0.077 K=15.43	40000 K RO/D=0.054 K=16.82
0	1.351 0 (1.018 0)	9.837 -1 (7.831 -1)	7.088 -1 (6.038 -1)	5.071 -1 (4.651 -1)	3.611 -1 (3.559 -1)
2.512 -4	1.351 0 (1.021 0)	9.837 -1 (7.853 -1)	7.088 -1 (6.061 -1)	5.071 -1 (4.674 -1)	3.611 -1 (3.583 -1)
3.981 -4	1.351 0 (1.024 0)	9.837 -1 (7.887 -1)	7.088 -1 (6.095 -1)	5.071 -1 (4.708 -1)	3.611 -1 (3.620 -1)
6.310 -4	1.351 0 (1.033 0)	9.837 -1 (7.971 -1)	7.088 -1 (6.180 -1)	5.071 -1 (4.795 -1)	3.611 -1 (3.709 -1)
1.000 -3	1.351 0 (1.054 0)	9.837 -1 (8.180 -1)	7.088 -1 (6.389 -1)	5.071 -1 (5.007 -1)	3.611 -1 (3.924 -1)
1.585 -3	1.351 0 (1.105 0)	9.837 -1 (8.689 -1)	7.088 -1 (6.897 -1)	5.071 -1 (5.514 -1)	3.611 -1 (4.431 -1)
2.512 -3	1.351 0 (1.229 0)	9.837 -1 (9.902 -1)	7.088 -1 (8.095 -1)	5.071 -1 (6.706 -1)	3.611 -1 (5.622 -1)
3.981 -3	1.351 0 (1.515 0)	9.837 -1 (1.270 0)	7.088 -1 (1.087 0)	5.071 -1 (9.476 -1)	3.611 -1 (8.410 -1)
6.310 -3	1.351 0 (2.137 0)	9.836 -1 (1.883 0)	7.088 -1 (1.699 0)	5.071 -1 (1.565 0)	3.611 -1 (1.465 0)
1.000 -2	1.351 0 (3.321 0)	9.834 -1 (3.067 0)	7.087 -1 (2.890 0)	5.071 -1 (2.769 0)	3.611 -1 (2.686 0)
1.585 -2	1.349 0 (5.010 0)	9.830 -1 (4.785 0)	7.085 -1 (4.632 0)	5.070 -1 (4.532 0)	3.610 -1 (4.470 0)
2.512 -2	1.346 0 (6.290 0)	9.818 -1 (6.186 0)	7.081 -1 (6.113 0)	5.069 -1 (6.064 0)	3.610 -1 (6.038 0)
3.981 -2	1.339 0 (5.770 0)	9.789 -1 (5.832 0)	7.070 -1 (5.885 0)	5.065 -1 (5.933 0)	3.608 -1 (5.962 0)
6.310 -2	1.320 0 (3.644 0)	9.716 -1 (3.740 0)	7.043 -1 (3.816 0)	5.055 -1 (3.870 0)	3.605 -1 (3.916 0)
1.000 -1	1.273 0 (1.614 0)	9.535 -1 (1.663 0)	6.975 -1 (1.703 0)	5.030 -1 (1.731 0)	3.596 -1 (1.752 0)
1.585 -1	1.163 0 (5.388 -1)	9.095 -1 (5.461 -1)	6.808 -1 (5.502 -1)	4.969 -1 (5.523 -1)	3.574 -1 (5.531 -1)
2.512 -1	9.274 -1 (1.630 -1)	8.079 -1 (1.603 -1)	6.406 -1 (1.574 -1)	4.817 -1 (1.552 -1)	3.518 -1 (1.552 -1)
3.981 -1	5.286 -1 (5.051 -2)	6.005 -1 (4.873 -2)	5.498 -1 (4.684 -2)	4.457 -1 (4.589 -2)	3.383 -1 (4.434 -2)
6.310 -1	1.366 -1 (1.626 -2)	2.871 -1 (1.547 -2)	3.748 -1 (1.467 -2)	3.666 -1 (1.423 -2)	3.065 -1 (1.361 -2)
1.000 0	1.087 -2 (5.322 -3)	4.870 -2 (5.046 -3)	1.444 -1 (4.728 -3)	2.248 -1 (4.541 -3)	2.392 -1 (4.308 -3)
1.585 0	2.041 -3 (1.778 -3)	2.659 -3 (1.656 -3)	1.469 -2 (1.549 -3)	6.634 -2 (1.459 -3)	1.285 -1 (1.384 -3)
2.512 0	6.313 -4 (6.010 -4)	6.193 -4 (5.581 -4)	6.904 -4 (5.183 -4)	3.672 -3 (4.836 -4)	2.728 -2 (4.545 -4)
3.981 0	2.075 -4 (2.036 -4)	1.968 -4 (1.894 -4)	1.900 -4 (1.753 -4)	1.962 -4 (1.623 -4)	7.508 -4 (1.511 -4)
6.310 0	6.895 -5 (6.843 -5)	6.523 -5 (6.426 -5)	6.141 -5 (5.958 -5)	5.853 -5 (5.495 -5)	5.831 -5 (5.074 -5)
1.000 1	2.273 -5 (2.266 -5)	2.175 -5 (2.162 -5)	2.048 -5 (2.023 -5)	1.915 -5 (1.870 -5)	1.805 -5 (1.718 -5)
1.585 1	7.367 -6 (7.357 -6)	7.177 -6 (7.159 -6)	6.846 -6 (6.814 -6)	6.415 -6 (6.355 -6)	5.958 -6 (5.846 -6)
2.512 1	2.347 -6 (2.346 -6)	2.328 -6 (2.325 -6)	2.263 -6 (2.259 -6)	2.150 -6 (2.142 -6)	2.003 -6 (1.988 -6)
3.981 1	7.390 -7 (7.388 -7)	7.420 -7 (7.417 -7)	7.351 -7 (7.345 -7)	7.126 -7 (7.115 -7)	6.735 -7 (6.715 -7)
6.310 1	2.314 -7 (2.314 -7)	2.336 -7 (2.336 -7)	2.345 -7 (2.345 -7)	2.319 -7 (2.318 -7)	2.238 -7 (2.236 -7)
1.000 2	7.241 -8 (7.241 -8)	7.316 -8 (7.316 -8)	7.390 -8 (7.389 -8)	7.413 -8 (7.411 -8)	7.308 -8 (7.304 -8)
1.585 2	2.270 -8 (2.270 -8)	2.290 -8 (2.290 -8)	2.315 -8 (2.315 -8)	2.338 -8 (2.338 -8)	2.342 -8 (2.342 -8)
2.512 2	7.136 -9 (7.357 -6)	7.180 -9 (7.180 -9)	7.245 -9 (7.245 -9)	7.327 -9 (7.327 -9)	7.400 -9 (7.399 -9)
3.981 2	2.247 -9 (2.247 -9)	2.257 -9 (2.257 -9)	2.271 -9 (2.271 -9)	2.293 -9 (2.293 -9)	2.320 -9 (2.320 -9)
6.310 2	7.085 -10 (7.085 -10)	7.106 -10 (7.106 -10)	7.133 -10 (7.138 -10)	7.188 -10 (7.188 -10)	7.262 -10 (7.262 -10)
1.000 3	2.236 -10 (2.236 -10)	2.240 -10 (2.240 -10)	2.247 -10 (2.247 -10)	2.258 -10 (2.258 -10)	2.276 -10 (2.276 -10)
1.585 3	7.064 -11 (7.064 -11)	7.072 -11 (7.072 -11)	7.086 -11 (7.086 -11)	7.110 -11 (7.110 -11)	7.148 -11 (7.148 -11)
2.512 3		2.234 -11 (2.234 -11)	2.237 -11 (2.237 -11)	2.242 -11 (2.242 -11)	2.250 -11 (2.250 -11)
3.981 3			7.064 -12 (7.064 -12)	7.074 -12 (7.074 -12)	7.091 -12 (7.091 -12)
6.310 3			2.232 -12 (2.232 -12)	2.234 -12 (2.234 -12)	2.237 -12 (2.237 -12)
1.000 4				7.059 -13 (7.059 -13)	7.066 -13 (7.066 -13)

TABLE 59

WAVELENGTH = 4861.33 ANGSTROM

N UPPER = 4   N LOWER = 2   OLAMBDA/OALPHA = 5.802U-001   ASYMPTOTE = 3.5261-003*OALPHA**(-5/2)

ELECTRON DENSITY = 1.000+013 CM**(-3)

ALPHA	2500 K RO/D=0.264 K=10.12		5000 K RO/D=0.186 K=11.51		10000 K RO/D=0.132 K=12.90		20000 K RO/D=0.093 K=14.28		40000 K RO/D=0.066 K=15.67	
0	2.531 0	(1.314 0)	1.937 0	(1.021 0)	1.441 0	(7.949 -1)	1.057 0	(6.180 -1)	7.617 -1	(4.775 -1)
3.981 -4	2.531 0	(1.319 0)	1.937 0	(1.026 0)	1.441 0	(8.001 -1)	1.057 0	(6.234 -1)	7.617 -1	(4.831 -1)
6.310 -4	2.531 0	(1.326 0)	1.937 0	(1.033 0)	1.441 0	(8.080 -1)	1.057 0	(6.315 -1)	7.617 -1	(4.914 -1)
1.000 -3	2.531 0	(1.346 0)	1.937 0	(1.053 0)	1.441 0	(8.275 -1)	1.057 0	(6.514 -1)	7.617 -1	(5.118 -1)
1.585 -3	2.531 0	(1.394 0)	1.937 0	(1.100 0)	1.441 0	(8.751 -1)	1.057 0	(6.997 -1)	7.617 -1	(5.608 -1)
2.512 -3	2.531 0	(1.508 0)	1.937 0	(1.214 0)	1.441 0	(9.886 -1)	1.057 0	(8.140 -1)	7.617 -1	(6.762 -1)
3.981 -3	2.531 0	(1.775 0)	1.937 0	(1.477 0)	1.441 0	(1.251 0)	1.056 0	(1.079 0)	7.617 -1	(9.441 -1)
6.310 -3	2.529 0	(2.355 0)	1.936 0	(2.052 0)	1.441 0	(1.830 0)	1.056 0	(1.665 0)	7.616 -1	(1.542 0)
1.000 -2	2.526 0	(3.461 0)	1.935 0	(3.166 0)	1.440 0	(2.958 0)	1.056 0	(2.814 0)	7.615 -1	(2.715 0)
1.585 -2	2.517 0	(5.048 0)	1.931 0	(4.801 0)	1.439 0	(4.632 0)	1.056 0	(4.522 0)	7.613 -1	(4.454 0)
2.512 -2	2.496 0	(6.226 0)	1.922 0	(6.126 0)	1.435 0	(6.060 0)	1.054 0	(6.022 0)	7.608 -1	(5.995 0)
3.981 -2	2.443 0	(5.651 0)	1.899 0	(5.738 0)	1.426 0	(5.782 0)	1.051 0	(5.895 0)	7.594 -1	(5.910 0)
6.310 -2	2.314 0	(3.563 0)	1.842 0	(3.691 0)	1.402 0	(3.771 0)	1.041 0	(3.842 0)	7.561 -1	(3.889 0)
1.000 -1	2.022 0	(1.596 0)	1.707 0	(1.652 0)	1.346 0	(1.695 0)	1.019 0	(1.726 0)	7.477 -1	(1.748 0)
1.585 -1	1.448 0	(5.467 -1)	1.410 0	(5.535 -1)	1.214 0	(5.573 -1)	9.652 -1	(5.583 -1)	7.270 -1	(5.583 -1)
2.512 -1	6.499 -1	(1.699 -1)	8.802 -1	(1.663 -1)	9.372 -1	(1.628 -1)	8.422 -1	(1.595 -1)	6.776 -1	(1.565 -1)
3.981 -1	1.258 -1	(5.345 -2)	2.861 -1	(5.139 -2)	4.940 -1	(4.939 -2)	5.987 -1	(4.766 -2)	5.680 -1	(4.621 -2)
6.310 -1	2.156 -2	(1.742 -2)	3.419 -2	(1.654 -2)	1.081 -1	(1.569 -2)	2.568 -1	(1.495 -2)	3.650 -1	(1.434 -2)
1.000 0	6.211 -3	(5.793 -3)	6.342 -3	(5.416 -3)	8.580 -3	(5.120 -3)	3.482 -2	(4.827 -3)	1.217 -1	(4.581 -3)
1.585 0	1.995 -3	(1.943 -3)	1.912 -3	(1.811 -3)	1.899 -3	(1.685 -3)	2.200 -3	(1.572 -3)	9.370 -3	(1.475 -3)
2.512 0	6.615 -4	(6.548 -4)	6.250 -4	(6.123 -4)	5.925 -4	(5.683 -4)	5.757 -4	(5.267 -4)	6.082 -4	(4.898 -4)
3.981 0	2.201 -4	(2.192 -4)	2.087 -4	(2.070 -4)	1.960 -4	(1.929 -4)	1.843 -4	(1.783 -4)	1.765 -4	(1.646 -4)
6.310 0	7.235 -5	(7.223 -5)	6.959 -5	(6.936 -5)	6.575 -5	(6.534 -5)	6.141 -5	(6.063 -5)	5.728 -5	(5.581 -5)
1.000 1	2.337 -5	(2.335 -5)	2.288 -5	(2.285 -5)	2.196 -5	(2.190 -5)	2.067 -5	(2.056 -5)	1.918 -5	(1.899 -5)
1.585 1	7.424 -6	(7.422 -6)	7.389 -6	(7.385 -6)	7.228 -6	(7.220 -6)	6.915 -6	(6.901 -6)	6.473 -6	(6.447 -6)
2.512 1	2.333 -6	(2.333 -6)	2.346 -6	(2.346 -6)	2.335 -6	(2.334 -6)	2.280 -6	(2.278 -6)	2.171 -6	(2.168 -6)
3.981 1	7.302 -7	(7.301 -7)	7.373 -7	(7.372 -7)	7.417 -7	(7.416 -7)	7.374 -7	(7.372 -7)		
6.310 1	2.286 -7	(2.285 -7)	2.307 -7	(2.307 -7)	2.331 -7	(2.331 -7)	2.345 -7	(2.345 -7)	2.327 -7	(2.326 -7)
1.000 2	7.169 -8	(7.169 -8)	7.224 -8	(7.224 -8)	7.297 -8	(7.297 -8)	7.375 -8	(7.375 -8)	7.414 -8	(7.413 -8)
1.585 2	2.254 -8	(2.254 -8)	2.266 -8	(2.266 -8)	2.285 -8	(2.285 -8)	2.309 -8	(2.309 -8)	2.334 -8	(2.334 -9)
2.512 2	7.101 -9	(7.101 -9)	7.128 -9	(7.128 -9)	7.168 -9	(7.166 -9)	7.229 -9	(7.229 -9)	7.311 -9	(7.311 -9)
3.981 2	2.240 -9	(2.240 -9)	2.245 -9	(2.245 -9)	2.254 -9	(2.245 -9)	2.268 -9	(2.268 -9)	2.289 -9	(2.289 -9)
6.310 2	7.070-10	(7.070-10)	7.081-10	(7.081-10)	7.100-10	(7.100-10)	7.130-10	(7.130-10)	7.177-10	(7.177-10)
1.000 3			2.236-10	(2.236-10)	2.239-10	(2.239-10)	2.246-10	(2.246-10)	2.256-10	(2.256-10)
1.585 3					7.070-11	(7.070-11)	7.083-11	(7.083-11)	7.105-11	(7.105-11)
2.512 3					2.233-11	(2.233-11)	2.236-11	(2.236-11)	2.240-11	(2.240-11)
3.981 3							7.063-12	(7.063-12)	7.072-12	(7.072-12)

TABLE 60

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 3.162+013 CM**(-3)   DLAMBDA/DALPHA = 1.2499+000   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319	K= 8.97	5000 K RO/D=0.226	K=10.36	10000 K RO/D=0.160	K=11.75	20000 K RO/D=0.113	K=13.13	40000 K RO/D=0.080	K=14.52
0	3.921 0	(1.660 0)	3.300 0	(1.305 0)	2.656 0	(1.029 0)	2.053 0	(8.094 -1)	1.542 0	(6.321 -1)
6.310 -4	3.921 0	(1.671 0)	3.300 0	(1.317 0)	2.656 0	(1.041 0)	2.053 0	(8.217 -1)	1.542 0	(6.449 -1)
1.000 -3	3.921 0	(1.688 0)	3.300 0	(1.334 0)	2.656 0	(1.059 0)	2.053 0	(8.399 -1)	1.542 0	(6.640 -1)
1.585 -3	3.921 0	(1.731 0)	3.299 0	(1.377 0)	2.656 0	(1.102 0)	2.053 0	(8.847 -1)	1.542 0	(7.101 -1)
2.512 -3	3.920 0	(1.835 0)	3.299 0	(1.480 0)	2.656 0	(1.207 0)	2.053 0	(9.917 -1)	1.541 0	(8.198 -1)
3.981 -3	3.918 0	(2.077 0)	3.298 0	(1.722 0)	2.655 0	(1.451 0)	2.053 0	(1.240 0)	1.541 0	(1.074 0)
6.310 -3	3.912 0	(2.607 0)	3.295 0	(2.252 0)	2.654 0	(1.987 0)	2.052 0	(1.788 0)	1.541 0	(1.637 0)
1.000 -2	3.899 0	(3.617 0)	3.287 0	(3.278 0)	2.650 0	(3.037 0)	2.051 0	(2.867 0)	1.540 0	(2.750 0)
1.585 -2	3.865 0	(5.071 0)	3.267 0	(4.803 0)	2.640 0	(4.620 0)	2.046 0	(4.501 0)	1.539 0	(4.428 0)
2.512 -2	3.782 0	(6.128 0)	3.218 0	(6.035 0)	2.615 0	(5.976 0)	2.035 0	(5.945 0)	1.534 0	(5.936 0)
3.981 -2	3.580 0	(5.515 0)	3.097 0	(5.618 0)	2.554 0	(5.703 0)	2.007 0	(5.775 0)	1.523 0	(5.847 0)
6.310 -2	3.116 0	(3.487 0)	2.815 0	(3.613 0)	2.406 0	(3.722 0)	1.940 0	(3.796 0)	1.494 0	(3.862 0)
1.000 -1	2.195 0	(1.584 0)	2.219 0	(1.642 0)	2.074 0	(1.688 0)	1.780 0	(1.721 0)	1.425 0	(1.747 0)
1.585 -1	9.672 -1	(5.578 -1)	1.246 0	(5.642 -1)	1.436 0	(5.672 -1)	1.436 0	(5.672 -1)	1.267 0	(5.657 -1)
2.512 -1	2.429 -1	(1.782 -1)	3.607 -1	(1.742 -1)	5.985 -1	(1.696 -1)	8.450 -1	(1.652 -1)	9.429 -1	(1.612 -1)
3.981 -1	6.341 -2	(5.718 -2)	7.028 -2	(5.475 -2)	1.076 -1	(5.229 -2)	2.430 -1	(5.005 -2)	4.551 -1	(4.811 -2)
6.310 -1	1.960 -2	(1.890 -2)	1.930 -2	(1.785 -2)	2.013 -2	(1.683 -2)	2.800 -2	(1.590 -2)	8.355 -2	(1.510 -2)
1.000 0	6.392 -3	(6.302 -3)	6.086 -3	(5.910 -3)	5.901 -3	(5.558 -3)	5.930 -3	(5.198 -3)	7.145 -3	(4.881 -3)
1.585 0	2.118 -3	(2.106 -3)	2.003 -3	(1.981 -3)	1.889 -3	(1.846 -3)	1.798 -3	(1.714 -3)	1.765 -3	(1.593 -3)
2.512 0	7.025 -4	(7.009 -4)	6.691 -4	(6.662 -4)	6.293 -4	(6.239 -4)	5.888 -4	(5.787 -4)	5.543 -4	(5.347 -4)
3.981 0	2.302 -4	(2.300 -4)	2.225 -4	(2.221 -4)	2.112 -4	(2.105 -4)	1.977 -4	(1.963 -4)	1.838 -4	(1.812 -4)
6.310 0	7.410 -5	(7.407 -5)	7.286 -5	(7.281 -5)	7.033 -5	(7.023 -5)	6.655 -5	(6.637 -5)	6.193 -5	(6.159 -5)
1.000 1	2.348 -5	(2.348 -5)	2.343 -5	(2.342 -5)	2.304 -5	(2.302 -5)	2.219 -5	(2.216 -5)	2.090 -5	(2.085 -5)
1.585 1	7.370 -6	(7.370 -6)	7.417 -6	(7.416 -6)	7.405 -6	(7.404 -6)	7.275 -6	(7.272 -6)	6.982 -6	(6.976 -6)
2.512 1	2.306 -6	(2.306 -6)	2.327 -6	(2.327 -6)	2.344 -6	(2.344 -6)	2.340 -6	(2.340 -6)	2.294 -6	(2.293 -6)
3.981 1	7.219 -7	(7.218 -7)	7.281 -7	(7.281 -7)	7.355 -7	(7.354 -7)	7.411 -7	(7.410 -7)	7.391 -7	(7.390 -7)
6.310 1	2.265 -7	(2.265 -7)	2.280 -7	(2.280 -7)	2.301 -7	(2.301 -7)	2.326 -7	(2.326 -7)	2.344 -7	(2.344 -7)
1.000 2	7.125 -8	(7.125 -8)	7.157 -8	(7.157 -8)	7.208 -8	(7.208 -8)	7.279 -8	(7.279 -8)	7.360 -8	(7.360 -8)
1.585 2	2.244 -8	(2.244 -8)	2.252 -8	(2.252 -8)	2.263 -8	(2.263 -8)	2.280 -8	(2.280 -8)	2.304 -8	(2.304 -8)
2.512 2	7.080 -9	(7.080 -9)	7.095 -9	(7.095 -9)	7.120 -9	(7.120 -9)	7.157 -9	(7.157 -9)	7.215 -9	(7.215 -9)
3.981 2			2.238 -9	(2.238 -9)	2.243 -9	(2.243 -9)	2.252 -9	(2.252 -9)	2.264 -9	(2.264 -9)
6.310 2			7.068-10	(7.068-10)	7.078-10	(7.078-10)	7.095-10	(7.095-10)	7.124-10	(7.124-10)
1.000 3					2.235-10	(2.235-10)	2.238-10	(2.238-10)	2.244-10	(2.244-10)
1.585 3					7.068-11	(7.068-11)	7.068-11	(7.068-11)	7.079-11	(7.079-11)

TABLE 61

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/DALPHA = 2.6930+000   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.387, K= 7.82	5000 K RO/D=0.274, K= 9.21	10000 K RO/D=0.193, K=10.59	20000 K RO/D=0.137, K=11.98	40000 K RO/D=0.097, K=13.37
0	4.475 0 (2.046 0)	4.286 0 (1.634 0)	3.929 0 (1.306 0)	3.401 0 (1.041 0)	2.791 0 (8.238 -1)
6.310 -4	4.475 0 (2.058 0)	4.286 0 (1.644 0)	3.928 0 (1.316 0)	3.401 0 (1.052 0)	2.791 0 (8.354 -1)
1.000 -3	4.475 0 (2.073 0)	4.286 0 (1.659 0)	3.928 0 (1.332 0)	3.401 0 (1.068 0)	2.791 0 (8.526 -1)
1.585 -3	4.476 0 (2.110 0)	4.285 0 (1.697 0)	3.928 0 (1.371 0)	3.401 0 (1.109 0)	2.791 0 (8.950 -1)
2.512 -3	4.476 0 (2.201 0)	4.285 0 (1.788 0)	3.927 0 (1.465 0)	3.400 0 (1.206 0)	2.790 0 (9.966 -1)
3.981 -3	4.478 0 (2.416 0)	4.283 0 (2.004 0)	3.925 0 (1.685 0)	3.399 0 (1.434 0)	2.790 0 (1.233 0)
6.310 -3	4.481 0 (2.886 0)	4.279 0 (2.479 0)	3.920 0 (2.172 0)	3.395 0 (1.937 0)	2.788 0 (1.755 0)
1.000 -2	4.489 0 (3.785 0)	4.269 0 (3.404 0)	3.908 0 (3.128 0)	3.387 0 (2.931 0)	2.783 0 (2.793 0)
1.585 -2	4.502 0 (5.081 0)	4.241 0 (4.791 0)	3.877 0 (4.592 0)	3.366 0 (4.464 0)	2.772 0 (4.388 0)
2.512 -2	4.497 0 (6.000 0)	4.167 0 (5.910 0)	3.799 0 (5.859 0)	3.312 0 (5.839 0)	2.743 0 (5.843 0)
3.981 -2	4.316 0 (5.361 0)	3.956 0 (5.474 0)	3.607 0 (5.576 0)	3.183 0 (5.667 0)	2.672 0 (5.756 0)
6.310 -2	3.981 0 (3.407 0)	3.558 0 (3.547 0)	3.153 0 (3.662 0)	2.879 0 (3.742 0)	2.503 0 (3.830 0)
1.000 -1	1.848 0 (1.569 0)	2.079 0 (1.636 0)	2.216 0 (1.684 0)	2.238 0 (1.722 0)	2.125 0 (1.747 0)
1.585 -1	6.429 -1 (5.709 -1)	7.484 -1 (5.779 -1)	9.504 -1 (5.803 -1)	1.210 0 (5.792 -1)	1.418 0 (5.757 -1)
2.512 -1	1.979 -1 (1.878 -1)	2.064 -1 (1.838 -1)	2.346 -1 (1.784 -1)	3.301 -1 (1.728 -1)	5.451 -1 (1.674 -1)
3.981 -1	6.257 -2 (6.134 -2)	6.123 -2 (5.872 -2)	6.115 -2 (5.584 -2)	6.574 -2 (5.318 -2)	9.237 -2 (5.066 -2)
6.310 -1	2.054 -2 (2.039 -2)	1.966 -2 (1.936 -2)	1.881 -2 (1.823 -2)	1.832 -2 (1.712 -2)	1.874 -2 (1.611 -2)
1.000 0	6.805 -3 (6.785 -3)	6.477 -3 (6.437 -3)	6.107 -3 (6.032 -3)	5.799 -3 (5.657 -3)	5.551 -3 (5.270 -3)
1.585 0	2.245 -3 (2.243 -3)	2.149 -3 (2.144 -3)	2.029 -3 (2.020 -3)	1.900 -3 (1.881 -3)	1.777 -3 (1.741 -3)
2.512 0	7.322 -4 (7.318 -4)	7.109 -4 (7.102 -4)	6.785 -4 (6.773 -4)	6.375 -4 (6.352 -4)	5.926 -4 (5.883 -4)
3.981 0	2.350 -4 (2.350 -4)	2.318 -4 (2.317 -4)	2.249 -4 (2.247 -4)	2.141 -4 (2.137 -4)	2.000 -4 (1.995 -4)
6.310 0	7.433 -5 (7.432 -5)	7.426 -5 (7.424 -5)	7.331 -5 (7.329 -5)	7.105 -5 (7.101 -5)	6.735 -5 (6.727 -5)
1.000 1	2.330 -5 (2.330 -5)	2.345 -5 (2.345 -5)	2.346 -5 (2.346 -5)	2.317 -5 (2.316 -5)	2.239 -5 (2.238 -5)
1.585 1	7.288 -6 (7.287 -6)	7.350 -6 (7.350 -6)	7.406 -6 (7.406 -6)	7.415 -6 (7.415 -6)	7.312 -6 (7.311 -6)
2.512 1	2.281 -6 (2.281 -6)	2.299 -6 (2.299 -6)	2.321 -6 (2.321 -6)	2.341 -6 (2.340 -6)	2.343 -6 (2.343 -6)
3.981 1	7.160 -7 (7.160 -7)	7.202 -7 (7.202 -7)	7.261 -7 (7.261 -7)	7.336 -7 (7.335 -7)	7.402 -7 (7.402 -7)
6.310 1	2.252 -7 (2.252 -7)	2.261 -7 (2.261 -7)	2.275 -7 (2.275 -7)	2.295 -7 (2.295 -7)	2.321 -7 (2.321 -7)
1.000 2	7.096 -8 (7.096 -8)	7.116 -8 (7.116 -8)	7.146 -8 (7.146 -8)	7.193 -8 (7.193 -8)	7.262 -8 (.262 -8)
1.585 2	2.238 -8 (2.238 -8)	2.243 -8 (2.243 -8)	2.249 -8 (2.249 -8)	2.259 -8 (2.259 -8)	2.276 -8 (2.276 -8)
2.512 2		7.077 -9 (7.077 -9)	7.090 -9 (7.090 -9)	7.113 -9 (7.113 -9)	7.147 -9 (7.147 -9)
3.981 2			2.237 -9 (2.237 -9)	2.242 -9 (2.242 -9)	2.250 -9 (2.250 -9)
6.310 2			7.066-10 (7.066-10)	7.075-10 (7.075-10)	7.091-10 (7.091-10)
1.000 3				2.234-10 (2.234-10)	2.237-10 (2.237-10)

TABLE 62

ELECTRON DENSITY = 3.162+014 CM**(-3)   N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

DLAMBDA/DALPHA = 5.8017+000   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.469 K= 6.67	5000 K RO/D=0.331 K= 8.06	10000 K RO/D=0.234 K= 9.44	20000 K RO/D=0.166 K=10.83	40000 K RO/D=0.117 K=12.22
0	3.867 0 (2.464 0)	3.959 0 (1.996 0)	4.114 0 (1.621 0)	4.153 0 (1.312 0)	3.951 0 (1.054 0)
1.000 -3	3.871 0 (2.486 0)	3.960 0 (2.018 0)	4.115 0 (1.643 0)	4.153 0 (1.336 0)	3.951 0 (1.079 0)
1.585 -3	3.877 0 (2.517 0)	3.963 0 (2.050 0)	4.116 0 (1.677 0)	4.153 0 (1.371 0)	3.950 0 (1.117 0)
2.512 -3	3.892 0 (2.595 0)	3.970 0 (2.129 0)	4.118 0 (1.758 0)	4.153 0 (1.457 0)	3.950 0 (1.208 0)
3.981 -3	3.929 0 (2.779 0)	3.988 0 (2.316 0)	4.123 0 (1.952 0)	4.153 0 (1.660 0)	3.948 0 (1.422 0)
6.310 -3	4.018 0 (3.185 0)	4.031 0 (2.730 0)	4.137 0 (2.381 0)	4.152 0 (2.110 0)	3.944 0 (1.897 0)
1.000 -2	4.221 0 (3.364 0)	4.132 0 (3.541 0)	4.168 0 (3.231 0)	4.149 0 (3.005 0)	3.932 0 (2.844 0)
1.585 -2	4.618 0 (5.084 0)	4.343 0 (4.766 0)	4.234 0 (4.549 0)	4.141 0 (4.411 0)	3.904 0 (4.331 0)
2.512 -2	5.111 0 (5.853 0)	4.664 0 (5.754 0)	4.338 0 (5.706 0)	4.109 0 (5.698 0)	3.833 0 (5.719 0)
3.981 -2	4.949 0 (5.198 0)	4.700 0 (5.313 0)	4.323 0 (5.424 0)	3.970 0 (5.530 0)	3.653 0 (5.631 0)
6.310 -2	3.417 0 (3.328 0)	3.575 0 (3.474 0)	3.592 0 (3.596 0)	3.434 0 (3.698 0)	3.204 0 (3.764 0)
1.000 -1	1.623 0 (1.564 0)	1.754 0 (1.632 0)	1.925 0 (1.683 0)	2.120 0 (1.725 0)	2.233 0 (1.750 0)
1.585 -1	6.000 -1 (5.862 -1)	6.254 -1 (5.951 -1)	6.651 -1 (5.981 -1)	7.494 -1 (5.963 -1)	9.222 -1 (5.902 -1)
2.512 -1	2.000 -1 (1.979 -1)	1.992 -1 (1.948 -1)	1.985 -1 (1.892 -1)	2.027 -1 (1.825 -1)	2.236 -1 (1.758 -1)
3.981 -1	6.572 -2 (6.545 -2)	6.380 -2 (6.326 -2)	6.134 -2 (6.027 -2)	5.918 -2 (5.704 -2)	5.844 -2 (5.401 -2)
6.310 -1	2.177 -2 (2.174 -2)	2.096 -2 (2.089 -2)	1.995 -2 (1.982 -2)	1.885 -2 (1.860 -2)	1.788 -2 (1.739 -2)
1.000 0	7.173 -3 (7.168 -3)	6.935 -3 (6.926 -3)	6.590 -3 (6.572 -3)	6.185 -3 (6.152 -3)	5.810 -3 (5.749 -3)
1.585 0	2.333 -3 (2.333 -3)	2.275 -3 (2.274 -3)	2.183 -3 (2.181 -3)	2.061 -3 (2.057 -3)	1.921 -3 (1.913 -3)
2.512 0	7.463 -4 (7.462 -4)	7.376 -4 (7.375 -4)	7.190 -4 (7.187 -4)	6.882 -4 (6.876 -4)	6.463 -4 (6.453 -4)
3.981 0	2.356 -4 (2.356 -4)	2.355 -4 (2.355 -4)	2.331 -4 (2.331 -4)	2.272 -4 (2.271 -4)	2.167 -4 (2.165 -4)
6.310 0	7.380 -5 (7.379 -5)	7.421 -5 (7.421 -5)	7.434 -5 (7.433 -5)	7.367 -5 (7.366 -5)	7.166 -5 (7.164 -5)
1.000 1	2.306 -5 (2.306 -5)	2.323 -5 (2.323 -5)	2.341 -5 (2.341 -5)	2.348 -5 (2.348 -5)	2.326 -5 (2.326 -5)
1.585 1	7.218 -6 (7.218 -6)	7.265 -6 (7.265 -6)	7.328 -6 (7.328 -6)	7.392 -6 (7.392 -6)	7.419 -6 (7.419 -6)
2.512 1	2.265 -6 (2.265 -6)	2.276 -6 (2.276 -6)	2.293 -6 (2.293 -6)	2.314 -6 (2.314 -6)	2.337 -6 (2.337 -6)
3.981 1	7.123 -7 (7.123 -7)	7.147 -7 (7.147 -7)	7.186 -7 (7.186 -7)	7.243 -7 (7.243 -7)	7.318 -7 (7.318 -7)
6.310 1	2.244 -7 (2.244 -7)	2.249 -7 (2.249 -7)	2.258 -7 (2.258 -7)	2.271 -7 (2.271 -7)	2.290 -7 (2.290 -7)
1.100 2		7.090 -8 (7.090 -8)	7.108 -8 (7.108 -8)	7.137 -8 (7.137 -8)	7.181 -8 (7.181 -8)
1.585 2			2.241 -8 (2.241 -8)	2.247 -8 (2.247 -8)	2.257 -8 (2.257 -8)
2.512 2			7.073 -9 (7.073 -9)	7.085 -9 (7.085 -9)	7.106 -9 (7.106 -9)
3.981 2				2.236 -9 (2.236 -9)	2.241 -9 (2.241 -9)
6.310 2					7.073 -10 (7.073 -10)

TABLE 63

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 1.000+015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K= 5.52	5000 K RO/D=0.402 K= 6.90	10000 K RO/D=0.284 K= 8.29	20000 K RO/D=0.201 K= 9.68	40000 K RO/D=0.142 K=11.06
0	3.347 0 (2.892 0)	3.154 0 (2.378 0)	3.225 0 (1.963 0)	3.503 0 (1.616 0)	3.847 0 (1.319 0)
1.000 -3	3.357 0 (2.910 0)	3.161 0 (2.396 0)	3.230 0 (1.981 0)	3.505 0 (1.636 0)	3.848 0 (1.341 0)
1.585 -3	3.373 0 (2.936 0)	3.173 0 (2.423 0)	3.237 0 (2.009 0)	3.509 0 (1.666 0)	3.850 0 (1.374 0)
2.512 -3	3.410 0 (3.002 0)	3.201 0 (2.488 0)	3.256 0 (2.078 0)	3.519 0 (1.740 0)	3.854 0 (1.454 0)
3.981 -3	3.501 0 (3.156 0)	3.270 0 (2.645 0)	3.302 0 (2.242 0)	3.544 0 (1.914 0)	3.863 0 (1.642 0)
6.310 -3	3.715 0 (3.500 0)	3.435 0 (2.996 0)	3.413 0 (2.610 0)	3.604 0 (2.306 0)	3.886 0 (2.062 0)
1.000 -2	4.169 0 (4.160 0)	3.801 0 (3.687 0)	3.668 0 (3.343 0)	3.746 0 (3.090 0)	3.940 0 (2.906 0)
1.585 -2	4.915 0 (5.101 0)	4.474 0 (4.737 0)	4.173 0 (4.496 0)	4.048 0 (4.343 0)	4.060 0 (4.258 0)
2.512 -2	5.529 0 (5.714 0)	5.218 0 (5.581 0)	4.877 0 (5.523 0)	4.531 0 (5.520 0)	4.268 0 (5.557 0)
3.981 -2	5.005 0 (5.040 0)	5.033 0 (5.140 0)	4.973 0 (5.250 0)	4.751 0 (5.367 0)	4.387 0 (5.485 0)
6.310 -2	3.273 0 (3.251 0)	3.438 0 (3.401 0)	3.585 0 (3.528 0)	3.696 0 (3.635 0)	3.638 0 (3.724 0)
1.000 -1	1.569 0 (1.557 0)	1.658 0 (1.633 0)	1.741 0 (1.690 0)	1.833 0 (1.726 0)	1.970 0 (1.759 0)
1.585 -1	6.017 -1 (5.988 -1)	6.210 -1 (6.148 -1)	6.322 -1 (6.188 -1)	6.448 -1 (6.167 -1)	6.710 -1 (6.098 -1)
2.512 -1	2.073 -1 (2.068 -1)	2.073 -1 (2.063 -1)	2.037 -1 (2.017 -1)	1.985 -1 (1.945 -1)	1.947 -1 (1.864 -1)
3.981 -1	6.907 -2 (6.901 -2)	6.790 -2 (6.778 -2)	6.540 -2 (6.516 -2)	6.229 -2 (6.183 -2)	5.905 -2 (5.814 -2)
6.310 -1	2.281 -2 (2.280 -2)	2.234 -2 (2.232 -2)	2.145 -2 (2.142 -2)	2.033 -2 (2.027 -2)	1.905 -2 (1.895 -2)
1.000 0	7.406 -3 (7.405 -3)	7.301 -3 (7.299 -3)	7.063 -3 (7.059 -3)	6.709 -3 (6.701 -3)	6.309 -3 (6.295 -3)
1.585 0	2.377 -3 (2.377 -3)	2.354 -3 (2.353 -3)	2.303 -3 (2.302 -3)	2.216 -3 (2.215 -3)	2.092 -3 (2.090 -3)
2.512 0	7.488 -4 (7.488 -4)	7.481 -4 (7.480 -4)	7.420 -4 (7.419 -4)	7.260 -4 (7.259 -4)	6.966 -4 (6.963 -4)
3.981 0	2.343 -4 (2.342 -4)	2.352 -4 (2.352 -4)	2.357 -4 (2.356 -4)	2.342 -4 (2.341 -4)	2.290 -4 (2.289 -4)
6.310 0	7.313 -5 (7.313 -5)	7.356 -5 (7.356 -5)	7.405 -5 (7.405 -5)	7.434 -5 (7.434 -5)	7.392 -5 (7.392 -5)
1.000 1	2.287 -5 (2.287 -5)	2.299 -5 (2.299 -5)	2.316 -5 (2.316 -5)	2.335 -5 (2.335 -5)	2.348 -5 (2.348 -5)
1.585 1	7.170 -6 (7.170 -6)	7.199 -6 (7.199 -6)	7.244 -6 (7.244 -6)	7.307 -6 (7.307 -6)	7.377 -6 (7.377 -6)
2.512 1	2.254 -6 (2.254 -6)	2.260 -6 (2.260 -6)	2.271 -6 (2.271 -6)	2.287 -6 (2.287 -6)	2.309 -6 (2.309 -6)
3.981 1		7.115 -7 (7.115 -7)	7.136 -7 (7.136 -7)	7.172 -7 (7.172 -7)	7.227 -7 (7.227 -7)
6.310 1		2.242 -7 (2.242 -7)	2.247 -7 (2.247 -7)	2.255 -7 (2.255 -7)	2.267 -7 (2.267 -7)
1.000 2			7.085 -8 (7.085 -8)	7.102 -8 (7.102 -8)	7.129 -8 (7.129 -8)
1.585 2				2.240 -8 (2.240 -8)	2.246 -8 (2.246 -8)
2.512 2				7.071 -9 (7.071 -9)	7.082 -9 (7.082 -9)
3.981 2					2.236 -9 (2.236 -9)

TABLE 64

N UPPER = 4   N LOWER = 2   MAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 3.162+015 CM**(-3)   DLAMBDA/DALPHA = 2.6929+001   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K K= 4.37 RO/D=0.688	5000 K K= 5.75 RO/D=0.487	10000 K K= 7.14 RO/D=0.344	20000 K K= 8.53 RO/D=0.243	40000 K K= 9.91 RO/D=0.172
0	3.425 0 (3.322 0)	2.952 0 (2.762 0)	2.679 0 (2.316 0)	2.613 0 (1.940 0)	2.784 0 (1.613 0)
1.000 -3	3.438 0 (3.337 0)	2.964 0 (2.776 0)	2.689 0 (2.331 0)	2.621 0 (1.957 0)	2.790 0 (1.631 0)
1.585 -3	3.457 0 (3.359 0)	2.981 0 (2.798 0)	2.704 0 (2.354 0)	2.633 0 (1.982 0)	2.799 0 (1.659 0)
2.512 -3	3.504 0 (3.414 0)	3.022 0 (2.852 0)	2.741 0 (2.410 0)	2.664 0 (2.042 0)	2.820 0 (1.726 0)
3.981 -3	3.618 0 (3.545 0)	3.124 0 (2.980 0)	2.831 0 (2.545 0)	2.738 0 (2.188 0)	2.875 0 (1.886 0)
6.310 -3	3.876 0 (3.836 0)	3.361 0 (3.270 0)	3.046 0 (2.850 0)	2.919 0 (2.517 0)	3.007 0 (2.246 0)
1.000 -2	4.387 0 (4.393 0)	3.854 0 (3.845 0)	3.510 0 (3.464 0)	3.322 0 (3.184 0)	3.311 0 (2.977 0)
1.585 -2	5.128 0 (5.173 0)	4.651 0 (4.722 0)	4.323 0 (4.440 0)	4.081 0 (4.266 0)	3.922 0 (4.172 0)
2.512 -2	5.587 0 (5.625 0)	5.339 0 (5.417 0)	5.167 0 (5.324 0)	4.999 0 (5.312 0)	4.780 0 (5.357 0)
3.981 -2	4.901 0 (4.907 0)	4.954 0 (4.973 0)	5.016 0 (5.065 0)	5.061 0 (5.180 0)	5.035 0 (5.310 0)
6.310 -2	3.180 0 (3.175 0)	3.340 0 (3.332 0)	3.473 0 (3.459 0)	3.594 0 (3.569 0)	3.705 0 (3.665 0)
1.000 -1	1.544 0 (1.542 0)	1.640 0 (1.635 0)	1.708 0 (1.698 0)	1.762 0 (1.741 0)	1.811 0 (1.766 0)
1.585 -1	6.058 -1 (6.052 -1)	6.335 -1 (6.322 -1)	6.455 -1 (6.426 -1)	6.485 -1 (6.426 -1)	6.458 -1 (6.336 -1)
2.512 -1	2.126 -1 (2.125 -1)	2.172 -1 (2.170 -1)	2.153 -1 (2.149 -1)	2.094 -1 (2.085 -1)	2.013 -1 (1.995 -1)
3.981 -1	7.121 -2 (7.120 -2)	7.164 -2 (7.161 -2)	7.010 -2 (7.005 -2)	6.714 -2 (6.703 -2)	6.343 -2 (6.323 -2)
6.310 -1	2.341 -2 (2.341 -2)	2.340 -2 (2.340 -2)	2.289 -2 (2.288 -2)	2.194 -2 (2.193 -2)	2.070 -2 (2.068 -2)
1.000 0	7.503 -3 (7.503 -3)	7.517 -3 (7.517 -3)	7.415 -3 (7.414 -3)	7.180 -3 (7.178 -3)	6.816 -3 (6.813 -3)
1.585 0	2.389 -3 (2.389 -3)	2.386 -3 (2.386 -3)	2.370 -3 (2.369 -3)	2.326 -3 (2.326 -3)	2.243 -3 (2.242 -3)
2.512 0	7.465 -4 (7.465 -4)	7.479 -4 (7.479 -4)	7.488 -4 (7.488 -4)	7.451 -4 (7.451 -4)	7.315 -4 (7.314 -4)
3.981 0	2.327 -4 (2.327 -4)	2.334 -4 (2.334 -4)	2.347 -4 (2.347 -4)	2.356 -4 (2.356 -4)	2.348 -4 (2.348 -4)
6.310 0	7.264 -5 (7.264 -5)	7.287 -5 (7.287 -5)	7.330 -5 (7.330 -5)	7.386 -5 (7.386 -5)	7.429 -5 (7.429 -5)
1.000 1	2.274 -5 (2.274 -5)	2.280 -5 (2.280 -5)	2.291 -5 (2.291 -5)	2.309 -5 (2.309 -5)	2.330 -5 (2.330 -5)
1.585 1	7.143 -6 (7.143 -6)	7.155 -6 (7.155 -6)	7.181 -6 (7.181 -6)	7.225 -6 (7.225 -6)	7.288 -6 (7.288 -6)
2.512 1		2.251 -6 (2.251 -6)	2.257 -6 (2.257 -6)	2.266 -6 (2.266 -6)	2.282 -6 (2.282 -6)
3.981 1			7.106 -7 (7.106 -7)	7.127 -7 (7.127 -7)	7.161 -7 (7.161 -7)
6.310 1			2.240 -7 (2.240 -7)	2.245 -7 (2.245 -7)	2.253 -7 (2.253 -7)
1.000 2				7.081 -8 (7.081 -8)	7.096 -8 (7.096 -8)
1.585 2					2.239 -8 (2.239 -8)
2.512 2					7.068 -9 (7.068 -9)

TABLE 65

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.8020+001   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA	2500 K K= 3.22 RO/D=0.834	5000 K K= 4.60 RO/D=0.589	10000 K K= 5.99 RO/D=0.417	20000 K K= 7.37 RO/D=0.295	40000 K K= 8.76 RO/D=0.208
0	3.798 0 (3.777 0)	3.173 0 (3.135 0)	2.738 0 (2.664 0)	2.423 0 (2.270 0)	2.238 0 (1.923 0)
1.000 -3	3.811 0 (3.791 0)	3.184 0 (3.147 0)	2.749 0 (2.676 0)	2.434 0 (2.284 0)	2.248 0 (1.938 0)
1.585 -3	3.831 0 (3.811 0)	3.200 0 (3.165 0)	2.765 0 (2.694 0)	2.450 0 (2.303 0)	2.264 0 (1.960 0)
2.512 -3	3.879 0 (3.860 0)	3.242 0 (3.209 0)	2.806 0 (2.739 0)	2.490 0 (2.352 0)	2.302 0 (2.014 0)
3.981 -3	3.993 0 (3.978 0)	3.342 0 (3.314 0)	2.903 0 (2.847 0)	2.589 0 (2.469 0)	2.397 0 (2.146 0)
6.310 -3	4.247 0 (4.239 0)	3.570 0 (3.553 0)	3.130 0 (3.093 0)	2.818 0 (2.736 0)	2.622 0 (2.444 0)
1.000 -2	4.729 0 (4.731 0)	4.030 0 (4.028 0)	3.601 0 (3.594 0)	3.306 0 (3.285 0)	3.112 0 (3.057 0)
1.585 -2	5.374 0 (5.385 0)	4.745 0 (4.750 0)	4.373 0 (4.398 0)	4.144 0 (4.190 0)	3.992 0 (4.078 0)
2.512 -2	5.655 0 (5.663 0)	5.282 0 (5.299 0)	5.101 0 (5.134 0)	5.023 0 (5.089 0)	4.991 0 (5.128 0)
3.981 -2	4.822 0 (4.823 0)	4.829 0 (4.833 0)	4.874 0 (4.884 0)	4.957 0 (4.980 0)	5.058 0 (5.111 0)
6.310 -2	3.086 0 (3.085 0)	3.268 0 (3.267 0)	3.397 0 (3.395 0)	3.508 0 (3.503 0)	3.611 0 (3.601 0)
1.000 -1	1.500 0 (1.499 0)	1.632 0 (1.631 0)	1.711 0 (1.709 0)	1.761 0 (1.757 0)	1.794 0 (1.785 0)
1.585 -1	5.959 -1 (5.958 -1)	6.449 -1 (6.446 -1)	6.667 -1 (6.661 -1)	6.710 -1 (6.697 -1)	6.657 -1 (6.630 -1)
2.512 -1	2.116 -1 (2.116 -1)	2.244 -1 (2.243 -1)	2.272 -1 (2.271 -1)	2.233 -1 (2.231 -1)	2.149 -1 (2.145 -1)
3.981 -1	7.131 -2 (7.130 -2)	7.415 -2 (7.414 -2)	7.417 -2 (7.416 -2)	7.220 -2 (7.217 -2)	6.878 -2 (6.874 -2)
6.310 -1	2.347 -2 (2.347 -2)	2.400 -2 (2.400 -2)	2.395 -2 (2.394 -2)	2.339 -2 (2.338 -2)	2.236 -2 (2.236 -2)
1.000 0	7.520 -3 (7.520 -3)	7.593 -3 (7.593 -3)	7.605 -3 (7.605 -3)	7.507 -3 (7.507 -3)	7.275 -3 (7.274 -3)
1.585 0	2.388 -3 (2.388 -3)	2.390 -3 (2.390 -3)	2.391 -3 (2.391 -3)	2.380 -3 (2.380 -3)	2.343 -3 (2.343 -3)
2.512 0	7.444 -4 (7.444 -4)	7.440 -4 (7.440 -4)	7.462 -4 (7.462 -4)	7.486 -4 (7.485 -4)	7.470 -4 (7.469 -4)
3.981 0	2.319 -4 (2.319 -4)	2.317 -4 (2.317 -4)	2.326 -4 (2.326 -4)	2.340 -4 (2.340 -4)	2.354 -4 (2.354 -4)
6.310 0	7.243 -5 (7.243 -5)	7.237 -5 (7.237 -5)	7.261 -5 (7.261 -5)	7.306 -5 (7.306 -5)	7.367 -5 (7.367 -5)
1.000 1		2.268 -5 (2.268 -5)	2.274 -5 (2.274 -5)	2.285 -5 (2.285 -5)	2.303 -5 (2.303 -5)
1.585 1			7.141 -6 (7.141 -6)	7.166 -6 (7.166 -6)	7.209 -6 (7.209 -6)
2.512 1			2.248 -6 (2.248 -6)	2.253 -6 (2.253 -6)	2.263 -6 (2.263 -6)
3.981 1				7.099 -7 (7.099 -7)	7.120 -7 (7.120 -7)
6.310 1					2.243 -7 (2.243 -7)
1.000 2					7.078 -8 (7.078 -8)

TABLE 66

N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

ELECTRON DENSITY = 3.162+016 CM**(-3)   DLAMBDA/DALPHA = 1.2499+002   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA		5000 K RO/D=0.714 K= 3.45	10000 K RO/D=0.505 K= 4.84	20000 K RO/D=0.357 K= 6.22	40000 K RO/D=0.252 K= 7.61
0		3.517 0 (3.510 0)	3.008 0 (2.995 0)	2.617 0 (2.590 0)	2.295 0 (2.233 0)
1.585	-3	3.542 0 (3.535 0)	3.031 0 (3.019 0)	2.642 0 (2.615 0)	2.321 0 (2.262 0)
2.512	-3	3.579 0 (3.573 0)	3.066 0 (3.054 0)	2.678 0 (2.653 0)	2.361 0 (2.305 0)
3.981	-3	3.670 0 (3.664 0)	3.150 0 (3.140 0)	2.766 0 (2.744 0)	2.457 0 (2.409 0)
6.310	-3	3.874 0 (3.870 0)	3.344 0 (3.336 0)	2.971 0 (2.955 0)	2.681 0 (2.647 0)
1.000	-2	4.279 0 (4.278 0)	3.742 0 (3.740 0)	3.398 0 (3.393 0)	3.154 0 (3.144 0)
1.585	-2	4.880 0 (4.883 0)	4.388 0 (4.392 0)	4.119 0 (4.127 0)	3.970 0 (3.987 0)
2.512	-2	5.288 0 (5.292 0)	4.980 0 (4.987 0)	4.863 0 (4.877 0)	4.860 0 (4.888 0)
3.981	-2	4.747 0 (4.748 0)	4.728 0 (4.730 0)	4.778 0 (4.784 0)	4.886 0 (4.898 0)
6.310	-2	3.197 0 (3.194 0)	3.336 0 (3.336 0)	3.442 0 (3.441 0)	3.538 0 (3.536 0)
1.000	-1	1.605 0 (1.604 0)	1.716 0 (1.716 0)	1.778 0 (1.777 0)	1.810 0 (1.809 0)
1.585	-1	6.417 -1 (6.416 -1)	6.844 -1 (6.843 -1)	6.993 -1 (6.990 -1)	6.953 -1 (6.947 -1)
2.512	-1	2.256 -1 (2.256 -1)	2.361 -1 (2.361 -1)	2.368 -1 (2.368 -1)	2.306 -1 (2.305 -1)
3.981	-1	7.473 -2 (7.473 -2)	7.688 -2 (7.687 -2)	7.650 -2 (7.649 -2)	7.406 -2 (7.405 -2)
6.310	-1	2.412 -2 (2.412 -2)	2.451 -2 (2.451 -2)	2.440 -2 (2.439 -2)	2.380 -2 (2.380 -2)
1.000	0	7.582 -3 (7.582 -3)	7.659 -3 (7.659 -3)	7.667 -3 (7.666 -3)	7.574 -3 (7.574 -3)
1.585	0	2.385 -3 (2.385 -3)	2.387 -3 (2.387 -3)	2.391 -3 (2.391 -3)	2.387 -3 (2.387 -3)
2.512	0	7.409 -4 (7.409 -4)	7.410 -4 (7.410 -4)	7.441 -4 (7.441 -4)	7.478 -4 (7.478 -4)
3.981	0	2.307 -4 (2.307 -4)	2.307 -4 (2.307 -4)	2.317 -4 (2.317 -4)	2.334 -4 (2.334 -4)
6.310	0	7.212 -5 (7.212 -5)	7.212 -5 (7.212 -5)	7.238 -5 (7.238 -5)	7.286 -5 (7.286 -5)
1.000	1		2.263 -5 (2.263 -5)	2.268 -5 (2.268 -5)	2.280 -5 (2.280 -5)
1.585	1			7.130 -6 (7.130 -6)	7.155 -6 (7.155 -6)
2.512	1			2.245 -6 (2.245 -6)	2.251 -6 (2.251 -6)
3.981	1				7.093 -7 (7.093 -7)

TABLE 67

ELECTRON DENSITY = 1.000+017 CM**(-3)   N UPPER = 4   N LOWER = 2   WAVELENGTH = 4861.33 ANGSTROM

DLAMBDA/DALPHA = 2.6930+002   ASYMPTOTE = 3.5261-003*DALPHA**(-5/2)

ALPHA		5000 K RO/D=0.865 K= 2.30		10000 K RO/D=0.612 K= 3.69		20000 K RO/D=0.433 K= 5.07		40000 K RO/D=0.306 K= 6.46	
0		3.958 0	(3.956 0)	3.314 0	(3.312 0)	2.891 0	(2.886 0)	2.539 0	(2.529 0)
1.585	-3	3.984 0	(3.983 0)	3.334 0	(3.332 0)	2.910 0	(2.906 0)	2.561 0	(2.551 0)
2.512	-3	4.023 0	(4.022 0)	3.363 0	(3.361 0)	2.939 0	(2.935 0)	2.593 0	(2.584 0)
3.981	-3	4.117 0	(4.116 0)	3.434 0	(3.432 0)	3.009 0	(3.005 0)	2.671 0	(2.663 0)
6.310	-3	4.327 0	(4.326 0)	3.596 0	(3.595 0)	3.172 0	(3.169 0)	2.854 0	(2.848 0)
1.000	-2	4.729 0	(4.729 0)	3.930 0	(3.930 0)	3.515 0	(3.514 0)	3.240 0	(3.237 0)
1.585	-2	5.279 0	(5.280 0)	4.467 0	(4.468 0)	4.097 0	(4.098 0)	3.910 0	(3.912 0)
2.512	-2	5.524 0	(5.525 0)	4.936 0	(4.938 0)	4.703 0	(4.706 0)	4.654 0	(4.660 0)
3.981	-2	4.757 0	(4.757 0)	4.633 0	(4.633 0)	4.612 0	(4.613 0)	4.684 0	(4.687 0)
6.310	-2	3.090 0	(3.090 0)	3.280 0	(3.280 0)	3.385 0	(3.385 0)	3.474 0	(3.473 0)
1.000	-1	1.519 0	(1.519 0)	1.704 0	(1.704 0)	1.794 0	(1.794 0)	1.836 0	(1.835 0)
1.585	-1	6.069 -1	(6.069 -1)	6.882 -1	(6.882 -1)	7.226 -1	(7.225 -1)	7.284 -1	(7.282 -1)
2.512	-1	2.154 -1	(2.154 -1)	2.393 -1	(2.393 -1)	2.474 -1	(2.474 -1)	2.456 -1	(2.455 -1)
3.981	-1	7.225 -2	(7.225 -2)	7.777 -2	(7.777 -2)	7.931 -2	(7.931 -2)	7.843 -2	(7.843 -2)
6.310	-1	2.367 -2	(2.367 -2)	2.464 -2	(2.464 -2)	2.491 -2	(2.491 -2)	2.474 -2	(2.474 -2)
1.000	0	7.533 -3	(7.533 -3)	7.633 -3	(7.633 -3)	7.697 -3	(7.697 -3)	7.704 -3	(7.704 -3)
1.585	0	2.383 -3	(2.383 -3)	2.378 -3	(2.378 -3)	2.382 -3	(2.382 -3)	2.390 -3	(2.390 -3)
2.512	0	7.420 -4	(7.420 -4)	7.372 -4	(7.372 -4)	7.381 -4	(7.381 -4)	7.421 -4	(7.421 -4)
3.981	0			2.296 -4	(2.296 -4)	2.299 -4	(2.299 -4)	2.310 -4	(2.310 -4)
6.310	0			7.187 -5	(7.187 -5)	7.192 -5	(7.192 -5)	7.220 -5	(7.220 -5)
1.000	1					2.258 -5	(2.258 -5)	2.264 -5	(2.264 -5)
1.585	1							7.122 -6	(7.122 -6)
2.512	1							2.244 -6	(2.244 -6)

TABLE 68

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 1.000+011 CM**(-3)   DLAMBDA/DALPHA = 2.6930-002   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.122 K=13.46		5000 K RO/D=0.087 K=14.85		10000 K RO/D=0.061 K=16.23	
0	1.623 -1	(1.599 1)	1.153 -1	(1.994 1)	8.158 -2	(2.508 1)
2.512 -4	1.623 -1	(1.591 1)	1.153 -1	(1.977 1)	8.158 -2	(2.475 1)
3.981 -4	1.623 -1	(1.578 1)	1.153 -1	(1.951 1)	8.158 -2	(2.423 1)
6.310 -4	1.623 -1	(1.548 1)	1.153 -1	(1.890 1)	8.158 -2	(2.301 1)
1.000 -3	1.623 -1	(1.478 1)	1.153 -1	(1.752 1)	8.158 -2	(2.042 1)
1.585 -3	1.623 -1	(1.330 1)	1.153 -1	(1.486 1)	8.158 -2	(1.598 1)
2.512 -3	1.623 -1	(1.072 1)	1.153 -1	(1.091 1)	8.158 -2	(1.053 1)
3.981 -3	1.623 -1	(7.497 0)	1.153 -1	(6.902 0)	8.158 -2	(6.072 0)
6.310 -3	1.623 -1	(4.862 0)	1.153 -1	(4.250 0)	8.158 -2	(3.646 0)
1.000 -2	1.623 -1	(3.520 0)	1.153 -1	(3.179 0)	8.158 -2	(2.887 0)
1.585 -2	1.623 -1	(3.071 0)	1.153 -1	(2.949 0)	8.158 -2	(2.866 0)
2.512 -2	1.623 -1	(2.773 0)	1.153 -1	(2.717 0)	8.157 -2	(2.804 0)
3.981 -2	1.623 -1	(2.709 0)	1.153 -1	(2.628 0)	8.157 -2	(2.585 0)
6.310 -2	1.622 -1	(2.771 0)	1.152 -1	(2.754 0)	8.157 -2	(2.739 0)
1.000 -1	1.622 -1	(2.082 0)	1.152 -1	(2.116 0)	8.156 -2	(2.137 0)
1.585 -1	1.620 -1	(9.472 -1)	1.151 -1	(9.738 -1)	8.153 -2	(9.748 -1)
2.512 -1	1.614 -1	(2.938 -1)	1.150 -1	(2.987 -1)	8.147 -2	(2.947 -1)
3.981 -1	1.602 -1	(8.412 -2)	1.145 -1	(8.367 -2)	8.131 -2	(8.244 -2)
6.310 -1	1.570 -1	(2.573 -2)	1.134 -1	(2.492 -2)	8.090 -2	(2.425 -2)
1.000 0	1.493 -1	(8.122 -3)	1.106 -1	(7.768 -3)	7.989 -2	(7.483 -3)
1.585 0	1.317 -1	(2.614 -3)	1.038 -1	(2.468 -3)	7.740 -2	(2.349 -3)
2.512 0	9.604 -2	(8.647 -4)	8.859 -2	(8.092 -4)	7.149 -2	(7.633 -4)
3.981 0	4.350 -2	(2.910 -4)	5.951 -2	(2.702 -4)	5.850 -2	(2.525 -4)
6.310 0	6.033 -3	(9.877 -5)	2.193 -2	(9.122 -5)	3.548 -2	(8.453 -5)
1.000 1	8.530 -5	(3.357 -5)	1.817 -3	(3.101 -5)	1.009 -2	(2.857 -5)
1.585 1	1.258 -5	(1.133 -5)	1.660 -5	(1.055 -5)	4.396 -4	(9.715 -6)
2.512 1	3.926 -6	(3.773 -6)	3.866 -6	(3.566 -6)	4.105 -6	(3.307 -6)
3.981 1	1.252 -6	(1.232 -6)	1.227 -6	(1.189 -6)	1.192 -6	(1.119 -6)
6.310 1	3.972 -7	(3.346 -7)	3.938 -7	(3.888 -7)	3.833 -7	(3.739 -7)
1.000 2	1.249 -7	(1.246 -7)	1.254 -7	(1.247 -7)	1.238 -7	(1.226 -7)
1.585 2	3.909 -8	(3.905 -8)	3.949 -8	(3.941 -8)	3.957 -8	(3.940 -8)
2.512 2	1.222 -8	(1.222 -8)	1.237 -8	(1.236 -8)	1.249 -8	(1.247 -8)
3.981 2	3.830 -9	(3.829 -9)	3.868 -9	(3.867 -9)	3.915 -9	(3.912 -9)
6.310 2	1.203 -9	(1.203 -9)	1.212 -9	(1.212 -9)	1.225 -9	(1.224 -9)
1.000 3	3.786 -10	(3.786 -10)	3.806 -10	(3.805 -10)	3.836 -10	(3.835 -10)
1.585 3	1.193 -10	(1.193 -10)	1.198 -10	(1.198 -10)	1.204 -10	(1.204 -10)
2.512 3	3.766 -11	(3.766 -11)	3.774 -11	(3.774 -11)	3.789 -11	(3.789 -11)
3.981 3	1.189 -11	(1.189 -11)	1.191 -11	(1.191 -11)	1.194 -11	(1.194 -11)
6.310 3	3.758 -12	(3.758 -12)	3.761 -12	(3.761 -12)	3.787 -12	(3.767 -12)
1.000 4	1.188 -12	(1.188 -12)	1.188 -12	(1.188 -12)	1.190 -12	(1.190 -12)
1.585 4	3.756 -13	(3.756 -13)	3.756 -13	(3.756 -13)	3.758 -13	(3.758 -13)
2.512 4	1.187 -13	(1.187 -13)	1.187 -13	(1.187 -13)	1.188 -13	(1.188 -13)
3.981 4					3.755 -14	(3.755 -14)

TABLE 69

N UPPER = 5 N LOWER = 2

WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 3.162+011 CM**(-3) DLAMBDA/DALPHA = 5.8017-002 ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.148 K=12.31	5000 K RO/D=0.105 K=13.70	10000 K RO/D=0.074 K=15.08	20000 K RO/D=0.052 K=16.47	40000 K RO/D=0.037 K=17.85
0	3.456 -1 (1.250 1)	2.460 -1 (1.522 1)	1.748 -1 (1.900 1)	1.238 -1 (2.392 1)	8.782 -2 (3.013 1)
3.981 -4	3.456 -1 (1.241 1)	2.460 -1 (1.505 1)	1.748 -1 (1.863 1)	1.238 -1 (2.319 1)	8.782 -2 (2.858 1)
6.310 -4	3.456 -1 (1.229 1)	2.460 -1 (1.479 1)	1.748 -1 (1.810 1)	1.238 -1 (2.212 1)	8.782 -2 (2.646 1)
1.000 -3	3.456 -1 (1.198 1)	2.460 -1 (1.419 1)	1.748 -1 (1.691 1)	1.238 -1 (1.984 1)	8.782 -2 (2.231 1)
1.585 -3	3.456 -1 (1.129 1)	2.460 -1 (1.289 1)	1.748 -1 (1.455 1)	1.238 -1 (1.561 1)	8.782 -2 (1.611 1)
2.512 -3	3.456 -1 (9.908 0)	2.460 -1 (1.057 1)	1.748 -1 (1.090 1)	1.238 -1 (1.065 1)	8.782 -2 (9.730 0)
3.981 -3	3.456 -1 (7.755 0)	2.460 -1 (7.546 0)	1.748 -1 (7.031 0)	1.238 -1 (6.236 0)	8.782 -2 (5.294 0)
6.310 -3	3.456 -1 (5.460 0)	2.460 -1 (4.943 0)	1.748 -1 (4.351 0)	1.238 -1 (3.742 0)	8.782 -2 (3.177 0)
1.000 -2	3.456 -1 (3.912 0)	2.460 -1 (3.547 0)	1.748 -1 (3.209 0)	1.238 -1 (2.914 0)	8.782 -2 (2.658 0)
1.585 -2	3.456 -1 (3.203 0)	2.460 -1 (3.057 0)	1.748 -1 (2.943 0)	1.238 -1 (2.860 0)	8.782 -2 (2.792 0)
2.512 -2	3.455 -1 (2.814 0)	2.460 -1 (2.749 0)	1.748 -1 (2.701 0)	1.238 -1 (2.713 0)	8.782 -2 (2.657 0)
3.981 -2	3.454 -1 (2.724 0)	2.459 -1 (2.651 0)	1.748 -1 (2.599 0)	1.238 -1 (2.561 0)	8.782 -2 (2.539 0)
6.310 -2	3.451 -1 (2.764 0)	2.458 -1 (2.747 0)	1.747 -1 (2.734 0)	1.238 -1 (2.724 0)	8.781 -2 (2.720 0)
1.000 -1	3.443 -1 (2.057 0)	2.455 -1 (2.094 0)	1.746 -1 (2.123 0)	1.238 -1 (2.145 0)	8.780 -2 (2.166 0)
1.585 -1	3.423 -1 (9.420 -1)	2.448 -1 (9.639 -1)	1.744 -1 (9.800 -1)	1.237 -1 (9.837 -1)	8.777 -2 (1.005 0)
2.512 -1	3.374 -1 (3.014 -1)	2.431 -1 (3.000 -1)	1.737 -1 (3.009 -1)	1.235 -1 (2.971 -1)	8.769 -2 (3.010 -1)
3.981 -1	3.254 -1 (8.820 -2)	2.386 -1 (8.541 -2)	1.721 -1 (8.395 -2)	1.229 -1 (8.301 -2)	8.748 -2 (8.178 -2)
6.310 -1	2.971 -1 (2.687 -2)	2.279 -1 (2.606 -2)	1.682 -1 (2.487 -2)	1.215 -1 (2.442 -2)	8.698 -2 (2.384 -2)
1.000 0	2.365 -1 (8.007 -3)	2.031 -1 (8.217 -3)	1.587 -1 (7.763 -3)	1.180 -1 (7.540 -3)	8.572 -2 (7.297 -3)
1.585 0	1.335 -1 (2.631 -3)	1.520 -1 (2.650 -3)	1.372 -1 (2.496 -3)	1.097 -1 (2.371 -3)	8.263 -2 (2.269 -3)
2.512 0	3.226 -2 (9.454 -4)	7.357 -2 (8.785 -4)	9.514 -2 (8.202 -4)	9.125 -2 (7.720 -4)	7.536 -2 (7.326 -4)
3.981 0	1.308 -3 (3.199 -4)	1.210 -2 (2.961 -4)	3.800 -2 (2.743 -4)	5.752 -2 (2.558 -4)	5.979 -2 (2.405 -4)
6.310 0	1.258 -4 (1.084 -4)	2.594 -4 (1.005 -4)	3.880 -3 (9.277 -5)	1.808 -2 (8.582 -5)	3.344 -2 (7.989 -5)
1.000 1	3.847 -5 (3.645 -5)	3.822 -5 (3.413 -5)	5.234 -5 (3.155 -5)	1.021 -3 (2.905 -5)	7.782 -3 (2.681 -5)
1.585 1	1.233 -5 (1.207 -5)	1.199 -5 (1.149 -5)	1.170 -5 (1.072 -5)	1.270 -5 (9.884 -6)	2.111 -4 (9.074 -6)
2.512 1	3.952 -6 (3.918 -6)	3.873 -6 (3.808 -6)	3.738 -6 (3.615 -6)	3.600 -6 (3.362 -6)	3.604 -6 (3.087 -6)
3.981 1	1.253 -6 (1.249 -6)	1.246 -6 (1.238 -6)	1.216 -6 (1.200 -6)	1.166 -6 (1.135 -6)	1.109 -6 (1.051 -6)
6.310 1	3.938 -7 (3.932 -7)	3.960 -7 (3.949 -7)	3.929 -7 (3.907 -7)	3.817 -7 (3.777 -7)	3.629 -7 (3.555 -7)
1.000 2	1.232 -7 (1.231 -7)	1.245 -7 (1.244 -7)	1.251 -7 (1.248 -7)	1.238 -7 (1.233 -7)	1.196 -7 (1.186 -7)
1.585 2	3.855 -8 (3.854 -8)		3.939 -8 (3.935 -8)	3.952 -8 (3.945 -8)	3.896 -8 (3.883 -8)
2.512 2	1.209 -8 (1.208 -8)	1.219 -8 (1.219 -8)	1.233 -8 (1.233 -8)	1.246 -8 (1.245 -8)	1.248 -8 (1.246 -8)
3.981 2	3.798 -9 (3.798 -9)	3.823 -9 (3.822 -9)	3.859 -9 (3.858 -9)	3.904 -9 (3.903 -9)	3.943 -9 (3.941 -9)
6.310 2	1.196 -9 (1.196 -9)	1.201 -9 (1.201 -9)	1.210 -9 (1.209 -9)	1.222 -9 (1.221 -9)	1.236 -9 (1.236 -9)
1.000 3	3.771 -10 (3.771 -10)	3.783 -10 (3.783 -10)	3.801 -10 (3.801 -10)	3.828 -10 (3.828 -10)	3.869 -10 (3.869 -10)
1.585 3	1.190 -10 (1.190 -10)	1.193 -10 (1.193 -10)	1.197 -10 (1.197 -10)	1.203 -10 (1.203 -10)	1.212 -10 (1.212 -10)
2.512 3	3.760 -11 (3.760 -11)	3.765 -11 (3.765 -11)	3.772 -11 (3.772 -11)	3.786 -11 (3.786 -11)	3.807 -11 (3.807 -11)
3.981 3		1.189 -11 (1.189 -11)	1.191 -11 (1.191 -11)	1.193 -11 (1.193 -11)	1.198 -11 (1.198 -11)
6.310 3		3.757 -12 (3.757 -12)	3.760 -12 (3.760 -12)	3.766 -12 (3.766 -12)	3.775 -12 (3.775 -12)
1.000 4		1.188 -12 (1.188 -12)	1.188 -12 (1.188 -12)	1.189 -12 (1.189 -12)	1.191 -12 (1.191 -12)
1.585 4			3.756 -13 (3.756 -13)	3.758 -13 (3.758 -13)	3.761 -13 (3.761 -13)
			1.188 -13 (1.188 -13)	1.188 -13 (1.188 -13)	1.188 -13 (1.188 -13)

112

TABLE 70

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 1.000+012 CM**(-3)   DLAMBDA/DALPHA = 1.2500-001   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K RO/U=0.180 K=11.16	5000 K RO/U=0.127 K=12.54	10000 K RO/U=0.090 K=13.93	20000 K RO/U=0.063 K=15.32	40000 K RO/U=0.045 K=16.70
0	7.190 -1 (1.002 1)	5.197 -1 (1.190 1)	3.716 -1 (1.450 1)	2.652 -1 (1.806 1)	1.882 -1 (2.289 1)
6.310 -4	7.190 -1 (9.928 0)	5.197 -1 (1.172 1)	3.716 -1 (1.413 1)	2.652 -1 (1.729 1)	1.882 -1 (2.131 1)
1.000 -3	7.190 -1 (9.795 0)	5.197 -1 (1.146 1)	3.716 -1 (1.361 1)	2.652 -1 (1.625 1)	1.882 -1 (1.928 1)
1.585 -3	7.190 -1 (9.480 0)	5.197 -1 (1.087 1)	3.716 -1 (1.248 1)	2.652 -1 (1.415 1)	1.882 -1 (1.561 1)
2.512 -3	7.190 -1 (8.793 0)	5.197 -1 (9.654 0)	3.716 -1 (1.041 1)	2.652 -1 (1.080 1)	1.882 -1 (1.073 1)
3.981 -3	7.190 -1 (7.529 0)	5.196 -1 (7.696 0)	3.716 -1 (7.583 0)	2.652 -1 (7.126 0)	1.882 -1 (6.386 0)
6.310 -3	7.189 -1 (5.814 0)	5.196 -1 (5.501 0)	3.716 -1 (5.027 0)	2.652 -1 (4.432 0)	1.882 -1 (3.835 0)
1.000 -2	7.189 -1 (4.280 0)	5.196 -1 (3.938 0)	3.716 -1 (3.582 0)	2.652 -1 (3.230 0)	1.882 -1 (2.942 0)
1.585 -2	7.187 -1 (3.363 0)	5.195 -1 (3.191 0)	3.715 -1 (3.050 0)	2.652 -1 (2.926 0)	1.882 -1 (2.852 0)
2.512 -2	7.182 -1 (2.876 0)	5.194 -1 (2.787 0)	3.714 -1 (2.728 0)	2.652 -1 (2.667 0)	1.882 -1 (2.665 0)
3.981 -2	7.171 -1 (2.759 0)	5.189 -1 (2.673 0)	3.713 -1 (2.601 0)	2.651 -1 (2.661 0)	1.882 -1 (2.547 0)
6.310 -2	7.142 -1 (2.746 0)	5.179 -1 (2.757 0)	3.709 -1 (2.723 0)	2.650 -1 (2.703 0)	1.881 -1 (2.711 0)
1.000 -1	7.070 -1 (2.037 0)	5.152 -1 (2.076 0)	3.699 -1 (2.105 0)	2.646 -1 (2.128 0)	1.880 -1 (2.149 0)
1.585 -1	6.893 -1 (9.377 -1)	5.085 -1 (9.609 -1)	3.675 -1 (9.781 -1)	2.637 -1 (9.898 -1)	1.876 -1 (9.962 -1)
2.512 -1	6.468 -1 (3.080 -1)	4.921 -1 (3.071 -1)	3.614 -1 (3.068 -1)	2.615 -1 (3.043 -1)	1.869 -1 (3.009 -1)
3.981 -1	5.514 -1 (9.257 -2)	4.532 -1 (8.960 -2)	3.466 -1 (8.700 -2)	2.560 -1 (8.440 -2)	1.849 -1 (8.425 -2)
6.310 -1	3.701 -1 (2.866 -2)	3.687 -1 (2.718 -2)	3.120 -1 (2.645 -2)	2.428 -1 (2.537 -2)	1.800 -1 (2.457 -2)
1.000 0	1.384 -1 (9.400 -3)	2.200 -1 (8.807 -3)	2.395 -1 (8.320 -3)	2.124 -1 (7.924 -3)	1.683 -1 (7.597 -3)
1.585 0	1.478 -2 (3.091 -3)	6.138 -2 (2.879 -3)	1.237 -1 (2.688 -3)	1.518 -1 (2.527 -3)	1.421 -1 (2.392 -3)
2.512 0	1.310 -3 (1.036 -3)	3.635 -3 (9.626 -4)	2.408 -2 (8.929 -4)	6.551 -2 (8.320 -4)	9.296 -2 (7.804 -4)
3.981 0	3.765 -4 (3.495 -4)	3.842 -4 (3.257 -4)	7.801 -4 (3.013 -4)	8.180 -3 (2.788 -4)	3.209 -2 (2.591 -4)
6.310 0	1.203 -4 (1.169 -4)	1.168 -4 (1.102 -4)	1.158 -4 (1.023 -4)	1.643 -4 (9.439 -5)	2.316 -3 (8.707 -5)
1.000 1	3.896 -5 (3.851 -5)	3.777 -5 (3.692 -5)	3.630 -5 (3.468 -5)	3.532 -5 (3.211 -5)	3.939 -5 (2.951 -5)
1.585 1	1.250 -5 (1.244 -5)	1.228 -5 (1.217 -5)	1.185 -5 (1.164 -5)	1.129 -5 (1.090 -5)	1.082 -5 (1.004 -5)
2.512 1	3.958 -6 (3.951 -6)	3.947 -6 (3.932 -6)	3.868 -6 (3.841 -6)	3.715 -6 (3.663 -6)	3.511 -6 (3.413 -6)
3.981 1	1.242 -6 (1.241 -6)	1.251 -6 (1.249 -6)	1.246 -6 (1.242 -6)	1.218 -6 (1.211 -6)	1.162 -6 (1.149 -6)
6.310 1	3.885 -7 (3.884 -7)	3.926 -7 (3.924 -7)	3.953 -7 (3.948 -7)	3.932 -7 (3.923 -7)	3.827 -7 (3.809 -7)
1.000 2	1.216 -7 (1.216 -7)	1.228 -7 (1.228 -7)	1.242 -7 (1.241 -7)	1.250 -7 (1.249 -7)	1.240 -7 (1.238 -7)
1.585 2	3.815 -8 (3.815 -8)	3.845 -8 (3.845 -8)	3.886 -8 (3.885 -8)	3.929 -8 (3.927 -8)	3.950 -8 (3.947 -8)
2.512 2	1.200 -8 (1.200 -8)	1.206 -8 (1.206 -8)	1.217 -8 (1.216 -8)	1.230 -8 (1.230 -8)	1.244 -8 (1.243 -8)
3.981 2	3.779 -9 (3.779 -9)	3.794 -9 (3.794 -9)	3.816 -9 (3.816 -9)	3.850 -9 (3.850 -9)	3.895 -9 (3.894 -9)
6.310 2	1.192 -9 (1.192 -9)	1.195 -9 (1.195 -9)	1.200 -9 (1.200 -9)	1.207 -9 (1.207 -9)	1.219 -9 (1.219 -9)
1.000 3	3.763 -10 (3.763 -10)	3.769 -10 (3.769 -10)	3.779 -10 (3.779 -10)	3.796 -10 (3.796 -10)	3.822 -10 (3.822 -10)
1.585 3	1.189 -10 (1.189 -10)	1.190 -10 (1.190 -10)	1.192 -10 (1.192 -10)	1.196 -10 (1.196 -10)	1.201 -10 (1.201 -10)
2.512 3	3.757 -11 (3.757 -11)	3.759 -11 (3.759 -11)	3.763 -11 (3.763 -11)	3.770 -11 (3.770 -11)	3.783 -11 (3.783 -11)
3.981 3		1.188 -11 (1.188 -11)	1.189 -11 (1.189 -11)	1.190 -11 (1.190 -11)	1.193 -11 (1.193 -11)
6.310 3			3.757 -12 (3.757 -12)	3.760 -12 (3.760 -12)	3.765 -12 (3.765 -12)
1.000 4			1.187 -12 (1.187 -12)	1.188 -12 (1.188 -12)	1.189 -12 (1.189 -12)

TABLE 71

ELECTRON DENSITY = 3.162+012 CM**(-3) N UPPER = 5 N LOWER = 2 WAVELENGTH = 4340.46 ANGSTROM

DLAMBDA/DALPHA = 2.6323-001 ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.218 K=10.01	5000 K RO/D=0.154 K=11.39	10000 K RO/D=0.109 K=12.78	20000 K RO/D=0.077 K=14.17	40000 K RO/D=0.054 K=15.55
0	1.403 0 (8.278 0)	1.049 0 (9.552 0)	7.707 -1 (1.134 1)	5.576 -1 (1.380 1)	4.006 -1 (1.725 1)
1.000 -3	1.403 0 (8.177 0)	1.049 0 (9.364 0)	7.707 -1 (1.097 1)	5.576 -1 (1.305 1)	4.006 -1 (1.569 1)
1.585 -3	1.403 0 (8.032 0)	1.049 0 (9.097 0)	7.707 -1 (1.046 1)	5.576 -1 (1.207 1)	4.006 -1 (1.383 1)
2.512 -3	1.403 0 (7.699 0)	1.049 0 (8.504 0)	7.707 -1 (9.402 0)	5.576 -1 (1.023 1)	4.006 -1 (1.078 1)
3.981 -3	1.403 0 (7.010 0)	1.049 0 (7.385 0)	7.707 -1 (7.629 0)	5.576 -1 (7.607 0)	4.006 -1 (7.231 0)
6.310 -3	1.403 0 (5.874 0)	1.049 0 (5.796 0)	7.707 -1 (5.542 0)	5.575 -1 (5.112 0)	4.006 -1 (4.544 0)
1.000 -2	1.403 0 (4.556 0)	1.049 0 (4.293 0)	7.706 -1 (3.972 0)	5.575 -1 (3.625 0)	4.006 -1 (3.281 0)
1.585 -2	1.401 0 (3.537 0)	1.049 0 (3.351 0)	7.704 -1 (4.186 0)	5.574 -1 (3.048 0)	4.006 -1 (2.936 0)
2.512 -2	1.397 0 (2.354 0)	1.047 0 (2.842 0)	7.698 -1 (2.765 0)	5.572 -1 (2.711 0)	4.005 -1 (2.673 0)
3.981 -2	1.399 0 (2.796 0)	1.043 0 (2.703 0)	7.684 -1 (2.637 0)	5.567 -1 (2.568 0)	4.003 -1 (2.625 0)
6.310 -2	1.366 0 (2.728 0)	1.034 0 (2.709 0)	7.648 -1 (2.719 0)	5.554 -1 (2.700 0)	3.998 -1 (2.698 0)
1.000 -1	1.312 0 (2.000 0)	1.012 0 (2.043 0)	7.560 -1 (2.083 0)	5.520 -1 (2.117 0)	3.986 -1 (2.134 0)
1.585 -1	1.185 0 (9.367 -1)	9.572 -1 (9.606 -1)	7.342 -1 (9.779 -1)	5.438 -1 (9.912 -1)	3.955 -1 (9.976 -1)
2.512 -1	9.189 -1 (3.168 -1)	8.333 -1 (3.157 -1)	6.824 -1 (3.127 -1)	5.236 -1 (3.127 -1)	3.879 -1 (3.071 -1)
3.981 -1	4.938 -1 (9.771 -2)	5.899 -1 (9.489 -2)	5.679 -1 (9.095 -2)	4.761 -1 (8.848 -2)	3.696 -1 (8.546 -2)
6.310 -1	1.206 -1 (3.088 -2)	2.530 -1 (2.933 -2)	3.592 -1 (2.760 -2)	3.752 -1 (2.668 -2)	3.272 -1 (2.559 -2)
1.000 0	1.500 -2 (1.009 -2)	3.822 -2 (9.556 -3)	1.167 -1 (8.946 -3)	2.069 -1 (8.434 -3)	2.410 -1 (8.002 -3)
1.585 0	3.752 -3 (3.377 -3)	4.129 -3 (3.151 -3)	1.015 -2 (2.929 -3)	4.788 -2 (2.729 -3)	1.123 -1 (2.556 -3)
2.512 0	1.173 -3 (1.127 -3)	1.146 -3 (1.056 -3)	1.182 -3 (9.803 -4)	2.347 -3 (9.082 -4)	1.714 -2 (8.434 -4)
3.981 0	3.805 -4 (3.747 -4)	3.063 -4 (3.552 -4)	3.532 -4 (3.316 -4)	3.520 -4 (3.068 -4)	5.152 -4 (2.831 -4)
6.310 0	1.235 -4 (1.227 -4)	1.199 -4 (1.184 -4)	1.147 -4 (1.119 -4)	1.094 -4 (1.041 -4)	1.065 -4 (9.594 -5)
1.000 1	3.956 -5 (3.946 -5)	3.899 -5 (3.880 -5)	3.774 -5 (3.737 -5)	3.592 -5 (3.524 -5)	3.392 -5 (3.263 -5)
1.585 1	1.250 -5 (1.249 -5)	1.250 -5 (1.247 -5)	1.231 -5 (1.226 -5)	1.187 -5 (1.178 -5)	1.123 -5 (1.106 -5)
2.512 1	3.920 -6 (3.919 -6)	3.950 -6 (3.947 -6)	3.948 -6 (3.942 -6)	3.881 -6 (3.869 -6)	3.727 -6 (3.704 -6)
3.981 1	1.226 -6 (1.226 -6)	1.238 -6 (1.238 -6)	1.243 -6 (1.248 -6)	1.247 -6 (1.245 -6)	1.222 -6 (1.219 -6)
6.310 1	3.839 -7 (3.839 -7)	3.874 -7 (3.874 -7)	3.916 -7 (3.915 -7)	3.948 -7 (3.945 -7)	3.938 -7 (3.943 -7)
1.000 2	1.205 -7 (1.205 -7)	1.213 -7 (1.213 -7)	1.225 -7 (1.225 -7)	1.239 -7 (1.238 -7)	1.248 -7 (1.248 -7)
1.585 2	3.791 -8 (3.791 -8)	3.809 -8 (3.809 -8)	3.837 -8 (3.837 -8)	3.876 -8 (3.875 -8)	3.920 -8 (3.920 -8)
2.512 2	1.194 -8 (1.194 -8)	1.198 -8 (1.198 -8)	1.204 -8 (1.204 -8)	1.214 -8 (1.214 -8)	1.227 -8 (1.227 -8)
3.981 2	3.768 -9 (3.768 -9)	3.776 -9 (3.776 -9)	3.790 -9 (3.790 -9)	3.810 -9 (3.810 -9)	3.842 -9 (3.842 -9)
6.310 2	1.190 -9 (1.190 -9)	1.191 -9 (1.191 -9)	1.194 -9 (1.194 -9)	1.199 -9 (1.199 -9)	1.206 -9 (1.206 -9)
1.000 3	3.758 -10 (3.758 -10)	3.762 -10 (3.762 -10)	3.767 -10 (3.767 -10)	3.777 -10 (3.777 -10)	3.792 -10 (3.792 -10)
1.585 3	1.189 -10 (1.189 -10)	1.189 -10 (1.189 -10)	1.190 -10 (1.190 -10)	1.191 -10 (1.191 -10)	1.195 -10 (1.195 -10)
2.512 3	3.756 -11 (3.756 -11)	3.756 -11 (3.756 -11)	3.758 -11 (3.758 -11)	3.762 -11 (3.762 -11)	3.769 -11 (3.769 -11)
3.981 3			1.188 -11 (1.188 -11)	1.188 -11 (1.188 -11)	1.190 -11 (1.190 -11)

TABLE 72

N UPPER = 5   N LOWER = 2   MAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 1.000+013 CM**(-3)   JLAMBDA/DALPHA = 5.8020-001   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.264 K= 8.85	5000 K RO/D=0.186 K=10.24	10000 K RO/D=0.132 K=11.63	20000 K RO/D=0.093 K=13.01	40000 K RO/D=0.066 K=14.40
0					
1.585 -3	2.383 0 (7.035 0)	1.917 0 (7.891 0)	1.489 0 (9.115 0)	1.120 0 (1.081 1)	8.255 -1 (1.321 1)
2.512 -3	2.383 0 (6.919 0)	1.917 0 (7.686 0)	1.489 0 (8.730 0)	1.120 0 (1.006 1)	8.255 -1 (1.171 1)
3.981 -3	2.383 0 (6.754 0)	1.916 0 (7.403 0)	1.489 0 (8.222 0)	1.120 0 (9.142 0)	8.255 -1 (1.006 1)
6.310 -3	2.382 0 (6.388 0)	1.916 0 (6.807 0)	1.489 0 (7.235 0)	1.120 0 (7.549 0)	8.254 -1 (7.621 0)
1.000 -2	2.381 0 (5.892 0)	1.916 0 (5.787 0)	1.489 0 (5.771 0)	1.120 0 (5.579 0)	8.254 -1 (5.190 0)
	2.378 0 (4.668 0)	1.914 0 (4.539 0)	1.488 0 (4.310 0)	1.120 0 (4.012 0)	8.253 -1 (3.668 0)
1.585 -2	2.370 0 (3.698 0)	1.910 0 (3.520 0)	1.487 0 (3.347 0)	1.119 0 (3.187 0)	8.250 -1 (3.048 0)
2.512 -2	2.350 0 (3.049 0)	1.900 0 (2.915 0)	1.482 0 (2.816 0)	1.118 0 (2.747 0)	8.243 -1 (2.699 0)
3.981 -2	2.300 0 (2.834 0)	1.876 0 (2.731 0)	1.472 0 (2.656 0)	1.113 0 (2.604 0)	8.226 -1 (2.564 0)
6.310 -2	2.181 0 (2.701 0)	1.817 0 (2.689 0)	1.445 0 (2.677 0)	1.102 0 (2.683 0)	8.182 -1 (2.680 0)
1.000 -1	1.911 0 (1.959 0)	1.677 0 (2.016 0)	1.380 0 (2.062 0)	1.074 0 (2.088 0)	8.073 -1 (2.116 0)
1.585 -1	1.386 0 (9.350 -1)	1.375 0 (9.607 -1)	1.230 0 (9.864 -1)	1.009 0 (9.926 -1)	7.807 -1 (1.005 0)
2.512 -1	6.662 -1 (3.274 -1)	8.476 -1 (3.260 -1)	9.242 -1 (3.231 -1)	8.608 -1 (3.188 -1)	7.176 -1 (3.148 -1)
3.981 -1	1.716 -1 (1.042 -1)	2.852 -1 (1.602 -1)	4.613 -1 (9.682 -2)	5.804 -1 (9.185 -2)	5.810 -1 (8.916 -2)
6.310 -1	3.941 -2 (3.354 -2)	4.890 -2 (3.145 -2)	9.954 -2 (2.991 -2)	2.223 -1 (2.794 -2)	3.434 -1 (8.669 -2)
1.000 0	1.165 -2 (1.102 -2)	1.160 -2 (1.029 -2)	1.325 -2 (9.690 -3)	2.855 -2 (9.094 -3)	9.534 -2 (8.470 -3)
1.585 0	3.724 -3 (3.650 -3)	3.593 -3 (3.444 -3)	3.518 -3 (3.212 -3)	3.703 -3 (2.982 -3)	7.072 -3 (2.769 -3)
2.512 0	1.212 -3 (1.201 -3)	1.165 -3 (1.146 -3)	1.112 -3 (1.075 -3)	1.071 -3 (9.988 -4)	1.078 -3 (9.228 -4)
3.981 0	3.923 -4 (3.910 -4)	3.818 -4 (3.793 -4)	3.650 -4 (3.609 -4)	3.466 -4 (3.376 -4)	3.292 -4 (3.120 -4)
6.310 0	1.254 -4 (1.252 -4)	1.239 -4 (1.236 -4)	1.204 -4 (1.197 -4)	1.149 -4 (1.137 -4)	1.081 -4 (1.059 -4)
1.000 1	3.954 -5 (3.952 -5)	3.958 -5 (3.953 -5)	3.912 -5 (3.904 -5)	3.795 -5 (3.779 -5)	3.603 -5 (3.573 -5)
1.585 1	1.238 -5 (1.238 -5)	1.248 -5 (1.247 -5)	1.250 -5 (1.249 -5)	1.235 -5 (1.233 -5)	1.194 -5 (1.190 -5)
2.512 1	3.873 -6 (3.872 -6)	3.909 -6 (3.908 -6)	3.943 -6 (3.941 -6)	3.950 -6 (3.948 -6)	3.896 -6 (3.891 -6)
3.981 1	1.213 -6 (1.213 -6)	1.223 -6 (1.223 -6)	1.235 -6 (1.235 -6)	1.246 -6 (1.246 -6)	1.248 -6 (1.247 -6)
6.310 1	3.807 -7 (3.807 -7)	3.851 -7 (3.830 -7)	3.864 -7 (3.864 -7)	3.905 -7 (3.905 -7)	3.942 -7 (3.941 -7)
1.000 2	1.198 -7 (1.198 -7)	1.203 -7 (1.203 -7)	1.211 -7 (1.211 -7)	1.222 -7 (1.222 -7)	1.236 -7 (1.236 -7)
1.585 2	3.775 -8 (3.775 -8)	3.787 -8 (3.787 -8)	3.803 -8 (3.803 -8)	3.829 -8 (3.829 -8)	3.867 -8 (3.866 -8)
2.512 2	1.191 -8 (1.191 -8)	1.193 -8 (1.193 -8)	1.197 -8 (1.197 -8)	1.203 -8 (1.203 -8)	1.212 -8 (1.212 -8)
3.981 2	3.762 -9 (3.762 -9)	3.766 -9 (3.766 -9)	3.774 -9 (3.774 -9)	3.786 -9 (3.786 -9)	3.805 -9 (3.805 -9)
6.310 2		1.189 -9 (1.189 -9)	1.191 -9 (1.191 -9)	1.193 -9 (1.193 -9)	1.198 -9 (1.198 -9)
1.000 3		3.758 -10 (3.758 -10)	3.761 -10 (3.761 -10)	3.766 -10 (3.766 -10)	3.774 -10 (3.774 -10)
1.585 3			1.188 -10 (1.188 -10)	1.189 -10 (1.189 -10)	1.191 -10 (1.191 -10)
2.512 3				3.758 -11 (3.758 -11)	3.761 -11 (3.761 -11)

TABLE 73

ALPHA	2500 K RO/D=0.319 K=7.70	5000 K RO/D=0.226 K=9.09	10000 K RO/D=0.160 K=10.48	20000 K RO/D=0.113 K=11.86	40000 K RO/D=0.080 K=13.25
0	3.307 0 (6.135 0)	2.896 0 (6.701 0)	2.465 0 (7.532 0)	2.014 0 (8.701 0)	1.577 0 (1.036 1)
1.585 -3	3.306 0 (6.076 0)	2.896 0 (6.604 0)	2.462 0 (7.360 0)	2.014 0 (8.377 0)	1.577 0 (9.710 0)
2.512 -3	3.305 0 (5.991 0)	2.895 0 (6.466 0)	2.462 0 (7.120 0)	2.014 0 (7.942 0)	1.577 0 (8.902 0)
3.981 -3	3.303 0 (5.793 0)	2.892 0 (6.155 0)	2.462 0 (6.607 0)	2.014 0 (7.077 0)	1.577 0 (7.463 0)
6.310 -3	3.299 0 (5.378 0)	2.892 0 (5.547 0)	2.460 0 (5.696 0)	2.013 0 (5.740 0)	1.577 0 (5.605 0)
1.000 -2	3.287 0 (4.673 0)	2.885 0 (4.627 0)	2.457 0 (4.523 0)	2.011 0 (4.330 0)	1.576 0 (4.049 0)
1.585 -2	3.258 0 (3.818 0)	2.869 0 (3.667 0)	2.448 0 (3.510 0)	2.007 0 (3.349 0)	1.574 0 (3.191 0)
2.512 -2	3.188 0 (3.151 0)	2.829 0 (3.001 0)	2.425 0 (2.884 0)	1.995 0 (2.796 0)	1.569 0 (2.732 0)
3.981 -2	3.021 0 (2.874 0)	2.731 0 (2.761 0)	2.370 0 (2.677 0)	1.967 0 (2.616 0)	1.556 0 (2.575 0)
6.310 -2	2.660 0 (2.071 0)	2.503 0 (2.657 0)	2.233 0 (2.651 0)	1.899 0 (2.647 0)	1.524 0 (2.652 0)
1.000 -1	2.005 0 (1.926 0)	2.030 0 (1.980 0)	1.943 0 (2.027 0)	1.738 0 (2.073 0)	1.447 0 (2.093 0)
1.585 -1	1.123 0 (9.394 -1)	1.263 0 (9.663 -1)	1.381 0 (9.834 -1)	1.395 0 (1.005 0)	1.271 0 (1.007 0)
2.512 -1	4.076 -1 (3.408 -1)	4.906 -1 (3.409 -1)	6.384 -1 (3.352 -1)	8.213 -1 (3.302 -1)	9.209 -1 (3.242 -1)
3.981 -1	1.203 -1 (1.111 -1)	1.289 -1 (1.074 -1)	1.595 -1 (1.028 -1)	2.550 -1 (9.847 -2)	4.234 -1 (9.353 -2)
6.310 -1	3.712 -2 (3.603 -2)	3.605 -2 (3.445 -2)	3.708 -2 (3.220 -2)	4.379 -2 (3.044 -2)	8.090 -2 (2.842 -2)
1.000 0	1.196 -2 (1.182 -2)	1.155 -2 (1.128 -2)	1.102 -2 (1.051 -2)	1.091 -2 (9.836 -3)	1.183 -2 (9.255 -3)
1.585 0	3.886 -3 (3.868 -3)	3.751 -3 (3.717 -3)	3.573 -3 (3.510 -3)	3.397 -3 (3.275 -3)	3.285 -3 (3.032 -3)
2.512 0	1.251 -3 (1.248 -3)	1.221 -3 (1.216 -3)	1.173 -3 (1.164 -3)	1.111 -3 (1.095 -3)	1.046 -3 (1.016 -3)
3.981 0	3.980 -4 (3.377 -4)	3.941 -4 (3.935 -4)	3.845 -4 (3.834 -4)	3.684 -4 (3.663 -4)	3.469 -4 (3.431 -4)
6.310 0	1.253 -4 (1.252 -4)	1.254 -4 (1.254 -4)	1.244 -4 (1.242 -4)	1.213 -4 (1.210 -4)	1.157 -4 (1.152 -4)
1.000 1	3.918 -5 (3.918 -5)	3.946 -5 (3.945 -5)	3.959 -5 (3.957 -5)	3.927 -5 (3.923 -5)	3.821 -5 (3.814 -5)
1.585 1	1.224 -5 (1.224 -5)	1.235 -5 (1.235 -5)	1.245 -5 (1.245 -5)	1.250 -5 (1.250 -5)	1.239 -5 (1.239 -5)
2.512 1	3.834 -6 (3.834 -6)	3.862 -6 (3.862 -6)	3.898 -6 (3.897 -6)	3.934 -6 (3.934 -6)	3.951 -6 (3.950 -6)
3.981 1	1.204 -6 (1.204 -6)	1.210 -6 (1.210 -6)	1.220 -6 (1.219 -6)	1.232 -6 (1.231 -6)	1.244 -6 (1.244 -6)
6.310 1	3.788 -7 (3.788 -7)	3.802 -7 (3.802 -7)	3.823 -7 (3.823 -7)	3.854 -7 (3.854 -7)	3.895 -7 (3.895 -7)
1.000 2	1.194 -7 (1.194 -7)	1.197 -7 (1.197 -7)	1.201 -7 (1.201 -7)	1.208 -7 (1.208 -7)	1.219 -7 (1.219 -7)
1.585 2	3.767 -8 (3.767 -8)	3.773 -8 (3.773 -8)	3.783 -8 (3.783 -8)	3.798 -8 (3.798 -8)	3.822 -8 (3.822 -8)
2.512 2	1.189 -8 (1.189 -8)	1.191 -8 (1.191 -8)	1.193 -8 (1.193 -8)	1.196 -8 (1.196 -8)	1.201 -8 (1.201 -8)
3.981 2		3.761 -9 (3.761 -9)	3.765 -9 (3.765 -9)	3.771 -9 (3.771 -9)	3.783 -9 (3.783 -9)
6.310 2			1.189 -9 (1.189 -9)	1.190 -9 (1.190 -9)	1.193 -9 (1.193 -9)
1.000 3			3.757 -10 (3.757 -10)	3.760 -10 (3.760 -10)	3.764 -10 (3.764 -10)

TABLE 74

WAVELENGTH = 4340.46 ANGSTROM

N UPPER = 5   N LOWER = 2

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/DALPHA = 2.6930+000   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K K= 6.55 RO/D=0.387		5000 K K= 7.94 RO/D=0.274		10000 K K= 9.32 RO/D=0.193		20000 K K=10.71 RO/D=0.137		40000 K K=12.10 RO/D=0.097	
0	3.989 0	(5.479 0)	3.638 0	(5.830 0)	3.302 0	(6.392 0)	2.950 0	(7.194 0)	2.555 0	(8.345 0)
1.585 -3	3.987 0	(5.447 0)	3.637 0	(5.782 0)	3.301 0	(6.311 0)	2.949 0	(7.050 0)	2.554 0	(8.066 0)
2.512 -3	3.984 0	(5.400 0)	3.635 0	(5.711 0)	3.300 0	(6.196 0)	2.949 0	(6.848 0)	2.554 0	(7.690 0)
3.981 -3	3.977 0	(5.287 0)	3.631 0	(5.546 0)	3.298 0	(5.932 0)	2.948 0	(6.407 0)	2.553 0	(6.926 0)
6.310 -3	3.959 0	(5.037 0)	3.622 0	(5.192 0)	3.293 0	(5.403 0)	2.945 0	(5.600 0)	2.552 0	(5.703 0)
1.000 -2	3.914 0	(4.562 0)	3.598 0	(4.567 0)	3.281 0	(4.566 0)	2.938 0	(4.506 0)	2.548 0	(4.346 0)
1.585 -2	3.808 0	(3.882 0)	3.541 0	(3.763 0)	3.250 0	(3.643 0)	2.920 0	(3.505 0)	2.538 0	(3.352 0)
2.512 -2	3.578 0	(3.250 0)	3.408 0	(3.093 0)	3.176 0	(2.965 0)	2.877 0	(2.861 0)	2.513 0	(2.780 0)
3.981 -2	3.166 0	(2.318 0)	3.127 0	(2.793 0)	3.002 0	(2.700 0)	2.772 0	(2.631 0)	2.452 0	(2.583 0)
6.310 -2	2.619 0	(2.643 0)	2.640 0	(2.623 0)	2.638 0	(2.614 0)	2.530 0	(2.614 0)	2.305 0	(2.619 0)
1.000 -1	1.910 0	(1.896 0)	1.951 0	(1.950 0)	2.004 0	(1.995 0)	2.037 0	(2.035 0)	1.979 0	(2.078 0)
1.585 -1	9.880 -1	(9.424 -1)	1.059 0	(9.725 -1)	1.145 0	(9.942 -1)	1.255 0	(1.006 0)	1.374 0	(1.017 0)
2.512 -1	3.662 -1	(3.536 -1)	3.820 -1	(3.542 -1)	4.132 -1	(3.522 -1)	4.783 -1	(3.442 -1)	6.090 -1	(3.366 -1)
3.981 -1	1.198 -1	(1.179 -1)	1.189 -1	(1.150 -1)	1.189 -1	(1.105 -1)	1.238 -1	(1.054 -1)	1.470 -1	(9.998 -2)
6.310 -1	3.867 -2	(3.843 -2)	3.755 -2	(3.708 -2)	3.618 -2	(3.526 -2)	3.496 -2	(3.310 -2)	3.488 -2	(3.093 -2)
1.000 0	1.252 -2	(1.249 -2)	1.211 -2	(1.205 -2)	1.163 -2	(1.151 -2)	1.100 -2	(1.078 -2)	1.042 -2	(9.995 -3)
1.585 0	4.006 -3	(4.001 -3)	3.931 -3	(3.924 -3)	3.794 -3	(3.779 -3)	3.605 -3	(3.577 -3)	3.385 -3	(3.334 -3)
2.512 0	1.269 -3	(1.268 -3)	1.258 -3	(1.257 -3)	1.231 -3	(1.229 -3)	1.185 -3	(1.181 -3)	1.120 -3	(1.113 -3)
3.981 0	3.978 -4	(3.378 -4)	3.983 -4	(3.982 -4)	3.957 -4	(3.955 -4)	3.876 -4	(3.871 -4)	3.719 -4	(3.710 -4)
6.310 0	1.242 -4	(1.242 -4)	1.250 -4	(1.250 -4)	1.254 -4	(1.254 -4)	1.248 -4	(1.247 -4)	1.221 -4	(1.220 -4)
1.000 1	3.878 -5	(3.878 -5)	3.905 -5	(3.905 -5)	3.937 -5	(3.937 -5)	3.957 -5	(3.956 -5)	3.938 -5	(3.937 -5)
1.585 1	1.213 -5	(1.213 -5)	1.221 -5	(1.221 -5)	1.231 -5	(1.231 -5)	1.242 -5	(1.242 -5)	1.250 -5	(1.250 -5)
2.512 1	3.808 -6	(3.808 -6)	3.825 -6	(3.825 -6)	3.851 -6	(3.851 -6)	3.886 -6	(3.886 -6)	3.926 -6	(3.926 -6)
3.981 1	1.198 -6	(1.198 -6)	1.202 -6	(1.202 -6)	1.208 -6	(1.208 -6)	1.216 -6	(1.216 -6)	1.228 -6	(1.228 -6)
6.310 1	3.775 -7	(3.775 -7)	3.784 -7	(3.784 -7)	3.796 -7	(3.796 -7)	3.816 -7	(3.816 -7)	3.846 -7	(3.846 -7)
1.000 2	1.191 -7	(1.191 -7)	1.193 -7	(1.193 -7)	1.190 -7	(1.196 -7)	1.200 -7	(1.200 -7)	1.206 -7	(1.206 -7)
1.585 2	3.765 -8	(3.765 -8)	3.765 -8	(3.765 -8)	3.770 -8	(3.770 -8)	3.779 -8	(3.779 -8)	3.794 -8	(3.794 -8)
2.512 2	1.189 -8	(1.189 -8)	1.189 -8	(1.189 -8)	1.190 -8	(1.190 -8)	1.192 -8	(1.192 -8)	1.195 -8	(1.195 -8)
3.981 2					3.760 -9	(3.760 -9)	3.763 -9	(3.763 -9)	3.769 -9	(3.769 -9)
6.310 2							1.189 -9	(1.189 -9)	1.190 -9	(1.190 -9)
1.000 3							3.757 -10	(3.757 -10)	3.759 -10	(3.759 -10)

TABLE 75

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.8017+000   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K K= 5.40 RO/D=0.469	5000 K K= 6.79 RO/D=0.331	10000 K K= 8.17 RO/D=0.234	20000 K K= 9.56 RO/D=0.166	40000 K K=10.95 RO/D=0.117
0	4.480 0 (5.016 0)	4.225 0 (5.189 0)	3.944 0 (5.551 0)	3.642 0 (6.102 0)	3.344 0 (6.907 0)
2.512 -3	4.465 0 (4.969 0)	4.214 0 (5.124 0)	3.938 0 (5.453 0)	3.639 0 (5.939 0)	3.342 0 (6.611 0)
3.981 -3	4.441 0 (4.900 0)	4.200 0 (5.032 0)	3.929 0 (5.315 0)	3.635 0 (5.716 0)	3.340 0 (6.228 0)
6.310 -3	4.384 0 (4.742 0)	4.161 0 (4.823 0)	3.906 0 (5.015 0)	3.623 0 (5.259 0)	3.334 0 (5.507 0)
1.000 -2	4.250 0 (4.421 0)	4.066 0 (4.414 0)	3.851 0 (4.463 0)	3.595 0 (4.505 0)	3.320 0 (4.485 0)
1.585 -2	3.970 0 (3.903 0)	3.859 0 (3.796 0)	3.724 0 (3.714 0)	3.528 0 (3.622 0)	3.286 0 (3.502 0)
2.512 -2	3.508 0 (3.340 0)	3.472 0 (3.177 0)	3.457 0 (3.047 0)	3.374 0 (2.937 0)	3.202 0 (2.843 0)
3.981 -2	3.022 0 (2.867 0)	2.975 0 (2.829 0)	3.021 0 (2.725 0)	3.067 0 (2.648 0)	3.013 0 (2.592 0)
6.310 -2	2.602 0 (2.623 0)	2.557 0 (2.592 0)	2.544 0 (2.576 0)	2.590 0 (2.572 0)	2.632 0 (2.580 0)
1.000 -1	1.874 0 (1.869 0)	1.923 0 (1.921 0)	1.954 0 (1.966 0)	1.972 0 (2.006 0)	2.006 0 (2.041 0)
1.585 -1	9.562 -1 (9.464 -1)	1.000 0 (9.810 -1)	1.042 0 (1.003 0)	1.092 0 (1.019 0)	1.154 0 (1.024 0)
2.512 -1	3.679 -1 (3.653 -1)	3.758 -1 (3.700 -1)	3.800 -1 (3.679 -1)	3.879 -1 (3.622 -1)	4.073 -1 (3.521 -1)
3.981 -1	1.242 -1 (1.238 -1)	1.236 -1 (1.226 -1)	1.207 -1 (1.189 -1)	1.172 -1 (1.137 -1)	1.148 -1 (1.077 -1)
6.310 -1	4.025 -2 (4.019 -2)	3.969 -2 (3.958 -2)	3.832 -2 (3.812 -2)	3.649 -2 (3.609 -2)	3.468 -2 (3.391 -2)
1.000 0	1.289 -2 (1.289 -2)	1.277 -2 (1.276 -2)	1.234 -2 (1.232 -2)	1.179 -2 (1.174 -2)	1.112 -2 (1.102 -2)
1.585 0	4.056 -3 (4.055 -3)	4.042 -3 (4.040 -3)	3.975 -3 (3.972 -3)	3.845 -3 (3.838 -3)	3.649 -3 (3.636 -3)
2.512 0	1.270 -3 (1.270 -3)	1.271 -3 (1.270 -3)	1.264 -3 (1.263 -3)	1.242 -3 (1.241 -3)	1.198 -3 (1.196 -3)
3.981 0	3.952 -4 (3.952 -4)	3.970 -4 (3.970 -4)	3.983 -4 (3.982 -4)	3.970 -4 (3.969 -4)	3.902 -4 (3.899 -4)
6.310 0	1.231 -4 (1.231 -4)	1.238 -4 (1.238 -4)	1.247 -4 (1.247 -4)	1.253 -4 (1.253 -4)	1.251 -4 (1.251 -4)
1.000 1	3.847 -5 (3.847 -5)	3.865 -5 (3.865 -5)	3.893 -5 (3.893 -5)	3.926 -5 (3.926 -5)	3.953 -5 (3.953 -5)
1.585 1	1.206 -5 (1.206 -5)	1.210 -5 (1.210 -5)	1.217 -5 (1.217 -5)	1.227 -5 (1.227 -5)	1.239 -5 (1.239 -5)
2.512 1	3.793 -6 (3.793 -6)	3.802 -6 (3.802 -6)	3.817 -6 (3.817 -6)	3.841 -6 (3.841 -6)	3.876 -6 (3.876 -6)
3.981 1	1.195 -6 (1.195 -6)	1.197 -6 (1.197 -6)	1.200 -6 (1.200 -6)	1.205 -6 (1.205 -6)	1.214 -6 (1.214 -6)
6.310 1		3.772 -7 (3.772 -7)	3.780 -7 (3.780 -7)	3.792 -7 (3.792 -7)	3.810 -7 (3.810 -7)
1.000 2		1.191 -7 (1.191 -7)	1.192 -7 (1.192 -7)	1.194 -7 (1.194 -7)	1.199 -7 (1.199 -7)
1.585 2			3.763 -8 (3.763 -8)	3.768 -8 (3.768 -8)	3.776 -8 (3.776 -8)
2.512 2				1.190 -8 (1.190 -8)	1.191 -8 (1.191 -8)
3.981 2				3.759 -9 (3.759 -9)	3.762 -9 (3.762 -9)
6.310 2					1.188 -9 (1.188 -9)

TABLE 76

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 1.000+015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K R0/D=0.568 K= 4.25		5000 K R0/D=0.402 K= 5.64		10000 K R0/D=0.284 K= 7.02		20000 K R0/D=0.201 K= 8.41		40000 K R0/D=0.142 K= 9.79	
0	4.617 0	(4.737 0)	4.474 0	(4.725 0)	4.392 0	(4.925 0)	4.245 0	(5.292 0)	4.009 0	(5.858 0)
2.512 -3	4.593 0	(4.706 0)	4.454 0	(4.687 0)	4.374 0	(4.872 0)	4.232 0	(5.211 0)	4.002 0	(5.720 0)
3.981 -3	4.559 0	(4.659 0)	4.421 0	(4.632 0)	4.346 0	(4.796 0)	4.213 0	(5.096 0)	3.990 0	(5.529 0)
6.310 -3	4.475 0	(4.551 0)	4.343 0	(4.505 0)	4.278 0	(4.623 0)	4.164 0	(4.842 0)	3.961 0	(5.129 0)
1.000 -2	4.291 0	(4.322 0)	4.167 0	(4.237 0)	4.121 0	(4.273 0)	4.045 0	(4.359 0)	3.890 0	(4.445 0)
1.585 -2	3.942 0	(3.422 0)	3.823 0	(3.782 0)	3.798 0	(3.716 0)	3.791 0	(3.668 0)	3.729 0	(3.602 0)
2.512 -2	3.465 0	(3.429 0)	3.327 0	(3.247 0)	3.291 0	(3.118 0)	3.337 0	(3.011 0)	3.404 0	(2.915 0)
3.981 -2	3.030 0	(3.030 0)	2.895 0	(2.870 0)	2.818 0	(2.754 0)	2.822 0	(2.667 0)	2.922 0	(2.605 0)
6.310 -2	2.612 0	(2.617 0)	2.558 0	(2.569 0)	2.513 0	(2.540 0)	2.494 0	(2.529 0)	2.496 0	(2.534 0)
1.000 -1	1.845 0	(1.844 0)	1.898 0	(1.898 0)	1.937 0	(1.939 0)	1.967 0	(1.977 0)	1.988 0	(2.013 0)
1.585 -1	9.455 -1	(9.433 -1)	9.946 -1	(9.904 -1)	1.025 0	(1.017 0)	1.049 0	(1.032 0)	1.073 0	(1.040 0)
2.512 -1	3.712 -1	(3.706 -1)	3.859 -1	(3.846 -1)	3.896 -1	(3.870 -1)	3.869 -1	(3.815 -1)	3.829 -1	(3.717 -1)
3.981 -1	1.268 -1	(1.267 -1)	1.292 -1	(1.290 -1)	1.283 -1	(1.276 -1)	1.237 -1	(1.229 -1)	1.182 -1	(1.167 -1)
6.310 -1	4.110 -2	(4.108 -2)	4.141 -2	(4.138 -2)	4.071 -2	(4.066 -2)	3.922 -2	(3.913 -2)	3.707 -2	(3.690 -2)
1.000 0	1.301 -2	(1.301 -2)	1.309 -2	(1.309 -2)	1.296 -2	(1.296 -2)	1.260 -2	(1.259 -2)	1.197 -2	(1.195 -2)
1.585 0	4.057 -3	(4.057 -3)	4.079 -3	(4.078 -3)	4.070 -3	(4.070 -3)	4.015 -3	(4.013 -3)	3.890 -3	(3.887 -3)
2.512 0	1.265 -3	(1.265 -3)	1.268 -3	(1.268 -3)	1.271 -3	(1.271 -3)	1.268 -3	(1.268 -3)	1.250 -3	(1.250 -3)
3.981 0	3.927 -4	(3.927 -4)	3.938 -4	(3.938 -4)	3.959 -4	(3.959 -4)	3.979 -4	(3.979 -4)	3.977 -4	(3.977 -4)
6.310 0	1.224 -4	(1.224 -4)	1.227 -4	(1.227 -4)	1.234 -4	(1.234 -4)	1.243 -4	(1.243 -4)	1.252 -4	(1.252 -4)
1.000 1	3.828 -5	(3.828 -5)	3.836 -5	(3.836 -5)	3.854 -5	(3.854 -5)	3.881 -5	(3.881 -5)	3.916 -5	(3.916 -5)
1.585 1	1.202 -5	(1.202 -5)	1.204 -5	(1.204 -5)	1.208 -5	(1.208 -5)	1.214 -5	(1.214 -5)	1.224 -5	(1.224 -5)
2.512 1	3.785 -6	(3.785 -6)	3.788 -6	(3.788 -6)	3.796 -6	(3.796 -6)	3.810 -6	(3.810 -6)	3.833 -6	(3.833 -6)
3.981 1			1.193 -6	(1.193 -6)	1.195 -6	(1.195 -6)	1.199 -6	(1.199 -6)	1.203 -6	(1.203 -6)
6.310 1					3.770 -7	(3.770 -7)	3.776 -7	(3.776 -7)	3.788 -7	(3.788 -7)
1.000 2					1.190 -7	(1.190 -7)	1.191 -7	(1.191 -7)	1.194 -7	(1.194 -7)
1.585 2							3.762 -8	(3.762 -8)	3.766 -8	(3.766 -8)
2.512 2									1.189 -8	(1.189 -8)
3.981 2									3.758 -9	(3.758 -9)

TABLE 77

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 3.162+J15 CM**(-3)   DLAMBDA/DALPHA = 2.6929+001   ASYMPTOTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	2500 K K= 3.10 RO/D=0.688		5000 K K= 4.48 RO/D=0.687		10000 K K= 5.87 RO/D=0.344		20000 K K= 7.26 RO/D=0.243		40000 K K= 8.64 RO/D=0.172	
0	4.668 0	(4.692 0)	4.383 0	(4.427 0)	4.363 0	(4.464 0)	4.433 0	(4.681 0)	4.484 0	(5.076 0)
2.512 -3	4.645 0	(4.667 0)	4.362 0	(4.403 0)	4.340 0	(4.434 0)	4.408 0	(4.639 0)	4.460 0	(5.008 0)
3.981 -3	4.610 0	(4.629 0)	4.330 0	(4.367 0)	4.305 0	(4.390 0)	4.370 0	(4.577 0)	4.424 0	(4.910 0)
6.310 -3	4.527 0	(4.542 0)	4.254 0	(4.283 0)	4.222 0	(4.287 0)	4.279 0	(4.434 0)	4.337 0	(4.691 0)
1.000 -2	4.345 0	(4.351 0)	4.085 0	(4.099 0)	4.037 0	(4.065 0)	4.076 0	(4.156 0)	4.139 0	(4.265 0)
1.585 -2	4.012 0	(4.008 0)	3.766 0	(3.761 0)	3.685 0	(3.670 0)	3.686 0	(3.640 0)	3.744 0	(3.624 0)
2.512 -2	3.562 0	(3.555 0)	3.325 0	(3.311 0)	3.203 0	(3.170 0)	3.147 0	(3.068 0)	3.162 0	(2.981 0)
3.981 -2	3.129 0	(3.128 0)	2.927 0	(2.922 0)	2.801 0	(2.788 0)	2.720 0	(2.691 0)	2.686 0	(2.621 0)
6.310 -2	2.631 0	(2.632 0)	2.559 0	(2.562 0)	2.509 0	(2.515 0)	2.480 0	(2.490 0)	2.467 0	(2.488 0)
1.000 -1	1.811 0	(1.810 0)	1.879 0	(1.879 0)	1.916 0	(1.918 0)	1.947 0	(1.950 0)	1.977 0	(1.983 0)
1.585 -1	9.206 -1	(9.201 -1)	9.945 -1	(9.936 -1)	1.033 0	(1.031 0)	1.054 0	(1.051 0)	1.065 0	(1.057 0)
2.512 -1	3.646 -1	(3.644 -1)	3.932 -1	(3.929 -1)	4.041 -1	(4.035 -1)	4.044 -1	(4.032 -1)	3.967 -1	(3.942 -1)
3.981 -1	1.258 -1	(1.257 -1)	1.327 -1	(1.327 -1)	1.342 -1	(1.341 -1)	1.322 -1	(1.320 -1)	1.271 -1	(1.267 -1)
6.310 -1	4.094 -2	(4.094 -2)	4.233 -2	(4.232 -2)	4.247 -2	(4.246 -2)	4.170 -2	(4.168 -2)	4.005 -2	(4.001 -2)
1.000 0	1.296 -2	(1.296 -2)	1.322 -2	(1.321 -2)	1.327 -2	(1.326 -2)	1.313 -2	(1.313 -2)	1.280 -2	(1.280 -2)
1.585 0	4.039 -3	(4.039 -3)	4.070 -3	(4.070 -3)	4.092 -3	(4.092 -3)	4.090 -3	(4.090 -3)	4.044 -3	(4.043 -3)
2.512 0	1.262 -3	(1.262 -3)	1.261 -3	(1.261 -3)	1.265 -3	(1.265 -3)	1.270 -3	(1.270 -3)	1.270 -3	(1.270 -3)
3.981 0	3.916 -4	(3.916 -4)	3.910 -4	(3.910 -4)	3.924 -4	(3.924 -4)	3.947 -4	(3.947 -4)	3.973 -4	(3.973 -4)
6.310 0	1.221 -4	(1.221 -4)	1.219 -4	(1.219 -4)	1.223 -4	(1.223 -4)	1.229 -4	(1.229 -4)	1.239 -4	(1.239 -4)
1.000 1	3.822 -5	(3.822 -5)	3.818 -5	(3.818 -5)	3.826 -5	(3.826 -5)	3.843 -5	(3.843 -5)	3.870 -5	(3.870 -5)
1.585 1			1.200 -5	(1.200 -5)	1.202 -5	(1.202 -5)	1.205 -5	(1.205 -5)	1.212 -5	(1.212 -5)
2.512 1			3.779 -6	(3.779 -6)	3.783 -6	(3.783 -6)	3.791 -6	(3.791 -6)	3.804 -6	(3.804 -6)
3.981 1					1.192 -6	(1.192 -6)	1.194 -6	(1.194 -6)	1.197 -6	(1.197 -6)
6.310 1							3.768 -7	(3.768 -7)	3.774 -7	(3.774 -7)
1.000 2							1.190 -7	(1.190 -7)	1.191 -7	(1.191 -7)
1.585 2									3.761 -8	(3.761 -8)

TABLE 78

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.8020+001   ASYMPTOTE = 5.9350-003*DALPHA***(-5/2)

ALPHA	2500 K RO/D=0.834 K=1.95	5000 K RO/D=0.589 K=3.33	10000 K RO/D=0.417 K=4.72	20000 K RO/D=0.295 K=6.11	40000 K RO/D=0.208 K=7.49
0	5.094 0 (5.100 0)	4.317 0 (4.324 0)	4.139 0 (4.154 0)	4.189 0 (4.226 0)	4.378 0 (4.482 0)
3.981 -3	5.021 0 (5.026 0)	4.273 0 (4.279 0)	4.095 0 (4.108 0)	4.136 0 (4.168 0)	4.309 0 (4.395 0)
6.310 -3	4.918 0 (4.922 0)	4.209 0 (4.215 0)	4.032 0 (4.043 0)	4.060 0 (4.085 0)	4.210 0 (4.274 0)
1.000 -2	4.699 0 (4.701 0)	4.068 0 (4.071 0)	3.891 0 (3.897 0)	3.890 0 (3.903 0)	3.992 0 (4.017 0)
1.585 -2	4.316 0 (4.315 0)	3.796 0 (3.795 0)	3.616 0 (3.615 0)	3.567 0 (3.563 0)	3.590 0 (3.571 0)
2.512 -2	3.820 0 (3.817 0)	3.401 0 (3.398 0)	3.216 0 (3.210 0)	3.116 0 (3.103 0)	3.060 0 (3.027 0)
3.981 -2	3.316 0 (3.316 0)	3.001 0 (3.000 0)	2.834 0 (2.831 0)	2.726 0 (2.720 0)	2.655 0 (2.641 0)
6.310 -2	2.670 0 (2.671 0)	2.577 0 (2.578 0)	2.504 0 (2.505 0)	2.459 0 (2.461 0)	2.441 0 (2.445 0)
1.000 -1	1.732 0 (1.732 0)	1.856 0 (1.856 0)	1.902 0 (1.902 0)	1.929 0 (1.930 0)	1.954 0 (1.956 0)
1.585 -1	8.489 -1 (8.488 -1)	9.799 -1 (9.796 -1)	1.041 0 (1.041 0)	1.070 0 (1.070 0)	1.081 0 (1.080 0)
2.512 -1	3.345 -1 (3.344 -1)	3.907 -1 (3.906 -1)	4.150 -1 (4.149 -1)	4.226 -1 (4.223 -1)	4.182 -1 (4.176 -1)
3.981 -1	1.173 -1 (1.173 -1)	1.328 -1 (1.328 -1)	1.385 -1 (1.385 -1)	1.393 -1 (1.392 -1)	1.360 -1 (1.359 -1)
6.310 -1	3.898 -2 (3.898 -2)	4.234 -2 (4.234 -2)	4.340 -2 (4.340 -2)	4.345 -2 (4.344 -2)	4.255 -2 (4.254 -2)
1.000 0	1.261 -2 (1.261 -2)	1.317 -2 (1.317 -2)	1.337 -2 (1.337 -2)	1.341 -2 (1.341 -2)	1.327 -2 (1.327 -2)
1.585 0	4.008 -3 (4.008 -3)	4.048 -3 (4.048 -3)	4.075 -3 (4.074 -3)	4.097 -3 (4.097 -3)	4.102 -3 (4.102 -3)
2.512 0	1.266 -3 (1.266 -3)	1.257 -3 (1.257 -3)	1.256 -3 (1.256 -3)	1.261 -3 (1.261 -3)	1.268 -3 (1.268 -3)
3.981 0	3.938 -4 (3.938 -4)	3.897 -4 (3.897 -4)	3.894 -4 (3.894 -4)	3.909 -4 (3.909 -4)	3.935 -4 (3.935 -4)
6.310 0		3.810 -5 (3.810 -5)	3.809 -5 (3.809 -5)	3.817 -5 (3.817 -5)	3.834 -5 (3.834 -5)
1.000 1					
1.585 1			1.198 -5 (1.198 -5)	1.200 -5 (1.200 -5)	1.203 -5 (1.203 -5)
2.512 1				3.778 -6 (3.778 -6)	3.787 -6 (3.787 -6)
3.981 1				1.192 -6 (1.192 -6)	1.193 -6 (1.193 -6)
6.310 1					3.766 -7 (3.766 -7)

121

TABLE 79

N UPPER = 5   N LOWER = 2   WAVELENGTH = 4340.46 ANGSTROM

ELECTRON DENSITY = 3.162+016 CM**(-3)   DLAMBDA/DALPHA = 1.2499+002   ASYMPTUTE = 5.9350-003*DALPHA**(-5/2)

ALPHA	5000 K RO/D=0.714 K= 2.18	10000 K RO/D=0.505 K= 3.57	20000 K RO/D=0.357 K= 4.95	40000 K RO/D=0.252 K= 6.34
0	4.559 0 (4.561 0)	4.008 0 (4.010 0)	3.904 0 (3.909 0)	4.022 0 (4.035 0)
3.981 -3	4.511 0 (4.513 0)	3.976 0 (3.978 0)	3.870 0 (3.874 0)	3.976 0 (3.987 0)
6.310 -3	4.443 0 (4.444 0)	3.930 0 (3.931 0)	3.820 0 (3.824 0)	3.910 0 (3.919 0)
1.000 -2	4.292 0 (4.292 0)	3.823 0 (3.824 0)	3.707 0 (3.709 0)	3.760 0 (3.766 0)
1.585 -2	4.004 0 (4.004 0)	3.606 0 (3.607 0)	3.478 0 (3.479 0)	3.471 0 (3.471 0)
2.512 -2	3.590 0 (3.589 0)	3.266 0 (3.265 0)	3.123 0 (3.121 0)	3.051 0 (3.046 0)
3.981 -2	3.149 0 (3.148 0)	2.893 0 (2.892 0)	2.756 0 (2.754 0)	2.669 0 (2.665 0)
6.310 -2	2.624 0 (2.625 0)	2.518 0 (2.518 0)	2.449 0 (2.449 0)	2.414 0 (2.415 0)
1.000 -1	1.806 0 (1.806 0)	1.888 0 (1.888 0)	1.916 0 (1.917 0)	1.935 0 (1.936 0)
1.585 -1	9.242 -1 (9.241 -1)	1.035 0 (1.035 0)	1.085 0 (1.085 0)	1.103 0 (1.103 0)
2.512 -1	3.671 -1 (3.671 -1)	4.163 -1 (4.163 -1)	4.369 -1 (4.368 -1)	4.394 -1 (4.393 -1)
3.981 -1	1.267 -1 (1.267 -1)	1.593 -1 (1.393 -1)	1.441 -1 (1.441 -1)	1.428 -1 (1.427 -1)
6.310 -1	4.108 -2 (4.108 -2)	4.351 -2 (4.351 -2)	4.424 -2 (4.424 -2)	4.527 -2 (4.527 -2)
1.000 0	1.295 -2 (1.295 -2)	1.332 -2 (1.332 -2)	1.347 -2 (1.347 -2)	1.350 -2 (1.350 -2)
1.585 0	4.031 -3 (4.031 -3)	4.048 -3 (4.048 -3)	4.071 -3 (4.071 -3)	4.096 -3 (4.096 -3)
2.512 0	1.260 -3 (1.260 -3)	1.251 -3 (1.251 -3)	1.251 -3 (1.251 -3)	1.257 -3 (1.257 -3)
3.981 0	3.909 -4 (3.909 -4)	3.879 -4 (3.879 -4)	3.880 -4 (3.880 -4)	3.897 -4 (3.897 -4)
6.310 0		1.211 -4 (1.211 -4)	1.212 -4 (1.212 -4)	1.216 -4 (1.216 -4)
1.000 1		3.801 -5 (3.801 -5)	3.802 -5 (3.802 -5)	3.810 -5 (3.810 -5)
1.585 1			1.136 -5 (1.196 -5)	1.198 -5 (1.198 -5)
2.512 1				3.775 -6 (3.775 -6)
3.981 1				1.191 -6 (1.191 -6)

122

TABLE 80

N UPPER = 6   N LOWER = 2

WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 3.162+010 CM**(-3)   DLAMBDA/DALPHA = 1.2499-002

ASYMPTOTE = 9.7074-003 *DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.101 K=14.15	5000 K RO/D=0.071 K=15.54	10000 K RO/D=0.050 K=16.92
0	7.992 -2 (1.004 0)	5.661 -2 (8.272 -1)	4.014 -2 (6.726 -1)
3.981 -4	7.992 -2 (1.006 0)	5.661 -2 (8.303 -1)	4.014 -2 (6.763 -1)
6.310 -4	7.992 -2 (1.010 0)	5.661 -2 (8.350 -1)	4.014 -2 (6.817 -1)
1.000 -3	7.992 -2 (1.020 0)	5.661 -2 (8.465 -1)	4.014 -2 (6.953 -1)
1.585 -3	7.992 -2 (1.044 0)	5.661 -2 (8.751 -1)	4.014 -2 (7.287 -1)
2.512 -3	7.992 -2 (1.101 0)	5.661 -2 (9.437 -1)	4.014 -2 (8.086 -1)
3.981 -3	7.992 -2 (1.234 0)	5.061 -2 (1.100 0)	4.014 -2 (9.899 -1)
6.310 -3	7.992 -2 (1.508 0)	5.061 -2 (1.419 0)	4.014 -2 (1.353 0)
1.000 -2	7.992 -2 (1.963 0)	5.061 -2 (1.925 0)	4.014 -2 (1.907 0)
1.585 -2	7.992 -2 (2.517 0)	5.061 -2 (2.494 0)	4.014 -2 (2.483 0)
2.512 -2	7.992 -2 (3.064 0)	5.061 -2 (3.058 0)	4.014 -2 (3.073 0)
3.981 -2	7.992 -2 (3.187 0)	5.061 -2 (3.222 0)	4.014 -2 (3.238 0)
6.310 -2	7.992 -2 (2.599 0)	5.061 -2 (2.611 0)	4.014 -2 (2.622 0)
1.000 -1	7.991 -2 (1.954 0)	5.661 -2 (1.959 0)	4.013 -2 (1.962 0)
1.585 -1	7.988 -2 (1.237 0)	5.060 -2 (1.253 0)	4.013 -2 (1.264 0)
2.512 -1	7.982 -2 (1.106 -1)	5.658 -2 (5.160 -1)	4.013 -2 (5.195 -1)
3.981 -1	7.967 -2 (1.530 -1)	5.652 -2 (1.512 -1)	4.011 -2 (1.495 -1)
6.310 -1	7.928 -2 (4.421 -2)	5.639 -2 (4.294 -2)	4.006 -2 (4.183 -2)
1.000 0	7.833 -2 (1.357 -2)	5.605 -2 (1.249 -2)	3.995 -2 (1.251 -2)
1.585 0	7.598 -2 (4.356 -3)	5.521 -2 (4.121 -3)	3.965 -2 (3.929 -3)
2.512 0	7.039 -2 (1.424 -3)	5.314 -2 (1.331 -3)	3.890 -2 (1.256 -3)
3.981 0	5.809 -2 (4.779 -4)	4.828 -2 (4.431 -4)	3.707 -2 (4.139 -4)
6.310 0	3.588 -2 (1.621 -4)	3.794 -2 (1.494 -4)	3.284 -2 (1.383 -4)
1.000 1	1.071 -2 (5.523 -5)	2.070 -2 (5.081 -5)	2.422 -2 (4.671 -5)
1.585 1	5.371 -4 (1.874 -5)	4.517 -3 (1.734 -5)	1.128 -2 (1.590 -5)
2.512 1	7.851 -6 (6.284 -6)	1.061 -4 (5.891 -6)	1.658 -3 (5.429 -6)
3.981 1	2.216 -6 (2.068 -6)	2.291 -6 (1.978 -6)	1.583 -5 (1.847 -6)
6.310 1	6.856 -7 (6.073 -7)	6.882 -7 (6.522 -7)	6.940 -7 (6.213 -7)
1.000 2	2.140 -7 (2.117 -7)	2.153 -7 (2.107 -7)	2.142 -7 (2.054 -7)
1.585 2	6.678 -8 (6.649 -8)	6.752 -8 (6.694 -8)	6.765 -8 (6.652 -8)
2.512 2	2.085 -8 (2.081 -8)	2.111 -8 (2.104 -8)	2.131 -8 (2.117 -8)
3.981 2	6.520 -9 (6.516 -9)	6.595 -9 (6.586 -9)	6.678 -9 (6.660 -9)
6.310 2	2.045 -9 (2.045 -9)	2.063 -9 (2.062 -9)	2.088 -9 (2.085 -9)
1.000 3	6.431 -10 (6.430 -10)	6.470 -10 (6.469 -10)	6.531 -10 (6.528 -10)
1.585 3	2.025 -10 (2.025 -10)	2.034 -10 (2.034 -10)	2.043 -10 (2.047 -10)
2.512 3	6.389 -11 (6.388 -11)	6.407 -11 (6.407 -11)	6.437 -11 (6.436 -11)
3.981 3	2.017 -11 (2.017 -11)	2.021 -11 (2.020 -11)	2.027 -11 (2.027 -11)
6.310 3	6.371 -12 (6.371 -12)	6.379 -12 (6.379 -12)	6.391 -12 (6.391 -12)
1.000 4	2.013 -12 (2.013 -12)	2.015 -12 (2.015 -12)	2.018 -12 (2.018 -12)
1.585 4	6.364 -13 (6.364 -13)	6.367 -13 (6.367 -13)	6.373 -13 (6.373 -13)
2.512 4		2.013 -13 (2.013 -13)	2.014 -13 (2.014 -13)
3.981 4		6.363 -14 (6.363 -14)	6.365 -14 (6.365 -14)
6.310 4			2.012 -14 (2.012 -14)

TABLE 81

N UPPER = 6   N LOWER = 2   WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 1.000+011 CM**(-3)   DLAMBDA/DALPHA = 2.6930-002   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.122 K=13.00	5000 K RO/D=0.087 K=14.38	10000 K RO/D=0.061 K=15.77	20000 K RO/D=0.043 K=17.16
0	1.709 -1 (1.211 0)	1.215 -1 (1.019 0)	8.621 -2 (8.462 -1)	6.087 -2 (6.944 -1)
3.981 -4	1.709 -1 (1.213 0)	1.215 -1 (1.022 0)	8.621 -2 (8.490 -1)	6.087 -2 (6.977 -1)
6.310 -4	1.709 -1 (1.216 0)	1.215 -1 (1.025 0)	8.621 -2 (8.533 -1)	6.087 -2 (7.028 -1)
1.000 -3	1.709 -1 (1.223 0)	1.215 -1 (1.034 0)	8.621 -2 (8.642 -1)	6.087 -2 (7.155 -1)
1.585 -3	1.709 -1 (1.241 0)	1.215 -1 (1.056 0)	8.621 -2 (8.910 -1)	6.087 -2 (7.471 -1)
2.512 -3	1.709 -1 (1.284 0)	1.215 -1 (1.110 0)	8.621 -2 (9.557 -1)	6.087 -2 (8.230 -1)
3.981 -3	1.709 -1 (1.385 0)	1.215 -1 (1.233 0)	8.621 -2 (1.104 0)	6.087 -2 (9.959 -1)
6.310 -3	1.709 -1 (1.601 0)	1.215 -1 (1.492 0)	8.621 -2 (1.408 0)	6.087 -2 (1.345 0)
1.000 -2	1.709 -1 (1.383 0)	1.215 -1 (1.929 0)	8.621 -2 (1.898 0)	6.087 -2 (1.887 0)
1.585 -2	1.709 -1 (2.494 0)	1.215 -1 (2.470 0)	8.620 -2 (2.460 0)	6.087 -2 (2.452 0)
2.512 -2	1.709 -1 (3.006 0)	1.215 -1 (3.010 0)	8.620 -2 (3.040 0)	6.087 -2 (3.050 0)
3.981 -2	1.709 -1 (3.118 0)	1.215 -1 (3.163 0)	8.620 -2 (3.198 0)	6.087 -2 (3.172 0)
6.310 -2	1.709 -1 (2.569 0)	1.215 -1 (2.585 0)	8.620 -2 (2.602 0)	6.087 -2 (2.613 0)
1.000 -1	1.708 -1 (1.942 0)	1.215 -1 (1.949 0)	8.618 -2 (1.952 0)	6.087 -2 (1.959 0)
1.585 -1	1.705 -1 (1.227 0)	1.214 -1 (1.248 0)	8.615 -2 (1.262 0)	6.086 -2 (1.269 0)
2.512 -1	1.700 -1 (5.144 -1)	1.212 -1 (5.186 -1)	8.608 -2 (5.216 -1)	6.083 -2 (5.228 -1)
3.981 -1	1.685 -1 (1.575 -1)	1.206 -1 (1.557 -1)	8.589 -2 (1.534 -1)	6.076 -2 (1.502 -1)
6.310 -1	1.648 -1 (4.670 -2)	1.193 -1 (4.466 -2)	8.540 -2 (4.377 -2)	6.059 -2 (4.263 -2)
1.000 0	1.556 -1 (1.461 -2)	1.160 -1 (1.388 -2)	8.421 -2 (1.327 -2)	6.017 -2 (1.278 -2)
1.585 0	1.355 -1 (4.753 -3)	1.061 -1 (4.459 -3)	8.129 -2 (4.212 -3)	5.912 -2 (4.013 -3)
2.512 0	9.544 -2 (1.560 -3)	9.061 -2 (1.446 -3)	7.493 -2 (1.349 -3)	5.655 -2 (1.270 -3)
3.981 0	3.965 -2 (5.269 -4)	5.815 -2 (4.863 -4)	5.353 -2 (4.499 -4)	5.059 -2 (4.194 -4)
6.310 0	4.531 -3 (1.789 -4)	1.314 -2 (1.651 -4)	3.404 -3 (1.519 -4)	3.824 -2 (1.404 -4)
1.000 1	9.600 -5 (6.045 -5)	1.238 -3 (5.622 -5)	8.386 -3 (5.172 -5)	1.894 -2 (4.750 -5)
1.585 1	2.214 -5 (2.016 -5)	2.445 -5 (1.903 -5)	2.706 -4 (1.764 -5)	3.244 -3 (1.619 -5)
2.512 1	6.840 -6 (6.595 -6)	6.037 -6 (6.356 -6)	7.026 -6 (5.980 -6)	4.562 -5 (5.525 -6)
3.981 1	2.147 -6 (2.116 -6)	2.143 -6 (2.082 -6)	2.118 -6 (2.000 -6)	2.114 -6 (1.876 -6)
6.310 1	6.727 -7 (6.688 -7)	6.764 -7 (6.686 -7)	6.716 -7 (6.566 -7)	6.576 -7 (6.288 -7)
1.000 2	2.102 -7 (2.097 -7)	2.125 -7 (2.115 -7)	2.132 -7 (2.112 -7)	2.106 -7 (2.069 -7)
1.585 2	6.568 -8 (6.561 -8)	6.646 -8 (6.633 -8)	6.714 -8 (6.689 -8)	6.719 -8 (6.670 -8)
2.512 2	2.056 -8 (2.055 -8)	2.077 -8 (2.076 -8)	2.103 -8 (2.099 -8)	2.122 -8 (2.116 -8)
3.981 2	6.455 -9 (6.454 -9)	6.505 -9 (6.503 -9)	6.574 -9 (6.570 -9)	6.654 -9 (6.646 -9)
6.310 2	2.031 -9 (2.031 -9)	2.042 -9 (2.041 -9)	2.058 -9 (2.058 -9)	2.081 -9 (2.080 -9)
1.000 3	6.399 -10 (6.399 -10)	6.423 -10 (6.423 -10)	6.460 -10 (6.459 -10)	6.516 -10 (6.514 -10)
1.585 3	2.019 -10 (2.019 -10)	2.024 -10 (2.024 -10)	2.032 -10 (2.032 -10)	2.044 -10 (2.044 -10)
2.512 3	6.376 -11 (6.376 -11)	6.386 -11 (6.386 -11)	6.402 -11 (6.402 -11)	6.430 -11 (6.430 -11)
3.981 3	2.014 -11 (2.014 -11)	2.016 -11 (2.016 -11)	2.020 -11 (2.020 -11)	2.025 -11 (2.025 -11)
6.310 3	6.366 -12 (6.366 -12)	6.370 -12 (6.370 -12)	6.377 -12 (6.377 -12)	6.388 -12 (6.388 -12)
1.000 4	2.012 -12 (2.012 -12)	2.013 -12 (2.013 -12)	2.015 -12 (2.015 -12)	2.017 -12 (2.017 -12)
1.585 4		6.364 -13 (6.364 -13)	6.367 -13 (6.367 -13)	6.371 -13 (6.371 -13)
2.512 4			2.012 -13 (2.012 -13)	2.013 -13 (2.013 -13)
3.981 4			6.363 -14 (6.363 -14)	6.364 -14 (6.364 -14)
6.310 4				2.012 -14 (2.012 -14)

TABLE 82

N UPPER = 6   N LOWER = 2   WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 3.162+011 CM**(-3)   DLAMBDA/DALPHA = 5.8017-002   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K — RO/D=0.148, K=11.85	5000 K — RO/D=0.105, K=13.23	10000 K — RO/D=0.074, K=14.62	20000 K — RO/D=0.052, K=16.01	40000 K — RO/D=0.037, K=17.39
0	3.604 -1 (1.422 0)	2.580 -1 (1.223 0)	1.844 -1 (1.037 0)	1.308 -1 (8.671 -1)	9.283 -2 (7.135 -1)
3.981 -4	3.604 -1 (1.424 0)	2.580 -1 (1.224 0)	1.844 -1 (1.039 0)	1.308 -1 (8.698 -1)	9.283 -2 (7.166 -1)
6.310 -4	3.604 -1 (1.426 0)	2.580 -1 (1.227 0)	1.844 -1 (1.042 0)	1.308 -1 (8.738 -1)	9.283 -2 (7.215 -1)
1.000 -3	3.604 -1 (1.431 0)	2.580 -1 (1.233 0)	1.844 -1 (1.051 0)	1.308 -1 (8.841 -1)	9.283 -2 (7.337 -1)
1.585 -3	3.604 -1 (1.443 0)	2.580 -1 (1.250 0)	1.844 -1 (1.071 0)	1.308 -1 (9.093 -1)	9.283 -2 (7.638 -1)
2.512 -3	3.604 -1 (1.474 0)	2.580 -1 (1.289 0)	1.844 -1 (1.121 0)	1.308 -1 (9.704 -1)	9.283 -2 (8.365 -1)
3.981 -3	3.604 -1 (1.548 0)	2.580 -1 (1.382 0)	1.844 -1 (1.237 0)	1.308 -1 (1.111 0)	9.283 -2 (1.003 0)
6.310 -3	3.604 -1 (1.710 0)	2.580 -1 (1.582 0)	1.844 -1 (1.480 0)	1.308 -1 (1.401 0)	9.283 -2 (1.340 0)
1.000 -2	3.604 -1 (2.016 0)	2.580 -1 (1.944 0)	1.844 -1 (1.899 0)	1.308 -1 (1.875 0)	9.283 -2 (1.868 0)
1.585 -2	3.604 -1 (2.466 0)	2.580 -1 (2.439 0)	1.844 -1 (2.429 0)	1.308 -1 (2.431 0)	9.283 -2 (2.428 0)
2.512 -2	3.603 -1 (2.329 0)	2.579 -1 (2.945 0)	1.843 -1 (2.964 0)	1.308 -1 (2.993 0)	9.282 -2 (3.046 0)
3.981 -2	3.602 -1 (3.028 0)	2.578 -1 (3.077 0)	1.843 -1 (3.143 0)	1.308 -1 (3.153 0)	9.282 -2 (3.197 0)
6.310 -2	3.598 -1 (2.544 0)	2.578 -1 (2.547 0)	1.843 -1 (2.589 0)	1.308 -1 (2.593 0)	9.282 -2 (2.610 0)
1.000 -1	3.589 -1 (1.929 0)	2.574 -1 (1.935 0)	1.842 -1 (1.945 0)	1.307 -1 (1.957 0)	9.280 -2 (1.959 0)
1.585 -1	3.567 -1 (1.220 0)	2.566 -1 (1.240 0)	1.839 -1 (1.255 0)	1.306 -1 (1.263 0)	9.276 -2 (1.270 0)
2.512 -1	3.511 -1 (5.190 -1)	2.546 -1 (5.227 -1)	1.831 -1 (5.259 -1)	1.304 -1 (5.259 -1)	9.267 -2 (5.294 -1)
3.981 -1	3.374 -1 (1.639 -1)	2.495 -1 (1.605 -1)	1.813 -1 (1.574 -1)	1.297 -1 (1.549 -1)	9.243 -2 (1.515 -1)
6.310 -1	3.054 -1 (4.359 -2)	2.371 -1 (4.740 -2)	1.766 -1 (4.539 -2)	1.280 -1 (4.418 -2)	9.183 -2 (4.292 -2)
1.000 0	2.379 -1 (1.566 -2)	2.087 -1 (1.470 -2)	1.656 -1 (1.406 -2)	1.240 -1 (1.341 -2)	9.034 -2 (1.288 -2)
1.585 0	1.275 -1 (5.186 -3)	1.516 -1 (4.834 -3)	1.408 -1 (4.522 -3)	1.143 -1 (4.262 -3)	8.671 -2 (4.048 -3)
2.512 0	2.763 -2 (1.717 -3)	6.817 -2 (1.588 -3)	9.382 -2 (1.470 -3)	9.309 -2 (1.369 -3)	7.823 -2 (1.284 -3)
3.981 0	1.316 -3 (5.791 -4)	9.600 -3 (5.369 -4)	3.395 -2 (4.950 -4)	5.566 -2 (4.573 -4)	6.042 -2 (4.248 -4)
6.310 0	2.219 -4 (1.346 -4)	3.009 -4 (1.821 -4)	2.817 -3 (1.682 -4)	1.537 -2 (1.546 -4)	3.159 -3 (1.424 -4)
1.000 1	6.775 -5 (6.451 -5)	6.094 -5 (5.867 -5)	7.591 -4 (5.719 -5)	6.706 -4 (5.267 -5)	6.231 -4 (4.827 -5)
1.585 1	2.140 -5 (2.099 -5)	2.117 -5 (2.037 -5)	2.088 -5 (1.931 -5)	2.146 -5 (1.795 -5)	1.268 -4 (1.646 -5)
2.512 1	6.755 -6 (6.702 -6)	6.733 -6 (6.630 -6)	6.619 -6 (6.421 -6)	6.451 -6 (6.069 -6)	6.396 -6 (5.615 -6)
3.981 1	2.119 -6 (2.112 -6)	2.131 -6 (2.118 -6)	2.119 -6 (2.093 -6)	2.071 -6 (2.022 -6)	1.995 -6 (1.902 -6)
6.310 1	6.615 -7 (6.615 -7)	6.677 -7 (6.677 -7)	6.723 -7 (6.694 -7)	6.668 -7 (6.603 -7)	6.474 -7 (6.353 -7)
1.000 2	2.071 -7 (2.070 -7)	2.094 -7 (2.092 -7)	2.116 -7 (2.112 -7)	2.124 -7 (2.115 -7)	2.097 -7 (2.081 -7)
1.585 2	6.488 -8 (6.487 -8)	6.548 -8 (6.545 -8)	6.623 -8 (6.618 -8)	6.691 -8 (6.681 -8)	6.703 -8 (6.682 -8)
2.512 2	2.038 -8 (2.038 -8)	2.052 -8 (2.051 -8)	2.072 -8 (2.071 -8)	2.096 -8 (2.094 -8)	2.117 -8 (2.114 -8)
3.981 2	6.415 -9 (6.445 -9)	6.445 -9 (6.445 -9)	6.491 -9 (6.490 -9)	6.556 -9 (6.555 -9)	6.635 -9 (6.632 -9)
6.310 2	2.022 -9 (2.029 -9)	2.029 -9 (2.039 -9)	2.039 -9 (2.039 -9)	2.054 -9 (2.054 -9)	2.076 -9 (2.076 -9)
1.000 3	6.382 -10 (6.382 -10)	6.395 -10 (6.395 -10)	6.417 -10 (6.417 -10)	6.451 -10 (6.450 -10)	6.503 -10 (6.502 -10)
1.585 3	2.016 -10 (2.016 -10)	2.018 -10 (2.018 -10)	2.023 -10 (2.023 -10)	2.030 -10 (2.030 -10)	2.042 -10 (2.041 -10)
2.512 3	6.369 -11 (6.369 -11)	6.374 -11 (6.374 -11)	6.383 -11 (6.383 -11)	6.398 -11 (6.398 -11)	6.423 -11 (6.423 -11)
3.981 3	2.013 -11 (2.013 -11)	2.014 -11 (2.016 -11)	2.016 -11 (2.016 -11)	2.019 -11 (2.019 -11)	2.024 -11 (2.024 -11)
6.310 3		6.366 -12 (6.366 -12)	6.369 -12 (6.369 -12)	6.375 -12 (6.375 -12)	6.386 -12 (6.386 -12)
1.000 4		2.012 -12 (2.012 -12)	2.013 -12 (2.013 -12)	2.014 -12 (2.014 -12)	2.016 -12 (2.016 -12)
1.585 4			6.364 -13 (6.364 -13)	6.366 -13 (6.366 -13)	6.370 -13 (6.370 -13)
2.512 4				2.012 -13 (2.012 -13)	2.013 -13 (2.013 -13)
3.981 4				6.362 -14 (6.362 -14)	6.364 -14 (6.364 -14)
6.310 4					2.012 -14 (2.012 -14)

125

TABLE 83

WAVELENGTH = 4101.73 ANGSTROM

N UPPER = 6   N LOWER = 2

ELECTRON DENSITY = 1.000+012 CM**(-3)   DLAMBDA/DALPHA = 1.2500-001   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.180 K=10.70	5000 K RO/D=0.127 K=12.08	10000 K RO/D=0.090 K=13.47	20000 K RO/D=0.063 K=14.85	40000 K RO/D=0.045 K=16.24
0	7.265 -1 (1.025 0)	5.346 -1 (1.426 0)	3.869 -1 (1.236 0)	2.781 -1 (1.057 0)	1.980 -1 (8.874 -1)
6.310 -4	7.265 -1 (1.027 0)	5.346 -1 (1.429 0)	3.869 -1 (1.240 0)	2.781 -1 (1.062 0)	1.980 -1 (8.939 -1)
1.000 -3	7.265 -1 (1.030 0)	5.346 -1 (1.433 0)	3.869 -1 (1.246 0)	2.781 -1 (1.070 0)	1.980 -1 (9.036 -1)
1.585 -3	7.265 -1 (1.639 0)	5.346 -1 (1.445 0)	3.869 -1 (1.261 0)	2.781 -1 (1.089 0)	1.980 -1 (9.276 -1)
2.512 -3	7.265 -1 (1.660 0)	5.346 -1 (1.473 0)	3.869 -1 (1.298 0)	2.781 -1 (1.136 0)	1.980 -1 (9.855 -1)
3.981 -3	7.265 -1 (1.712 0)	5.346 -1 (1.540 0)	3.869 -1 (1.383 0)	2.781 -1 (1.244 0)	1.980 -1 (1.119 0)
6.310 -3	7.265 -1 (1.828 0)	5.346 -1 (1.688 0)	3.869 -1 (1.570 0)	2.781 -1 (1.473 0)	1.980 -1 (1.396 0)
1.000 -2	7.264 -1 (2.062 0)	5.346 -1 (1.973 0)	3.869 -1 (1.912 0)	2.781 -1 (1.874 0)	1.980 -1 (1.856 0)
1.585 -2	7.262 -1 (2.434 0)	5.345 -1 (2.403 0)	3.868 -1 (2.391 0)	2.781 -1 (2.392 0)	1.980 -1 (2.402 0)
2.512 -2	7.257 -1 (2.835 0)	5.343 -1 (2.858 0)	3.868 -1 (2.889 0)	2.780 -1 (2.922 0)	1.980 -1 (2.956 0)
3.981 -2	7.245 -1 (2.326 0)	5.338 -1 (2.981 0)	3.866 -1 (3.041 0)	2.780 -1 (3.114 0)	1.980 -1 (3.156 0)
6.310 -2	7.214 -1 (2.494 0)	5.326 -1 (2.523 0)	3.861 -1 (2.563 0)	2.778 -1 (2.582 0)	1.980 -1 (2.582 0)
1.000 -1	7.138 -1 (1.903 0)	5.297 -1 (1.921 0)	3.850 -1 (1.927 0)	2.774 -1 (1.938 0)	1.978 -1 (1.945 0)
1.585 -1	6.950 -1 (1.206 0)	6.222 -1 (1.230 0)	3.822 -1 (1.246 0)	2.764 -1 (1.259 0)	1.974 -1 (1.267 0)
2.512 -1	6.503 -1 (5.242 -1)	5.041 -1 (5.297 -1)	3.753 -1 (5.316 -1)	2.739 -1 (5.324 -1)	1.965 -1 (5.323 -1)
3.981 -1	5.497 -1 (1.718 -1)	4.614 -1 (1.677 -1)	3.585 -1 (1.635 -1)	2.675 -1 (1.592 -1)	1.942 -1 (1.561 -1)
6.310 -1	3.625 -1 (5.328 -2)	3.695 -1 (5.051 -2)	3.195 -1 (4.810 -2)	2.522 -1 (4.595 -2)	1.885 -1 (4.410 -2)
1.000 0	1.319 -1 (1.707 -2)	2.126 -1 (1.597 -2)	2.394 -1 (1.495 -2)	2.176 -1 (1.425 -2)	1.749 -1 (1.339 -2)
1.585 0	1.600 -2 (5.645 -3)	5.553 -2 (5.289 -3)	1.166 -1 (4.880 -3)	1.503 -1 (4.589 -3)	1.450 -1 (4.266 -3)
2.512 0	2.290 -3 (1.880 -3)	3.993 -3 (1.751 -3)	2.031 -2 (1.618 -3)	5.968 -2 (1.496 -3)	9.053 -2 (1.388 -3)
3.981 0	6.698 -4 (6.263 -4)	6.807 -4 (5.896 -4)	9.410 -4 (5.470 -4)	6.350 -3 (5.043 -4)	2.793 -2 (4.645 -4)
6.310 0	2.117 -4 (2.062 -4)	2.080 -4 (1.974 -4)	2.066 -4 (1.852 -4)	2.362 -4 (1.713 -4)	1.637 -3 (1.573 -4)
1.000 1	6.743 -5 (6.672 -5)	6.649 -5 (6.512 -5)	6.480 -5 (6.220 -5)	6.331 -5 (5.819 -5)	6.552 -5 (5.358 -5)
1.585 1	2.131 -5 (2.122 -5)	2.125 -5 (2.108 -5)	2.089 -5 (2.055 -5)	2.022 -5 (1.958 -5)	1.947 -5 (1.823 -5)
2.512 1	6.684 -6 (6.672 -6)	6.726 -6 (6.703 -6)	6.702 -6 (6.657 -6)	6.565 -6 (6.480 -6)	6.308 -6 (6.149 -6)
3.981 1	2.089 -6 (2.088 -6)	2.111 -6 (2.108 -6)	2.124 -6 (2.118 -6)	2.113 -6 (2.102 -6)	2.061 -6 (2.040 -6)
6.310 1	6.535 -7 (6.533 -7)	6.601 -7 (6.598 -7)	6.672 -7 (6.664 -7)	6.711 -7 (6.697 -7)	6.660 -7 (6.632 -7)
1.000 2	2.049 -7 (2.048 -7)	2.065 -7 (2.065 -7)	2.087 -7 (2.086 -7)	2.110 -7 (2.108 -7)	2.120 -7 (2.117 -7)
1.585 2	6.438 -8 (6.438 -8)	6.475 -8 (6.475 -8)	6.531 -8 (6.530 -8)	6.603 -8 (6.601 -8)	6.675 -8 (6.670 -8)
2.512 2	2.027 -8 (2.027 -8)	2.035 -8 (2.035 -8)	2.048 -8 (2.048 -8)	2.066 -8 (2.066 -8)	2.090 -8 (2.090 -8)
3.981 2	6.392 -9 (6.392 -9)	6.409 -9 (6.409 -9)	6.437 -9 (6.437 -9)	6.479 -9 (6.478 -9)	6.541 -9 (6.540 -9)
6.310 2	2.018 -9 (2.018 -9)	2.021 -9 (2.021 -9)	2.027 -9 (2.027 -9)	2.036 -9 (2.036 -9)	2.050 -9 (2.050 -9)
1.000 3	6.373-10 (6.373-10)	6.380-10 (6.380-10)	6.392-10 (6.392-10)	6.411-10 (6.411-10)	6.443-10 (6.443-10)
1.585 3	2.014-10 (2.014-10)	2.015-10 (2.015-10)	2.017-10 (2.017-10)	2.021-10 (2.021-10)	2.028-10 (2.028-10)
2.512 3		6.368-11 (6.368-11)	6.373-11 (6.373-11)	6.381-11 (6.381-11)	6.394-11 (6.394-11)
3.981 3		2.013-11 (2.013-11)	2.014-11 (2.014-11)	2.015-11 (2.015-11)	2.018-11 (2.018-11)
6.310 3			6.365-12 (6.365-12)	6.368-12 (6.368-12)	6.374-12 (6.374-12)
1.000 4				2.013-12 (2.013-12)	2.014-12 (2.014-12)
1.585 4				6.363-13 (6.363-13)	6.365-13 (6.365-13)
2.512 4					2.012-13 (2.012-13)

TABLE 84

WAVELENGTH = 4101.73 ANGSTROM

N UPPER = 6   N LOWER = 2

ELECTRON DENSITY = 3.162+012 CM**(-3)   DLAMBDA/DALPHA = 2.6929-001   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K K= 9.54 RO/D=0.218	5000 K K=10.93 RO/D=0.154	10000 K K=12.32 RO/D=0.103	20000 K K=13.70 RO/D=0.077	40000 K K=15.09 RO/D=0.054
0	1.323 0 (1.807 0)	1.028 0 (1.617 0)	7.770 -1 (1.433 0)	5.719 -1 (1.253 0)	4.163 -1 (1.077 0)
1.000 -3	1.323 0 (1.810 0)	1.028 0 (1.622 0)	7.770 -1 (1.440 0)	5.719 -1 (1.263 0)	4.163 -1 (1.089 0)
1.585 -3	1.323 0 (1.816 0)	1.028 0 (1.630 0)	7.770 -1 (1.450 0)	5.719 -1 (1.276 0)	4.163 -1 (1.107 0)
2.512 -3	1.323 0 (1.830 0)	1.028 0 (1.649 0)	7.770 -1 (1.475 0)	5.719 -1 (1.310 0)	4.163 -1 (1.150 0)
3.981 -3	1.323 0 (1.865 0)	1.028 0 (1.695 0)	7.770 -1 (1.536 0)	5.718 -1 (1.389 0)	4.163 -1 (1.252 0)
6.310 -3	1.323 0 (1.945 0)	1.028 0 (1.800 0)	7.770 -1 (1.672 0)	5.718 -1 (1.562 0)	4.163 -1 (1.469 0)
1.000 -2	1.322 0 (2.114 0)	1.028 0 (2.014 0)	7.769 -1 (1.938 0)	5.718 -1 (1.885 0)	4.163 -1 (1.853 0)
1.585 -2	1.321 0 (2.401 0)	1.027 0 (2.363 0)	7.766 -1 (2.348 0)	5.717 -1 (2.348 0)	4.162 -1 (2.360 0)
2.512 -2	1.318 0 (2.729 0)	1.026 0 (2.754 0)	7.760 -1 (2.794 0)	5.715 -1 (2.838 0)	4.161 -1 (2.884 0)
3.981 -2	1.310 0 (2.811 0)	1.022 0 (2.868 0)	7.745 -1 (2.936 0)	5.709 -1 (3.004 0)	4.159 -1 (3.082 0)
6.310 -2	1.290 0 (2.441 0)	1.013 0 (2.467 0)	7.708 -1 (2.500 0)	5.694 -1 (2.524 0)	4.154 -1 (2.565 0)
1.000 -1	1.241 0 (1.883 0)	9.912 -1 (1.895 0)	7.615 -1 (1.911 0)	5.658 -1 (1.916 0)	4.140 -1 (1.932 0)
1.585 -1	1.127 0 (1.201 0)	9.376 -1 (1.220 0)	7.386 -1 (1.239 0)	5.567 -1 (1.248 0)	4.105 -1 (1.262 0)
2.512 -1	8.877 -1 (5.345 -1)	8.160 -1 (5.366 -1)	6.842 -1 (5.395 -1)	5.345 -1 (5.394 -1)	4.020 -1 (5.412 -1)
3.981 -1	5.938 -1 (1.815 -1)	5.785 -1 (1.765 -1)	5.650 -1 (1.719 -1)	4.827 -1 (1.665 -1)	3.812 -1 (1.613 -1)
6.310 -1	1.442 -1 (5.763 -2)	2.530 -1 (5.464 -2)	3.514 -1 (5.156 -2)	3.739 -1 (4.881 -2)	3.338 -1 (4.662 -2)
1.000 0	2.553 -2 (1.862 -2)	4.544 -2 (1.745 -2)	1.123 -1 (1.631 -2)	1.983 -1 (1.521 -2)	2.392 -1 (1.443 -2)
1.585 0	6.762 -3 (6.152 -3)	7.204 -3 (5.766 -3)	1.215 -2 (5.393 -3)	4.324 -2 (5.005 -3)	1.045 -1 (4.655 -3)
2.512 0	2.098 -3 (2.023 -3)	2.062 -3 (1.914 -3)	2.104 -3 (1.784 -3)	2.970 -3 (1.650 -3)	1.435 -2 (1.521 -3)
3.981 0	6.693 -4 (6.599 -4)	6.532 -4 (6.352 -4)	6.343 -4 (5.997 -4)	6.284 -4 (5.576 -4)	7.398 -4 (5.131 -4)
6.310 0	2.134 -4 (2.122 -4)	2.104 -4 (2.080 -4)	2.045 -4 (2.000 -4)	1.969 -4 (1.884 -4)	1.911 -4 (1.743 -4)
1.000 1	6.738 -5 (6.722 -5)	6.726 -5 (6.695 -5)	6.623 -5 (6.565 -5)	6.412 -5 (6.301 -5)	6.118 -5 (5.910 -5)
1.585 1	2.111 -5 (2.109 -5)	2.125 -5 (2.121 -5)	2.122 -5 (2.114 -5)	2.086 -5 (2.072 -5)	2.009 -5 (1.982 -5)
2.512 1	6.598 -6 (6.595 -6)	6.661 -6 (6.656 -6)	6.711 -6 (6.700 -6)	6.697 -6 (6.678 -6)	6.566 -6 (6.529 -6)
3.981 1	2.064 -6 (2.063 -6)	2.083 -6 (2.082 -6)	2.104 -6 (2.103 -6)	2.120 -6 (2.117 -6)	2.113 -6 (2.108 -6)
6.310 1	6.472 -7 (6.471 -7)	6.518 -7 (6.517 -7)	6.582 -7 (6.580 -7)	6.652 -7 (6.649 -7)	6.701 -7 (6.695 -7)
1.000 2	2.035 -7 (2.035 -7)	2.045 -7 (2.045 -7)	2.060 -7 (2.060 -7)	2.081 -7 (2.081 -7)	2.105 -7 (2.104 -7)
1.585 2	6.407 -8 (6.407 -8)	6.430 -8 (6.430 -8)	6.464 -8 (6.464 -8)	6.516 -8 (6.515 -8)	6.586 -8 (6.585 -8)
2.512 2	2.021 -8 (2.021 -8)	2.025 -8 (2.025 -8)	2.033 -8 (2.033 -8)	2.044 -8 (2.044 -8)	2.062 -8 (2.062 -8)
3.981 2	6.379 -9 (6.379 -9)	6.388 -9 (6.388 -9)	6.404 -9 (6.404 -9)	6.430 -9 (6.430 -9)	6.468 -9 (6.468 -9)
6.310 2	2.015 -9 (2.015 -9)	2.017 -9 (2.017 -9)	2.020 -9 (2.020 -9)	2.025 -9 (2.025 -9)	2.034 -9 (2.034 -9)
1.000 3	6.367 -10 (6.367 -10)	6.371 -10 (6.371 -10)	6.378 -10 (6.378 -10)	6.388 -10 (6.388 -10)	6.406 -10 (6.406 -10)
1.585 3	2.013 -10 (2.013 -10)	2.013 -10 (2.013 -10)	2.015 -10 (2.015 -10)	2.017 -10 (2.017 -10)	2.020 -10 (2.020 -10)
2.512 3			6.367 -11 (6.367 -11)	6.371 -11 (6.371 -11)	6.379 -11 (6.379 -11)
3.981 3			2.013 -11 (2.013 -11)	2.013 -11 (2.013 -11)	2.015 -11 (2.015 -11)
6.310 3				6.364 -12 (6.364 -12)	6.367 -12 (6.367 -12)
1.000 4					2.013 -12 (2.013 -12)
1.585 4					6.363 -13 (6.363 -13)

TABLE 85

ELECTRON DENSITY = 1.000+013 CM**(-3)   N UPPER = 6   N LOWER = 2   WAVELENGTH = 4101.73 ANGSTROM

DLAMBDA/DALPHA = 5.8020-001   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.264 K=8.39		5000 K RO/D=0.186 K=9.78		10000 K RO/D=0.132 K=11.17		20000 K RO/D=0.093 K=12.55		40000 K RO/D=0.066 K=13.94	
0	1.974 0	(1.959 0)	1.693 0	(1.785 0)	1.389 0	(1.614 0)	1.092 0	(1.444 0)	8.299 -1	(1.270 0)
1.585 -3	1.974 0	(1.965 0)	1.693 0	(1.794 0)	1.389 0	(1.626 0)	1.092 0	(1.459 0)	8.299 -1	(1.291 0)
2.512 -3	1.974 0	(1.974 0)	1.693 0	(1.806 0)	1.389 0	(1.643 0)	1.092 0	(1.482 0)	8.299 -1	(1.322 0)
3.981 -3	1.973 0	(1.997 0)	1.692 0	(1.837 0)	1.389 0	(1.684 0)	1.092 0	(1.537 0)	8.299 -1	(1.395 0)
6.310 -3	1.973 0	(2.049 0)	1.692 0	(1.908 0)	1.389 0	(1.779 0)	1.092 0	(1.662 0)	8.299 -1	(1.557 0)
1.000 -2	1.971 0	(2.164 0)	1.691 0	(2.059 0)	1.388 0	(1.974 0)	1.092 0	(1.909 0)	8.297 -1	(1.863 0)
1.585 -2	1.966 0	(2.371 0)	1.688 0	(2.323 0)	1.387 0	(2.302 0)	1.091 0	(2.299 0)	8.295 -1	(2.311 0)
2.512 -2	1.953 0	(2.621 0)	1.681 0	(2.640 0)	1.383 0	(2.682 0)	1.090 0	(2.734 0)	8.287 -1	(2.793 0)
3.981 -2	1.922 0	(2.691 0)	1.663 0	(2.743 0)	1.374 0	(2.814 0)	1.085 0	(2.892 0)	8.269 -1	(2.970 0)
6.310 -2	1.847 0	(2.382 0)	1.618 0	(2.407 0)	1.350 0	(2.442 0)	1.074 0	(2.478 0)	8.223 -1	(2.516 0)
1.000 -1	1.673 0	(1.856 0)	1.512 0	(1.871 0)	1.294 0	(1.886 0)	1.048 0	(1.899 0)	8.110 -1	(1.914 0)
1.585 -1	1.314 0	(1.192 0)	1.278 0	(1.214 0)	1.163 0	(1.232 0)	9.841 -1	(1.246 0)	7.832 -1	(1.257 0)
2.512 -1	7.553 -1	(5.455 -1)	8.528 -1	(5.499 -1)	8.934 -1	(5.502 -1)	8.412 -1	(5.491 -1)	7.175 -1	(5.481 -1)
3.981 -1	2.648 -1	(1.918 -1)	3.497 -1	(1.855 -1)	4.759 -1	(1.813 -1)	5.710 -1	(1.752 -1)	5.766 -1	(1.689 -1)
6.310 -1	7.155 -2	(6.227 -2)	8.285 -2	(5.946 -2)	1.267 -1	(5.596 -2)	2.272 -1	(5.260 -2)	3.357 -1	(4.978 -2)
1.000 0	2.123 -2	(2.319 -2)	2.115 -2	(1.892 -2)	2.322 -2	(1.790 -2)	3.697 -2	(1.666 -2)	9.309 -2	(1.543 -2)
1.585 0	6.717 -3	(6.590 -3)	6.479 -3	(6.238 -3)	6.376 -3	(5.877 -3)	6.598 -3	(5.502 -3)	9.441 -3	(5.091 -3)
2.512 0	2.140 -3	(2.123 -3)	2.084 -3	(2.052 -3)	2.008 -3	(1.947 -3)	1.940 -3	(1.820 -3)	1.929 -3	(1.680 -3)
3.981 0	6.787 -4	(6.765 -4)	6.697 -4	(6.655 -4)	6.511 -4	(6.434 -4)	6.243 -4	(6.099 -4)	5.949 -4	(5.674 -4)
6.310 0	2.136 -4	(2.133 -4)	2.133 -4	(2.128 -4)	2.106 -4	(2.096 -4)	2.044 -4	(2.025 -4)	1.948 -4	(1.912 -4)
1.000 1	6.681 -5	(6.678 -5)	6.723 -5	(6.716 -5)	6.723 -5	(6.710 -5)	6.636 -5	(6.610 -5)	6.419 -5	(6.371 -5)
1.585 1	2.086 -5	(2.086 -5)	2.104 -5	(2.103 -5)	2.120 -5	(2.119 -5)	2.122 -5	(2.118 -5)	2.091 -5	(2.085 -5)
2.512 1	6.524 -6	(6.523 -6)	6.577 -6	(6.576 -6)	6.641 -6	(6.639 -6)	6.696 -6	(6.692 -6)	6.699 -6	(6.690 -6)
3.981 1	2.046 -6	(2.046 -6)	2.059 -6	(2.058 -6)	2.077 -6	(2.076 -6)	2.098 -6	(2.098 -6)	2.116 -6	(2.115 -6)
6.310 1	6.432 -7	(6.432 -7)	6.460 -7	(6.460 -7)	6.503 -7	(6.503 -7)	6.563 -7	(6.562 -7)	6.635 -7	(6.634 -7)
1.000 2	2.026 -7	(2.026 -7)	2.032 -7	(2.032 -7)	2.041 -7	(2.041 -7)	2.056 -7	(2.056 -7)	2.076 -7	(2.076 -7)
1.585 2	6.389 -8	(6.389 -8)	6.402 -8	(6.402 -8)	6.423 -8	(6.423 -8)	6.454 -8	(6.454 -8)	6.502 -8	(6.502 -8)
2.512 2	2.017 -8	(2.017 -8)	2.020 -8	(2.020 -8)	2.024 -8	(2.024 -8)	2.031 -8	(2.031 -8)	2.041 -8	(2.041 -8)
3.981 2	6.372 -9	(6.372 -9)	6.377 -9	(6.377 -9)	6.385 -9	(6.385 -9)	6.399 -9	(6.399 -9)	6.423 -9	(6.423 -9)
6.310 2			2.014 -9	(2.014 -9)	2.016 -9	(2.016 -9)	2.019 -9	(2.019 -9)	2.024 -9	(2.024 -9)
1.000 3			6.367 -10	(6.367 -10)	6.370 -10	(6.370 -10)	6.376 -10	(6.376 -10)	6.385 -10	(6.385 -10)
1.585 3					2.013 -10	(2.013 -10)	2.014 -10	(2.014 -10)	2.016 -10	(2.016 -10)
2.512 3							6.366 -11	(6.366 -11)	6.370 -11	(6.370 -11)
3.981 3							2.012 -11	(2.012 -11)	2.013 -11	(2.013 -11)
6.310 3									6.364 -12	(6.364 -12)

TABLE 86

WAVELENGTH = 4101.73 ANGSTROM

N UPPER = 6   N LOWER = 2

ELECTRON DENSITY = 3.162+013 CM**(-3)   JLAMBDA/DALPHA = 1.2499+000   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.319 K=7.24	5000 K RO/D=0.226 K=8.63	10000 K RO/D=0.160 K=10.01	20000 K RO/D=0.113 K=11.40	40000 K RO/D=0.080 K=12.79
0	2.319 0 (2.076 0)	2.189 0 (1.922 0)	2.004 0 (1.770 0)	1.755 0 (1.616 0)	1.461 0 (1.454 0)
1.585 -3	2.319 0 (2.080 0)	2.188 0 (1.927 0)	2.004 0 (1.777 0)	1.755 0 (1.626 0)	1.461 0 (1.468 0)
2.512 -3	2.319 0 (2.086 0)	2.188 0 (1.935 0)	2.004 0 (1.788 0)	1.755 0 (1.641 0)	1.461 0 (1.489 0)
3.981 -3	2.318 0 (2.100 0)	2.188 0 (1.954 0)	2.003 0 (1.815 0)	1.755 0 (1.678 0)	1.461 0 (1.540 0)
6.310 -3	2.317 0 (2.133 0)	2.187 0 (2.000 0)	2.003 0 (1.878 0)	1.754 0 (1.764 0)	1.460 0 (1.655 0)
1.000 -2	2.314 0 (2.206 0)	2.184 0 (2.100 0)	2.001 0 (2.014 0)	1.753 0 (1.942 0)	1.460 0 (1.885 0)
1.585 -2	2.307 0 (2.345 0)	2.177 0 (2.286 0)	1.995 0 (2.257 0)	1.750 0 (2.248 0)	1.458 0 (2.257 0)
2.512 -2	2.289 0 (2.523 0)	2.160 0 (2.524 0)	1.983 0 (2.560 0)	1.742 0 (2.614 0)	1.454 0 (2.682 0)
3.981 -2	2.241 0 (2.576 0)	2.117 0 (2.613 0)	1.951 0 (2.680 0)	1.721 0 (2.761 0)	1.443 0 (2.851 0)
6.310 -2	2.118 0 (2.320 0)	2.013 0 (2.340 0)	1.873 0 (2.375 0)	1.672 0 (2.416 0)	1.416 0 (2.459 0)
1.000 -1	1.816 0 (1.831 0)	1.772 0 (1.843 0)	1.693 0 (1.859 0)	1.554 0 (1.877 0)	1.350 0 (1.889 0)
1.585 -1	1.251 0 (1.188 0)	1.297 0 (1.209 0)	1.321 0 (1.226 0)	1.298 0 (1.241 0)	1.200 0 (1.252 0)
2.512 -1	6.106 -1 (5.598 -1)	6.654 -1 (5.646 -1)	7.483 -1 (5.651 -1)	8.429 -1 (5.631 -1)	8.965 -1 (5.599 -1)
3.981 -1	2.162 -1 (2.032 -1)	2.275 -1 (1.991 -1)	2.573 -1 (1.929 -1)	3.299 -1 (1.861 -1)	4.496 -1 (1.783 -1)
6.310 -1	6.859 -2 (6.679 -2)	6.801 -2 (6.432 -2)	6.895 -2 (6.102 -2)	7.680 -2 (5.730 -2)	1.106 -1 (5.365 -2)
1.000 0	2.174 -2 (2.151 -2)	2.116 -2 (2.072 -2)	2.043 -2 (1.956 -2)	2.005 -2 (1.829 -2)	2.107 -2 (1.697 -2)
1.585 0	6.911 -3 (6.082 -3)	6.755 -3 (6.699 -3)	6.514 -3 (6.410 -3)	6.217 -3 (6.015 -3)	5.969 -3 (5.570 -3)
2.512 0	2.177 -3 (2.173 -3)	2.150 -3 (2.142 -3)	2.033 -3 (2.078 -3)	2.007 -3 (1.981 -3)	1.901 -3 (1.852 -3)
3.981 0	6.803 -4 (6.798 -4)	6.794 -4 (6.785 -4)	6.719 -4 (6.702 -4)	6.543 -4 (6.510 -4)	6.251 -4 (6.189 -4)
6.310 0	2.121 -4 (2.120 -4)	2.132 -4 (2.131 -4)	2.134 -4 (2.132 -4)	2.113 -4 (2.108 -4)	2.054 -4 (2.045 -4)
1.000 1	6.609 -5 (6.009 -5)	6.659 -5 (6.658 -5)	6.709 -5 (6.706 -5)	6.724 -5 (6.718 -5)	6.655 -5 (6.644 -5)
1.585 1	2.065 -5 (2.065 -5)	2.079 -5 (2.079 -5)	2.098 -5 (2.098 -5)	2.116 -5 (2.115 -5)	2.122 -5 (2.120 -5)
2.512 1	6.472 -6 (6.472 -6)	6.507 -6 (6.507 -6)	6.554 -6 (6.557 -6)	6.621 -6 (6.620 -6)	6.683 -6 (6.681 -6)
3.981 1	2.034 -6 (2.034 -6)	2.042 -6 (2.042 -6)	2.054 -6 (2.054 -6)	2.071 -6 (2.071 -6)	2.093 -6 (2.092 -6)
6.310 1	6.406 -7 (6.406 -7)	6.424 -7 (6.424 -7)	6.443 -7 (6.449 -7)	6.489 -7 (6.489 -7)	6.547 -7 (6.547 -7)
1.000 2	2.020 -7 (2.020 -7)	2.024 -7 (2.024 -7)	2.030 -7 (2.030 -7)	2.038 -7 (2.038 -7)	2.052 -7 (2.052 -7)
1.585 2	6.379 -8 (6.379 -8)	6.385 -8 (6.385 -8)	6.397 -8 (6.397 -8)	6.416 -8 (6.416 -8)	6.445 -8 (6.445 -8)
2.512 2		2.016 -8 (2.016 -8)	2.019 -8 (2.019 -8)	2.022 -8 (2.022 -8)	2.029 -8 (2.029 -8)
3.981 2		6.370 -9 (6.370 -9)	6.375 -9 (6.383 -9)	6.383 -9 (6.383 -9)	6.395 -9 (6.395 -9)
6.310 2			2.014 -9 (2.014 -9)	2.016 -9 (2.016 -9)	2.018 -9 (2.018 -9)
1.000 3				6.369-10 (6.369-10)	6.374-10 (6.374-10)
1.585 3			2.013-10 (2.013-10)	2.013-10 (2.013-10)	2.014-10 (2.014-10)
2.512 3					6.366-11 (6.366-11)

TABLE 87

N UPPER = 6   N LOWER = 2   WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 1.000+014 CM**(-3)   DLAMBDA/DALPHA = 2.6930+000   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.387 K= 6.09		5000 K RO/D=0.274 K= 7.48		10000 K RO/D=0.193 K= 8.86		20000 K RO/D=0.137 K=10.25		40000 K RO/D=0.097 K=11.64	
0	2.322 0	(2.163 0)	2.282 0	(2.022 0)	2.256 0	(1.892 0)	2.189 0	(1.760 0)	2.049 0	(1.618 0)
2.512 -3	2.322 0	(2.168 0)	2.283 0	(2.030 0)	2.256 0	(1.903 0)	2.189 0	(1.776 0)	2.049 0	(1.641 0)
3.981 -3	2.323 0	(2.177 0)	2.283 0	(2.042 0)	2.256 0	(1.920 0)	2.188 0	(1.800 0)	2.048 0	(1.674 0)
6.310 -3	2.325 0	(2.197 0)	2.283 0	(2.070 0)	2.255 0	(1.960 0)	2.188 0	(1.855 0)	2.047 0	(1.752 0)
1.000 -2	2.329 0	(2.242 0)	2.284 0	(2.132 0)	2.253 0	(2.048 0)	2.185 0	(1.976 0)	2.045 0	(1.916 0)
1.585 -2	2.339 0	(2.329 0)	2.285 0	(2.253 0)	2.249 0	(2.215 0)	2.179 0	(2.198 0)	2.040 0	(2.202 0)
2.512 -2	2.353 0	(2.446 0)	2.284 0	(2.419 0)	2.236 0	(2.438 0)	2.163 0	(2.486 0)	2.026 0	(2.556 0)
3.981 -2	2.348 0	(2.479 0)	2.267 0	(2.488 0)	2.202 0	(2.540 0)	2.123 0	(2.618 0)	1.993 0	(2.713 0)
6.310 -2	2.217 0	(2.264 0)	2.162 0	(2.269 0)	2.099 0	(2.300 0)	2.023 0	(2.343 0)	1.911 0	(2.393 0)
1.000 -1	1.816 0	(1.809 0)	1.823 0	(1.815 0)	1.818 0	(1.829 0)	1.786 0	(1.722 0)	1.722 0	(1.867 0)
1.585 -1	1.199 0	(1.186 0)	1.231 0	(1.207 0)	1.266 0	(1.223 0)	1.305 0	(1.235 0)	1.331 0	(1.248 0)
2.512 -1	6.828 -1	(5.722 -1)	6.029 -1	(5.815 -1)	6.260 -1	(5.824 -1)	6.663 -1	(5.793 -1)	7.372 -1	(5.737 -1)
3.981 -1	2.157 -1	(2.129 -1)	2.176 -1	(2.119 -1)	2.184 -1	(2.065 -1)	2.243 -1	(1.988 -1)	2.466 -1	(1.902 -1)
6.310 -1	7.073 -2	(7.034 -2)	6.986 -2	(6.906 -2)	6.793 -2	(6.635 -2)	6.583 -2	(6.265 -2)	6.529 -2	(5.861 -2)
1.000 0	2.247 -2	(2.242 -2)	2.216 -2	(2.206 -2)	2.138 -2	(2.119 -2)	2.041 -2	(2.004 -2)	1.936 -2	(1.865 -2)
1.585 0	7.031 -3	(7.025 -3)	6.984 -3	(6.972 -3)	6.837 -3	(6.813 -3)	6.569 -3	(6.523 -3)	6.212 -3	(6.127 -3)
2.512 0	2.186 -3	(2.185 -3)	2.183 -3	(2.181 -3)	2.160 -3	(2.157 -3)	2.109 -3	(2.102 -3)	2.021 -3	(2.009 -3)
3.981 0	6.766 -4	(6.765 -4)	6.793 -4	(6.791 -4)	6.800 -4	(6.796 -4)	6.746 -4	(6.739 -4)	6.586 -4	(6.572 -4)
6.310 0	2.101 -4	(2.101 -4)	2.114 -4	(2.113 -4)	2.127 -4	(2.127 -4)	2.134 -4	(2.133 -4)	2.119 -4	(2.117 -4)
1.000 1	6.551 -5	(6.551 -5)	6.587 -5	(6.586 -5)	6.638 -5	(6.638 -5)	6.692 -5	(6.691 -5)	6.722 -5	(6.720 -5)
1.585 1	2.051 -5	(2.051 -5)	2.059 -5	(2.059 -5)	2.073 -5	(2.073 -5)	2.091 -5	(2.091 -5)	2.111 -5	(2.111 -5)
2.512 1	6.440 -6	(6.440 -6)	6.459 -6	(6.459 -6)	6.492 -6	(6.492 -6)	6.539 -6	(6.539 -6)	6.603 -6	(6.603 -6)
3.981 1	2.027 -6	(2.027 -6)	2.032 -6	(2.032 -6)	2.039 -6	(2.039 -6)	2.049 -6	(2.049 -6)	2.066 -6	(2.066 -6)
6.310 1	6.392 -7	(6.392 -7)	6.401 -7	(6.401 -7)	6.417 -7	(6.417 -7)	6.440 -7	(6.440 -7)	6.477 -7	(6.477 -7)
1.000 2	2.018 -7	(2.018 -7)	2.019 -7	(2.019 -7)	2.022 -7	(2.022 -7)	2.027 -7	(2.027 -7)	2.036 -7	(2.036 -7)
1.585 2	6.376 -8	(6.376 -8)	6.376 -8	(6.376 -8)	6.382 -8	(6.382 -8)	6.393 -8	(6.393 -8)	6.410 -8	(6.410 -8)
2.512 2					2.016 -8	(2.016 -8)	2.018 -8	(2.018 -8)	2.021 -8	(2.021 -8)
3.981 2					6.369 -9	(6.369 -9)	6.373 -9	(6.373 -9)	6.380 -9	(6.380 -9)
6.310 2							2.014 -9	(2.014 -9)	2.015 -9	(2.015 -9)
1.000 3									6.368-10	(6.368-10)
1.585 3									2.013-10	(2.013-10)

TABLE 88

N UPPER = 6   N LOWER = 2   WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 3.162+014 CM**(-3)   DLAMBDA/DALPHA = 5.8017+000   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.463 K= 4.94	5000 K RO/D=0.331 K= 6.33	10000 K RO/D=0.234 K= 7.71	20000 K RO/D=0.166 K= 9.10	40000 K RO/D=0.117 K=10.48
0	2.276 0 (2.232 0)	2.186 0 (2.091 0)	2.170 0 (1.978 0)	2.200 0 (1.869 0)	2.233 0 (1.752 0)
3.981 -3	2.280 0 (2.241 0)	2.190 0 (2.102 0)	2.173 0 (1.994 0)	2.201 0 (1.893 0)	2.232 0 (1.787 0)
6.310 -3	2.286 0 (2.252 0)	2.195 0 (2.118 0)	2.176 0 (2.018 0)	2.202 0 (1.927 0)	2.232 0 (1.837 0)
1.000 -2	2.301 0 (2.279 0)	2.208 0 (2.155 0)	2.185 0 (2.071 0)	2.206 0 (2.004 0)	2.231 0 (1.946 0)
1.585 -2	2.331 0 (2.332 0)	2.237 0 (2.229 0)	2.206 0 (2.177 0)	2.213 0 (2.152 0)	2.230 0 (2.150 0)
2.512 -2	2.378 0 (2.405 0)	2.286 0 (2.335 0)	2.242 0 (2.328 0)	2.227 0 (2.360 0)	2.223 0 (2.422 0)
3.981 -2	2.387 0 (2.417 0)	2.316 0 (2.381 0)	2.274 0 (2.407 0)	2.235 0 (2.460 0)	2.201 0 (2.562 0)
6.310 -2	2.219 0 (2.226 0)	2.187 0 (2.205 0)	2.176 0 (2.222 0)	2.156 0 (2.260 0)	2.113 0 (2.313 0)
1.000 -1	1.797 0 (1.795 0)	1.795 0 (1.792 0)	1.807 0 (1.799 0)	1.826 0 (1.813 0)	1.834 0 (1.833 0)
1.585 -1	1.186 0 (1.183 0)	1.211 0 (1.207 0)	1.229 0 (1.222 0)	1.249 0 (1.234 0)	1.276 0 (1.243 0)
2.512 -1	5.822 -1 (5.800 -1)	6.018 -1 (5.974 -1)	6.105 -1 (6.016 -1)	6.178 -1 (5.994 -1)	6.293 -1 (5.914 -1)
3.981 -1	2.196 -1 (2.190 -1)	2.242 -1 (2.229 -1)	2.229 -1 (2.203 -1)	2.190 -1 (2.137 -1)	2.146 -1 (2.038 -1)
6.310 -1	7.249 -2 (7.240 -2)	7.301 -2 (7.282 -2)	7.101 -2 (7.125 -2)	6.902 -2 (6.832 -2)	6.557 -2 (6.422 -2)
1.000 0	2.286 -2 (2.285 -2)	2.291 -2 (2.289 -2)	2.254 -2 (2.250 -2)	2.175 -2 (2.167 -2)	2.063 -2 (2.048 -2)
1.585 0	7.055 -3 (7.053 -3)	7.089 -3 (7.086 -3)	7.062 -3 (7.056 -3)	6.909 -3 (6.899 -3)	6.639 -3 (6.619 -3)
2.512 0	2.177 -3 (2.177 -3)	2.186 -3 (2.180 -3)	2.186 -3 (2.185 -3)	2.170 -3 (2.169 -3)	2.124 -3 (2.122 -3)
3.981 0	6.721 -4 (6.721 -4)	6.744 -4 (6.743 -4)	6.773 -4 (6.778 -4)	6.800 -4 (6.798 -4)	6.767 -4 (6.764 -4)
6.310 0	2.086 -4 (2.086 -4)	2.093 -4 (2.093 -4)	2.106 -4 (2.106 -4)	2.122 -4 (2.122 -4)	2.133 -4 (2.132 -4)
1.000 1	6.513 -5 (6.513 -5)	6.530 -5 (6.530 -5)	6.566 -5 (6.566 -5)	6.616 -5 (6.616 -5)	6.676 -5 (6.676 -5)
1.585 1	2.042 -5 (2.042 -5)	2.046 -5 (2.046 -5)	2.054 -5 (2.054 -5)	2.067 -5 (2.067 -5)	2.086 -5 (2.085 -5)
2.512 1	6.423 -6 (6.423 -6)	6.431 -6 (6.431 -6)	6.448 -6 (6.448 -6)	6.478 -6 (6.478 -6)	6.523 -6 (6.523 -6)
3.981 1	2.023 -6 (2.023 -6)	2.025 -6 (2.025 -6)	2.029 -6 (2.029 -6)	2.036 -6 (2.036 -6)	2.046 -6 (2.046 -6)
6.310 1		6.388 -7 (6.388 -7)	6.396 -7 (6.396 -7)	6.409 -7 (6.409 -7)	6.432 -7 (6.432 -7)
1.000 2		2.017 -7 (2.017 -7)	2.018 -7 (2.018 -7)	2.021 -7 (2.021 -7)	2.026 -7 (2.026 -7)
1.585 2			6.374 -8 (6.374 -8)	6.380 -8 (6.380 -8)	6.389 -8 (6.389 -8)
2.512 2				2.015 -8 (2.015 -8)	2.017 -8 (2.017 -8)
3.981 2				6.368 -9 (6.368 -9)	6.372 -9 (6.372 -9)
6.310 2					2.014 -9 (2.014 -9)

TABLE 89

N UPPER = 6   N LOWER = 2   WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 1.000+015 CM**(-3)   DLAMBDA/DALPHA = 1.2500+001   ASYMPTOTE = 9.707+003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.568 K= 3.79		5000 K RO/D=0.402 K= 5.17		10000 K RO/D=0.284 K= 6.56		20000 K RO/D=0.201 K= 7.95		40000 K RO/D=0.142 K= 9.33	
0	2.325 0	(2.318 0)	2.158 0	(2.141 0)	2.076 0	(2.031 0)	2.049 0	(1.941 0)	2.080 0	(1.849 0)
6.310 -3	2.336 0	(2.330 0)	2.170 0	(2.156 0)	2.083 0	(2.054 0)	2.062 0	(1.974 0)	2.091 0	(1.900 0)
1.000 -2	2.351 0	(2.348 0)	2.186 0	(2.177 0)	2.109 0	(2.084 0)	2.081 0	(2.019 0)	2.105 0	(1.967 0)
1.585 -2	2.381 0	(2.381 0)	2.220 0	(2.220 0)	2.150 0	(2.146 0)	2.124 0	(2.110 0)	2.138 0	(2.101 0)
2.512 -2	2.420 0	(2.425 0)	2.273 0	(2.283 0)	2.218 0	(2.239 0)	2.199 0	(2.246 0)	2.200 0	(2.293 0)
3.981 -2	2.410 0	(2.416 0)	2.294 0	(2.306 0)	2.264 0	(2.292 0)	2.264 0	(2.329 0)	2.266 0	(2.408 0)
6.310 -2	2.224 0	(2.226 0)	2.153 0	(2.156 0)	2.142 0	(2.149 0)	2.159 0	(2.175 0)	2.185 0	(2.225 0)
1.000 -1	1.793 0	(1.793 0)	1.777 0	(1.776 0)	1.775 0	(1.773 0)	1.786 0	(1.782 0)	1.809 0	(1.799 0)
1.585 -1	1.174 0	(1.173 0)	1.209 0	(1.209 0)	1.225 0	(1.224 0)	1.235 0	(1.234 0)	1.246 0	(1.242 0)
2.512 -1	5.754 -1	(5.749 -1)	6.102 -1	(6.093 -1)	6.227 -1	(6.210 -1)	6.248 -1	(6.212 -1)	6.219 -1	(6.143 -1)
3.981 -1	2.187 -1	(2.186 -1)	2.310 -1	(2.307 -1)	2.334 -1	(2.328 -1)	2.298 -1	(2.286 -1)	2.226 -1	(2.203 -1)
6.310 -1	7.255 -2	(7.252 -2)	7.522 -2	(7.518 -2)	7.528 -2	(7.519 -2)	7.360 -2	(7.344 -2)	7.040 -2	(7.008 -2)
1.000 0	2.285 -2	(2.285 -2)	2.331 -2	(2.330 -2)	2.331 -2	(2.330 -2)	2.293 -2	(2.291 -2)	2.216 -2	(2.213 -2)
1.585 0	7.019 -3	(7.019 -3)	7.096 -3	(7.096 -3)	7.129 -3	(7.128 -3)	7.124 -3	(7.122 -3)	6.982 -3	(6.977 -3)
2.512 0	2.164 -3	(2.164 -3)	2.174 -3	(2.174 -3)	2.183 -3	(2.183 -3)	2.186 -3	(2.186 -3)	2.177 -3	(2.176 -3)
3.981 0	6.696 -4	(6.696 -4)	6.693 -4	(6.692 -4)	6.721 -4	(6.720 -4)	6.761 -4	(6.760 -4)	6.795 -4	(6.794 -4)
6.310 0	2.079 -4	(2.079 -4)	2.078 -4	(2.078 -4)	2.086 -4	(2.086 -4)	2.099 -4	(2.099 -4)	2.116 -4	(2.116 -4)
1.000 1	6.497 -5	(6.497 -5)	6.493 -5	(6.493 -5)	6.512 -5	(6.512 -5)	6.545 -5	(6.545 -5)	6.597 -5	(6.597 -5)
1.585 1	2.038 -5	(2.038 -5)	2.038 -5	(2.038 -5)	2.042 -5	(2.042 -5)	2.049 -5	(2.049 -5)	2.062 -5	(2.062 -5)
2.512 1			6.412 -6	(6.412 -6)	6.422 -6	(6.422 -6)	6.438 -6	(6.438 -6)	6.466 -6	(6.466 -6)
3.981 1			2.021 -6	(2.021 -6)	2.023 -6	(2.023 -6)	2.027 -6	(2.027 -6)	2.033 -6	(2.033 -6)
6.310 1					6.384 -7	(6.384 -7)	6.391 -7	(6.391 -7)	6.404 -7	(6.404 -7)
1.000 2							2.017 -7	(2.017 -7)	2.020 -7	(2.020 -7)
1.585 2							6.372 -8	(6.372 -8)	6.377 -8	(6.377 -8)
2.512 2									2.015 -8	(2.015 -8)

132

TABLE 90

N UPPER = 6　　N LOWER = 2　　WAVELENGTH = 4101.73 ANGSTROM

ELECTRON DENSITY = 3.162+015 CM**(-3)　　DLAMBDA/DALPHA = 2.6929+001　　ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA	2500 K RO/D=0.688 K= 2.04		5000 K RO/D=0.487 K= 4.02		10000 K RO/D=0.344 K= 5.41		20000 K RO/D=0.243 K= 6.80		40000 K RO/D=0.172 K= 8.18	
0	2.500 0	(2.499 0)	2.201 0	(2.199 0)	2.072 0	(2.066 0)	1.998 0	(1.981 0)	1.960 0	(1.910 0)
6.310 -3	2.511 0	(2.510 0)	2.209 0	(2.208 0)	2.082 0	(2.077 0)	2.012 0	(1.998 0)	1.978 0	(1.938 0)
1.000 -2	2.525 0	(2.524 0)	2.221 0	(2.220 0)	2.097 0	(2.093 0)	2.032 0	(2.023 0)	2.005 0	(1.976 0)
1.585 -2	2.552 0	(2.552 0)	2.245 0	(2.245 0)	2.128 0	(2.127 0)	2.075 0	(2.073 0)	2.061 0	(2.055 0)
2.512 -2	2.580 0	(2.581 0)	2.280 0	(2.281 0)	2.177 0	(2.180 0)	2.146 0	(2.154 0)	2.156 0	(2.178 0)
3.981 -2	2.541 0	(2.542 0)	2.282 0	(2.285 0)	2.203 0	(2.208 0)	2.197 0	(2.208 0)	2.234 0	(2.263 0)
6.310 -2	2.303 0	(2.303 0)	2.141 0	(2.142 0)	2.090 0	(2.091 0)	2.091 0	(2.094 0)	2.126 0	(2.133 0)
1.000 -1	1.805 0	(1.805 0)	1.773 0	(1.772 0)	1.755 0	(1.755 0)	1.754 0	(1.753 0)	1.767 0	(1.765 0)
1.585 -1	1.135 0	(1.135 0)	1.205 0	(1.205 0)	1.228 0	(1.228 0)	1.237 0	(1.237 0)	1.243 0	(1.242 0)
2.512 -1	5.409 -1	(5.408 -1)	6.099 -1	(6.097 -1)	6.369 -1	(6.365 -1)	6.445 -1	(6.438 -1)	6.401 -1	(6.387 -1)
3.981 -1	2.057 -1	(2.056 -1)	2.323 -1	(2.323 -1)	2.421 -1	(2.419 -1)	2.430 -1	(2.427 -1)	2.371 -1	(2.365 -1)
6.310 -1	6.936 -2	(6.936 -2)	7.565 -2	(7.564 -2)	7.767 -2	(7.765 -2)	7.754 -2	(7.750 -2)	7.538 -2	(7.530 -2)
1.000 0	2.223 -2	(2.223 -2)	2.331 -2	(2.331 -2)	2.366 -2	(2.366 -2)	2.367 -2	(2.366 -2)	2.326 -2	(2.325 -2)
1.585 0	6.932 -3	(6.332 -3)	7.057 -3	(7.057 -3)	7.119 -3	(7.118 -3)	7.195 -3	(7.194 -3)	7.169 -3	(7.168 -3)
2.512 0	2.159 -3	(2.159 -3)	2.161 -3	(2.161 -3)	2.168 -3	(2.168 -3)	2.177 -3	(2.177 -3)	2.185 -3	(2.184 -3)
3.981 0	6.721 -4	(6.721 -4)	6.662 -4	(6.662 -4)	6.660 -4	(6.666 -4)	6.695 -4	(6.695 -4)	6.742 -4	(6.742 -4)
6.310 0	2.087 -4	(2.087 -4)	2.070 -4	(2.070 -4)	2.071 -4	(2.071 -4)	2.079 -4	(2.079 -4)	2.093 -4	(2.093 -4)
1.000 1	6.517 -5	(6.517 -5)	6.476 -5	(6.476 -5)	6.477 -5	(6.477 -5)	6.495 -5	(6.495 -5)	6.529 -5	(6.529 -5)
1.585 1			2.034 -5	(2.034 -5)	2.034 -5	(2.034 -5)	2.038 -5	(2.038 -5)	2.045 -5	(2.045 -5)
2.512 1					6.405 -6	(6.405 -6)	6.413 -6	(6.413 -6)	6.430 -6	(6.430 -6)
3.981 1					2.020 -6	(2.020 -6)	2.022 -6	(2.022 -6)	2.025 -6	(2.025 -6)
6.310 1							6.381 -7	(6.381 -7)	6.388 -7	(6.388 -7)
1.000 2									2.017 -7	(2.017 -7)
1.585 2									6.371 -0	(6.371 -8)

TABLE 91

N UPPER = 6   N LOWER = 2

ELECTRON DENSITY = 1.000+016 CM**(-3)   DLAMBDA/DALPHA = 5.802D+001   WAVELENGTH = 4101.73 ANGSTROM   ASYMPTOTE = 9.7074-003*DALPHA**(-5/2)

ALPHA		2500 K K= 1.48 RO/D=0.834		5000 K K= 2.87 RO/D=0.589		10000 K K= 4.26 RO/D=0.417		20000 K K= 5.64 RO/D=0.295		40000 K K= 7.03 RO/D=0.208	
0		3.076 0	(3.076 0)	2.324 0	(2.323 0)	2.103 0	(2.102 0)	2.003 0	(2.001 0)	1.945 0	(1.939 0)
1.000	-2	3.125 0	(3.127 0)	2.339 0	(2.340 0)	2.117 0	(2.117 0)	2.022 0	(2.021 0)	1.976 0	(1.973 0)
1.585	-2	3.172 0	(3.173 0)	2.358 0	(2.358 0)	2.135 0	(2.135 0)	2.047 0	(2.047 0)	2.016 0	(2.015 0)
2.512	-2	3.193 0	(3.193 0)	2.381 0	(2.381 0)	2.163 0	(2.163 0)	2.089 0	(2.089 0)	2.083 0	(2.085 0)
3.981	-2	3.047 0	(3.047 0)	2.363 0	(2.364 0)	2.171 0	(2.171 0)	2.116 0	(2.118 0)	2.134 0	(2.138 0)
6.310	-2	2.578 0	(2.578 0)	2.194 0	(2.194 0)	2.064 0	(2.064 0)	2.028 0	(2.028 0)	2.045 0	(2.046 0)
1.000	-1	1.816 0	(1.816 0)	1.787 0	(1.787 0)	1.749 0	(1.749 0)	1.733 0	(1.732 0)	1.735 0	(1.735 0)
1.585	-1	1.005 0	(1.005 0)	1.182 0	(1.182 0)	1.230 0	(1.230 0)	1.244 0	(1.244 0)	1.247 0	(1.247 0)
2.512	-1	4.358 -1	(4.357 -1)	5.850 -1	(5.850 -1)	6.419 -1	(6.418 -1)	6.629 -1	(6.628 -1)	6.639 -1	(6.637 -1)
3.981	-1	1.608 -1	(1.608 -1)	2.228 -1	(2.228 -1)	2.451 -1	(2.450 -1)	2.530 -1	(2.529 -1)	2.516 -1	(2.515 -1)
6.310	-1	5.514 -2	(5.514 -2)	7.346 -2	(7.346 -2)	7.827 -2	(7.827 -2)	7.993 -2	(7.992 -2)	7.942 -2	(7.940 -2)
1.000	0	1.876 -2	(1.876 -2)	2.295 -2	(2.295 -2)	2.385 -2	(2.383 -2)	2.394 -2	(2.394 -2)	2.392 -2	(2.392 -2)
1.585	0	6.051 -3	(6.051 -3)	7.004 -3	(7.004 -3)	7.073 -3	(7.073 -3)	7.125 -3	(7.125 -3)	7.213 -3	(7.213 -3)
2.512	0	1.999 -3	(1.999 -3)	2.156 -3	(2.156 -3)	2.155 -3	(2.155 -3)	2.160 -3	(2.160 -3)	2.171 -3	(2.170 -3)
3.981	0	6.454 -4	(6.454 -4)	6.574 -4	(6.674 -4)	6.632 -4	(6.632 -4)	6.639 -4	(6.639 -4)	6.674 -4	(6.674 -4)
6.310	0	2.074 -4	(2.074 -4)	2.063 -4	(2.063 -4)	2.063 -4	(2.063 -4)	2.064 -4	(2.064 -4)	2.073 -4	(2.073 -4)
1.000	1	6.484 -5	(6.484 -5)	6.460 -5	(6.460 -5)	6.460 -5	(6.463 -5)	6.463 -5	(6.465 -5)	6.481 -5	(6.481 -5)
1.585	1					2.031 -5	(2.031 -5)	2.031 -5	(2.031 -5)	2.035 -5	(2.035 -5)
2.512	1							6.399 -6	(6.399 -6)	6.407 -6	(6.407 -6)
3.981	1							2.019 -6	(2.019 -6)	2.020 -6	(2.020 -6)
6.310	1							6.378 -7	(6.378 -7)	6.378 -7	(6.378 -7)

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