

**RELATIVISTIC DISTORTED-WAVE CALCULATIONS OF ELECTRON
COLLISION CROSS SECTIONS AND RATE COEFFICIENTS FOR NE-LIKE IONS**

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Electron collision data are required for population kinetics modeling and spectral predictions of highly ionized ions in high-temperature plasmas. For highly stripped ions of moderate to high Z , relativistic effects begin to play a role in the atomic physics calculations. We describe numerical techniques which we have employed to compute relativistic distorted-wave inelastic electron collision cross sections from relativistic multiconfiguration bound states. As an application of these techniques, we have calculated full sets of cross sections and rate coefficients between all L -shell and M -shell states of the Ne-like ions Fe, Se, Y, Mo, and Ag. © 1987 Academic Press, Inc.

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INTRODUCTION

Ne-like ions occur in a number of different types of plasmas, including astrophysical plasmas,¹ magnetically confined plasmas,² and Z-pinch plasmas.³ In short-wavelength laser research, Ne-like ions have played a key role in electron collision excitation schemes.⁴⁻⁸ In a laser-produced plasma, amplification at 206 and 209 Å has been demonstrated,^{9,10} and ongoing experiments are focused on extending these results toward more amplification and laser saturation, as well as to other nearby elements.

In support of our x-ray laser (XRL) design efforts, our group has calculated a substantial body of atomic data for Ne-like ions as well as for other sequences. In this report we describe the techniques we have used to compute electron collision excitation cross sections in a relativistic and multiconfiguration distorted-wave approximation, and tabulate some of the results which we have obtained to date.

The electron collision excitation scheme as implemented in the Ne-like sequence relies on strong $n = 2-3$ electron collision excitation to drive a $3p-3s$ population inversion. Theoretically, the line which is calculated to have the highest gain and hence the best chance of being observed has as an upper level a $3p$ state with total angular momentum $J = 0$. This state is populated from the ground state $1s^2 2s^2 2p^6 \ ^1S_0$ by electron collision excitation by virtue of a large electric "monopole" transition. While other lines develop substantial gain in theory, and in experiment as well, the highest-gain monopole-excited line with the $J = 0$ upper state is amplified only weakly.¹⁰ Possible ex-

planations included that either the theoretical results for the strong monopole electron collision excitation cross section is in serious error, or that the 3-3 collisional coupling is much stronger than had been modeled.

The proposal that the $2p-3p$ $J = 0$ to $J = 0$ rates are in error seems unlikely, as nearly all theoretical results using a wide variety of methods and codes are in basic agreement on the magnitude of the monopole excitation cross sections. That the 3-3 collisional coupling is possibly in serious error provided the incentive to perform the present set of calculations. By now the issue is settled as to whether 3-3 electron collisional rates which were not included in the model (our early models included only dipole collisions) could account for discrepancies between theory and experiment, and we have here quite a large body of theoretical results which we hope will be of use to the scientific community. Investigators interested in obtaining these data on line should contact the authors.

Our paper is concerned principally with the presentation of the Ne-like electron collision cross-sectional data. In addition, we have attempted to document some of the numerical methods which we have found useful for this problem, since no earlier account has been published of our electron collision distorted-wave program.

Previous Work and Commentary

The earliest calculations of the electron collision cross sections in Ne-like ions found by us which are at all

sophisticated were published by Bely and Bely¹¹ using the nonrelativistic Coulomb Born approximation. This paper is one of the first to show a large $E0$ transition rate from the Ne-like ground state $1s^2 2s^2 2p^6$ to the singlet $1s^2 2s^2 2p^5 3p\ 1S_0$ state in a highly charged ion (Ne-like Fe). This transition is of interest in soft x-ray laser theory as discussed above, as it drives the highest-gain (theoretically) $3p-3s$ transition.

Another early Coulomb Born calculation was presented by Beigman and Urnov,¹² who were investigating anomalous line intensity ratios between $3s$ and $3d$ lines in Ne-like Fe. Although the collisional excitation rates to the $3s$ states are much less than the excitation rates to the $3d$, the emission of the $3s$ lines nearly equals that of the $3d$ lines. The importance of including indirect contributions to the formation of the $2p-3s$ transition was emphasized. Another early Coulomb Born calculation was reported in Ref. 13.

The earliest distorted-wave calculation in the Ne-like sequence of which we know was published by Flower.¹⁴ This calculation was also performed in intermediate coupling, using codes developed at the University College, London.¹⁵ Davis et al.¹⁶ tabulate a substantial list of cross-section results calculated in a distorted-wave approximation with exchange, and among them appear some results in the Ne-like sequence. Merts et al.¹⁷ have tabulated a large body of electron collision results, including some detailed intermediate-coupling distorted-wave results for Ne-like Fe. Ne-like Kr $n = 2-3$ distorted-wave collision strengths were reported by Reed and Hazi (unpublished)¹⁸ using a more recent version of the University College London (UCL) codes.¹⁹

The first publications which are at all systematic and deal with collision processes within the $n = 3-3$ manifold are those of Feldman et al.⁸ and Bhatia et al.²⁰ These calculations were performed with an intermediate-coupling distorted-wave approximation using the UCL codes. These results were reported over a wide range of Z , and are most closely related to the set of results which we have tabulated here. Our calculations are fully relativistic and extend to somewhat higher Z than results reported earlier. More sophisticated results for Ne-like Ti, wherein contributions from resonances are explored, have recently been presented by Pindzola et al.²¹ There is also an unpublished comparison by Reed²² of $n = 2-3$ collision strengths in Ne-like Se and Kr computed using the UCL codes and MCDW, which is the relativistic code described here.

Previous work in the area of relativistic electron collision calculations is relatively sparse, although some very good works have been published. The first fully relativistic distorted-wave calculation of electron scattering of which we are aware was reported by Walker.²³ The close-coupling equations for electron-hydrogen scattering

have been published by Carse and Walker,²⁴ and results for hydrogenic ions have been given by Walker.^{25,26} A program for calculating relativistic distorted-wave electron collision cross sections was presented by Chang²⁷ and some results in Ne II were later published (Ref. 28). A very general relativistic R-matrix code has been developed by Norrington and Grant²⁹ which is compatible with the widely used relativistic structure code of Grant (Refs. 30-32). As this paper is being written, this R-matrix code has not yet been released for general use among the scientific community. We are also aware of some unpublished results of M. Klapisch and co-workers at the Racah Institute (Israel). We believe that the present calculations represent some of the first published relativistic distorted-wave calculations in the Ne-like sequence.

Although the actual cross sections were not published, the detailed XRL design calculations described briefly in Ref. 9 were carried out using the Se and Y cross sections discussed here. We have also made calculations of F-like Se,³³ Ni-like Gd,³⁴ Be-like Mn, Ni-like Eu and Yb, and many other systems in our kinetics and XRL studies, which we hope to publish in the relatively near future.

Structure Calculations

The calculations described here are based on multiconfiguration relativistic structure calculations and distorted-wave Dirac continuum states. We have employed YODA, which is an atomic physics package of Hagelstein and Jung³⁵ and which calculates energy levels, oscillator strengths, photoionization cross sections, collision cross sections, and Auger rates for a restricted angular momentum coupling scheme. YODA has been used extensively for the support of nonlocal thermal-equilibrium (NLTE) kinetics model development at the Lawrence Livermore National Laboratory for several years, and was employed in the construction of models used for the design efforts described by Rosen et al.⁹

The calculations begin with spherically averaged relativistic Hartree-Fock central-field orbitals which are computed using a fictitious ten-electron state which has a $1s^2 2s^n 2p^m$ core (where $n + m$ is approximately 7.5) and equal fractional occupation of the five M -shell orbitals, such that approximately half an electron is excited. This approach to orbital calculations is similar to methods used in the RAC code of Scofield.³⁶ The numerical methods used are standard and are described in a review of Grant.³⁷ Given the single-electron orbitals from the relativistic Hartree-Fock calculation (which are orthonormal), a Hamiltonian is constructed assuming a restricted coupling scheme of the form shown in Fig. 1. The configurations used in the calculations include the $2s^2 2p^6$ ground state; the $2s^2 2p^5 3s$, $2s^2 2p^5 3p$, and $2s^2 2p^5 3d$ singly excited states; and the $2s2p^6 3s$, $2s2p^6 3p$, and $2s2p^6 3d$ singly excited

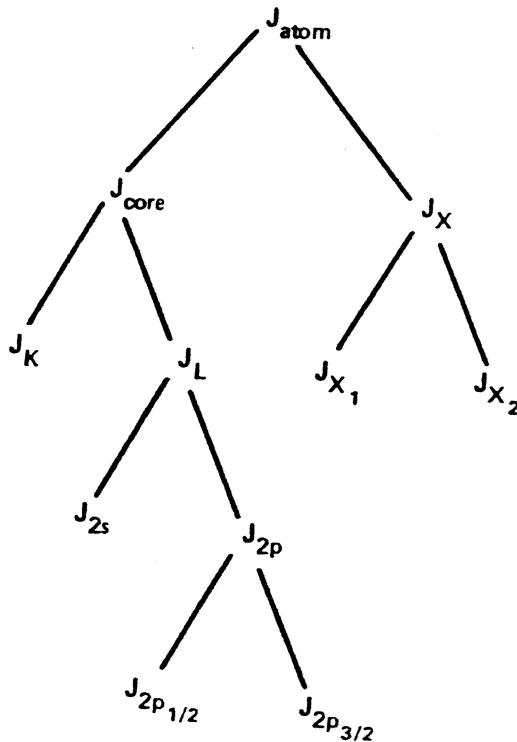


Fig. 1. Angular momentum coupling scheme used for the present set of calculations. The $1s_{1/2}$ orbital is described by J_K , and the L -shell orbitals have J values $J_{2s_{1/2}}$, $J_{2p_{1/2}}$, and $J_{2p_{3/2}}$. The two $2p$ orbitals are coupled to form J_{2p} , which is coupled with the $2s$ orbital to form J_L . The K -shell and L -shell angular momenta are coupled to form the "core" angular momentum J_{core} . Two excited-state orbitals are included (J_{X_1} and J_{X_2}), and are coupled to form J_X . In the present calculations, only singly excited states were included in the basis set; hence only one of the two excited electrons allowed for was actually used. We shall report results of calculations involving doubly excited states in future publications. The core electrons and the excited electrons are coupled to form the total atomic state angular momentum J_{atom} . We note that the final results obtained will be independent of angular momentum coupling scheme.

states. The angular coefficients are computed using the methods of Grant and Pyper³¹ and the recoupling coefficients based on the algorithm of Burke.³⁸ Although the structure codes of Grant are general and currently widely available, at the time it seemed to be simplest to develop local tools for our specific problems. As such, these calculations are independent, and have agreed well in comparisons with other programs.

Both Coulomb and Breit terms (in the $\omega = 0$ limit) are included in the Hamiltonian, as well as self-energy (using the hydrogenic results of Mohr³⁹) and vacuum polarization (using the Uehling potential⁴⁰). The nuclear potential is assumed to have a Fermi distribution.⁴¹ The accuracy of the Coulomb terms in the structure calculation was verified through comparisons with codes of Pollak,⁴² Scofield,³⁶ Desclaux,⁴³ and Grant^{30–32} by Pollak (unpublished).

lished).⁴⁴ The Breit terms were later compared with those of the RAC code and found to be in agreement (Hagelstein, unpublished).⁴⁵

The matrix elements of the Coulomb and Breit terms with respect to a basis of configuration-state functions $|TM\rangle$ were evaluated through the general formulas quoted by Grant³⁰ and Grant and Pyper³¹,

$$\begin{aligned} \left\langle TM \left| \sum_{i < j} \frac{1}{r_{ij}} \right| T'M' \right\rangle &= \delta_{JJ'} \delta_{MM'} \sum_{A,B,C,D} (-1)^{\Delta} \\ &\times [N_A(N_B - \delta_{AB})N_C(N_D - \delta_{CD})]^{1/2} \sum_{\bar{T}} (T_A \{ |\bar{T}_A j_A \}) \\ &\times (T_B \{ |\bar{T}_B j_B \} (\bar{T}_C j_C \} T'_C) (\bar{T}_D j_D \} T'_D) \\ &\times \sum_k [C_d(1 + \delta_{AB}\delta_{CD})^{-1} [j_A, j_D]^{-1/2} X^k(A, B, C, D) \\ &\times C_e(1 - \delta_{AB})(1 - \delta_{CD}) [j_A, j_C]^{-1/2} X^k(A, B, D, C)]. \quad (1) \end{aligned}$$

Here, we have followed fairly closely the notation of Grant and Pyper.³¹ The number of electrons within a shell A is N_A , $(-1)^{\Delta}$ is a phase factor, J and M are the total angular momentum quantum numbers, and $(T_A \{ |\bar{T}_A j_A \})$ is a fractional parentage coefficient. The two recoupling coefficients are C_d and C_e for direct and exchange terms. The $X^k(A, B, C, D)$ functions differ for the Coulomb and Breit cases, and for the Coulomb case is given by

$$\begin{aligned} X^k(A, B, C, D) &= (-1)^k \langle j_A \| C^{(k)} \| j_C \rangle \langle j_B \| C^{(k)} \| j_D \rangle \\ &\times \Pi'(\kappa_A, \kappa_C, k) \Pi'(\kappa_B, \kappa_D, k) R^k(A, B, C, D), \quad (2) \end{aligned}$$

where the $\Pi'(\kappa_A, \kappa_C, k)$ function embodies explicitly the relevant selection rules, and the radial matrix element $R^k(A, B, C, D)$ is given by

$$\begin{aligned} R^k(A, B, C, D) &= \int_0^\infty \int_0^\infty [P_A(r_1)P_C(r_1) + Q_A(r_1)Q_C(r_1)] \\ &\times \frac{r_1^k}{r_2^{k+1}} [P_B(r_2)P_D(r_2) + Q_B(r_2)Q_D(r_2)] dr_1 dr_2, \quad (3) \end{aligned}$$

where the large components of the Dirac orbitals are denoted by $P(r)$ and the small components are denoted by $Q(r)$.

Our numerical procedures have by and large followed those described in the review paper of Grant,³⁷ including the use of a logarithmic grid for the computation of radial orbitals. In the next section, we discuss the numerical methods employed for continuum orbitals, wherein one difference in the procedure is the use of a hybrid grid for all radial computations. The bound-state orbitals and other required radial functions are transformed to the new grid using a cubic spline interpolation which we found preserves accuracy for hydrogenic orbitals to at least part per million accuracy.

The evaluation of static Coulomb matrix elements similar to those discussed here is central to the compu-

tation of the collision strengths and cross sections of the scattering problem, which is discussed in the following sections. At this point our discussion of the angular algebra is complete, as the above formulas apply both to the structure calculations and to the scattering calculations. In the remaining sections our focus will be on the numerical details of the continuum orbitals and radial matrix elements.

Numerics for Continuum Orbitals

The continuum orbitals are computed in the distorted-wave approximation with no account taken of exchange with bound-state orbitals. The numerical techniques used were not quite standard and deserve some elaboration. The continuum Dirac equations have the form

$$\left[\frac{d}{dr} + \frac{\kappa_i}{r} \right] P_i(r) = a_P(r) Q_i(r), \quad (4)$$

$$\left[-\frac{d}{dr} + \frac{\kappa_i}{r} \right] Q_i(r) = a_Q(r) P_i(r), \quad (5)$$

where $P_i(r)$ is the large component and $Q_i(r)$ is the small component of the Dirac radial orbitals. The functions a_P and a_Q are given by

$$a_P(r) = -\frac{1}{c} [V_C(r) + V_D(r) - \epsilon - 2c^2], \quad (6)$$

$$a_Q(r) = -\frac{1}{c} [V_C(r) + V_D(r) - \epsilon], \quad (7)$$

where $V_C(r)$ is the Coulomb potential (including effects of finite nuclear size) and $V_D(r)$ is the "direct" potential, which we take to be the spherically averaged value. The continuum energy ϵ is in units of $2I_H$, where I_H is the nonrelativistic ionization potential of hydrogen (13.6058 eV). We employ $P(r)$ and $Q(r)$ in our discussion of the Dirac equation in this section and the following one, as this notation is quite standard, and much of what we are discussing can be applied to both continuum and bound states. We use $F(r)$ and $G(r)$ in our discussions of the calculation of radial matrix elements to describe continuum orbitals, as at that point distinctions between the two types of orbitals become very important.

We may write the Dirac equation in terms of $P_i(r)$ alone, which yields

$$\left[-\frac{d}{dr} + \frac{\kappa_i}{r} \right] \frac{1}{a_P(r)} \left[\frac{d}{dr} + \frac{\kappa_i}{r} \right] P_i(r) = a_Q(r) P_i(r). \quad (8)$$

With the aid of a further substitution for $P_i(r)$, namely

$$\rho_i(r) = a_P^{-1/2}(r) P_i(r), \quad (9)$$

one obtains after some algebra

$$\frac{d^2}{dr^2} \rho_i(r) + w(r) \rho_i(r) = 0, \quad (10)$$

where

$$w(r) = a_P(r) a_Q(r) - \frac{\kappa_i(\kappa_i+1)}{r^2} - \frac{\kappa_i}{r} \frac{1}{a_P(r)} \frac{d}{dr} a_P(r) - \frac{3}{4} \left[\frac{1}{a_P(r)} \frac{d}{dr} a_P(r) \right]^2 + \frac{1}{2} \frac{1}{a_P(r)} \frac{d^2}{dr^2} a_P(r). \quad (11)$$

In this form, the continuum Dirac equation looks a good deal like a nonrelativistic continuum equation with a modified potential, and one could use standard nonrelativistic methods to obtain solutions. Our approach is to start from this equation, and rather than work with a linear mesh in r , to work with a mesh of the form

$$x = \alpha r + \beta \ln(r). \quad (12)$$

The advantage of using such a mesh is that at large r , where the continuum orbitals are sinusoidal, one can retain a fixed number of grid points per sinusoidal cycle. For small r , a logarithmic grid is preferable for cases where interior or core electrons occur, and for the calculation of continuum orbitals with large angular momentum numbers l . Under this transformation, our equations become somewhat complex; however, with yet another change of variables,

$$y(x) = \xi(x) \rho(x), \quad (13)$$

we can recover

$$\frac{d^2}{dx^2} y(x) + w_1(x) y(x) = 0, \quad (14)$$

where ξ is a scale factor which is found to be

$$\xi(r) = \left(\alpha + \frac{\beta}{r} \right)^{-1/2} \quad (15)$$

and

$$w_1(x) = \left[\frac{dr}{dx} \right]^2 w(x) + \frac{1}{\xi(x)} \frac{d^2}{dx^2} \xi(x) - 2 \left[\frac{1}{\xi(x)} \right]^2 \left[\frac{d\xi(x)}{dx} \right]^2. \quad (16)$$

Our final form after manipulations is one suitable for using the Noumerov method for the solution of second-order differential equations. The radial grid is now logarithmic near the origin, which helps the small- r numerics, and linear for large r , as is essential for continuum orbital calculations. When doing the calculations, we use one mesh for the evaluation of all continuum orbitals and matrix elements.

Continuum Asymptotics

For normalizing the continuum orbitals, we have adopted a method of matching wave functions to their asymptotic WKB form. The methods used represent slight modifications to standard procedures,⁴⁶ and we shall out-

line them briefly. The WKB equation for the continuum electrons may be found assuming

$$P_A(r) = \left[\frac{a_P(r)}{2c\eta(r)} \right]^{1/2} \sin \phi(r), \quad (17)$$

where $\eta(r)$ satisfies the WKB equation

$$\eta^{1/2}(r) \frac{d^2}{dr^2} \eta^{-1/2}(r) + w(r) = \eta^2(r) \quad (18)$$

and

$$\phi(r) = \int_0^r \eta(s) ds. \quad (19)$$

The idea is to compute $\eta(r)$ and its first derivative at large r from an approximate solution to the WKB equation, and $\phi(r)$ through calculation of its cotangent in the usual way. For example,

$$\frac{1}{P_i(r)} \frac{d}{dr} P_i(r) = \eta(r) \cot \phi(r) + \left[\frac{a_P(r)}{\eta(r)} \right]^{-1/2} \frac{d}{dr} \left[\frac{a_P(r)}{\eta(r)} \right]^{1/2}. \quad (20)$$

The technique which we have used to solve the WKB equation approximately is based on an iterative method. For example, one might assume that the term containing the second derivative is small and begin the iteration with

$$\eta_0(r) = w^{1/2}(r). \quad (21)$$

Given $\eta_0(r)$ as an initial guess, one might construct successive approximations to $\eta(r)$ according to

$$\eta_{n+1}(r) = \left[w(r) + \eta_n^{1/2}(r) \frac{d^2}{dr^2} \eta_n^{-1/2}(r) \right]^{1/2}, \quad (22)$$

where $\eta_{n+1}(r)$ is the $(n + 1)$ st successive approximation in the iterations. The first iteration yields

$$\eta_1(r) = \sqrt{w(r) + \frac{5}{16} \left[\frac{1}{w(r)} \frac{dw(r)}{dr} \right]^2 - \frac{1}{4} \frac{1}{w(r)} \frac{d^2}{dr^2} w(r)}. \quad (23)$$

We have carried this procedure out to $\eta_2(r)$ in the calculations presented here, using the asymptotic form of the potential $w(r)$,

$$w(r) \rightarrow w_{\text{NR}}(r) + \Delta w(r), \quad (24)$$

where the asymptotic nonrelativistic potential $w_{\text{NR}}(r)$ is

$$w_{\text{NR}}(r) = 2\epsilon + \frac{2Z}{r} - \frac{l(l+1)}{r^2}, \quad (25)$$

using the identity $\kappa(\kappa + 1) = l(l + 1)$, and the relativistic remainder is found to be

$$\begin{aligned} \Delta w(r) = & \frac{1}{c^2} \left(\epsilon + \frac{Z}{r} \right)^2 + \lim_{r \rightarrow \infty} \left\{ -\frac{\kappa_i}{r} \frac{1}{a_P(r)} \frac{d}{dr} a_P(r) \right. \\ & \left. - \frac{3}{4} \left[\frac{1}{a_P(r)} \frac{d}{dr} a_P(r) \right]^2 + \frac{1}{2} \frac{1}{a_P(r)} \frac{d^2}{dr^2} a_P(r) \right\}. \end{aligned} \quad (26)$$

The evaluation of $\eta_2(r)$ involves the analytic computation of $w(r)$ (at large r) and derivatives up to fourth order. The determination of the phase $\phi(r)$ through Eq. (19) requires calculation of $d\eta_2(r)/dr$, which involves the analytic computation of the fifth-order derivative of $w(r)$.

Evaluation of Radial Integrals

The evaluation of the radial matrix elements which occur in the partial wave expansions involves the computation of radial integrals of the form

$$\begin{aligned} D^\lambda(AC|BD) = & \int_0^\infty \int_0^\infty [P_A(r_1)P_C(r_1) + Q_A(r_1)Q_C(r_1)] \\ & \times \frac{r_\leq^\lambda}{r_\geq^{\lambda+1}} [F_B(r_2)F_D(r_2) + G_B(r_2)G_D(r_2)] dr_1 dr_2, \end{aligned} \quad (27)$$

$$\begin{aligned} E^\lambda(AD|BC) = & \int_0^\infty \int_0^\infty [P_A(r_1)F_D(r_1) + Q_A(r_1)G_D(r_1)] \\ & \times \frac{r_\leq^\lambda}{r_\geq^{\lambda+1}} [F_B(r_2)P_C(r_2) + G_B(r_2)Q_C(r_2)] dr_1 dr_2, \end{aligned} \quad (28)$$

where $D^\lambda(AB|CD)$ is a "direct" radial matrix element and $E^\lambda(AD|BC)$ is an "exchange" radial matrix element. The two types of matrix element require individual attention in their computation. We denote bound orbitals using $P(r)$ and $Q(r)$ for large and small components, respectively, and $F(r)$ and $G(r)$ for the continuum counterparts.

The exchange matrix element is actually the simpler of the two to calculate, since there is no possibility for oscillatory contributions from large r as in the case of the direct integrals. The technique which we have used to compute this class of integral is to break it into two one-dimensional problems using methods which are fairly standard except for differences due to grid selection. We rewrite the exchange integral as

$$\begin{aligned} E^\lambda(AD|BC) = & \int_0^\infty \frac{Y^\lambda(AD; r)}{r} \\ & \times [F_B(r)P_C(r) + G_B(r)Q_C(r)] dr, \end{aligned} \quad (29)$$

where the function $Y^\lambda(AD; r)$ is defined as

$$\begin{aligned} Y^\lambda(AD; r) = & \int_0^r \left(\frac{t}{r} \right)^\lambda [P_A(t)F_D(t) + Q_A(t)G_D(t)] dt \\ & + \int_r^\infty \left(\frac{r}{t} \right)^{\lambda+1} [P_A(t)F_D(t) + Q_A(t)G_D(t)] dt. \end{aligned} \quad (30)$$

This function satisfies a second-order differential equation which may be written as

$$\begin{aligned} \frac{d^2}{dr^2} Y^\lambda(AD; r) - & \frac{\lambda(\lambda+1)}{r^2} Y^\lambda(AD; r) \\ = & -\frac{2\lambda+1}{r} [P_A(r)F_D(r) + Q_A(r)G_D(r)]. \end{aligned} \quad (31)$$

We would like to adapt this equation over onto our hybrid grid $x = \alpha r + \beta \ln(r)$ and preserve the general form of the equation (that is, no first-derivative terms) so that we might employ the Noumerov method for its solution. The substitution

$$Y^\lambda(AD; x) = \xi(x)y^\lambda(AD; x), \quad (32)$$

where $\xi(x) = \sqrt{\alpha + \beta/r}$ yields the desired result, and the resulting second-order equation becomes

$$\begin{aligned} \frac{d^2}{dx^2} y^\lambda(AD; x) + \left[-\left(\frac{dr}{dx}\right)^2 \frac{\lambda(\lambda+1)}{r^2} + \frac{1}{\xi(x)} \frac{d^2}{dx^2} \xi(x) \right. \\ \left. - 2 \frac{1}{\xi^2(x)} \left(\frac{d\xi(x)}{dx}\right)^2 \right] y^\lambda(AD; x) = -\frac{2\lambda+1}{r} \frac{1}{\xi(x)} \\ \times \left(\frac{dr}{dx}\right)^2 [P_A(x)F_D(x) + Q_A(x)G_D(x)]. \quad (33) \end{aligned}$$

This equation may be solved using the Noumerov method,⁴⁷ which results in a simple tridiagonal system of linear equations. The exchange radial matrix element $E^\lambda(AD|BC)$ may then be expressed as

$$\begin{aligned} E^\lambda(AD|BC) = \int_{-\infty}^{\infty} \xi(x) \frac{y^\lambda(AD; x)}{r(x)} \\ \times [F_B(x)P_C(x) + G_B(x)Q_C(x)] \frac{dr}{dx} dx. \quad (34) \end{aligned}$$

In the numerical evaluation of the exchange radial matrix element, the quadrature extends over a bounded region of x , and for regions outside of where the grid is defined, some other method must be used. For small r , the contribution to the radial matrix element can be developed from an assumption of power law dependence of the various functions inside of the integrand. For large r , the integrand is damped exponentially, and the assumption that zero contribution comes from the asymptotic region is usually a good one.

The evaluation of the direct radial matrix element is complicated due to contributions from the asymptotic region which are generally difficult to evaluate. In our computations, we have included a logarithmic mesh which starts at the outer radial point of our hybrid $\alpha r + \beta \ln(r)$ grid, and extends out to a much larger radius. This auxiliary asymptotic mesh is used to obtain asymptotic contributions by direct (but approximate) calculation. We begin our development with the definition of the direct radial matrix element in terms of the subsidiary $Y^\lambda(AC; r)$ function

$$D^\lambda(AC|BD) = \int_0^{\infty} \frac{Y^\lambda(AC; r)}{r} [F_B(r)F_D(r) + G_B(r)G_D(r)] dr, \quad (35)$$

where

$$\begin{aligned} Y^\lambda(AC; r) = \int_0^r \left(\frac{t}{r}\right)^\lambda [P_A(t)P_C(t) + Q_A(t)Q_C(t)] dt \\ + \int_r^{\infty} \left(\frac{r}{t}\right)^{\lambda+1} [P_A(t)P_C(t) + Q_A(t)Q_C(t)] dt. \quad (36) \end{aligned}$$

The wave functions appearing in the definition of $Y^\lambda(AC; r)$ are now bound orbitals, and the computation of $Y^\lambda(AC; r)$ may proceed without difficulty along the lines described above for the exchange case. Eventually, we recover

$$\begin{aligned} D^\lambda(AC|BD) = \int_{-\infty}^{\infty} \xi(x) \frac{y^\lambda(AC; x)}{r(x)} \\ \times [F_B(x)F_D(x) + G_B(x)G_D(x)] \frac{dr}{dx} dx. \quad (37) \end{aligned}$$

As before, we perform this integration by quadrature over the region spanned by the $\alpha r + \beta \ln(r)$ grid, and include the small- r contribution assuming power law dependence.

For asymptotic contributions from large r , we define

$$\begin{aligned} D_a^\lambda(AC|BD) = \int_{R_1}^{R_2} \frac{Y^\lambda(AC; R_1)}{R_1} \left(\frac{R_1}{r}\right)^{\lambda+1} \\ \times (1 - \delta_{\lambda 0}) [F_B(r)F_D(r) + G_B(r)G_D(r)] dr. \quad (38) \end{aligned}$$

The asymptotic procedure described by Belling⁴⁸ could in principle be used to evaluate this type of integral. In the development which follows, we will obtain integrals of the form suited to the use of Belling's method. We have chosen instead to attempt direct evaluation of the integral by a sinusoidal quadrature as will be described shortly, and hence avoid possible problems associated with dealing with a divergent series expansion. On the asymptotic grid, we use the WKB asymptotic results described earlier to obtain continuum functions in the representation

$$F(r) = \left[\frac{a_p(r)}{2c\eta(r)} \right]^{1/2} \sin \phi(r), \quad (39)$$

$$G(r) = \frac{1}{a_p(r)} \left(\frac{d}{dr} + \frac{\kappa}{r} \right) F(r). \quad (40)$$

Upon insertion of the asymptotic representations of the continuum orbitals into (38), we recover the asymptotic contributions to the direct radial matrix element in terms of integrals which exhibit explicitly their oscillatory behavior

$$\begin{aligned} D_a^\lambda(AC|BD) = \int_{R_1}^{R_2} \frac{Y^\lambda(AC; R_1)}{R_1} \left(\frac{R_1}{r}\right)^{\lambda+1} (1 - \delta_{\lambda 0}) \\ \times \left\{ \frac{1}{2c} \left[\frac{a_B a_D}{\eta_B \eta_D} \right]^{1/2} \sin \phi_B \sin \phi_D + \frac{1}{2c} \left[\frac{1}{a_B a_D \eta_B \eta_D} \right]^{1/2} \right. \\ \left. \times \left[\frac{a_B a_D}{\eta_B \eta_D} \right]^{1/2} \sin \phi_B \sin \phi_D \right\} dr \end{aligned}$$

$$\begin{aligned}
& \times \left(\frac{1}{2a_B} \frac{da_B}{dr} - \frac{1}{2\eta_B} \frac{d\eta_B}{dr} + \frac{\kappa_B}{r} \right) \left(\frac{1}{2a_D} \frac{da_D}{dr} - \frac{1}{2\eta_D} \frac{d\eta_D}{dr} + \frac{\kappa_D}{r} \right) \\
& \times \sin \phi_B \sin \phi_D + \frac{1}{2c} \left[\frac{1}{a_B a_D \eta_B \eta_D} \right]^{1/2} \left(\frac{1}{2a_B} \frac{da_B}{dr} \right. \\
& \left. - \frac{1}{2\eta_B} \frac{d\eta_B}{dr} + \frac{\kappa_B}{r} \right) \eta_D \sin \phi_B \cos \phi_D + \frac{1}{2c} \left[\frac{1}{a_B a_D \eta_B \eta_D} \right]^{1/2} \\
& \times \left(\frac{1}{2a_D} \frac{da_D}{dr} - \frac{1}{2\eta_D} \frac{d\eta_D}{dr} + \frac{\kappa_D}{r} \right) \eta_B \cos \phi_B \sin \phi_D \\
& \left. + \frac{1}{2c} \left[\frac{\eta_B \eta_D}{a_B a_D} \right]^{1/2} \cos \phi_B \cos \phi_D \right] dr, \quad (41)
\end{aligned}$$

where we have written a_B for $a_P(r)$ for continuum orbital B , and η_B for $\eta(r)$ for orbital B . In this expression the r dependence of the arguments of the sinusoidal functions has also been suppressed. The evaluation of these integrals on an asymptotic logarithmic mesh is performed using a quadrature based on simple oscillatory integral results, which can be outlined as follows. Assume that a generic contribution may be written as

$$I = \int_{\Delta R} A(r) \sin \phi(r) dr, \quad (42)$$

where I is the integral from one node on the grid to the next, and $A(r)$ is a slowly varying function defined over the region of integration. Such integrals occur in the reduction of Eq. (41) after the use of trigonometric sinusoidal product identities. A change of variables in the integral

$$z = \phi(r) \quad (43)$$

leads to

$$I = \int_{\Delta \phi} A(z) \sin z \frac{dr}{dz} dz. \quad (44)$$

Some simplification occurs by noting that dr/dz can be equated to $1/\eta(r)$, where $\eta(r)$ is the WKB function under discussion in the previous sections. Obtaining a Taylor series of $A(z)$ in z presents no serious problems, as

$$\frac{d^n}{dz^n} A(z) = \left(\frac{1}{\eta} \frac{d}{dr} \right)^n A(r). \quad (45)$$

In the calculations, we sometimes carry out the partial wave expansions (discussed in the next section) to quite large total angular momentum J . Under such conditions, it is pointless to compute distorted-wave values for the radial integrals if a simpler approximation will do. For these cases we have used the nonrelativistic Bethe-limit approximations which involve a function given in the paper of Burgess et al.⁴⁹

$$I(k_1, l_1, k_2, l_2; \lambda) = \int_0^\infty F(k_1, l_1 | \rho) F(k_2, l_2 | \rho) \rho^{-(\lambda+1)} d\rho, \quad (46)$$

where we have tried to remain true to the notation of that paper. The function may be expanded in terms of Appell functions in the general case,⁵⁰ and for the dipole case it may be expanded in terms of hypergeometric functions. We have used the full Coulomb-Bethe results asymptotically for dipole transitions, while for the higher-multipole cases we have relied on the simpler asymptotic limit of the Bethe result.

Collision Strengths and Cross Sections

In the nonrelativistic case, the collision strength Ω is related to the collision cross section σ through

$$\sigma_{if}(E) = \frac{\pi a_0^2}{(2J_i + 1)} \frac{I_H}{E} \Omega_{if}(E), \quad (47)$$

where the subscripts i and f refer to initial and final states, a_0 is the Bohr radius, $2J_i + 1$ is the statistical weight of the initial state, I_H equals 1 rydberg, and E is the incident electron energy. In the relativistic case this must be modified slightly to

$$\sigma_{if}(E) = \frac{\pi a_0^2}{(2J_i + 1)} \left(\frac{\hbar}{a_0 p} \right)^2 \Omega_{if}(E), \quad (48)$$

where p is the relativistic momentum. We further define partial collision strengths Ω^J from which the total transition collision strength is computed through evaluation of

$$\Omega_{if}(E) = \sum_J \Omega_{if}^J(E), \quad (49)$$

where the summation is over the total angular momentum J of the combined electron-plus-atom states. In our definition, we have included both even and odd parities in the definition of the partial collision strength so that the sum has only a single index J . In evaluating this summation numerically, we have computed the partial collision strength over a predetermined range of total angular momentum J , and then used the Shanks method⁵¹ for accelerating the summation of a series to extend the summation to large J .

The partial collision strength is defined as

$$\Omega_{if}^J(E) = \frac{1}{2} \sum_{jj'} (2J+1) |T^J(\Gamma_i J_i j, \Gamma_f J_f j')|^2, \quad (50)$$

where $T^J(\Gamma_i J_i j, \Gamma_f J_f j')$ are the transmission matrix elements, Γ_i and Γ_f refer to suppressed quantum numbers, and j and j' refer to the continuum orbital total angular momenta. The summation is over all open channels, and in order to reduce possible confusion, these sums are over all continuum orbitals and all possible couplings of the continuum electron to the bound-state total angular momenta which give a total J . We compute the transmission matrix elements through

$$T^J(\Gamma_i J_i j, \Gamma_f J_f j') = 4i \left\langle \Psi(\Gamma_i J_i j; J) \left| \frac{1}{r_{12}} \right| \Psi(\Gamma_f J_f j'; J) \right\rangle. \quad (51)$$

Implicit in this formula is an assumption concerning unitarity and strength of coupling. In the literature one finds expressions for the transmission matrix in terms of the reactance matrix in order to preserve unitarity (see Ref. 52 concerning the Born I, II, and III approximations). For highly stripped systems such as those under consideration here, reactance and transmission matrices tend to have magnitudes much less than unity, and the use of a simple distorted-wave model of Born I type seems appropriate.

In our model, the wave functions $\Psi(\Gamma_i J_i j; J)$ are multiconfiguration wave functions, and are expanded in terms of single-configuration basis states

$$\Psi(\Gamma_i J_i j; J) = \sum_{\Gamma'} C(\Gamma_i J_i, \Gamma' J_i) \Phi(\Gamma' J_i j; J), \quad (52)$$

where $\Phi(\Gamma' J_i j; J)$ are single-configuration states, and $C(\Gamma_i J_i, \Gamma' J_i)$ are the expansion coefficients from the bound-state structure calculations. In terms of the basis states, the transmission matrix elements are

$$T^J(\Gamma_i J_i j, \Gamma_f J_f j') = 4i \sum_{\Gamma'} \sum_{\Gamma''} C(\Gamma_i J_i, \Gamma' J_i) C(\Gamma_f J_f, \Gamma'' J_f) \times \left\langle \Phi(\Gamma' J_i j; J) \left| \frac{1}{r_{12}} \right| \Phi(\Gamma'' J_f j'; J) \right\rangle. \quad (53)$$

The expansion coefficients $C(\Gamma J, \Gamma' J)$ are real numbers for our problem.

In the numerical calculations we have not included all terms in the sum of Eq. (53), as in general for a multiconfiguration problem, the majority of the terms will be quite small. For the $n = 2-3$ transitions, we have kept all terms where $|C(\Gamma_i J_i, \Gamma' J_i) C(\Gamma_f J_f, \Gamma'' J_f)|$ is greater than 0.0001. For these transitions, the errors associated with truncating the basis set are very small (much less than 1%) for all transitions.

For the $n = 3-3$ transitions, we have included all terms where $|C(\Gamma_i J_i, \Gamma' J_i) C(\Gamma_f J_f, \Gamma'' J_f)|$ is greater than 0.01, due to constraints on computer time available. This approximation compromises the accuracy of our results in cases of strongly forbidden transitions which are dominated by contributions from weak mixing between states with allowed transitions. We have examined the errors made by recalculating sets of cross sections at one energy and keeping all terms larger than 0.0001 for Fe and 0.001 for Ag, and comparing the results of the two calculations. We have found that approximately 15% of the 3-3 transitions have errors of 5% or larger due to truncation of the basis set. Where larger differences occurred, we recomputed all the energy points for Fe or Ag using the smaller cutoff on the truncation and tabulated those results. Of the remaining transitions for which truncation errors occur, most involve small cross sections with magnitudes less than 10^{-21} cm^2 . Details of this comparison are available from the authors. As these transitions prob-

ably do not play much of a role in the calculation of level populations, this procedure appears to be reasonable.

Another approximation which we have made is worthy of some comment. All terms of Eq. (53) which involve matrix elements between a basis state and itself have been set to zero. The terms in question would contribute only to the elastic scattering cross sections in a single-configuration approximation. When a multiconfiguration calculation is carried out, these "elastic" terms may play a role in the evaluation of the inelastic cross sections, depending on the sophistication of the approximation used. We refer interested readers to the papers by Seaton and others on the continuum Hartree-Fock equations and variational methods in collision theory.⁵³ The point to be made here is that the approximation we have used is a quite simple (nonvariational) one. The neglect of the "elastic" terms will affect only a relatively minor fraction of the results presented here, specifically transitions between states of the same total angular momentum and parity.

Summary of Results

We present results for all transitions between the L -shell and M -shell states of Ne-like ions for five elements (Fe, Se, Y, Mo, and Ag). In Table I we present the state definitions and the energy levels which resulted from the structure calculations. In Table II, the computed collision cross sections are presented in units of cm^2 , and in Table III the rate coefficients $\langle \sigma v \rangle$ which result from the cross-section data are tabulated in units of cm^3/sec . The excitation rate coefficient is calculated assuming a nonrelativistic Maxwellian distribution

$$\langle \sigma v \rangle = \int_0^\infty \sigma(E) v(E) f(E) dE, \quad (54)$$

$$f(E) dE = \frac{2}{\pi^{1/2}} \frac{E^{1/2}}{(kT)^{3/2}} \exp\left(-\frac{E}{kT}\right) dE. \quad (55)$$

The collision strengths which can be derived from the cross-section data are in general well-behaved functions of energy, and for the most part conform to simple power laws. This allows us to extrapolate both to low energies near threshold and to high energies somewhat above our highest calculated energy points. We have taken advantage of this simple behavior in calculating the rate coefficients numerically, and we have obtained good accuracy (at the level of a few percent) in our quadrature in energy.

We now discuss the accuracy of the calculations and issues associated with obtaining accurate results. The level of accuracy which has been obtained is related to a number of factors, including convergence of the partial wave expansion, normalization errors, cancellation effects, and numerical problems.

Close to half of the transitions are fairly insensitive to the details of the model (basis orbitals, mixing, and truncation). The remaining transitions show various levels of sensitivity (from a few percent to a few hundred percent) to choice of orbitals. An easy way to tell whether a transition is likely to be sensitive is to plot the product of the collision strength and the square of the effective Z (that is $(Z - 9)^2 \Omega$) versus scaled energy $(E/(Z - 9)^2)$ for a given transition using the data for the five elements. If the curves lie on top of one another, or close to one another, then it is expected that the results will be quite accurate (at the percent level) as defined within the distorted-wave model. If the curves lie in a simple linear progression, it is similarly likely that the results will be quite good. However, if the curves appear to cross or lie out of order, then the cross sections will be sensitive to model, and moderate uncertainties may be expected (at the 20% level or larger, if severe cancellation is occurring).

In addition, electric dipole and quadrupole transitions which have small excitation energies are difficult to calculate due to the slow convergence of the partial wave expansions. The high partial wave contributions were computed using analytic formulas which are approximate. While reviewing the tables, we noted that a small number of transitions (at the highest collision energies) showed differences at the 25% level when calculated using distorted-wave results for the high partial waves. We have corrected many of these cross sections in the tables, especially for the strong transitions, by replacing them with recomputed values calculated in the distorted-wave approximation with no use of asymptotic formulas.

Our results are in good agreement with those of Bhatia et al.²⁰ In the case of Fe, most large collision cross sections agree to the 10% to 20% level or better. This level of agreement is consistent with the general accuracy of the two calculations, and is affected by the two different basis sets used.

The distorted-wave approximation should give reliable results for the elements selected here, and within the distorted-wave model, we may summarize the accuracy of our results as follows: all $n = 2-3$ transitions have errors which are expected to be at the level of a few percent or smaller; all strong $3-3$ transitions should be very good (10% or better), with exceptions made for high collision energy points of a few electric dipole and quadrupole transitions with small excitation energy; the weaker $3-3$ (and less important) transitions will mostly be reliable (with errors less than 20%), except in roughly 15% of the transitions which are sensitive to model, and in a number of electric dipole and quadrupole transitions with small excitation energy where the high collision energy points may have errors. The results should be useful for accurate

calculations of level populations of NLTE Ne-like plasmas.

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EXPLANATION OF TABLES**TABLE I. Energy Levels for Ne-like Fe, Se, Y, Mo, and Ag**

LEVEL	An index assigned to each level
STATE	The name of the principal component of the configuration
J	The total angular momentum of the level
ENERGY(EV)	The energy of the level relative to the ground state in eV

TABLE II. Electron Collision Cross Sections for Ne-like Fe, Se, Y, Mo, and Ag

LEVELS: I F	Initial and final levels for the transition. The level indices are those of Table I.
ENERGY(EV) ABOVE THRESHOLD	The energies at which the cross sections were computed, relative to the transition threshold energy. The cross sections in units of cm^2 are tabulated below the energies.

TABLE III. Rate Coefficients for Ne-like Fe, Se, Y, Mo, and Ag

LEVELS: I F	Initial and final levels for the transition. The level indices are those of Table I.
ELECTRON TEMPERATURE(EV)	The electron temperatures in eV at which the rate coefficients were computed. The rate coefficients in units of cm^3/sec are tabulated below the electron temperatures.

TABLE IA. Energy Levels for Ne-like Fe ($Z = 26$)
 See page 133 for Explanation of Tables

LEVEL	STATE	J	ENERGY(EV)
1	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4$	0	0.
2	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3s$	2	725.82
3	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	1	727.75
4	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3s$	0	738.57
5	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^2 3s$	1	739.79
6	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	1	756.03
7	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{1/2}$	2	759.52
8	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	3	761.12
9	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{3/2}$	1	762.29
10	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{3/2}$	2	764.05
11	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	0	769.70
12	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	1	771.75
13	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{3/2}$	1	774.94
14	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	2	775.33
15	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	0	790.57
16	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	0	801.99
17	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	1	802.95
18	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	2	804.77
19	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	4	804.88
20	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	3	805.71
21	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	2	807.42
22	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	3	808.47
23	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	1	813.33
24	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	2	818.41
25	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	819.15
26	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	819.74
27	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	1	827.53
28	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3s$	1	861.73
29	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3s$	0	868.23
30	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	0	894.44
31	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	1	894.89
32	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	2	897.22
33	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	1	899.09
34	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	1	939.56
35	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	2	939.68
36	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	939.92
37	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	944.79

TABLE IB. Energy Levels for Ne-like Se ($Z = 34$)
 See page 133 for Explanation of Tables

LEVEL	STATE	J	ENERGY(EV)
1	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4$	0	0.
2	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	2	1435.73
3	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	1	1438.68
4	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3s$	0	1478.61
5	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3s$	1	1480.16
6	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	1	1482.55
7	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	2	1485.67
8	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	3	1494.22
9	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	1	1494.85
10	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	2	1498.59
11	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	0	1512.36
12	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3p_{1/2}$	1	1527.44
13	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3p_{3/2}$	1	1538.05
14	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{3/2}$	2	1539.14
15	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	0	1549.95
16	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	0	1553.43
17	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	1	1555.49
18	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	4	1558.94
19	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	3	1559.12
20	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	2	1559.28
21	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	2	1562.27
22	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	3	1564.70
23	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	1	1574.92
24	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{3/2}$	2	1601.56
25	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{5/2}$	2	1603.76
26	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{5/2}$	3	1605.07
27	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{3/2}$	1	1613.54
28	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3s$	1	1651.29
29	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3s$	0	1661.00
30	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	0	1699.86
31	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	1	1700.74
32	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	2	1710.19
33	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	1	1712.67
34	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	1	1771.82
35	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	2	1772.41
36	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	1773.64
37	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	1781.19

TABLE IC. Energy Levels for Ne-like Y ($Z = 39$)
 See page 133 for Explanation of Tables

LEVEL	STATE	J	ENERGY(EV)
1	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4$	0	0.
2	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	2	1997.38
3	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3s$	1	2000.96
4	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	1	2054.97
5	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	2	2057.83
6	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{3/2}$	3	2075.42
7	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	1	2075.75
8	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	0	2076.41
9	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3s$	1	2078.18
10	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	2	2080.71
11	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	0	2100.27
12	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	1	2135.38
13	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	0	2146.26
14	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	1	2149.12
15	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	3	2153.03
16	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	2	2154.32
17	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	4	2154.41
18	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	1	2155.36
19	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	2	2156.86
20	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	2	2157.87
21	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	0	2159.69
22	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	3	2161.56
23	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	1	2175.12
24	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	2	2231.44
25	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	2235.75
26	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	2237.45
27	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	1	2244.93
28	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3s$	1	2281.39
29	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3s$	0	2293.24
30	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{1/2}$	0	2340.28
31	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	1	2341.43
32	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	2	2359.99
33	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{3/2}$	1	2362.86
34	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	1	2433.80
35	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3d_{3/2}$	2	2434.92
36	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	2437.63
37	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	2446.59

TABLE ID. Energy Levels for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVEL	STATE	J	ENERGY(EV)
1	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4$	0	0.
2	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	2	2377.24
3	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	1	2381.20
4	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	1	2441.43
5	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	2	2444.16
6	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	3	2469.68
7	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	1	2469.88
8	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	2	2475.54
9	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3s$	0	2487.05
10	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3s$	1	2488.92
11	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3p_{3/2}$	0	2498.52
12	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{3/2}$	0	2547.58
13	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{3/2}$	1	2550.97
14	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	1	2552.27
15	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{3/2}$	3	2554.95
16	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{3/2}$	2	2556.89
17	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{5/2}$	4	2557.87
18	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	2	2561.47
19	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	3	2565.87
20	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	0	2577.81
21	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{3/2}$	1	2580.38
22	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{5/2}$	1	2581.35
23	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{3/2}$	2	2582.12
24	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{3/2}$	2	2664.06
25	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^3 3d_{5/2}$	2	2670.26
26	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{5/2}$	3	2672.17
27	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{3/2}$	1	2678.44
28	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3s$	1	2712.03
29	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3s$	0	2725.22
30	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	0	2777.30
31	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	1	2778.60
32	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	2	2805.13
33	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	1	2808.23
34	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	1	2886.32
35	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	2	2887.82
36	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	2891.95
37	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	2901.66

TABLE IE. Energy Levels for Ne-like Ag ($Z = 47$)
 See page 133 for Explanation of Tables

LEVEL	STATE	J	ENERGY(EV)
1	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^4$	0	0.
2	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	2	3080.84
3	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3s$	1	3085.44
4	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^2 3p_{1/2}$	1	3156.32
5	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{1/2}$	2	3158.92
6	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	3	3203.10
7	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	1	3203.19
8	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	2	3209.94
9	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3p_{3/2}$	0	3238.45
10	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3s$	0	3261.51
11	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3s$	1	3263.53
12	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	0	3292.99
13	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	1	3297.26
14	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	3	3301.21
15	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{3/2}$	2	3304.10
16	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	4	3308.35
17	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	2	3311.86
18	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	3	3317.48
19	$1s^2 2s^2 2p_{1/2}^2 2p_{3/2}^3 3d_{5/2}$	1	3335.70
20	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	1	3337.55
21	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{1/2}$	0	3365.53
22	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{3/2}$	1	3384.64
23	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3p_{3/2}$	2	3386.82
24	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{3/2}$	2	3481.14
25	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{5/2}$	2	3491.77
26	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{5/2}$	3	3494.16
27	$1s^2 2s^2 2p_{1/2} 2p_{3/2}^4 3d_{3/2}$	1	3496.96
28	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3s$	1	3521.00
29	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3s$	0	3536.50
30	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	0	3597.26
31	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{1/2}$	1	3598.82
32	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	2	3644.05
33	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3p_{3/2}$	1	3647.56
34	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	1	3737.66
35	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{3/2}$	2	3739.88
36	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	3	3747.75
37	$1s^2 2s 2p_{1/2}^2 2p_{3/2}^4 3d_{5/2}$	2	3758.31

TABLE IIA. Electron Collision Cross Sections for Ne-like Fe ($Z = 26$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD					LEVELS		ENERGY(EV) ABOVE THRESHOLD				
I	F	100.	300.	700.	1500.	2500.	I	F	100.	300.	700.	1500.	2500.
1	2	2.22e-21	1.50e-21	7.74e-22	2.83e-22	1.12e-22	2	37	1.74e-23	6.37e-24	1.68e-24	3.39e-25	1.01e-25
1	3	2.63e-21	3.04e-21	3.31e-21	3.44e-21	3.29e-21	3	4	3.23e-20	9.54e-21	2.91e-21	7.56e-22	2.58e-22
1	4	4.32e-22	2.92e-22	1.52e-22	5.58e-23	2.21e-23	3	5	9.18e-20	2.99e-20	1.15e-20	4.78e-21	2.74e-21
1	5	2.47e-21	2.58e-21	2.75e-21	2.82e-21	2.69e-21	3	6	2.85e-19	1.13e-19	5.27e-20	2.63e-20	1.04e-20
1	6	5.24e-21	3.56e-21	1.84e-21	6.76e-22	2.73e-22	3	7	4.70e-18	2.27e-18	1.26e-18	6.95e-19	4.54e-19
1	7	5.19e-21	3.99e-21	2.74e-21	1.77e-21	1.28e-21	3	8	3.47e-20	8.02e-21	1.68e-21	3.06e-22	8.05e-23
1	8	5.70e-21	3.86e-21	1.78e-21	5.98e-22	2.25e-22	3	9	4.97e-18	2.35e-18	1.31e-18	7.30e-19	4.79e-19
1	9	1.99e-21	1.30e-21	6.26e-22	2.06e-22	7.52e-23	3	10	3.95e-18	1.87e-18	1.04e-18	5.80e-19	3.83e-19
1	10	4.26e-21	3.45e-21	2.56e-21	1.79e-21	1.35e-21	3	11	1.14e-18	5.35e-19	2.98e-19	1.69e-19	1.12e-19
1	11	3.75e-21	3.12e-21	2.32e-21	1.53e-21	1.07e-21	3	12	1.09e-20	4.55e-21	2.14e-21	1.07e-21	6.74e-22
1	12	2.14e-21	1.39e-21	6.76e-22	2.27e-22	8.44e-23	3	13	1.48e-21	4.76e-22	1.73e-22	7.44e-23	4.45e-23
1	13	2.13e-21	1.41e-21	6.96e-22	2.37e-22	8.89e-23	3	14	4.09e-20	1.78e-20	8.45e-21	4.26e-21	2.72e-21
1	14	4.92e-21	3.96e-21	2.92e-21	2.02e-21	1.52e-21	3	15	4.13e-19	2.06e-19	1.13e-19	6.52e-20	4.50e-20
1	15	5.58e-20	4.83e-20	3.76e-20	2.59e-20	1.85e-20	3	16	3.49e-21	9.58e-22	2.15e-22	3.82e-23	9.83e-24
1	16	2.65e-21	1.67e-21	7.75e-22	2.47e-22	8.88e-23	3	17	1.61e-20	6.09e-21	2.37e-21	1.02e-21	5.06e-22
1	17	7.92e-21	5.17e-21	2.64e-21	1.11e-21	6.11e-22	3	18	8.61e-20	4.09e-20	2.00e-20	1.00e-20	6.19e-21
1	18	1.02e-20	6.43e-21	2.95e-21	9.26e-22	3.29e-22	3	19	2.95e-20	8.39e-21	1.90e-21	3.35e-22	8.60e-23
1	19	9.03e-21	5.57e-21	2.47e-21	7.38e-22	2.52e-22	3	20	2.51e-19	1.24e-19	6.30e-20	3.20e-21	1.99e-20
1	20	6.39e-21	4.43e-21	2.61e-21	1.44e-21	9.62e-22	3	21	2.27e-19	1.15e-19	5.88e-20	3.01e-20	1.88e-20
1	21	3.64e-21	2.19e-21	9.29e-22	2.58e-22	8.19e-23	3	22	2.07e-19	1.03e-19	5.22e-20	2.86e-20	1.65e-20
1	22	4.49e-21	3.29e-21	2.19e-21	1.43e-21	1.05e-21	3	23	1.43e-19	7.44e-20	3.90e-20	2.02e-20	1.27e-20
1	23	3.16e-20	3.06e-20	2.86e-20	2.51e-20	2.18e-20	3	24	1.00e-21	4.08e-22	1.52e-22	6.22e-23	3.58e-23
1	24	4.08e-21	2.50e-21	1.10e-21	3.19e-22	1.06e-22	3	25	1.27e-21	4.10e-22	1.17e-22	3.38e-23	1.60e-23
1	25	5.36e-21	3.31e-21	1.47e-21	4.39e-22	1.49e-22	3	26	2.78e-21	1.29e-21	6.10e-22	2.99e-22	1.85e-22
1	26	5.25e-21	3.84e-21	2.51e-21	1.57e-21	1.14e-21	3	27	2.10e-20	1.13e-20	5.97e-21	3.13e-21	1.97e-21
1	27	1.21e-19	1.20e-19	1.15e-19	1.02e-19	8.93e-20	3	28	1.74e-19	1.03e-19	6.05e-20	3.54e-20	2.45e-20
1	28	1.14e-21	7.47e-22	3.64e-22	1.25e-22	4.89e-23	3	29	2.45e-19	1.48e-19	9.02e-20	5.35e-20	3.63e-20
1	29	1.93e-20	1.72e-20	1.39e-20	9.90e-21	7.26e-21	3	30	1.37e-23	5.73e-24	1.88e-24	4.72e-25	1.53e-25
1	30	2.84e-22	1.95e-22	1.03e-22	3.89e-23	1.57e-23	3	31	3.23e-23	1.38e-23	4.92e-24	1.81e-24	7.77e-25
1	31	1.15e-20	9.92e-22	8.51e-22	7.56e-22	7.02e-22	3	32	8.80e-23	4.11e-23	1.60e-23	5.48e-23	2.50e-24
1	32	1.38e-21	9.53e-21	5.08e-22	1.92e-22	7.78e-23	3	33	9.56e-23	5.81e-23	3.33e-23	1.83e-23	1.18e-23
1	33	2.97e-21	3.58e-21	4.33e-21	4.93e-21	5.02e-21	3	34	7.49e-23	4.09e-23	3.18e-23	2.07e-23	1.47e-23
1	34	2.00e-20	1.33e-21	6.63e-22	2.29e-22	8.70e-23	3	35	1.68e-22	1.27e-22	8.59e-23	5.86e-23	4.25e-23
1	35	3.37e-21	2.25e-21	1.14e-21	4.08e-21	1.88e-22	3	36	3.32e-23	1.92e-23	9.50e-24	5.12e-24	3.33e-24
1	36	4.87e-21	3.11e-21	1.54e-21	5.31e-22	2.02e-22	3	37	1.94e-22	1.26e-22	7.95e-23	5.03e-23	3.54e-23
2	3	1.28e-19	3.33e-20	9.05e-21	3.06e-21	1.42e-21	4	5	1.12e-19	2.69e-20	7.05e-21	1.64e-21	5.21e-22
2	4	2.72e-20	9.04e-21	3.56e-21	1.55e-21	9.12e-22	4	6	3.41e-19	1.35e-19	6.35e-20	3.16e-20	2.00e-20
2	5	9.63e-20	2.96e-20	9.90e-21	3.29e-21	1.58e-21	4	7	5.82e-22	1.39e-22	3.33e-23	7.28e-24	2.30e-24
2	6	3.25e-18	1.54e-18	8.57e-19	4.73e-19	3.08e-19	4	8	2.71e-23	1.06e-23	5.17e-24	2.78e-24	1.83e-24
2	7	2.09e-18	8.58e-18	4.07e-19	2.04e-19	1.28e-19	4	9	2.35e-20	9.26e-21	4.32e-21	2.10e-21	1.24e-21
2	8	7.15e-18	3.40e-18	1.89e-18	1.05e-18	6.91e-19	4	10	3.61e-23	8.13e-24	1.68e-24	3.03e-25	7.87e-26
2	9	1.20e-19	4.75e-20	2.18e-20	1.07e-20	8.58e-21	4	11	4.22e-21	9.82e-22	1.99e-22	3.59e-23	9.55e-24
2	10	2.74e-18	1.29e-18	7.15e-19	4.02e-19	2.66e-19	4	12	6.02e-18	2.88e-18	1.59e-18	8.84e-19	5.81e-19
2	11	2.55e-21	6.17e-22	1.31e-22	2.38e-23	6.21e-24	4	13	9.30e-19	4.40e-18	2.45e-18	1.37e-18	9.04e-19
2	12	1.20e-21	4.60e-21	2.02e-22	9.81e-23	5.83e-23	4	14	4.82e-20	1.13e-20	2.38e-21	4.38e-22	1.18e-22
2	13	7.83e-20	3.42e-20	1.65e-20	8.33e-21	5.16e-21	4	15	4.76e-21	1.19e-21	2.54e-22	4.62e-23	1.22e-23
2	14	2.72e-21	1.19e-21	5.75e-21	2.90e-21	1.83e-21	4	16	0.	0.	0.	0.	0.
2	15	1.61e-21	4.21e-22	9.15e-23	1.67e-23	4.29e-24	4	17	7.17e-22	1.97e-22	4.41e-23	7.88e-24	2.05e-24
2	16	3.88e-20	1.92e-20	9.71e-21	4.94e-21	3.07e-21	4	18	2.84e-20	1.35e-20	6.89e-21	3.36e-21	2.08e-21
2	17	1.08e-19	5.35e-20	2.71e-20	1.38e-20	8.60e-21	4	19	1.69e-23	5.24e-24	1.99e-24	9.97e-25	6.59e-25
2	18	1.39e-19	6.84e-20	3.45e-20	1.75e-20	1.09e-20	4	20	6.37e-22	1.76e-22	3.99e-23	7.26e-24	1.94e-24
2	19	3.52e-19	1.74e-19	6.83e-20	4.49e-20	2.00e-20	4	21	1.33e-20	6.45e-21	3.24e-21	1.64e-21	1.01e-21
2	20	1.34e-19	6.42e-20	3.18e-20	1.59e-20	9.99e-21	4	22	1.85e-22	5.03e-23	1.10e-23	1.92e-24	4.92e-25
2	21	5.80e-20	2.68e-20	1.28e-20	6.29e-21	3.88e-21	4	23	4.11e-21	1.17e-21	2.63e-22	4.68e-23	1.22e-23
2	22	1.47e-19	7.20e-20	3.61e-20	1.83e-20	1.14e-20	4	24	4.58e-19	2.31e-19	1.19e-19	6.07e-20	3.79e-20
2	23	1.28e-20	5.15e-21	2.11e-21	9.40e-22	5.59e-22	4	25	4.43e-19	2.24e-19	1.15e-19	5.90e-20	3.68e-20
2	24	7.88e-22	3.51e-22	1.59e-22	7.58e-23	4.62e-23	4	26	4.35e-20	1.26e-20	2.88e-21	5.09e-22	1.32e-22
2	25	6.95e-21	3.61e-21	1.88e-21	9.73e-22	6.10e-22	4	27	1.38e-20	4.08e-21	9.45e-22	1.71e-22	4.48e-23
2	26	2.89e-21	1.51e-21	7.03e-22	4.03e-22	2.52e-22	4	28	3.67e-19	2.15e-19	1.25e-19	7.28e-20	5.04e-20
2	27	2.20e-21	7.55e-22	2.31e-22	7.37e-23	3.68e-23	4	29	4.26e-21	1.98e-21	7.70e-22	2.35e-22	8.67e-23
2	28	3.53e-19	2.10e-19	1.25e-19	7.35e-20	5.07e-20	4	30	0.	0.	0.	0.	0.
2	29	4.07e-21	1.93e-21	7.62e-22	2.33e-22	8.61e-23	4	31	1.63e-22	7.25e-23	2.60e-23	7.29e-24	2.59e-24
2	30	2.67e-23	1.42e-23	7.08e-24	3.43e-24	2.10e-24	4	32	6.21e-23	2.85e-23	1.22e-23	5.65e-24	3.58e-24
2	31	6.25e-23	3.19e-23	1.49e-23	8.79e-24	4.02e-24	4	33	5.06e-23	2.19e-23	7.68e-24	2.13e-24	7.53e-25
2	32	1.51e-22	9.50e-23	5.64e-23	3.19e-23	2.09e-23	4	34	7.10e-22	4.84e-22	3.29e-22	2.18e-22	1.55e-22
2	33	2.66e-23	1.14e-23	3.98e-24	1.25e-24	5.71e-25	4	35	2.34e-23	8.81e-24	2.51e-24	5.66e-25	1.78e-25
2	34	3.55e											

TABLE II A. Electron Collision Cross Sections for Ne-like Fe ($Z = 26$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD					LEVELS		ENERGY(EV) ABOVE THRESHOLD				
I	P	100.	300.	700.	1500.	2500.	I	P	100.	300.	700.	1500.	2500.
5	6	1.68e-19	6.57e-20	3.09e-20	1.54e-20	9.54e-21	7	14	8.47e-23	2.64e-23	9.04e-24	3.17e-24	1.61e-24
5	7	2.26e-21	7.35e-22	2.95e-22	1.35e-22	8.36e-23	7	15	6.58e-20	2.52e-20	1.10e-20	5.20e-21	3.15e-21
5	8	6.46e-22	1.42e-22	2.97e-23	5.82e-24	1.75e-24	7	16	3.85e-21	9.35e-22	1.94e-22	3.31e-23	8.45e-24
5	9	4.95e-21	1.79e-21	7.89e-22	3.98e-22	3.11e-22	7	17	3.06e-19	1.41e-19	7.72e-20	4.39e-20	2.91e-20
5	10	8.36e-20	3.35e-20	1.58e-20	8.13e-21	5.01e-21	7	18	3.45e-19	1.60e-19	8.77e-20	4.97e-20	3.32e-20
5	11	4.92e-19	2.00e-19	9.49e-20	4.87e-20	2.93e-20	7	19	5.45e-20	1.66e-20	5.69e-21	2.41e-21	1.47e-21
5	12	3.17e-18	1.50e-18	6.32e-19	4.62e-19	3.03e-19	7	20	5.02e-18	2.39e-18	1.33e-18	7.55e-19	5.05e-19
5	13	2.06e-18	9.68e-19	5.37e-19	3.00e-19	1.97e-19	7	21	1.49e-18	7.04e-19	3.89e-19	2.21e-19	1.48e-19
5	14	8.49e-18	4.03e-18	2.24e-18	1.25e-18	8.22e-19	7	22	8.51e-20	3.39e-20	1.54e-20	7.68e-21	4.92e-21
5	15	1.03e-18	4.87e-19	2.69e-19	1.54e-19	1.04e-19	7	23	9.43e-20	4.40e-20	2.38e-20	1.35e-20	9.07e-21
5	16	7.98e-23	2.17e-23	4.98e-24	9.47e-25	2.64e-25	7	24	1.40e-20	6.33e-21	3.07e-21	1.54e-21	9.75e-22
5	17	5.61e-21	2.52e-21	1.20e-21	5.91e-22	3.64e-22	7	25	2.95e-20	1.35e-20	6.58e-21	3.32e-21	2.10e-21
5	18	6.55e-21	3.62e-21	1.63e-21	7.77e-22	4.72e-22	7	26	1.88e-21	7.43e-22	3.26e-22	1.58e-22	1.00e-22
5	19	7.22e-22	2.01e-22	4.62e-23	8.69e-24	2.43e-24	7	27	4.49e-21	1.85e-21	8.53e-22	4.46e-22	2.94e-22
5	20	1.37e-21	4.31e-22	1.32e-22	4.54e-23	2.41e-23	7	28	4.98e-22	2.54e-22	1.28e-22	8.38e-23	3.93e-23
5	21	1.26e-21	3.61e-23	9.02e-23	2.17e-23	8.80e-24	7	29	1.74e-22	9.39e-23	4.97e-23	2.59e-23	1.63e-23
5	22	1.08e-20	5.26e-21	2.84e-21	1.34e-21	8.30e-22	7	30	4.00e-21	1.59e-21	7.42e-22	2.27e-22	8.37e-23
5	23	2.45e-20	1.15e-20	5.63e-21	2.80e-21	1.73e-21	7	31	3.51e-19	2.09e-19	1.25e-19	7.34e-20	5.06e-20
5	24	1.77e-19	8.44e-20	4.15e-20	2.08e-20	1.29e-20	7	32	2.15e-21	1.27e-21	7.50e-22	4.38e-22	3.05e-22
5	25	1.86e-19	7.96e-20	3.92e-20	1.98e-20	1.22e-20	7	33	2.28e-20	1.37e-20	8.23e-21	4.84e-21	3.31e-21
5	26	4.53e-19	2.25e-19	1.14e-19	5.82e-20	3.62e-20	7	34	2.33e-23	9.74e-24	3.32e-24	9.82e-25	4.17e-25
5	27	1.55e-19	7.99e-20	4.15e-20	2.14e-20	1.34e-20	7	35	8.15e-24	3.78e-24	1.82e-24	9.70e-25	6.48e-25
5	28	2.02e-19	1.17e-19	6.78e-20	3.90e-20	2.70e-20	7	36	2.38e-23	9.72e-24	3.83e-24	1.73e-24	1.08e-24
5	29	2.18e-19	1.30e-19	7.77e-20	4.53e-20	3.09e-20	7	37	1.73e-23	8.78e-24	4.52e-24	2.44e-24	1.59e-24
5	30	2.15e-23	9.30e-24	3.21e-24	8.62e-25	2.94e-25							
5	31	3.08e-23	1.32e-23	4.98e-24	1.91e-24	1.08e-24							
5	32	1.40e-22	6.45e-23	2.50e-23	8.34e-24	3.79e-24							
5	33	2.35e-22	1.49e-22	8.92e-23	5.00e-23	3.23e-23							
5	34	7.30e-23	4.79e-23	3.18e-23	2.08e-23	1.47e-23							
5	35	3.00e-22	2.01e-22	1.35e-22	8.65e-23	6.18e-23							
5	36	5.77e-23	3.05e-23	1.52e-23	7.61e-24	4.77e-24							
5	37	2.59e-22	1.66e-22	1.05e-22	6.48e-23	4.46e-23							
6	7	3.06e-19	9.48e-20	3.71e-20	1.62e-20	9.39e-21	8	9	3.48e-20	8.80e-21	2.67e-21	8.82e-22	4.40e-22
6	8	7.90e-19	2.81e-19	1.11e-19	5.20e-20	3.14e-20	8	10	2.55e-19	7.38e-20	2.66e-20	1.08e-20	8.15e-21
6	9	9.18e-21	1.90e-21	4.41e-22	1.20e-22	6.02e-23	8	11	1.76e-20	4.41e-21	1.14e-21	2.56e-22	8.01e-23
6	10	1.01e-19	3.02e-20	1.14e-20	4.84e-21	2.80e-21	8	12	1.73e-21	5.54e-22	2.20e-22	9.68e-23	5.70e-23
6	11	1.07e-20	2.63e-21	6.69e-22	1.47e-22	4.42e-23	8	13	2.85e-20	8.70e-21	2.99e-21	1.09e-21	5.98e-22
6	12	1.08e-19	3.87e-20	1.52e-20	8.90e-21	4.10e-21	8	14	7.32e-20	2.22e-20	7.18e-21	2.22e-21	1.00e-21
6	13	2.39e-20	7.45e-21	2.49e-21	8.27e-22	3.96e-22	8	15	1.12e-20	3.13e-21	8.43e-22	1.93e-22	8.09e-23
6	14	4.94e-20	1.69e-20	6.76e-21	2.96e-21	1.72e-21	8	16	8.20e-21	3.42e-21	1.69e-21	9.14e-22	6.02e-22
6	15	4.30e-20	1.25e-20	3.46e-21	8.18e-22	2.65e-22	8	17	2.19e-20	8.93e-21	4.40e-21	2.30e-21	1.51e-21
6	16	1.43e-18	6.73e-19	3.72e-19	2.12e-19	1.41e-19	8	18	1.85e-19	8.36e-20	4.52e-20	2.53e-20	1.67e-20
6	17	3.25e-18	1.53e-18	8.47e-19	4.82e-19	3.22e-19	8	19	5.76e-18	2.75e-18	1.53e-18	8.59e-19	5.73e-19
6	18	2.43e-18	1.06e-18	5.13e-19	2.61e-19	1.63e-19	8	20	7.20e-19	3.32e-19	1.82e-19	1.02e-19	6.84e-20
6	19	6.69e-20	2.82e-20	1.39e-20	7.49e-21	4.93e-21	8	21	7.64e-20	3.20e-20	1.62e-20	8.89e-21	5.91e-21
6	20	3.31e-20	1.11e-20	4.26e-21	1.96e-21	1.23e-21	8	22	8.41e-19	3.93e-19	2.16e-19	1.22e-19	8.17e-20
6	21	1.35e-19	5.82e-20	2.77e-20	1.38e-20	8.75e-21	8	23	9.15e-21	2.52e-21	8.85e-22	2.26e-22	1.10e-22
6	22	1.86e-20	5.24e-21	1.55e-21	5.80e-22	3.42e-22	8	24	1.40e-21	5.63e-22	2.51e-22	1.21e-22	7.89e-23
6	23	1.86e-20	5.30e-21	1.77e-21	6.89e-22	3.97e-22	8	25	8.06e-21	3.60e-21	1.74e-21	8.79e-22	5.66e-22
6	24	6.65e-21	2.97e-21	1.44e-21	7.39e-22	4.77e-22	8	26	2.16e-20	1.05e-20	5.76e-21	3.29e-21	2.20e-21
6	25	2.24e-20	1.04e-20	5.06e-21	2.54e-21	1.62e-21	8	27	2.34e-21	6.30e-22	1.47e-22	3.16e-23	1.18e-23
6	26	2.25e-21	6.92e-22	2.23e-22	8.70e-23	5.21e-23	8	28	7.61e-22	4.11e-22	2.20e-22	1.16e-22	7.30e-23
6	27	7.21e-21	2.02e-21	4.87e-22	9.44e-23	3.06e-23	8	29	3.00e-23	1.09e-23	3.22e-24	7.60e-25	2.39e-25
6	28	1.18e-22	4.64e-23	1.76e-23	7.02e-24	3.88e-24	8	30	9.83e-24	4.48e-24	2.08e-24	1.07e-24	6.95e-25
6	29	5.74e-22	2.18e-22	6.76e-23	1.69e-23	5.61e-24	8	31	4.92e-22	2.31e-22	9.10e-23	2.88e-23	1.13e-23
6	30	1.57e-19	9.47e-20	5.75e-20	3.41e-20	2.33e-20	8	32	3.56e-19	2.12e-19	1.27e-19	7.49e-20	5.20e-20
6	31	1.72e-19	1.06e-19	6.37e-20	3.61e-20	2.42e-20	8	33	5.52e-21	2.62e-21	1.03e-21	3.17e-22	1.17e-22
6	32	9.46e-20	5.74e-20	3.50e-20	2.08e-20	1.40e-20	8	34	1.15e-23	4.01e-24	1.81e-24	8.40e-25	5.36e-25
6	33	3.34e-20	1.99e-20	1.19e-20	6.93e-21	4.68e-21	8	35	2.09e-23	8.10e-24	2.80e-24	1.05e-24	6.00e-25
6	34	7.17e-22	4.64e-22	2.82e-22	1.61e-22	1.05e-22	8	36	0.	0.	0.	0.	0.
6	35	9.96e-22	6.42e-22	3.89e-22	2.22e-22	1.45e-22	8	37	2.45e-23	9.16e-24	2.63e-24	6.02e-25	1.89e-25
6	36	1.17e-21	7.50e-22	4.51e-22	2.58e-22	1.73e-22							
6	37	1.29e-22	4.93e-23	1.42e-23	3.30e-24	1.14e-24							
7	8	3.32e-19	9.85e-20	3.83e-20	1.72e-20	1.03e-20	9	10	4.51e-19	1.34e-19	5.07e-20	2.19e-20	1.28e-20
7	9	1.96e-19	6.07e-20	2.41e-20	1.08e-20	6.38e-21	9	11	2.30e-20	6.30e-21	1.83e-21	4.63e-22	1.58e-22
7	10	3.79e-19	1.22e-19	5.10e-20	2.39e-20	1.45e-20	9	12	3.33e-20	1.02e-20	3.65e-21	1.40e-21	7.68e-22
7	11	4.82e-20	1.56e-20	6.73e-21	3.15e-21	1.92e-21	9	13	2.78e-20	8.60e-21	2.85e-21	9.97e-22	4.02e-22
7	12	7.94e-20	2.46e-20	8.42e-21	2.90e-21	1.45e-21	9	14	6.86e-20	2.29e-20	9.17e-21	4.05e-21	2.39e-21
7	13	5.75e-21	1.74e-21	6.12e-22	2.35e-22	1.27e-22	9	15	1.13e-20	3.16e-21	8.40e-22	1.85e-22	5.58e-23</td

TABLE II A. Electron Collision Cross Sections for Ne-like Fe ($Z = 26$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD					LEVELS		ENERGY(EV) ABOVE THRESHOLD				
I	F	100.	300.	700.	1500.	2500.	I	F	100.	300.	700.	1500.	2500.
9	26	1.59e-21	5.19e-22	1.87e-22	8.20e-23	5.06e-23	12	16	9.71e-22	4.14e-22	2.13e-22	6.13e-23	3.77e-23
9	27	2.37e-19	1.13e-19	5.61e-20	2.87e-20	1.83e-20	12	17	6.92e-21	2.65e-21	1.20e-21	5.99e-22	3.43e-22
9	28	1.11e-22	4.89e-23	2.09e-23	9.14e-24	5.33e-24	12	18	2.37e-20	9.45e-21	4.40e-21	2.22e-21	1.41e-21
9	29	5.20e-23	1.96e-23	6.07e-24	1.49e-24	4.85e-25	12	19	8.11e-22	3.06e-22	4.58e-23	1.16e-23	5.33e-24
9	30	1.12e-19	6.68e-20	3.99e-20	2.33e-20	1.62e-20	12	20	1.45e-21	3.52e-22	8.00e-23	1.92e-23	7.81e-24
9	31	4.44e-21	2.09e-21	8.26e-22	2.55e-22	9.54e-23	12	21	7.03e-21	2.77e-21	1.27e-21	6.37e-22	4.04e-22
9	32	6.37e-20	3.76e-20	2.22e-20	1.29e-20	8.70e-21	12	22	1.26e-21	4.09e-22	2.13e-22	1.11e-22	7.24e-23
9	33	1.95e-19	1.17e-19	7.01e-20	4.14e-20	2.87e-20	12	23	8.49e-20	3.51e-20	1.65e-20	8.32e-21	4.81e-21
9	34	6.49e-23	4.11e-23	2.44e-23	1.37e-23	8.83e-24	12	24	8.01e-18	2.85e-18	1.58e-18	9.00e-19	6.02e-19
9	35	6.82e-23	4.03e-23	2.26e-23	1.22e-23	7.74e-24	12	25	7.32e-20	2.97e-20	1.43e-20	7.87e-21	5.09e-21
9	36	1.57e-22	9.84e-23	5.80e-23	3.27e-23	2.13e-23	12	26	8.23e-20	2.69e-20	1.01e-20	4.62e-21	2.89e-21
9	37	5.46e-23	3.19e-23	1.79e-23	9.82e-24	6.35e-24	12	27	1.07e-18	5.16e-19	2.84e-19	1.63e-19	1.09e-19
10	11	8.17e-20	2.71e-20	1.15e-20	5.39e-21	3.26e-21	12	28	4.33e-22	8.29e-23	8.79e-23	4.03e-23	2.48e-23
10	12	6.92e-21	2.20e-21	8.67e-22	3.82e-22	2.24e-22	12	29	3.85e-23	1.34e-23	3.04e-24	8.93e-25	2.81e-25
10	13	4.91e-20	1.52e-20	5.27e-21	1.88e-21	9.65e-22	12	30	1.12e-19	6.53e-20	3.82e-20	2.21e-20	1.52e-20
10	14	8.36e-20	2.71e-20	1.03e-20	4.17e-21	2.34e-21	12	31	2.07e-19	1.21e-19	6.99e-20	4.02e-20	2.80e-20
10	15	5.30e-20	2.04e-20	9.03e-21	4.31e-21	2.82e-21	12	32	6.98e-21	4.11e-21	2.41e-21	1.41e-21	9.63e-22
10	16	2.88e-21	6.48e-22	1.23e-22	1.91e-23	4.94e-24	12	33	3.74e-20	2.21e-20	1.30e-20	7.59e-21	5.26e-21
10	17	4.39e-19	2.03e-19	1.12e-19	6.30e-20	4.17e-20	12	34	1.11e-23	7.03e-24	4.18e-24	2.37e-24	1.55e-24
10	18	2.10e-18	9.82e-19	5.44e-19	3.07e-19	2.03e-19	12	35	6.02e-23	2.76e-23	1.08e-23	3.96e-24	2.07e-24
10	19	4.42e-20	1.45e-20	5.73e-21	2.61e-21	1.65e-21	12	36	3.12e-23	1.37e-23	6.11e-24	3.10e-24	2.01e-24
10	20	9.01e-20	3.55e-20	1.63e-20	8.17e-21	5.28e-21	12	37	8.37e-23	4.58e-23	2.37e-23	1.21e-23	7.47e-24
10	21	4.37e-20	1.54e-20	6.42e-21	3.16e-21	2.02e-21	13	14	3.82e-19	1.13e-19	4.29e-20	1.80e-20	1.08e-20
10	22	5.14e-18	2.44e-18	1.36e-18	7.85e-19	5.11e-19	13	15	7.98e-21	2.05e-21	5.91e-22	1.58e-22	5.64e-23
10	23	1.72e-20	6.74e-21	3.13e-21	1.84e-21	1.07e-21	13	16	9.52e-20	4.56e-20	2.52e-20	1.30e-20	8.89e-21
10	24	3.08e-21	1.32e-21	6.29e-22	3.18e-22	2.02e-22	13	17	9.93e-20	4.72e-20	2.80e-20	1.42e-20	9.16e-21
10	25	8.70e-20	4.19e-20	2.31e-20	1.32e-20	9.00e-21	13	18	6.53e-20	3.08e-20	1.68e-20	9.25e-21	5.97e-21
10	26	3.28e-21	1.44e-21	6.90e-22	3.49e-22	2.24e-22	13	19	3.50e-21	1.33e-21	6.23e-22	3.29e-22	2.15e-22
10	27	1.19e-19	5.39e-21	2.04e-21	1.36e-21	8.68e-22	13	20	2.23e-21	5.70e-22	1.55e-22	5.14e-23	2.80e-23
10	28	1.77e-22	6.66e-23	2.11e-23	5.25e-24	1.69e-24	13	21	6.74e-21	2.81e-21	1.19e-21	5.95e-23	3.77e-22
10	29	1.71e-22	9.34e-23	5.01e-23	2.62e-23	1.65e-23	13	22	7.97e-22	1.69e-22	3.04e-23	4.94e-24	1.74e-24
10	30	1.10e-23	4.06e-24	1.26e-24	3.28e-25	1.14e-25	13	23	1.25e-19	5.66e-20	3.06e-20	1.70e-20	1.13e-20
10	31	2.08e-20	1.25e-20	7.36e-21	4.13e-21	2.71e-21	13	24	2.72e-19	1.24e-19	6.71e-20	3.76e-20	2.51e-20
10	32	1.88e-19	1.11e-19	6.57e-20	3.83e-20	2.63e-20	13	25	6.50e-18	3.08e-18	1.71e-18	9.64e-19	6.43e-19
10	33	1.87e-19	1.12e-19	6.69e-20	3.92e-20	2.70e-20	13	26	6.14e-20	1.92e-20	8.85e-21	3.01e-21	1.65e-21
10	34	1.31e-23	6.43e-24	3.05e-24	1.50e-24	9.26e-25	13	27	6.76e-19	3.19e-19	1.75e-19	9.93e-20	6.68e-20
10	35	3.22e-23	1.78e-23	9.23e-24	4.65e-24	2.88e-24	13	28	3.33e-22	1.50e-22	8.67e-23	2.95e-23	1.69e-23
10	36	5.69e-23	3.06e-23	1.54e-23	7.55e-24	4.81e-24	13	29	9.74e-23	3.25e-23	8.89e-24	1.96e-24	6.01e-25
10	37	2.34e-23	1.41e-23	8.07e-24	4.44e-24	2.87e-24	13	30	1.01e-20	5.94e-21	3.49e-21	2.00e-21	1.38e-21
13	32	2.89e-19	1.89e-19	9.32e-21	3.92e-21	2.23e-21	13	31	1.19e-20	6.84e-21	3.92e-21	2.23e-21	1.57e-21
13	33	9.36e-20	5.44e-20	3.16e-20	1.82e-20	1.02e-20	13	34	9.36e-19	5.44e-20	3.16e-20	1.82e-20	1.27e-20
13	34	5.37e-23	3.13e-23	1.75e-23	9.35e-24	5.98e-24	13	35	5.24e-22	1.50e-22	8.69e-23	4.86e-23	3.17e-23
13	35	7.00e-22	4.40e-22	2.60e-22	1.47e-22	9.51e-23	13	36	7.00e-22	4.40e-22	2.60e-22	1.47e-22	9.51e-23
13	37	6.11e-23	2.84e-23	1.21e-23	5.25e-24	3.04e-24	13	38	6.11e-23	2.84e-23	1.21e-23	5.25e-24	3.04e-24
14	15	8.58e-20	3.05e-20	1.32e-20	6.30e-21	3.84e-21	14	16	4.28e-23	9.58e-24	1.92e-24	3.23e-25	8.18e-26
14	16	4.28e-20	7.54e-21	4.14e-21	2.73e-21	14	17	1.92e-20	9.02e-21	4.96e-21	2.70e-21	1.78e-21	
14	17	2.06e-21	2.86e-22	2.85e-23	7.49e-24	14	18	8.89e-20	4.19e-20	2.30e-20	1.26e-20	8.14e-21	
14	18	4.35e-21	2.40e-21	1.96e-21	4.06e-21	14	19	4.77e-22	1.50e-22	5.82e-23	2.63e-23	1.64e-23	
14	19	1.55e-19	1.02e-19	6.81e-19	4.08e-20	14	20	8.96e-21	3.49e-21	1.60e-21	7.86e-22	4.91e-22	
14	20	4.15e-21	8.74e-22	1.49e-22	3.79e-23	14	21	1.41e-20	3.84e-22	1.17e-22	4.46e-23	2.60e-23	
14	21	7.56e-21	1.60e-21	2.77e-22	7.12e-23	14	22	7.59e-21	3.57e-21	1.96e-21	1.08e-21	7.28e-22	
14	22	3.99e-20	1.63e-20	7.78e-21	4.13e-21	2.71e-21	14	23	2.52e-20	1.01e-20	4.74e-21	2.38e-21	1.57e-21
14	23	3.47e-19	1.57e-19	7.65e-20	3.84e-20	2.28e-20	14	24	6.33e-19	2.88e-19	1.57e-19	8.78e-20	5.85e-20
14	24	6.84e-22	2.66e-22	8.93e-23	2.45e-23	8.71e-24	14	25	6.21e-19	2.85e-19	1.56e-19	8.75e-20	5.81e-20
14	25	1.83e-23	9.02e-24	4.37e-24	2.09e-24	1.25e-24	14	26	6.14e-18	2.92e-18	1.62e-18	9.12e-19	6.09e-19
14	26	1.83e-21	8.44e-22	3.27e-22	9.95e-23	3.87e-23	14	27	7.09e-20	3.18e-20	1.66e-20	9.24e-21	6.13e-21
14	27	2.68e-19	1.70e-19	1.01e-19	5.87e-20	4.04e-20	14	28	3.98e-22	1.77e-22	7.77e-23	3.49e-23	2.05e-23
14	28	5.83e-21	2.71e-21	1.06e-21	3.21e-22	1.18e-22	14	29	1.87e-22	9.86e-23	5.22e-23	2.70e-23	1.71e-23
14	29	8.91e-20	5.30e-20	3.09e-20	1.72e-20	1.18e-20	14	30	3.01e-23	1.35e-23	5.14e-24	1.55e-24	5.65e-25
14	30	1.44e-23	6.39e-24	2.23e-24	5.96e-25	2.01e-25	14	31	3.68e-21	2.09e-21	1.15e-21	6.11e-22	3.93e-22
14	31	1.66e-22	1.05e-22	6.21e-23	3.46e-23	2.23e-23	14	32	2.05e-19	1.19e-19	6.94e-20	4.01e-20	2.76e-20
14	32	4.52e-23	1.89e-23	6.17e-24	1.55e-24	5.06e-25	14	33	1.91e-19	1.12e-19	6.59e-20	3.83e-20	2.63e-20
14	33	2.44e-23	1.46e-23	8.39e-24	4.74e-24	3.08e-24	14	34	1.96e-23	9.76e-24	4.83e-24	2.80e-24	1.64e-24
14	34	5.20e-19	1.68e-19	7.04e-20	3.31e-20	2.00e-20	14	35	1.52e-23	6.53e-24	2.90e-24	1.48e-24	9.63e-25
14	35	5.09e-19	1.58e-19	6.35e-20	2.92e-20	1.75e-20	14	36	1.28e-22	6.15e-23	2.68e-23	1.13e-23	8.28e-24
14	36	2.94e-20	7.81e-21	2.06e-21									

TABLE IIA. Electron Collision Cross Sections for Ne-like Fe ($Z = 26$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD					LEVELS		ENERGY(EV) ABOVE THRESHOLD				
I	P	100.	300.	700.	1500.	2500.	I	P	100.	300.	700.	1500.	2500.
15	16	5.67e-21	1.20e-21	2.39e-22	4.07e-23	1.04e-23	18	24	2.49e-20	7.96e-21	3.16e-21	1.41e-21	8.41e-22
15	17	2.06e-20	5.23e-21	1.53e-21	2.94e-22	1.21e-22	18	25	4.81e-20	1.48e-20	4.97e-21	1.65e-21	7.91e-22
15	18	2.61e-20	5.58e-21	1.11e-21	1.08e-22	4.77e-23	18	26	8.91e-20	2.95e-20	1.17e-20	5.09e-21	2.97e-21
15	19	2.22e-20	4.72e-21	9.36e-22	1.55e-22	3.91e-23	18	27	4.66e-20	1.20e-20	3.16e-21	8.00e-22	3.12e-22
15	20	2.49e-20	8.18e-21	3.50e-21	1.78e-21	1.14e-21	18	28	9.72e-20	4.35e-22	2.11e-22	1.06e-22	6.87e-23
15	21	8.22e-21	1.69e-21	3.14e-22	4.90e-23	1.23e-23	18	29	4.30e-23	1.14e-23	2.51e-24	4.84e-25	1.23e-25
15	22	2.23e-20	9.00e-21	4.59e-21	2.54e-21	1.69e-21	18	30	2.27e-23	9.02e-24	3.86e-24	1.76e-24	1.11e-24
15	23	3.18e-19	1.26e-19	5.94e-20	2.91e-20	1.74e-20	18	31	9.51e-23	3.84e-23	1.56e-23	6.36e-24	3.67e-24
15	24	2.25e-20	5.05e-21	1.00e-21	1.65e-22	4.15e-23	18	32	1.69e-22	7.71e-23	3.53e-23	1.65e-23	9.78e-24
15	25	2.87e-20	6.42e-21	1.26e-21	2.08e-22	5.34e-23	18	33	1.14e-22	4.31e-23	1.59e-23	6.56e-24	3.66e-24
15	26	6.04e-20	2.42e-20	1.19e-20	6.43e-21	4.24e-21	18	34	3.40e-20	2.03e-20	1.22e-20	7.14e-21	4.88e-21
15	27	7.52e-18	3.56e-18	1.98e-18	1.11e-18	7.30e-19	18	35	2.00e-19	1.20e-19	7.25e-20	4.27e-20	2.90e-20
15	28	1.75e-21	5.53e-22	1.50e-22	3.36e-23	1.03e-23	18	36	2.08e-19	1.25e-19	7.56e-20	4.48e-20	3.00e-20
15	29	0.	0.	0.	0.	0.	18	37	4.81e-20	2.86e-20	1.70e-20	9.87e-21	6.89e-21
15	30	2.45e-21	1.10e-21	4.20e-22	1.27e-22	4.66e-23							
15	31	8.33e-20	4.58e-20	2.53e-20	1.16e-20	7.46e-21							
15	32	4.71e-21	2.11e-21	8.09e-22	2.44e-22	8.92e-23							
15	33	1.05e-19	5.74e-20	3.14e-20	1.72e-20	1.15e-20							
15	34	6.21e-23	2.30e-23	6.55e-24	1.44e-24	4.30e-25							
15	35	9.02e-23	3.81e-23	1.51e-23	6.49e-24	3.86e-24							
15	36	1.03e-22	3.74e-23	1.02e-23	2.13e-24	6.10e-25							
15	37	1.52e-21	9.83e-22	5.72e-22	3.22e-22	2.08e-22							
16	17	1.08e-19	2.21e-20	5.02e-21	1.07e-21	3.36e-22							
16	18	4.65e-19	1.52e-19	6.53e-20	3.13e-20	1.91e-20							
16	19	7.65e-20	1.73e-20	5.71e-21	2.70e-21	1.75e-21							
16	20	1.49e-19	3.45e-20	8.69e-21	1.98e-21	6.32e-22							
16	21	3.15e-19	1.04e-19	4.47e-20	2.15e-20	1.32e-20							
16	22	6.57e-20	1.14e-20	1.88e-21	2.68e-22	6.44e-23							
16	23	5.92e-20	1.23e-20	2.54e-21	4.07e-22	1.29e-22							
16	24	5.09e-20	1.59e-20	5.52e-21	2.03e-21	1.10e-21							
16	25	3.72e-20	1.34e-20	5.91e-21	2.88e-21	1.75e-21							
16	26	1.55e-21	3.77e-22	9.53e-23	2.19e-23	7.05e-24							
16	27	8.71e-20	2.43e-20	8.64e-21	1.57e-21	5.11e-22							
16	28	1.50e-21	7.15e-22	3.86e-22	2.19e-22	1.44e-22							
16	29	6.70e-23	1.81e-23	4.06e-24	7.59e-25	2.02e-25							
16	30	0.	0.	0.	0.	0.							
16	31	8.02e-23	2.84e-23	8.56e-24	2.14e-24	7.20e-25							
16	32	1.33e-22	6.01e-23	2.76e-23	1.24e-23	7.47e-24							
16	33	6.05e-23	1.88e-23	4.84e-24	9.08e-25	2.61e-25							
16	34	5.16e-19	3.13e-19	1.90e-19	1.13e-19	7.67e-20							
16	35	6.26e-21	3.00e-21	1.19e-21	3.66e-22	1.35e-22							
16	36	1.72e-22	8.50e-23	4.28e-23	2.28e-23	1.50e-23							
16	37	3.71e-21	1.75e-21	6.82e-22	2.07e-22	7.62e-23							
17	18	2.00e-19	5.49e-20	2.01e-20	8.66e-21	5.07e-21							
17	19	9.00e-20	2.01e-20	6.07e-21	2.48e-21	1.49e-21							
17	20	2.28e-19	6.39e-20	2.31e-20	9.55e-21	5.46e-21							
17	21	9.04e-20	2.04e-20	5.42e-21	1.68e-21	8.61e-22							
17	22	2.26e-19	6.85e-20	2.76e-20	1.28e-20	7.78e-21							
17	23	2.91e-20	6.72e-21	1.86e-21	6.14e-22	3.14e-22							
17	24	6.65e-20	2.16e-20	8.25e-21	3.43e-21	1.96e-21							
17	25	1.55e-20	4.04e-21	1.12e-21	2.98e-22	1.18e-22							
17	26	1.22e-20	3.56e-21	1.18e-21	4.29e-22	2.35e-22							
17	27	6.03e-20	1.87e-20	6.37e-21	2.29e-21	1.19e-21							
17	28	9.79e-22	4.62e-22	2.48e-22	1.40e-22	9.16e-23							
17	29	7.19e-23	2.23e-23	7.06e-24	2.10e-24	1.09e-24							
17	30	3.93e-23	1.32e-23	3.71e-24	8.47e-25	2.68e-25							
17	31	3.04e-22	1.53e-22	7.70e-23	3.85e-23	2.30e-23							
17	32	1.67e-22	7.43e-23	3.35e-23	1.49e-23	8.94e-24							
17	33	1.34e-21	5.56e-23	2.30e-23	1.00e-23	5.97e-24							
17	34	2.45e-19	1.48e-19	8.97e-20	5.30e-20	3.60e-20							
17	35	2.54e-19	1.54e-19	9.34e-20	5.54e-20	3.75e-20							
17	36	2.20e-21	1.05e-21	4.22e-22	1.35e-22	5.31e-23							
17	37	7.35e-21	3.95e-21	2.02e-21	9.98e-22	6.13e-22							
18	19	1.96e-19	5.15e-20	1.78e-20	7.26e-21	4.15e-21							
18	20	8.69e-20	1.85e-20	5.05e-21	1.79e-21	1.01e-21							
18	21	5.68e-20	1.28e-20	3.60e-21	1.33e-21	7.80e-22							
18	22	2.53e-19	7.20e-20	2.64e-20	1.12e-20	6.46e-21							
18	23	1.09e-19	3.10e-20	1.13e-20	4.91e-21	2.91e-21							
21	22	1.73e-19	3.58e-20	8.67e-21	2.40e-21	1.21e-21							
21	23	1.52e-19	4.77e-20	1.90e-21	4.77e-21	2.45e-21							
21	24	5.42e-20	1.67e-20	5.79e-21	2.09e-21	1.09e-21							
21	25	8.69e-21	2.36e-21	7.29e-22	2.31e-22	1.10e-22							
21	26	1.95e-20	5.78e-21	2.08e-21	8.00e-21	4.00e-21							
21	27	6.60e-20	2.25e-20	9.12e-21	4.07e-21	2.16e-22							
21	28	1.20e-22	4.04e-23	2.35e-23	8.60e-24	4.50e-24							
21	29	1.82e-24	4.39e-25	8.37e-26	1.27e-26	3.25e-27							
21	30	1.23e-22	5.98e-23	3.00e-23	1.53e-23	9.55e-24							
21	31	1.09e-22	3.67e-23	1.09e-23	2.86e-24	1.10e-24							
21	32	8.01e-23	2.60e-23	7.70e-24	2.34e-24	1.13e-24							
21	33	3.11e-22	1.52e-22	7.72e-23	3.90e-23	2.49e-23							
21	34	2.11e-19	1.26e-19	7.52e-20	4.41e-20	3.03e-20							
21	35	2.26e-20	1.29e-20	7.21e-21	3.96e-21	2.59e-21							
21	36	1.77e-20	1.04e-20	6.06e-21	3.48e-21	2.36e-21							
21	37	1.56e-19	9.36e-20	5.64e-20	3.32e-20	2.29e-20							
22	23	4.90e-20	1.15e-20	3.38e-21	1.26e-21	7.21e-22							
22	24	2.83e-21	7.62e-22	2.60e-22	1.05e-22	6.05e-23							

TABLE II A. Electron Collision Cross Sections for Ne-like Fe ($Z = 26$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD					LEVELS		ENERGY(EV) ABOVE THRESHOLD				
I	F	100.	300.	700.	1500.	2500.	I	F	100.	300.	700.	1500.	2500.
22	25	4.81e-20	1.40e-20	4.44e-21	1.38e-21	6.39e-22	27	31	4.23e-22	1.93e-22	9.02e-23	4.31e-23	2.59e-23
22	26	7.13e-20	2.28e-20	8.36e-21	3.25e-21	1.78e-21	27	32	2.44e-22	9.10e-23	3.49e-23	1.45e-23	8.25e-24
22	27	1.75e-20	5.37e-21	2.06e-21	9.27e-22	5.63e-22	27	33	5.63e-22	2.71e-22	1.35e-22	6.84e-23	4.25e-23
22	28	5.15e-23	1.28e-23	2.79e-24	6.80e-25	2.99e-25	27	34	3.72e-20	2.09e-20	1.16e-20	6.47e-21	4.37e-21
22	29	4.36e-24	1.94e-24	1.00e-24	5.57e-25	3.71e-25	27	35	9.16e-20	5.27e-20	3.01e-20	1.73e-20	1.17e-20
22	30	1.96e-23	4.84e-24	9.06e-25	1.33e-25	3.20e-26	27	36	2.71e-21	1.17e-21	4.34e-22	1.29e-22	4.77e-23
22	31	4.40e-23	1.36e-23	4.37e-24	1.81e-24	1.10e-24	27	37	4.80e-19	2.83e-19	1.67e-19	9.75e-20	6.57e-20
22	32	1.22e-22	4.33e-23	1.42e-23	4.54e-24	2.17e-24							
22	33	2.03e-22	8.85e-23	4.03e-23	1.98e-23	1.21e-23							
22	34	2.65e-23	1.25e-23	4.90e-24	1.49e-24	5.50e-25	28	29	7.98e-20	1.97e-20	5.04e-21	1.13e-21	3.59e-22
22	35	5.51e-20	3.26e-20	1.94e-20	1.13e-20	7.72e-21	28	30	1.71e-18	8.10e-19	4.51e-19	2.52e-19	1.65e-19
22	36	2.18e-19	1.29e-19	7.68e-20	4.48e-20	3.05e-20	28	31	4.56e-18	2.16e-18	1.20e-18	6.68e-19	4.38e-19
22	37	1.29e-19	7.70e-20	4.61e-20	2.72e-20	1.68e-20	28	32	8.38e-18	3.97e-18	2.21e-18	1.23e-18	8.10e-19
23	24	5.95e-20	1.43e-20	3.79e-21	8.94e-22	4.10e-22	28	33	5.77e-19	2.66e-19	1.46e-19	8.12e-20	5.45e-20
23	25	5.75e-20	1.26e-20	3.21e-21	9.27e-22	4.35e-22	28	34	1.94e-19	9.58e-20	4.84e-20	2.46e-20	1.53e-20
23	26	4.52e-20	1.14e-20	3.76e-21	1.55e-21	9.37e-22	28	35	3.23e-19	1.59e-19	8.08e-20	4.09e-20	2.55e-20
23	27	2.54e-20	7.36e-21	2.42e-21	8.44e-22	4.20e-22	28	36	4.55e-19	2.24e-19	1.13e-19	5.74e-20	3.57e-20
23	28	1.25e-22	4.77e-23	2.21e-23	7.07e-24	3.84e-24	28	37	3.15e-20	9.26e-21	2.20e-21	4.43e-22	1.43e-22
23	29	2.73e-21	1.23e-21	6.00e-22	3.03e-22	1.77e-22	29	30	1.09e-20	2.45e-21	5.14e-22	9.52e-23	2.80e-23
23	30	5.83e-23	1.99e-23	6.00e-24	1.53e-24	5.26e-25	29	31	2.00e-18	9.55e-19	5.23e-19	2.88e-19	1.85e-19
23	31	1.59e-22	6.90e-23	3.03e-23	1.36e-23	8.10e-24	29	32	5.31e-20	1.21e-20	2.55e-21	4.72e-22	1.30e-22
23	32	7.52e-23	2.32e-23	6.00e-24	1.85e-24	8.09e-25	29	33	1.49e-17	7.10e-18	3.94e-18	2.17e-18	1.42e-18
23	33	5.50e-23	1.77e-23	5.11e-24	1.45e-24	6.44e-25	29	34	2.04e-20	5.70e-21	1.27e-21	2.24e-22	5.77e-23
23	34	1.62e-19	9.55e-20	5.65e-20	3.30e-20	2.28e-20	29	35	3.58e-20	1.04e-20	2.59e-21	6.16e-22	2.47e-22
23	35	1.73e-19	1.02e-19	6.07e-20	3.55e-20	2.42e-20	29	36	4.74e-20	1.33e-20	2.90e-21	5.22e-22	1.35e-22
23	36	5.38e-21	2.50e-21	9.77e-22	2.99e-22	1.11e-22	29	37	9.27e-19	4.68e-19	2.41e-19	1.24e-19	7.70e-20
23	37	1.13e-19	6.77e-20	4.05e-20	2.38e-20	1.60e-20							
24	25	1.27e-19	2.97e-20	9.85e-21	4.32e-21	2.84e-21	30	31	8.12e-20	1.90e-20	4.98e-21	1.21e-21	4.05e-22
24	26	3.30e-19	7.56e-20	2.31e-20	9.03e-21	5.20e-21	30	32	1.01e-18	3.29e-19	1.39e-19	6.54e-20	3.96e-20
24	27	1.84e-19	4.77e-20	1.74e-20	7.26e-21	4.17e-21	30	33	1.01e-19	2.16e-20	4.73e-21	9.15e-22	2.64e-22
24	28	1.84e-22	6.22e-23	2.85e-23	1.48e-23	9.08e-24	30	34	7.23e-19	3.42e-18	1.90e-18	7.23e-19	
24	29	4.21e-24	1.05e-24	2.19e-25	3.70e-26	9.42e-27	30	35	4.85e-20	1.19e-20	2.46e-21	4.17e-22	1.07e-22
24	30	9.59e-23	4.39e-23	2.05e-23	9.85e-24	6.13e-24	30	36	9.66e-20	4.01e-20	1.97e-20	1.06e-20	6.98e-21
24	31	4.20e-22	1.81e-22	8.05e-23	3.70e-23	2.22e-23	30	37	4.39e-20	1.10e-20	2.29e-21	3.91e-22	1.00e-22
24	32	1.72e-22	5.58e-23	1.97e-23	8.50e-24	5.19e-24							
24	33	9.26e-23	2.83e-23	7.46e-24	1.89e-24	5.65e-25	31	32	7.15e-19	2.27e-19	9.39e-20	4.38e-20	2.65e-20
24	34	1.36e-19	7.93e-20	4.81e-20	2.65e-20	1.84e-20	31	33	3.77e-19	1.22e-19	5.08e-20	2.37e-20	1.44e-20
24	35	1.54e-19	8.97e-20	5.22e-20	3.02e-20	2.08e-20	31	34	1.66e-18	7.78e-19	4.29e-19	2.44e-19	1.63e-19
24	36	6.73e-21	3.95e-21	2.31e-21	1.35e-21	9.25e-22	31	35	5.08e-18	2.40e-18	1.34e-18	7.58e-19	5.04e-19
24	37	1.05e-19	6.18e-20	3.85e-20	2.12e-20	1.45e-20	31	36	9.01e-20	3.18e-20	1.33e-20	6.57e-21	4.21e-21
24	37	6.00e-19	2.58e-19	1.22e-19	6.14e-20	3.91e-20							
25	26	2.69e-19	6.47e-20	2.00e-20	7.44e-21	4.08e-21	32	33	1.65e-19	4.28e-20	1.34e-20	4.71e-21	2.44e-21
25	27	1.30e-19	3.56e-20	1.29e-20	5.61e-21	3.33e-21	32	34	1.14e-19	5.00e-20	2.64e-20	1.47e-20	9.78e-21
25	28	4.55e-22	1.98e-22	1.05e-22	5.87e-23	3.91e-23	32	35	1.19e-18	5.53e-19	3.05e-19	1.72e-19	1.15e-19
25	29	3.45e-23	8.65e-24	1.86e-24	3.36e-25	8.84e-26	32	36	6.31e-18	2.99e-18	1.68e-18	9.34e-19	6.23e-19
25	30	9.78e-24	2.61e-24	6.15e-25	1.52e-25	7.03e-26	32	37	4.55e-20	1.17e-20	2.77e-21	6.89e-22	3.08e-22
25	31	7.63e-23	2.15e-23	5.44e-24	1.35e-24	5.61e-25							
25	32	8.90e-23	3.58e-23	1.37e-23	5.10e-24	2.62e-24							
25	33	2.99e-23	1.25e-23	4.99e-23	1.92e-23	1.00e-23							
25	34	6.96e-21	4.07e-21	2.37e-21	1.39e-21	9.63e-22	33	34	2.34e-19	1.03e-19	5.48e-20	3.01e-20	2.03e-20
25	35	5.67e-20	3.30e-20	1.91e-20	1.10e-20	7.65e-21	33	35	4.69e-19	1.90e-19	8.82e-20	4.42e-20	2.77e-20
25	36	3.09e-19	1.82e-19	1.07e-19	6.21e-20	4.21e-20	33	36	6.28e-20	1.84e-20	4.21e-21	1.25e-21	6.31e-22
25	37	1.12e-19	6.69e-20	3.89e-20	2.16e-20	1.41e-20	33	37	6.60e-18	3.14e-18	1.74e-18	9.86e-19	6.60e-19
26	27	4.34e-20	9.75e-21	3.00e-21	1.28e-21	7.89e-22	34	35	4.36e-19	1.26e-19	4.91e-20	2.23e-20	1.34e-20
26	28	1.54e-22	5.23e-23	2.12e-23	1.03e-23	6.56e-24	34	36	1.69e-19	3.81e-20	1.22e-20	5.36e-21	3.30e-21
26	29	7.96e-24	3.33e-24	1.64e-24	8.84e-25	5.83e-25	34	37	2.17e-19	4.39e-20	9.19e-21	1.77e-21	5.28e-22
26	30	1.07e-23	3.03e-24	6.86e-25	1.22e-25	3.16e-26							
26	31	1.29e-22	4.69e-23	1.88e-23	8.73e-24	5.41e-24							
26	32	2.98e-22	1.05e-22	3.71e-23	1.41e-23	7.77e-24	35	36	3.68e-19	9.94e-20	3.72e-20	1.68e-20	1.01e-20
26	33	1.42e-22	6.29e-23	2.92e-23	1.43e-23	8.98e-24	35	37	6.41e-20	1.21e-20	2.44e-21	5.83e-22	2.67e-22
26	34	8.75e-23	4.02e-23	1.60e-23	5.37e-24	2.32e-24							
26	35	3.78e-20	2.18e-20	1.25e-20	7.26e-21	5.08e-21							
26	36	2.17e-19	1.26e-19	7.35e-20	4.24e-20	2.90e-20	36	37	2.15e-19	4.38e-20	9.28e-21	1.80e-21	5.39e-22
26	37	1.45e-19	8.51e-20	5.01e-20	2.92e-20	2.02e-20							
27	28	7.78e-23	2.02e-23	5.09e-24	1.18e-24	4.13e-25							
27	29	2.40e-20	1.01e-20	4.83e-21	2.42e-21	1.42e-21							

TABLE IIIB. Electron Collision Cross Sections for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	100.	250.	600.	1200.	2400.	4000.	I	F	100.	250.	600.	1200.	2400.	4000.
1	2	6.45e-22	5.48e-22	3.87e-22	2.30e-22	1.00e-22	4.28e-23	2	37	5.66e-24	3.44e-24	1.43e-24	5.09e-25	1.42e-25	5.30e-26
1	3	7.37e-22	7.67e-22	8.23e-22	8.86e-22	9.33e-22	9.28e-22								
1	4	1.23e-22	1.05e-22	7.41e-23	4.44e-23	1.95e-23	8.43e-24	3	4	1.35e-20	6.00e-21	2.27e-21	8.77e-22	2.74e-22	9.94e-23
1	5	5.80e-22	5.78e-22	5.70e-22	5.86e-22	5.90e-22	5.76e-22	3	5	3.85e-20	1.79e-20	7.48e-21	3.49e-21	1.80e-21	9.14e-22
1	6	1.33e-21	1.12e-21	7.82e-22	4.59e-22	1.98e-22	8.53e-23	3	6	1.08e-20	4.56e-21	1.63e-21	6.69e-22	2.83e-22	1.61e-22
1	7	1.56e-21	1.39e-21	1.12e-21	8.41e-22	5.85e-22	4.34e-22	3	7	2.02e-18	1.11e-18	6.14e-19	3.72e-19	2.14e-19	1.39e-19
1	8	1.73e-21	1.44e-21	9.72e-22	5.48e-22	2.23e-22	9.08e-23	3	8	1.58e-20	6.35e-21	1.87e-21	5.44e-22	1.26e-22	3.62e-23
1	9	7.45e-22	6.24e-22	4.27e-22	2.43e-22	1.00e-22	4.11e-23	3	9	2.22e-18	1.21e-18	6.87e-19	4.10e-19	2.40e-19	1.58e-19
1	10	1.24e-21	1.12e-21	9.28e-22	7.29e-22	5.33e-22	4.09e-22	3	10	1.77e-18	9.75e-19	5.34e-19	3.28e-19	1.93e-19	1.27e-19
1	11	4.04e-21	3.77e-21	3.26e-21	2.64e-21	1.91e-21	1.39e-21	3	11	5.83e-19	3.26e-19	1.76e-19	1.08e-19	6.47e-20	4.34e-20
1	12	6.75e-22	5.64e-22	3.85e-22	2.19e-22	8.99e-23	3.67e-23	3	12	8.30e-20	4.75e-22	2.51e-22	1.51e-22	9.01e-23	6.44e-23
1	13	7.56e-22	6.37e-22	4.41e-22	2.55e-22	1.07e-22	4.45e-23	3	13	1.77e-22	9.51e-23	4.40e-23	2.31e-23	1.25e-23	7.98e-24
1	14	1.38e-21	1.24e-21	1.01e-21	7.78e-22	5.56e-22	4.20e-22	3	14	1.53e-21	9.17e-21	4.97e-22	3.03e-22	1.62e-22	1.23e-22
1	15	1.38e-20	1.30e-20	1.13e-20	9.27e-21	6.78e-21	4.98e-21	3	15	7.70e-20	4.80e-20	2.68e-20	1.62e-20	9.83e-21	6.81e-21
1	16	8.32e-22	6.87e-22	4.58e-22	2.52e-22	9.88e-23	3.90e-23	3	16	1.47e-21	7.05e-22	2.30e-22	7.14e-23	1.60e-23	4.45e-24
1	17	2.32e-21	1.94e-21	1.32e-21	7.72e-22	3.57e-22	1.88e-22	3	17	5.00e-21	2.51e-21	9.46e-22	3.59e-22	2.26e-22	6.46e-23
1	18	2.79e-21	2.28e-21	1.49e-21	7.94e-22	2.95e-22	1.11e-22	3	18	1.26e-20	6.13e-21	2.07e-21	6.27e-22	1.41e-22	3.88e-23
1	19	1.95e-21	1.68e-21	1.25e-21	8.50e-22	5.37e-22	3.73e-22	3	19	1.02e-19	6.14e-20	3.23e-20	1.79e-20	9.55e-21	5.92e-21
1	20	2.71e-21	2.23e-21	1.47e-21	8.00e-22	3.07e-22	1.19e-22	3	20	1.74e-20	9.73e-21	4.81e-21	2.33e-21	1.16e-21	6.98e-22
1	21	1.17e-21	9.50e-22	6.07e-22	3.13e-22	1.10e-22	3.89e-23	3	21	1.08e-19	6.49e-20	3.48e-20	1.96e-20	1.05e-20	5.55e-21
1	22	1.37e-21	1.18e-21	8.98e-22	6.42e-22	4.32e-22	3.19e-22	3	22	8.12e-20	4.92e-20	2.50e-20	1.44e-20	7.70e-21	4.78e-21
1	23	2.10e-20	2.07e-20	1.99e-20	1.87e-20	1.67e-20	1.47e-20	3	23	6.26e-20	3.93e-20	2.16e-20	1.24e-20	6.73e-21	4.21e-21
1	24	1.31e-21	1.07e-21	6.98e-22	3.72e-22	1.37e-22	5.10e-23	3	24	6.98e-23	3.86e-23	1.81e-23	6.78e-24	2.72e-24	1.47e-24
1	25	1.94e-21	1.59e-21	1.05e-21	5.67e-22	2.16e-22	8.24e-23	3	25	1.12e-22	6.10e-23	2.43e-23	9.31e-24	3.28e-24	1.57e-24
1	26	1.62e-21	1.41e-21	1.07e-21	7.60e-22	4.99e-22	3.59e-22	3	26	1.20e-22	6.90e-23	3.24e-23	1.58e-23	7.60e-24	4.55e-24
1	27	2.88e-20	2.84e-20	2.76e-20	2.82e-20	2.36e-20	2.08e-20	3	27	2.48e-21	1.66e-21	9.55e-22	5.62e-22	3.12e-22	1.97e-22
1	28	3.57e-22	2.98e-22	2.02e-22	1.14e-22	4.71e-23	1.99e-23	3	28	6.00e-20	4.22e-20	2.82e-20	1.65e-20	9.96e-21	6.84e-21
1	29	6.09e-21	5.77e-21	5.14e-21	4.31e-21	3.25e-21	2.44e-21	3	29	1.12e-19	7.90e-20	5.07e-20	3.20e-20	2.03e-20	1.37e-20
1	30	9.53e-23	8.11e-23	5.75e-23	3.45e-23	1.52e-23	6.59e-24	3	30	5.50e-24	3.43e-24	1.56e-24	6.41e-25	1.97e-25	6.89e-26
1	31	4.95e-22	4.83e-22	4.67e-22	4.58e-22	4.50e-22	4.35e-22	3	31	1.21e-23	7.89e-24	4.02e-24	1.99e-24	9.23e-25	5.48e-25
1	32	4.52e-22	3.86e-22	2.75e-22	1.87e-22	7.42e-23	3.22e-23	3	32	2.51e-23	1.60e-23	7.65e-24	3.30e-24	1.14e-24	4.87e-25
1	33	1.01e-21	1.08e-21	1.21e-21	1.36e-21	1.50e-21	1.52e-21	3	33	3.37e-23	2.45e-23	1.51e-23	9.17e-24	5.21e-24	3.32e-24
1	34	6.51e-22	5.49e-22	3.80e-22	2.19e-22	9.13e-23	3.78e-23	3	34	1.23e-22	9.78e-23	6.78e-23	4.75e-23	3.22e-23	2.26e-23
1	35	1.15e-21	9.81e-21	7.03e-22	4.35e-22	2.16e-22	1.19e-22	3	35	7.69e-23	6.05e-23	4.15e-23	2.91e-23	1.99e-23	1.44e-23
1	36	1.51e-21	1.27e-21	8.80e-22	5.07e-22	2.11e-22	8.70e-23	3	36	9.32e-24	6.50e-24	3.69e-24	2.10e-24	1.16e-24	7.46e-25
1	37	5.47e-21	5.48e-21	5.41e-21	5.17e-21	4.57e-21	3.88e-21	3	37	1.48e-23	1.09e-23	6.70e-24	4.11e-24	2.42e-24	1.61e-24
2	3	6.76e-20	2.45e-20	8.18e-21	3.03e-21	1.02e-21	4.58e-22	4	5	8.02e-20	2.10e-20	6.58e-21	2.23e-21	6.23e-22	2.09e-22
2	4	1.13e-20	5.31e-21	2.26e-21	1.08e-21	5.14e-22	3.03e-22	4	6	5.09e-20	2.25e-20	1.04e-20	5.58e-21	3.02e-21	1.87e-21
2	5	3.77e-20	1.73e-20	6.91e-21	2.95e-21	1.16e-21	5.81e-22	4	7	1.20e-22	4.30e-23	1.37e-23	4.79e-24	1.41e-24	4.97e-25
2	6	1.49e-18	8.14e-19	4.50e-19	2.75e-19	1.59e-19	1.03e-19	4	8	1.35e-23	5.85e-24	2.59e-24	1.40e-24	7.85e-25	5.17e-25
2	7	1.02e-18	1.51e-19	1.15e-19	2.40e-19	1.34e-19	7.20e-20	4	9	4.82e-21	2.25e-21	1.12e-21	6.11e-22	3.22e-22	1.96e-22
2	8	3.03e-18	1.68e-18	9.23e-19	5.65e-19	3.31e-19	2.17e-19	4	10	4.11e-24	1.42e-24	3.76e-25	9.70e-26	5.01e-27	
2	9	1.51e-20	1.21e-21	2.96e-21	1.42e-21	7.04e-22	3.93e-22	4	11	1.04e-21	3.86e-22	1.09e-22	3.11e-23	7.11e-24	2.07e-24
2	10	1.15e-18	8.34e-19	3.45e-19	2.12e-19	1.25e-19	8.28e-20	4	12	2.22e-18	1.22e-18	6.74e-19	4.10e-19	2.37e-19	1.54e-19
2	11	1.51e-21	6.45e-22	1.96e-22	5.76e-23	3.12e-23	3.78e-24	4	13	4.49e-18	2.47e-18	1.35e-18	8.32e-19	4.90e-19	3.22e-19
2	12	2.87e-21	1.51e-21	7.44e-22	3.99e-23	2.15e-23	1.22e-23	4	14	2.16e-20	8.84e-21	2.63e-21	7.68e-22	1.78e-22	5.18e-23
2	13	5.95e-21	3.61e-21	1.97e-21	1.20e-21	7.21e-22	5.20e-22	4	15	3.06e-21	1.29e-21	3.88e-22	1.13e-22	2.59e-23	7.43e-24
2	14	2.13e-21	1.29e-21	7.04e-22	4.29e-22	2.59e-22	1.87e-22	4	16	0.	0.	0.	0.	0.	
2	15	3.06e-22	1.42e-22	4.55e-23	1.36e-23	3.13e-24	8.88e-25	4	17	1.33e-22	5.91e-23	1.90e-23	5.76e-24	1.33e-24	3.80e-25
2	16	1.52e-20	9.18e-21	4.84e-21	2.69e-21	1.44e-21	9.90e-22	4	18	9.65e-24	4.30e-24	1.53e-24	6.54e-25	3.25e-25	2.11e-25
2	17	4.47e-20	2.70e-20	1.43e-20	7.95e-21	4.25e-21	2.84e-21	4	19	8.52e-23	3.81e-23	1.24e-23	3.85e-24	9.32e-25	2.82e-25
2	18	1.40e-19	8.46e-20	4.46e-20	2.48e-20	1.32e-20	8.21e-21	4	20	4.79e-21	2.56e-21	1.26e-21	6.78e-22	3.55e-22	2.18e-22
2	19	5.41e-20	3.12e-20	8.16e-20	8.74e-21	4.50e-21	2.83e-21	4	21	6.12e-22	3.22e-22	1.54e-22	8.00e-23	4.10e-23	2.50e-23
2	20	6.63e-20	4.12e-20	2.19e-20	1.22e-20	6.52e-21	4.05e-21	4	22	2.07e-23	1.17e-23	3.59e-24	1.02e-24	2.16e-25	5.80e-26
2	21	1.33e-20	7.39e-21	3.38e-21	1.64e-21	7.85e-22	4.65e-22	4	23	6.47e-22	3.00e-22	9.81e-23	3.02e-23	9.92e-24	1.98e-24
2	22	6.19e-20	3.74e-20	1.95e-20	1.08e-20	5.72e-21	3.55e-21	4	24	1.60e-19	9.53e-20	5.06e-20	2.03e-20	1.51e-20	9.40e-21
2	23	4.22e-21	2.22e-21	8.72e-22	3.43e-22	1.28e-22	6.57e-23	4	25	2.16e-19	1.30e-19	6.99e-20	3.94e-20	2.1	

TABLE IIB. Electron Collision Cross Sections for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	100.	250.	600.	1200.	2400.	4000.	I	F	100.	250.	600.	1200.	2400.	4000.
5	6	2.03e-20	1.24e-20	5.69e-21	3.05e-21	1.66e-21	1.03e-21	7	14	9.21e-24	4.42e-24	1.85e-24	8.30e-25	3.80e-25	1.96e-25
5	7	4.88e-22	2.00e-22	8.12e-23	3.99e-23	2.01e-23	1.25e-23	7	15	2.11e-20	1.08e-20	4.92e-21	2.49e-21	1.24e-21	7.47e-22
5	8	9.82e-23	3.46e-23	1.01e-23	3.16e-24	9.09e-25	3.55e-25	7	16	1.70e-21	7.53e-22	2.29e-22	6.55e-23	1.42e-23	3.89e-24
5	9	6.92e-21	4.12e-21	1.91e-21	1.03e-21	5.54e-22	3.51e-22	7	17	1.42e-19	7.82e-20	4.17e-20	2.55e-20	1.51e-20	1.00e-20
5	10	7.92e-21	3.77e-21	1.92e-21	1.06e-21	5.52e-22	3.49e-22	7	18	2.34e-20	1.08e-20	4.02e-21	1.68e-21	7.49e-22	4.47e-22
5	11	1.24e-19	8.04e-20	2.86e-20	1.55e-20	8.39e-21	4.86e-21	7	19	2.06e-18	1.16e-18	6.33e-19	3.69e-19	2.31e-19	1.54e-19
5	12	1.55e-18	8.49e-19	4.68e-19	2.85e-19	1.65e-19	1.07e-19	7	20	2.99e-19	1.67e-19	8.96e-20	5.48e-20	3.28e-20	2.17e-20
5	13	7.93e-19	4.34e-19	2.37e-19	1.45e-19	6.52e-20	5.58e-20	7	21	4.71e-19	2.65e-19	1.43e-19	8.73e-20	5.21e-20	3.48e-20
5	14	3.82e-18	2.00e-18	1.10e-18	6.72e-19	3.94e-19	2.59e-19	7	22	2.81e-20	1.35e-20	6.31e-21	3.40e-21	1.89e-21	1.23e-21
5	15	5.68e-19	3.15e-19	1.70e-19	1.05e-19	6.24e-20	4.17e-20	7	23	2.65e-20	1.51e-20	7.85e-21	4.87e-21	2.76e-21	1.86e-21
5	16	1.72e-23	7.44e-24	2.41e-24	7.57e-25	1.90e-25	6.01e-26	7	24	7.54e-22	4.66e-22	2.54e-22	1.52e-22	9.12e-23	6.02e-23
5	17	1.00e-21	5.26e-22	2.49e-22	1.30e-22	6.65e-23	4.06e-23	7	25	2.70e-21	1.75e-21	9.73e-22	5.91e-22	3.56e-22	2.43e-22
5	18	1.43e-22	6.39e-23	2.12e-23	6.78e-24	1.73e-24	5.68e-25	7	26	2.69e-22	1.62e-22	8.52e-23	4.97e-23	2.91e-23	1.96e-23
5	19	1.88e-22	8.67e-23	3.22e-23	1.30e-23	5.30e-24	2.93e-24	7	27	5.30e-22	3.01e-22	1.44e-22	7.84e-23	4.14e-23	2.65e-23
5	20	1.19e-21	6.04e-22	2.71e-22	1.34e-22	6.59e-23	3.94e-23	7	28	1.82e-22	1.04e-22	5.61e-23	3.13e-23	1.66e-23	1.02e-23
5	21	3.79e-22	1.92e-22	8.47e-23	4.12e-23	2.00e-23	1.19e-23	7	29	7.41e-23	4.93e-23	2.82e-23	1.84e-23	9.07e-24	5.69e-24
5	22	1.10e-21	6.11e-22	3.01e-22	1.02e-22	8.46e-23	5.21e-23	7	30	1.58e-21	1.01e-21	5.04e-22	2.30e-22	8.18e-23	3.18e-23
5	23	3.81e-21	2.12e-21	1.04e-21	5.54e-22	2.87e-22	1.76e-22	7	31	1.49e-19	1.06e-19	6.63e-20	4.24e-20	2.50e-20	1.78e-20
5	24	8.18e-20	4.79e-20	2.47e-20	1.35e-20	7.08e-21	4.37e-21	7	32	1.27e-22	8.84e-22	5.58e-23	3.36e-23	2.00e-23	1.39e-23
5	25	5.94e-20	3.46e-20	1.76e-20	9.45e-21	4.92e-21	3.02e-21	7	33	2.54e-21	1.81e-21	1.51e-21	7.42e-22	4.55e-22	3.09e-22
5	26	1.82e-19	1.10e-19	5.83e-20	3.24e-20	1.73e-20	1.08e-20	7	34	8.48e-24	5.44e-24	2.69e-24	1.28e-24	5.84e-25	3.22e-25
5	27	6.90e-20	4.28e-20	2.30e-20	1.29e-20	6.98e-21	4.33e-21	7	35	1.95e-24	1.21e-24	5.85e-25	2.95e-25	1.53e-25	9.02e-26
5	28	1.03e-19	7.00e-20	4.17e-20	2.56e-20	1.53e-20	1.06e-20	7	36	8.74e-24	5.41e-24	2.56e-24	1.22e-24	5.91e-25	3.87e-25
5	29	6.60e-20	5.94e-20	3.63e-20	2.27e-20	1.37e-20	9.23e-21	7	37	5.34e-24	3.51e-24	1.87e-24	1.03e-24	5.70e-25	3.80e-25
5	31	2.31e-23	1.47e-23	7.46e-24	3.81e-24	1.86e-24	1.13e-24								
5	32	5.59e-23	3.49e-23	1.66e-23	7.30e-24	2.84e-24	1.17e-24	8	9	2.11e-20	7.61e-21	2.63e-21	1.06e-21	4.17e-22	2.14e-22
5	33	9.72e-23	7.05e-23	4.41e-23	2.75e-23	1.59e-23	1.03e-23	8	10	1.25e-19	4.72e-20	1.73e-20	7.49e-21	3.26e-21	1.83e-21
5	34	6.91e-24	4.60e-24	2.48e-24	1.39e-24	7.81e-25	5.05e-25	8	11	1.21e-20	4.60e-21	1.49e-21	5.03e-22	1.38e-22	4.56e-23
5	35	1.87e-22	1.42e-22	9.37e-23	6.37e-23	4.12e-23	2.78e-23	8	12	2.47e-22	1.11e-22	4.70e-23	2.29e-23	1.11e-23	6.56e-24
5	36	2.35e-23	1.59e-23	8.70e-24	4.74e-24	2.47e-24	1.54e-24	8	13	1.24e-20	5.74e-21	2.34e-21	1.05e-21	4.82e-22	2.62e-22
5	37	3.15e-22	2.41e-22	1.00e-22	1.09e-22	7.09e-23	4.81e-23	8	14	3.04e-20	1.39e-20	5.48e-21	2.28e-21	8.49e-22	4.01e-22
6	7	1.22e-19	4.61e-20	1.71e-20	7.43e-21	3.21e-21	1.76e-21	8	15	2.35e-21	1.04e-21	3.63e-22	1.27e-22	3.53e-23	1.18e-23
6	8	4.03e-19	1.68e-19	6.91e-20	3.44e-20	1.73e-20	1.05e-20	8	16	3.37e-21	1.72e-21	8.21e-22	4.55e-22	2.59e-22	1.71e-22
6	9	2.22e-20	8.36e-21	2.94e-21	1.24e-21	5.41e-22	3.08e-22	8	17	9.27e-21	4.71e-21	2.22e-21	1.23e-21	7.23e-22	4.47e-22
6	10	7.36e-20	3.01e-20	1.20e-20	5.74e-21	2.80e-21	1.68e-21	8	18	2.43e-18	1.35e-18	7.41e-19	4.53e-19	2.87e-19	1.76e-19
6	11	5.38e-21	2.02e-21	5.99e-22	1.83e-22	4.46e-23	1.34e-23	8	19	2.98e-19	1.63e-19	8.71e-20	5.29e-20	3.11e-20	2.08e-20
6	12	3.95e-20	1.87e-20	8.01e-21	3.84e-21	1.81e-21	1.05e-21	8	20	9.60e-20	5.20e-20	2.75e-20	1.67e-20	9.85e-21	6.49e-21
6	13	2.62e-21	1.22e-21	4.69e-22	1.85e-22	6.14e-22	2.54e-23	8	21	1.75e-20	8.51e-21	3.72e-21	1.92e-21	1.03e-21	6.64e-22
6	14	5.89e-21	2.87e-21	1.26e-21	6.11e-22	2.91e-22	1.71e-22	8	22	3.65e-19	2.02e-19	1.09e-19	6.83e-20	3.93e-20	2.61e-20
6	15	1.61e-20	7.58e-21	2.84e-21	1.06e-21	3.10e-22	1.11e-22	8	23	4.71e-21	2.08e-21	6.59e-22	2.02e-22	5.26e-23	2.04e-23
6	16	6.40e-19	3.55e-19	1.92e-19	1.18e-19	7.03e-20	4.67e-20	8	24	4.63e-23	2.39e-23	9.88e-24	4.58e-24	2.28e-24	1.42e-24
6	17	1.33e-18	7.43e-19	4.02e-19	2.47e-19	1.47e-19	9.81e-20	8	25	4.16e-22	2.47e-22	1.27e-22	6.93e-23	3.75e-23	2.41e-23
6	18	2.72e-20	1.45e-20	7.12e-21	3.99e-21	2.26e-21	1.51e-21	8	26	3.09e-21	1.50e-21	5.18e-23	2.33e-23	1.73e-23	2.39e-24
6	19	1.30e-20	5.89e-21	2.04e-21	7.55e-22	2.84e-22	1.53e-22	8	27	2.80e-22	1.83e-22	1.03e-22	8.00e-23	3.31e-23	2.08e-23
6	20	8.31e-19	4.54e-19	2.25e-19	1.24e-19	6.60e-20	4.21e-20	8	28	1.01e-23	5.49e-24	2.15e-24	7.66e-25	2.09e-25	6.77e-26
6	21	1.71e-19	9.40e-20	4.64e-20	2.53e-20	1.35e-20	5.60e-21	8	29	3.22e-24	1.95e-24	9.42e-25	4.79e-25	2.49e-25	1.59e-25
6	22	1.17e-20	5.57e-21	2.17e-21	9.56e-22	4.56e-22	2.82e-22	8	30	5.44e-23	3.42e-23	1.67e-23	7.64e-24	3.42e-24	1.81e-24
6	23	4.44e-20	2.52e-20	1.30e-20	7.63e-21	4.49e-21	3.02e-21	8	31	1.48e-19	1.05e-19	6.57e-20	4.21e-20	2.57e-20	1.78e-20
6	24	1.01e-21	6.30e-22	3.48e-22	2.10e-22	1.27e-22	8.60e-23	8	32	3.20e-21	1.48e-21	7.39e-22	3.39e-22	1.21e-22	4.69e-23
6	25	2.51e-21	1.59e-21	8.83e-22	5.37e-22	3.24e-22	2.19e-22	8	33	4.48e-24	2.75e-24	1.31e-24	6.56e-25	3.43e-25	2.22e-25
6	26	1.80e-22	8.91e-23	3.27e-23	1.24e-23	4.72e-24	2.57e-24	8	34	7.27e-24	4.32e-24	1.86e-24	7.66e-25	3.12e-25	1.74e-25
6	27	1.74e-21	1.01e-21	4.90e-22	2.81e-22	1.43e-22	9.12e-23	8	35	0.	0.	0.	0.	0.	0.
6	28	3.16e-23	1.81e-23	8.09e-24	3.74e-24	1.66e-24	9.32e-25	8	36	9.02e-24	5.38e-24	2.24e-24	8.20e-25	2.30e-25	7.80e-26
6	29	1.63e-22	9.26e-23	3.89e-23	1.49e-23	4.46e-24	1.56e-24								
6	30	9.17e-20	6.50e-20	4.11e-20	2.85e-20	1.63e-20	1.11e-20								
6	31	7.14e-20	5.06e-20	3.19e-20	2.04e-20	1.25e-20	8.39e-21								
6	32	1.30e-20	9.88e-21	6.93e-21	4.13e-21	2.56e-21	1.73e-21								
6	33	9.10e-21	6.52e-21	4.15e-21	2.70e-21	1.67e-21	1.12e-21								
6	34	1.66e-22	1.24e-22	8.03e-23	5										

TABLE IIB. Electron Collision Cross Sections for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	100.	250.	600.	1200.	2400.	4000.	I	F	100.	250.	600.	1200.	2400.	4000.
9	26	1.72e-22	8.80e-23	3.35e-23	1.41e-23	6.30e-24	3.76e-24	12	16	4.24e-22	2.26e-22	1.18e-22	6.71e-23	3.65e-23	2.24e-23
9	27	3.30e-20	2.09e-20	1.17e-20	7.11e-21	4.30e-21	2.89e-21	12	17	2.90e-22	1.24e-22	4.85e-23	2.21e-23	1.03e-23	6.29e-24
9	28	8.42e-23	5.13e-23	2.57e-23	1.30e-23	6.15e-24	3.49e-24	12	18	1.23e-22	4.08e-23	1.63e-23	6.32e-24	2.63e-24	1.52e-24
9	29	5.36e-23	2.99e-23	1.22e-23	4.60e-24	1.35e-24	4.84e-25	12	19	1.99e-22	7.56e-23	2.25e-23	7.00e-24	2.00e-24	8.01e-25
9	30	1.43e-20	1.00e-20	6.06e-21	3.97e-21	2.42e-21	1.70e-21	12	20	4.19e-21	2.28e-21	1.21e-21	7.06e-22	3.89e-22	2.49e-22
9	31	7.07e-22	4.53e-22	2.30e-22	1.10e-22	4.32e-23	2.42e-23	12	21	2.95e-22	1.38e-22	6.10e-23	3.20e-23	1.65e-23	1.02e-23
9	32	3.77e-20	2.66e-20	1.66e-20	1.05e-20	6.37e-21	4.30e-21	12	22	1.08e-22	4.72e-23	1.88e-23	9.06e-24	4.71e-24	3.02e-24
9	33	1.09e-19	7.72e-20	4.87e-20	3.13e-20	1.92e-20	1.32e-20	12	23	1.38e-20	7.41e-21	3.99e-21	2.39e-21	1.37e-21	8.63e-22
9	34	6.76e-23	5.05e-23	3.25e-23	2.08e-23	1.21e-23	7.90e-24	12	24	2.43e-18	1.37e-18	7.43e-19	4.56e-19	2.72e-19	1.81e-19
9	35	4.32e-23	3.13e-23	1.93e-23	1.18e-23	6.80e-24	4.43e-24	12	25	2.63e-20	1.34e-20	6.05e-21	3.16e-21	1.72e-21	1.12e-21
9	36	8.35e-23	6.11e-23	3.86e-23	2.41e-23	1.40e-23	9.11e-24	12	26	3.55e-20	1.70e-20	6.77e-21	3.08e-21	1.49e-21	9.24e-22
9	37	2.63e-23	1.84e-23	1.06e-23	6.11e-24	3.34e-24	2.14e-24	12	27	5.19e-19	2.99e-19	1.61e-19	9.82e-20	5.89e-20	3.94e-20
10	11	5.83e-20	2.44e-20	1.02e-20	5.05e-21	2.54e-21	1.54e-21	12	28	2.52e-22	1.46e-22	7.18e-23	3.71e-23	1.84e-23	1.10e-23
10	12	4.30e-22	1.82e-22	7.00e-23	3.03e-23	1.29e-23	6.97e-24	12	29	2.96e-23	1.56e-23	6.03e-24	2.18e-24	8.17e-25	2.07e-25
10	13	1.98e-20	8.98e-21	3.59e-21	1.55e-21	6.27e-22	3.22e-22	12	30	5.58e-20	3.81e-20	2.29e-20	1.41e-20	8.45e-21	5.87e-21
10	14	3.16e-20	1.46e-20	6.00e-21	2.73e-21	1.20e-21	6.62e-22	12	31	1.13e-19	7.69e-20	4.81e-20	2.84e-20	1.70e-20	1.17e-20
10	15	1.12e-20	5.53e-21	2.52e-21	1.30e-21	6.62e-22	4.03e-22	12	32	8.57e-23	5.41e-23	2.84e-23	1.54e-23	8.05e-24	4.82e-24
10	16	1.42e-21	5.66e-22	1.60e-22	4.27e-23	8.51e-24	2.26e-24	12	33	4.16e-21	2.87e-21	1.74e-21	1.09e-21	6.55e-22	4.64e-22
10	17	1.79e-19	9.67e-20	5.24e-20	3.20e-20	1.88e-20	1.23e-20	12	34	1.43e-23	1.04e-23	6.46e-24	4.00e-24	2.31e-24	1.49e-24
10	18	1.97e-20	8.95e-21	3.46e-21	1.58e-21	8.09e-22	4.66e-22	12	35	4.36e-23	2.93e-23	1.60e-23	8.72e-24	4.43e-24	2.66e-24
10	19	6.09e-20	3.24e-20	1.67e-20	9.79e-21	5.64e-21	3.70e-21	12	36	3.06e-23	2.02e-23	1.11e-23	6.32e-24	3.49e-24	2.25e-24
10	20	8.29e-19	4.55e-19	2.47e-19	1.52e-19	6.94e-20	5.88e-20	12	37	1.73e-23	1.07e-23	5.07e-24	2.31e-24	9.59e-25	5.03e-25
10	21	6.71e-20	3.56e-20	1.82e-20	1.07e-20	6.21e-21	4.08e-21	13	14	1.88e-19	8.99e-20	2.62e-20	1.18e-20	5.42e-21	3.12e-21
10	22	2.15e-18	1.20e-18	6.54e-19	4.01e-19	2.37e-19	1.57e-19	13	15	6.12e-21	2.03e-21	5.37e-21	1.51e-22	3.50e-23	1.07e-23
10	23	1.13e-20	5.94e-21	2.88e-21	1.62e-21	9.24e-22	6.05e-22	13	16	2.05e-20	1.10e-20	5.53e-21	3.01e-21	1.57e-21	9.59e-22
10	24	3.76e-22	2.23e-22	1.18e-22	7.06e-23	4.20e-23	2.84e-23	13	17	1.81e-20	9.73e-21	4.95e-21	2.73e-21	1.43e-21	8.71e-22
10	25	5.01e-21	3.06e-21	1.67e-21	1.02e-21	6.14e-22	4.32e-22	13	18	4.50e-20	1.95e-22	8.35e-23	4.36e-23	2.39e-23	1.56e-23
10	26	5.25e-22	3.18e-22	1.71e-22	1.03e-22	6.19e-23	4.14e-23	13	19	3.20e-22	1.21e-22	3.72e-23	1.28e-23	4.57e-24	2.40e-24
10	27	1.65e-21	1.00e-21	5.37e-22	3.17e-22	1.88e-22	1.23e-22	13	20	1.12e-20	6.02e-21	3.12e-21	1.74e-21	9.30e-22	5.64e-22
10	28	8.50e-23	4.81e-23	2.09e-23	8.74e-24	3.11e-24	1.38e-24	13	21	3.02e-22	1.38e-22	6.04e-23	3.05e-23	1.54e-23	9.23e-24
10	29	4.98e-23	3.26e-23	1.85e-23	1.08e-23	5.95e-24	3.74e-24	13	22	1.19e-22	4.18e-23	1.08e-23	2.65e-24	4.81e-25	1.23e-25
10	30	2.69e-24	1.46e-24	5.52e-25	1.68e-25	5.01e-26	1.67e-26	13	23	9.05e-21	4.71e-21	2.42e-21	1.38e-21	7.80e-22	4.86e-22
10	31	2.86e-21	2.02e-21	1.28e-21	8.42e-22	5.35e-22	3.70e-22	13	24	9.00e-20	4.84e-20	2.52e-20	1.50e-20	8.71e-21	5.74e-21
10	32	8.12e-20	5.72e-20	3.57e-20	2.27e-20	1.38e-20	9.45e-21	13	25	2.85e-18	1.58e-18	8.63e-19	5.30e-19	3.13e-19	2.07e-19
10	33	7.91e-20	5.59e-20	3.52e-20	2.25e-20	1.37e-20	9.41e-21	13	26	2.81e-20	1.27e-20	4.60e-21	1.88e-21	8.14e-22	4.80e-22
10	34	2.40e-24	1.51e-24	7.41e-25	3.67e-25	1.79e-25	1.00e-25	13	27	2.77e-19	1.54e-19	8.20e-20	4.99e-20	2.98e-20	1.90e-20
10	35	1.22e-23	8.57e-24	5.01e-24	2.88e-24	1.55e-24	9.72e-25	13	28	1.39e-22	7.91e-23	3.80e-23	1.91e-23	9.11e-24	5.26e-24
10	36	1.42e-23	9.42e-24	5.00e-24	2.57e-24	1.23e-24	7.35e-25	13	29	8.89e-23	4.51e-23	1.67e-23	5.75e-24	1.54e-24	5.01e-25
10	37	1.01e-23	7.48e-24	4.71e-24	2.92e-24	1.68e-24	1.07e-24	13	30	5.74e-22	3.85e-22	2.27e-22	1.38e-22	8.29e-23	5.80e-23
11	12	2.21e-20	8.32e-21	2.69e-21	9.11e-22	2.51e-22	8.38e-23	14	15	6.57e-20	2.71e-20	1.12e-20	5.59e-21	2.82e-21	1.72e-21
11	13	1.07e-20	4.31e-21	1.51e-21	5.62e-22	1.73e-22	6.20e-23	14	16	8.35e-24	2.87e-24	7.84e-25	2.17e-25	4.75e-26	1.32e-26
11	14	4.35e-20	1.90e-20	8.07e-21	3.99e-21	1.99e-21	1.22e-21	14	17	4.87e-21	2.30e-21	1.17e-21	6.39e-22	3.34e-22	2.09e-22
11	15	0.	0.	0.	0.	0.	0.	13	35	2.10e-22	1.49e-22	9.09e-23	5.53e-23	3.18e-23	2.03e-23
11	16	4.32e-21	1.69e-21	4.94e-22	1.41e-22	3.10e-23	8.61e-24	13	36	4.90e-22	3.52e-22	2.17e-22	1.33e-22	7.66e-23	4.93e-23
11	17	1.06e-19	5.67e-20	3.03e-20	1.79e-20	1.02e-20	6.45e-21	13	37	3.23e-23	1.91e-23	8.12e-24	3.15e-24	1.05e-24	4.64e-25
11	18	1.68e-20	6.57e-21	1.93e-21	5.49e-22	1.19e-22	3.23e-23	14	23	2.30e-21	1.47e-21	8.04e-22	3.05e-22	1.14e-21	3.99e-22
11	19	1.98e-20	7.47e-21	4.57e-21	2.52e-21	1.43e-21	9.47e-22	14	24	3.07e-19	1.67e-19	8.88e-20	3.38e-20	1.15e-20	4.02e-20
11	20	1.04e-20	4.08e-21	1.18e-21	3.28e-22	6.92e-23	1.89e-23	14	25	2.37e-19	1.29e-19	6.85e-20	2.43e-20	1.00e-20	2.08e-20
11	21	5.01e-21	1.95e-21	5.37e-22	1.39e-22	2.68e-23	7.04e-24	14	26	4.82e-21	2.30e-21	1.21e-21	6.39e-22	3.34e-22	2.09e-22
11	22	1.29e-20	6.55e-21	3.17e-21	1.80e-21	1.05e-21	7.03e-22	14	27	5.34e-23	2.08e-23	7.22e-24	2.97e-24	1.33e-24	7.15e-25
11	23	3.05e-18	1.68e-18	9.20e-19	5.68e-19	3.34e-19	2.20e-19	14	28	1.03e-21	9.50e-22	4.75e-22	2.60e-22	1.36e-22	8.37e-23
11	24	3.43e-21	1.54e-21	4.85e-22	1.42e-22	3.11e-23	8.55e-24	14	29	4.92e-21	5.08e-21	2.62e-21	1.46e-21	7.72e-22	4.73e-22
11	25	5.73e-21	2.59e-21	8.20e-22	2.41e-22	5.38e-23	1.50e-23	14	30	4.54e-22	2.23e-22	1.06e-22	5.62e-23	2.91e-23	1.83e-23
11	26	7.18e-21	3.89e-21	1.87e-21	1.02e-21	5.71e-22	3.76e-22	14	31	2.30e-22	1.29e-22	6.13e-23	3.05e-23	1.44e-23	8.39e-24
11	27	1.21e-19	7.25e-20	3.95e-20	2.41e-20	1.45e-20	9.84e-21	14	32	8.39e-21	4.51e-21	2.42e-21	1.43e-21	8.03e-22	5.16e-22
11	28	4.05e-22	2.23e-22	9.36e-23	3.71e-23	1.17e-23	4.30e-24	14	33	3.07e-19	1.67e-19	8.88e-20	3.38e-		

TABLE IIB. Electron Collision Cross Sections for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS							LEVELS								
ENERGY(EV) ABOVE THRESHOLD							ENERGY(EV) ABOVE THRESHOLD								
I	F	100.	250.	600.	1200.	2400.	4000.	I	F	100.	250.	600.	1200.	2400.	4000.
15	16	1.51e-21	4.96e-22	1.34e-22	3.72e-23	8.10e-24	2.20e-24	18	24	1.15e-22	4.48e-23	1.34e-23	4.24e-24	1.26e-24	5.57e-25
15	17	2.17e-20	9.04e-21	3.66e-21	1.78e-21	8.79e-22	5.17e-22	18	25	1.60e-20	7.50e-21	3.11e-21	1.43e-21	6.45e-22	3.69e-22
15	18	6.05e-21	2.04e-21	5.54e-22	1.52e-22	3.21e-23	8.66e-24	18	26	2.84e-20	1.30e-20	5.10e-21	2.10e-21	7.61e-22	3.49e-22
15	19	6.30e-21	2.52e-21	1.01e-21	5.07e-22	2.70e-22	1.75e-22	18	27	1.60e-21	8.77e-22	2.22e-22	7.34e-23	1.99e-23	6.75e-24
15	20	6.29e-21	2.13e-21	5.78e-22	1.59e-22	3.41e-23	9.35e-24	18	28	4.87e-23	2.62e-23	1.25e-23	6.77e-24	3.78e-24	2.40e-24
15	21	2.40e-21	8.09e-22	2.13e-22	5.57e-23	1.11e-23	2.94e-24	18	29	1.65e-24	7.60e-25	2.45e-25	7.27e-26	1.81e-26	4.42e-27
15	22	4.73e-21	2.10e-21	9.66e-22	5.43e-22	3.15e-22	2.10e-22	18	30	6.69e-24	3.40e-24	8.04e-25	3.10e-25	2.03e-25	
15	23	1.71e-19	9.40e-20	5.01e-20	2.87e-20	1.55e-20	9.60e-21	18	31	1.65e-23	8.23e-24	2.99e-24	1.16e-24	4.86e-25	2.89e-25
15	24	1.54e-20	6.19e-21	1.82e-21	5.11e-22	1.09e-22	2.90e-23	18	32	2.68e-22	1.71e-22	9.37e-23	5.36e-23	2.92e-23	1.83e-23
15	25	2.13e-20	8.62e-21	2.54e-21	7.15e-22	1.54e-22	4.23e-23	18	33	3.80e-23	2.01e-23	7.72e-24	2.79e-24	8.15e-25	2.94e-25
15	26	3.34e-20	1.68e-20	7.86e-21	4.32e-21	2.45e-21	1.62e-21	18	34	0.	0.	0.	0.	0.	0.
15	27	3.04e-18	1.68e-18	9.16e-19	5.63e-19	3.33e-19	2.19e-19	18	35	7.58e-22	4.85e-22	2.42e-22	1.10e-22	3.93e-23	1.53e-23
15	28	6.80e-22	3.29e-22	1.17e-22	3.98e-23	1.05e-23	3.34e-24	18	36	1.46e-19	1.03e-19	6.47e-20	4.15e-20	2.53e-20	1.75e-20
15	29	0.	0.	0.	0.	0.	0.	18	37	1.84e-21	1.19e-21	5.97e-22	2.75e-22	9.80e-23	3.81e-23
15	30	1.47e-21	8.74e-22	4.11e-22	1.82e-22	6.40e-23	2.40e-23								
15	31	8.14e-20	5.35e-20	3.07e-20	1.85e-20	1.10e-20	7.78e-21								
15	32	9.68e-22	5.70e-22	2.71e-22	1.19e-22	4.15e-23	1.59e-23	19	20	4.44e-20	1.51e-20	4.83e-21	1.77e-21	6.63e-22	3.47e-22
15	33	1.78e-20	1.19e-20	6.81e-21	4.11e-21	1.45e-21	1.72e-21	19	21	7.05e-20	2.68e-20	9.90e-21	4.32e-21	1.95e-21	1.12e-21
15	34	3.18e-23	1.84e-23	7.48e-24	2.69e-24	7.25e-25	2.31e-25	19	22	5.78e-20	2.14e-20	7.58e-21	3.10e-21	1.38e-21	8.14e-22
15	35	4.24e-23	2.70e-23	1.38e-23	7.20e-24	3.84e-24	2.21e-24	19	23	1.92e-20	7.44e-21	2.64e-21	1.06e-21	4.50e-22	2.55e-22
15	36	3.29e-23	1.86e-23	7.25e-24	2.44e-24	5.98e-25	1.75e-25	19	24	3.19e-20	1.41e-20	5.41e-21	2.29e-21	8.81e-22	4.31e-24
15	37	5.08e-22	3.68e-22	2.31e-22	1.44e-22	8.36e-23	5.41e-23	19	25	6.24e-22	2.55e-22	8.44e-23	2.98e-23	1.01e-23	4.78e-24
16	17	5.69e-20	1.86e-20	5.23e-21	1.59e-21	4.03e-22	1.31e-22	19	26	9.66e-23	4.50e-23	1.87e-23	6.69e-24	4.00e-24	2.31e-24
16	18	4.10e-20	1.36e-20	4.12e-21	1.84e-21	7.82e-22	5.01e-22	19	27	1.46e-20	7.06e-21	3.04e-21	1.45e-21	8.82e-22	4.03e-22
16	19	7.89e-20	2.75e-20	8.37e-21	2.75e-21	7.54e-22	2.53e-22	19	28	3.59e-23	1.94e-23	8.95e-24	4.43e-24	2.30e-24	1.47e-24
16	20	2.95e-19	1.20e-19	5.01e-20	2.54e-20	1.31e-20	8.05e-21	19	29	2.55e-24	1.49e-24	7.76e-25	4.40e-25	2.53e-25	1.68e-25
16	21	9.50e-20	3.75e-20	1.45e-20	6.90e-21	3.41e-21	2.08e-21	19	30	1.83e-23	9.39e-24	3.55e-24	1.30e-24	3.80e-22	3.13e-22
16	22	3.40e-20	1.09e-20	2.65e-21	6.40e-22	1.18e-22	2.94e-23	19	31	2.20e-22	1.41e-22	7.52e-23	4.20e-23	2.25e-23	1.40e-23
16	23	9.92e-20	1.40e-20	3.91e-21	1.12e-21	2.57e-22	7.58e-23	19	32	5.59e-23	3.37e-23	1.68e-23	8.60e-24	4.34e-24	2.64e-24
16	24	2.33e-20	1.10e-20	4.60e-21	2.12e-21	9.54e-22	5.47e-22	19	33	2.24e-23	1.32e-23	6.33e-24	3.00e-24	1.55e-24	9.86e-25
16	25	3.88e-21	1.87e-21	8.60e-22	4.50e-22	2.34e-22	1.44e-22	19	34	2.02e-21	1.60e-21	7.50e-22	3.47e-22	1.23e-22	4.78e-23
16	26	1.81e-22	6.74e-23	2.20e-23	7.34e-24	2.02e-24	6.79e-25	19	35	1.22e-19	8.52e-20	5.17e-20	3.22e-20	1.98e-20	1.36e-20
16	27	2.73e-20	1.26e-20	4.68e-21	1.74e-21	5.21e-22	1.84e-22	19	36	6.74e-23	4.61e-23	2.68e-23	1.59e-23	9.04e-24	6.06e-24
16	28	4.33e-22	2.54e-22	1.36e-22	8.13e-23	4.85e-23	3.18e-23	20	21	2.30e-20	6.95e-21	1.75e-21	4.79e-22	1.19e-22	4.68e-23
16	29	2.55e-23	1.19e-23	3.88e-24	1.16e-24	2.79e-25	8.11e-26	20	22	1.10e-19	4.26e-20	1.82e-20	7.24e-21	3.34e-21	1.95e-21
16	30	0.	0.	0.	0.	0.	0.	20	23	5.02e-20	1.92e-20	6.69e-21	2.63e-21	1.07e-21	5.93e-22
16	31	3.24e-23	1.78e-23	7.29e-24	2.81e-24	8.60e-25	3.10e-25	20	24	1.28e-20	5.78e-21	2.40e-21	1.11e-21	4.99e-22	2.82e-22
16	32	5.88e-23	3.54e-23	1.81e-23	9.65e-24	4.93e-24	3.09e-24	20	25	2.20e-22	1.41e-22	7.52e-23	4.20e-23	2.25e-23	1.40e-23
16	33	2.09e-23	1.13e-23	4.40e-24	1.58e-24	4.40e-25	1.49e-25	20	26	1.00e-20	7.08e-21	2.71e-21	1.14e-21	4.35e-22	2.11e-22
16	34	2.05e-19	1.48e-19	9.30e-20	6.02e-20	3.71e-20	2.51e-20	20	27	2.07e-20	9.75e-21	4.15e-21	1.97e-21	9.21e-22	5.34e-22
16	35	2.74e-21	1.77e-21	8.91e-22	4.10e-22	1.46e-22	5.68e-23	20	28	1.27e-20	5.47e-21	1.90e-21	6.98e-22	2.14e-22	8.18e-23
16	36	5.10e-23	3.26e-23	1.72e-23	9.52e-24	5.28e-24	3.47e-24	20	29	9.64e-23	5.67e-23	3.06e-23	1.83e-23	1.09e-22	4.78e-24
16	37	1.15e-21	7.39e-22	3.68e-22	1.67e-22	5.92e-23	2.29e-23	20	30	6.09e-20	3.71e-24	1.92e-24	1.04e-24	5.85e-25	3.89e-25
17	18	4.62e-20	1.53e-20	4.55e-21	1.71e-21	7.41e-22	4.44e-22	20	31	3.61e-23	2.03e-23	8.99e-24	4.02e-24	1.68e-24	9.24e-25
17	19	1.29e-19	4.82e-20	1.75e-20	7.88e-21	3.44e-21	1.96e-21	20	32	5.89e-23	3.59e-23	1.83e-23	9.00e-24	4.82e-24	2.88e-24
17	20	9.33e-20	3.39e-20	1.20e-20	5.19e-21	2.34e-21	1.35e-21	20	33	2.68e-23	1.42e-23	5.54e-24	2.09e-24	7.21e-25	3.72e-25
17	21	5.20e-20	1.78e-20	5.25e-21	1.75e-21	5.63e-22	2.65e-22	21	22	3.45e-20	2.41e-20	1.46e-20	9.11e-21	5.53e-21	3.80e-21
17	22	1.08e-19	4.19e-20	1.61e-20	7.84e-21	3.76e-21	2.28e-21	21	23	9.85e-20	6.80e-20	4.20e-20	2.63e-20	1.61e-20	1.10e-20
17	23	2.26e-20	8.33e-21	2.70e-21	1.05e-21	4.32e-22	2.43e-22	21	24	5.15e-20	3.81e-20	2.20e-20	1.38e-20	8.39e-21	5.74e-21
17	24	2.51e-20	1.18e-20	4.98e-21	2.34e-21	1.08e-21	6.20e-22	21	25	3.61e-20	2.03e-23	8.99e-24	4.02e-24	1.68e-24	9.24e-25
17	25	3.93e-21	1.77e-21	6.70e-22	2.66e-22	9.27e-23	4.07e-23	21	26	1.05e-19	3.51e-20	1.06e-20	3.61e-21	1.21e-21	5.73e-22
17	26	2.93e-21	1.35e-21	5.36e-22	2.30e-22	9.40e-23	5.07e-23	21	27	9.30e-20	3.88e-20	1.58e-20	7.62e-21	3.70e-21	2.21e-21
17	27	2.17e-20	1.02e-20	4.06e-21	1.70e-21	6.50e-22	3.17e-22	21	28	1.83e-20	8.10e-21	3.18e-21	1.39e-21	5.74e-22	3.04e-22
17	28	2.19e-22	1.27e-22	6.64e-23	3.93e-23	2.33e-23	1.52e-23	21	29	1.83e-20	5.78e-21	2.40e-21	1.11e-21	4.99e-22	2.82e-22
17	29	3.62e-23	1.89e-23	8.07e-24	3.90e-24	1.99e-24	1.18e-24	21	30	7.44e-22	3.21e-21	1.19e-21	4.86e-22	1.71e-22	7.41e-23
17	30	1.28e-23	6.74e-24	2.57e-24	9.04e-25	2.46e-25	8.15e-26	21	31	1.16e-20	5.36e-21	2.24e-21	1.05e-21	4.84e-22	2.80e-22
17	31	8.16e-23	4.99e-23	2.56e-23	1.35e-2										

TABLE IIB. Electron Collision Cross Sections for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	100.	250.	600.	1200.	2400.	4000.	I	F	100.	250.	600.	1200.	2400.	4000.
22	25	2.04e-20	8.84e-21	3.35e-21	1.40e-21	5.37e-22	2.65e-22	27	31	3.77e-22	2.07e-22	1.01e-22	5.32e-23	2.72e-23	1.05e-23
22	26	2.97e-20	1.34e-20	5.37e-21	2.41e-21	1.03e-21	5.55e-22	27	32	8.90e-23	4.09e-23	1.39e-23	4.70e-24	1.35e-24	5.45e-25
22	27	2.24e-21	1.06e-21	4.52e-22	2.14e-22	1.05e-22	6.39e-23	27	33	1.73e-22	9.76e-23	4.82e-23	2.57e-23	1.33e-23	8.15e-24
22	28	2.01e-23	8.44e-24	2.49e-24	7.22e-25	1.78e-25	6.81e-26	27	34	2.75e-20	1.79e-20	1.02e-20	8.14e-21	3.68e-21	2.53e-21
22	29	1.62e-24	9.41e-25	4.94e-25	2.85e-25	1.66e-25	1.12e-25	27	35	1.04e-19	6.84e-20	3.96e-20	2.43e-20	1.48e-20	1.01e-20
22	30	7.94e-24	3.51e-24	1.01e-24	2.89e-25	5.16e-26	1.30e-26	27	36	4.87e-22	2.73e-22	1.18e-22	5.02e-23	1.74e-23	7.01e-24
22	31	1.31e-23	6.46e-24	2.29e-24	7.81e-25	2.90e-25	1.66e-25	27	37	1.44e-19	9.62e-20	5.64e-20	3.47e-20	2.13e-20	1.45e-20
22	32	4.33e-23	2.36e-23	9.92e-24	4.13e-24	1.57e-24	7.94e-25								
22	33	5.75e-24	3.47e-23	1.74e-23	9.05e-24	4.82e-24	2.84e-24								
22	34	5.65e-24	3.44e-24	1.62e-24	7.38e-25	2.62e-25	1.01e-25	28	29	4.60e-20	1.58e-20	4.74e-21	1.58e-21	4.27e-22	1.43e-22
22	35	1.86e-20	1.29e-20	7.78e-21	4.81e-21	2.91e-21	2.00e-21	28	30	7.61e-19	4.10e-19	2.20e-19	1.38e-19	8.06e-20	5.25e-20
22	36	9.90e-20	6.88e-20	4.15e-20	2.58e-20	1.57e-20	1.08e-20	28	31	1.80e-18	9.68e-19	5.19e-19	3.24e-19	1.89e-19	1.23e-19
22	37	5.63e-20	3.94e-20	2.40e-20	1.50e-20	9.05e-21	6.30e-21	28	32	3.40e-18	1.89e-18	1.03e-18	6.46e-19	3.81e-19	2.51e-19
23	24	1.16e-20	4.52e-21	1.51e-21	5.58e-22	1.86e-22	8.31e-23	28	33	4.27e-19	2.39e-19	1.31e-19	8.23e-20	4.89e-20	3.23e-20
23	25	1.48e-20	5.88e-21	2.02e-21	7.60e-22	2.42e-22	9.35e-23	28	34	7.90e-20	4.72e-20	2.46e-20	1.38e-20	7.24e-21	4.48e-21
23	26	1.69e-20	7.31e-21	2.89e-21	1.29e-21	5.80e-22	3.38e-22	28	35	1.30e-19	7.77e-20	4.04e-20	2.24e-20	7.36e-21	
23	27	5.57e-21	2.32e-21	8.23e-22	3.18e-22	1.08e-22	4.50e-23	28	36	1.85e-19	1.11e-19	5.76e-20	3.19e-20	1.69e-20	1.05e-20
23	28	3.54e-23	1.77e-23	7.43e-24	3.33e-24	1.52e-24	7.64e-25	28	37	1.49e-20	7.47e-21	2.77e-21	1.00e-21	3.33e-22	1.56e-22
23	29	2.21e-21	1.32e-21	7.47e-22	4.75e-22	2.89e-22	2.11e-22	29	30	5.56e-21	2.04e-21	5.69e-22	1.65e-22	3.88e-23	1.14e-23
23	30	1.67e-23	8.27e-24	3.01e-24	1.07e-24	3.05e-25	1.06e-25	29	31	1.84e-18	9.50e-19	4.94e-19	3.01e-19	1.71e-19	1.00e-19
23	31	2.87e-23	1.39e-23	5.50e-24	2.18e-24	7.54e-25	3.34e-25	29	32	2.57e-20	9.77e-21	4.12e-22	1.90e-22	5.59e-23	
23	32	3.53e-23	1.86e-23	7.46e-24	2.96e-24	1.04e-24	4.06e-25	29	33	5.61e-18	3.05e-18	1.64e-18	1.03e-18	5.99e-19	3.90e-19
23	33	1.93e-23	1.10e-23	5.10e-24	2.40e-24	1.11e-24	6.30e-25	29	34	9.70e-21	4.39e-21	1.38e-21	4.15e-22	9.26e-23	2.56e-23
23	34	4.03e-20	2.77e-20	1.68e-20	1.02e-20	6.24e-21	4.36e-21	29	35	1.94e-20	1.00e-20	4.09e-21	1.70e-21	6.97e-22	3.80e-22
23	35	5.37e-20	3.69e-20	2.21e-20	1.37e-20	8.38e-21	5.77e-21	29	36	2.26e-20	1.02e-20	3.20e-21	1.16e-21	5.97e-22	
23	36	3.23e-21	1.94e-21	9.07e-22	4.12e-22	1.46e-22	5.67e-23	29	37	3.74e-19	2.25e-19	1.16e-19	6.67e-20	3.58e-20	2.23e-20
23	37	1.05e-19	7.28e-20	4.41e-20	2.75e-20	1.69e-20	1.16e-20								
24	25	5.96e-20	2.15e-20	7.39e-21	2.95e-21	1.33e-21	7.97e-22	30	31	4.93e-20	1.84e-20	4.99e-21	1.72e-21	4.98e-22	1.76e-22
24	26	1.59e-19	5.72e-20	1.94e-20	7.58e-21	3.19e-21	1.02e-21	30	32	4.56e-19	1.90e-19	7.99e-20	3.97e-20	2.00e-20	1.21e-20
24	27	9.27e-20	3.66e-20	1.30e-20	6.03e-21	2.68e-21	1.52e-21	30	33	5.09e-20	2.07e-20	4.52e-21	1.32e-21	3.06e-22	9.04e-23
24	28	9.32e-23	6.59e-23	1.00e-22	9.93e-24	5.27e-24	5.56e-24	30	34	2.84e-18	1.52e-18	8.48e-19	5.36e-19	3.22e-19	2.15e-19
24	29	3.57e-24	1.38e-24	3.89e-25	1.10e-25	2.36e-26	6.40e-27	30	35	2.37e-20	9.58e-21	2.76e-21	7.93e-22	1.72e-22	4.73e-23
24	30	4.35e-23	2.43e-23	1.17e-23	6.02e-24	3.02e-24	1.84e-24	30	36	3.81e-20	1.93e-20	9.60e-21	5.30e-21	3.00e-21	1.89e-21
24	31	2.34e-22	1.27e-22	5.82e-23	2.83e-23	1.33e-23	7.75e-24	30	37	2.26e-20	9.36e-21	2.75e-21	7.94e-22	1.73e-22	4.77e-23
24	32	7.60e-23	3.91e-23	1.56e-23	8.54e-24	2.89e-24	1.71e-24								
24	33	3.57e-23	1.72e-23	6.14e-24	2.17e-24	6.65e-25	2.83e-25	31	32	2.93e-19	1.20e-19	4.98e-20	2.41e-20	1.20e-20	7.21e-21
24	34	7.96e-20	5.28e-20	3.07e-20	1.86e-20	1.13e-20	7.87e-21	31	33	2.15e-19	8.98e-20	3.76e-20	1.86e-20	9.30e-21	5.64e-21
24	35	7.12e-20	4.73e-20	2.75e-20	1.87e-20	1.01e-20	7.00e-21	31	34	5.37e-19	3.09e-19	1.71e-19	1.08e-19	6.49e-20	4.34e-20
24	36	2.23e-22	1.48e-22	8.66e-23	5.32e-23	3.23e-23	2.23e-23	31	35	1.80e-18	1.04e-18	5.75e-19	3.63e-19	2.17e-19	1.45e-19
24	37	3.71e-20	2.50e-20	1.47e-20	8.09e-21	5.46e-21	3.76e-21	31	36	3.30e-20	1.67e-20	7.27e-21	3.42e-21	1.72e-21	1.08e-21
31	37	3.35e-19	1.90e-19	1.09e-19	1.09e-19	6.80e-20	4.08e-20	2.74e-20							
25	26	1.38e-19	4.83e-20	1.60e-20	6.07e-21	2.37e-21	1.26e-21								
25	27	6.92e-20	2.61e-20	9.22e-21	3.73e-21	1.62e-21	9.26e-22	32	33	1.02e-19	3.77e-20	1.37e-20	5.78e-21	2.48e-21	1.35e-21
25	28	6.68e-22	3.57e-22	1.89e-22	1.10e-22	6.78e-23	4.39e-23	32	34	4.33e-20	2.38e-20	1.26e-20	7.59e-21	4.45e-21	2.94e-21
25	29	2.85e-23	1.11e-23	3.16e-24	9.13e-25	2.06e-25	5.84e-26	32	35	4.59e-19	2.57e-19	1.40e-19	8.79e-20	5.21e-20	3.45e-20
25	30	4.85e-24	2.27e-24	8.66e-25	3.37e-25	1.32e-25	7.18e-26	32	36	2.52e-18	1.42e-18	7.72e-19	4.83e-19	2.86e-19	1.89e-19
25	31	4.59e-23	1.90e-23	6.01e-24	1.77e-24	4.50e-25	1.94e-25	32	37	2.28e-20	1.11e-20	4.53e-21	1.98e-21	9.09e-22	5.46e-22
25	32	1.24e-22	6.76e-23	3.05e-23	1.44e-23	8.27e-24	3.34e-24								
25	33	2.31e-21	1.52e-22	8.71e-23	5.22e-23	3.14e-23	2.23e-23	33	34	1.68e-19	9.28e-20	4.98e-20	3.08e-20	1.81e-20	1.19e-20
25	35	1.74e-20	1.15e-20	6.67e-21	4.05e-21	2.45e-21	1.71e-21	33	35	2.82e-19	1.56e-19	8.38e-20	5.16e-20	3.02e-20	1.98e-20
25	36	1.79e-19	1.19e-19	6.99e-20	4.30e-20	2.63e-20	1.81e-20	33	36	2.77e-20	1.22e-20	4.27e-21	1.58e-21	6.05e-22	3.32e-22
25	37	4.15e-20	2.78e-20	1.62e-20	9.89e-21	5.98e-21	4.12e-21	33	37	2.42e-18	1.38e-18	7.84e-19	4.82e-19	2.87e-19	1.91e-19
26	27	2.39e-20	8.71e-21	2.92e-21	1.11e-21	4.93e-22	3.00e-22	34	35	1.94e-19	7.44e-20	2.91e-20	1.35e-20	6.53e-21	3.91e-21
26	28	7.92e-23	3.69e-23	1.53e-23	7.09e-24	3.53e-24	2.22e-24	34	36	7.37e-20	2.63e-20	8.96e-21	3.53e-21	1.59e-21	9.65e-22
26	29	4.62e-24	2.40e-24	1.16e-24	6.35e-25	3.59e-25	2.38e-25	34	37	1.24e-19	4.00e-20	1.08e-20	3.17e-21	7.06e-22	2.67e-22
26	30	5.95e-24	2.57e-24	7.88e-24	2.35e-25	5.23e-26	1.44e-26								
26	31	5.77e-23	2.92e-23	1.19e-23	5.06e-24	2.32e-24	1.41e-24								
26	32	1.39e-22	7.16e-23	2.92e-23	1.22e-23	4.94e-24	2.64e-24								
26	33	6.26e-23	3.57e-23	1.75e-23	9.17e-24	4.69e-24	2.88e-24	35	36	1.63e-19	6.15e-20	2.32e-20			

TABLE IIC. Electron Collision Cross Sections for Ne-like Y ($Z = 39$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD						
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.	
1	2	3.65e-22	3.23e-22	2.38e-22	1.59e-22	8.10e-23	3.94e-23	2	37	3.82e-24	2.60e-24	1.24e-24	6.00e-25	2.64e-25	1.51e-25	
1	3	3.81e-22	3.91e-22	4.16e-22	4.46e-22	4.78e-22	4.89e-22									
1	4	6.72e-22	5.92e-22	4.31e-22	2.84e-22	1.42e-22	6.88e-23	3	4	7.60e-20	3.29e-20	1.49e-20	8.80e-21	5.10e-21	3.28e-21	
1	5	8.81e-22	8.09e-22	6.63e-22	5.25e-22	3.79e-22	2.87e-22	3	5	1.99e-18	8.91e-19	4.18e-19	2.54e-19	1.48e-19	9.57e-20	
1	6	9.84e-22	8.57e-22	6.10e-22	3.90e-22	1.87e-22	6.69e-23									
1	7	4.75e-22	4.16e-22	3.00e-22	1.85e-22	9.51e-23	4.51e-23	3	6	1.50e-20	5.71e-21	1.55e-21	5.08e-22	1.32e-22	4.22e-23	
1	8	6.82e-23	6.05e-23	4.50e-23	3.03e-23	1.56e-23	7.67e-24	3	7	1.98e-18	9.33e-19	4.33e-19	2.65e-19	1.58e-19	1.05e-19	
1	9	3.05e-22	3.02e-22	2.98e-22	2.98e-22	3.00e-22	2.97e-22	3	8	1.10e-20	4.73e-21	1.85e-21	7.04e-22	2.47e-22	9.84e-23	
1	10	6.85e-22	6.34e-22	5.33e-22	4.35e-22	3.28e-22	2.57e-22	3	9	3.13e-20	1.39e-20	5.32e-21	2.60e-21	1.21e-21	6.89e-22	
1	11	3.55e-21	3.37e-21	2.97e-21	2.52e-21	1.93e-21	1.48e-21	3	10	1.62e-18	7.78e-19	3.63e-19	2.21e-19	1.32e-19	6.78e-20	
1	12	3.88e-22	3.40e-22	2.44e-22	1.58e-22	7.68e-23	3.60e-23		3	11	5.27e-19	2.74e-19	1.29e-19	7.78e-20	4.70e-20	3.16e-20
1	13	4.80e-22	4.17e-22	2.93e-22	1.84e-22	8.60e-23	3.89e-23		3	12	2.53e-22	1.47e-22	7.14e-23	4.28e-23	2.54e-23	1.72e-23
1	14	1.27e-21	1.10e-21	7.82e-22	5.00e-22	2.45e-22	1.22e-22		3	13	1.23e-21	5.98e-22	1.91e-22	6.67e-23	1.73e-23	5.33e-24
1	15	1.11e-21	9.94e-22	7.68e-22	5.67e-22	3.74e-22	2.65e-22		3	14	3.75e-21	1.85e-21	6.23e-22	2.34e-22	7.26e-23	2.96e-23
1	16	1.33e-21	1.15e-21	8.01e-22	4.95e-22	2.25e-22	9.90e-23		3	15	7.81e-20	4.59e-20	2.21e-20	1.25e-20	6.67e-21	4.16e-21
1	17	1.60e-21	1.38e-21	9.53e-22	5.85e-22	2.61e-22	1.13e-22		3	16	5.63e-21	2.90e-21	9.69e-22	3.56e-22	1.04e-22	3.92e-23
1	18	4.52e-22	3.98e-22	2.90e-22	1.90e-22	9.42e-23	4.50e-23		3	17	1.04e-20	5.13e-21	1.67e-21	5.85e-22	1.52e-22	4.65e-23
1	19	7.43e-22	6.85e-22	5.68e-22	4.52e-22	3.31e-22	2.53e-22		3	18	1.94e-22	1.14e-22	5.56e-23	3.23e-23	1.86e-23	1.24e-23
1	20	8.25e-22	7.08e-22	4.85e-22	2.94e-22	1.29e-22	5.44e-23		3	19	3.67e-22	2.28e-22	1.17e-22	7.15e-23	4.32e-23	2.95e-23
1	21	6.43e-21	6.13e-21	5.43e-21	4.63e-21	3.59e-21	2.75e-21		3	20	8.80e-20	5.33e-20	2.58e-20	1.48e-20	8.01e-21	5.02e-21
1	22	7.75e-22	6.93e-22	5.37e-22	4.02e-22	2.76e-22	2.04e-22		3	21	2.63e-20	1.65e-20	8.76e-21	5.39e-21	3.27e-21	2.24e-21
1	23	1.44e-20	1.42e-20	1.38e-20	1.31e-20	1.20e-20	1.08e-20		3	22	5.92e-20	3.53e-20	1.71e-20	9.68e-21	5.19e-21	3.24e-21
1	24	7.47e-22	6.44e-22	4.47e-22	2.76e-22	1.23e-22	5.32e-23		3	23	4.67e-20	2.90e-20	1.46e-20	8.51e-21	4.67e-21	2.95e-21
1	25	1.14e-21	9.89e-22	6.92e-22	4.32e-22	1.98e-22	8.75e-23		3	24	2.03e-23	1.18e-23	4.67e-24	2.00e-24	7.47e-25	3.58e-25
1	26	9.03e-22	8.12e-22	6.35e-22	4.76e-22	3.22e-22	2.33e-22		3	25	3.07e-23	2.13e-23	8.33e-24	3.47e-24	1.20e-24	5.23e-25
1	27	1.36e-20	1.34e-20	1.30e-20	1.25e-20	1.15e-20	1.04e-20		3	26	2.94e-23	1.77e-23	7.56e-24	3.61e-24	1.80e-24	8.97e-25
1	28	2.07e-22	1.81e-22	1.29e-22	8.25e-23	3.99e-23	1.89e-23		3	27	7.20e-22	4.93e-22	2.72e-22	1.68e-22	9.43e-23	6.04e-23
1	29	3.41e-21	3.27e-21	2.98e-21	2.58e-21	2.04e-21	1.60e-21		3	28	3.08e-20	2.81e-20	1.64e-20	1.06e-20	6.53e-21	4.47e-21
1	30	5.08e-23	5.03e-23	3.72e-23	2.50e-23	1.28e-23	8.29e-24		3	29	7.82e-20	5.61e-20	3.35e-20	2.22e-20	1.40e-20	9.70e-21
1	31	3.11e-22	3.07e-22	3.01e-22	2.99e-22	2.99e-22	2.95e-22		3	30	3.77e-24	2.49e-24	1.16e-24	5.33e-25	1.90e-25	7.40e-26
1	32	2.64e-22	2.34e-22	1.75e-22	1.19e-22	6.13e-23	3.03e-23		3	31	6.71e-24	4.53e-24	2.25e-24	1.16e-24	5.39e-25	3.02e-25
1	33	5.72e-22	5.88e-22	6.57e-22	7.24e-22	7.99e-22	8.32e-22		3	32	1.39e-23	9.20e-24	4.39e-24	2.09e-24	7.95e-25	3.45e-25
1	34	3.75e-22	3.30e-22	2.40e-22	1.57e-22	7.72e-23	3.84e-23		3	33	1.68e-23	1.24e-23	7.29e-24	4.54e-24	2.80e-24	1.68e-24
1	35	7.12e-22	6.40e-22	4.94e-22	3.57e-22	2.20e-22	1.43e-22		3	34	6.85e-23	5.46e-23	3.73e-23	2.62e-23	1.77e-23	1.30e-23
1	36	8.68e-22	7.84e-22	5.55e-22	3.82e-22	1.77e-22	8.34e-23		3	35	8.11e-23	6.43e-23	4.34e-23	3.04e-23	2.07e-23	1.54e-23
1	37	3.04e-21	3.04e-21	3.01e-21	2.91e-21	2.66e-21	2.35e-21		3	36	5.04e-24	3.85e-24	2.02e-24	1.18e-24	8.45e-25	4.13e-25
1	37	3.04e-21	3.04e-21	3.01e-21	2.91e-21	2.66e-21	2.35e-21		3	37	3.82e-23	3.01e-23	1.99e-23	1.37e-23	9.09e-24	6.64e-24
2	3	9.76e-20	2.35e-20	6.45e-21	2.52e-21	8.84e-22	3.91e-22		4	5	1.54e-19	3.78e-20	1.10e-20	4.73e-21	1.94e-21	1.01e-21
2	4	1.43e-19	6.35e-19	2.97e-19	1.81e-19	1.07e-19	6.94e-20		4	6	4.42e-19	1.39e-19	4.75e-20	2.37e-20	1.18e-20	7.18e-21
2	5	1.13e-18	4.65e-19	2.40e-19	1.31e-19	6.90e-20	4.22e-20		4	7	3.69e-20	1.08e-19	3.21e-20	1.39e-21	6.02e-22	3.38e-22
2	6	2.75e-18	1.32e-18	6.17e-19	3.77e-19	2.25e-19	1.49e-19		4	8	1.49e-20	5.26e-21	2.33e-21	1.30e-21	6.84e-22	4.20e-22
2	7	5.67e-20	2.84e-20	1.17e-20	6.09e-21	4.13e-21	2.73e-21		4	9	6.06e-21	2.17e-21	9.55e-22	5.29e-22	2.78e-22	1.70e-22
2	8	9.14e-21	4.12e-21	1.80e-21	7.97e-22	3.82e-22	2.24e-22		4	10	1.02e-19	3.30e-20	1.10e-20	5.31e-21	2.58e-21	1.55e-21
2	9	3.01e-20	1.34e-20	4.92e-21	2.26e-21	9.35e-22	4.73e-22		4	11	5.55e-21	1.81e-21	4.65e-22	1.52e-22	3.94e-23	1.25e-23
2	10	1.02e-18	4.95e-19	2.29e-19	1.40e-19	8.38e-20	5.58e-20		4	12	3.04e-20	1.38e-20	5.33e-21	2.63e-21	1.24e-21	7.11e-22
2	11	1.50e-21	6.32e-22	1.81e-22	6.03e-23	1.57e-23	4.99e-24		4	13	5.30e-19	2.49e-19	1.25e-19	7.82e-20	4.59e-20	3.08e-20
2	12	7.32e-23	4.28e-23	2.06e-23	1.21e-23	7.07e-24	4.71e-24		4	14	1.10e-18	5.58e-19	2.60e-19	1.58e-19	9.53e-20	6.39e-20
2	13	1.17e-20	6.79e-21	3.24e-21	1.63e-21	9.80e-22	6.11e-22		4	15	1.14e-20	4.88e-21	1.47e-21	5.32e-22	1.67e-22	7.24e-23
2	14	3.44e-20	2.02e-20	9.67e-21	5.48e-21	2.94e-21	1.84e-21		4	16	7.98e-19	4.14e-19	1.95e-19	1.18e-19	7.13e-20	4.79e-20
2	15	3.93e-20	2.27e-20	1.07e-20	5.92e-21	3.11e-21	1.92e-21		4	17	2.20e-20	1.08e-20	4.03e-21	2.58e-21	1.45e-21	9.69e-22
2	16	5.83e-20	3.37e-20	1.82e-20	9.22e-21	4.97e-21	3.10e-21		4	18	8.80e-22	4.10e-22	1.47e-22	6.24e-23	2.20e-23	8.99e-24
2	17	1.03e-19	6.24e-20	2.98e-20	1.69e-20	9.07e-21	5.66e-21		4	19	1.67e-21	8.24e-22	3.34e-22	1.69e-22	8.13e-23	4.74e-23
2	18	1.03e-21	6.43e-22	3.41e-22	2.08e-22	1.26e-22	8.53e-23		4	20	9.87e-20	5.13e-20	2.37e-20	1.41e-20	8.43e-21	5.65e-21
2	19	7.02e-22	4.37e-22	2.30e-22	1.41e-22	8.50e-23	5.82e-23		4	21	1.17e-20	5.52e-21	1.97e-21	8.29e-22	2.83e-22	1.10e-22
2	20	5.59e-21	2.81e-21	9.42e-22	3.42e-22	9.67e-23	3.45e-23		4	22	1.18e-20	5.45e-21	1.98e-21	9.15e-22	4.35e-22	2.67e-22
2	21	1.19e-22	5.84e-23	1.84e-23	6.31e-23	4.16e-24	5.27e-25		4	23	5.72e-20	3.16e-20	1.48e-20	8.77e-21	5.21e-2	

TABLE IIIC. Electron Collision Cross Sections for Ne-like Y ($Z = 39$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.
5	6	1.93e-19	5.70e-20	1.83e-20	8.63e-21	4.10e-21	2.43e-21	7	14	9.34e-20	4.32e-20	1.98e-20	1.18e-20	6.97e-21	4.58e-21
5	7	1.41e-19	4.27e-20	1.43e-20	7.03e-21	3.46e-21	2.09e-21	7	15	1.75e-20	7.78e-21	3.05e-21	1.62e-21	8.79e-22	5.77e-22
5	8	1.50e-23	4.26e-24	1.20e-24	4.64e-25	1.54e-25	5.96e-26	7	16	8.51e-20	3.98e-20	1.78e-20	1.05e-20	6.14e-21	4.03e-21
5	9	3.60e-22	1.40e-22	5.02e-23	3.24e-23	1.71e-23	1.06e-23	7	17	1.54e-20	8.08e-21	1.73e-21	5.98e-22	1.76e-22	7.14e-23
5	10	1.97e-19	6.27e-20	2.12e-20	1.04e-20	5.14e-21	3.10e-21	7	18	1.39e-20	6.04e-21	2.14e-21	9.25e-22	3.35e-22	1.41e-22
5	11	2.89e-20	1.11e-20	4.04e-21	2.08e-21	1.04e-21	6.34e-22	7	19	2.43e-20	1.11e-20	4.29e-21	2.13e-21	1.01e-21	5.83e-22
5	12	2.87e-20	1.26e-20	4.60e-21	2.10e-21	8.67e-22	4.38e-22	7	20	2.02e-18	9.78e-19	4.58e-19	2.80e-19	1.68e-19	1.11e-19
5	13	1.66e-21	6.75e-22	1.91e-22	6.28e-23	1.56e-23	4.71e-24	7	21	1.51e-21	6.33e-22	2.01e-21	7.62e-23	2.30e-23	8.10e-24
5	14	1.27e-19	6.32e-20	2.89e-20	1.75e-20	1.05e-20	7.01e-21	7	22	1.78e-20	7.65e-21	2.61e-21	1.17e-21	5.31e-22	3.17e-22
5	15	1.75e-18	8.97e-19	4.22e-19	2.57e-19	1.55e-19	1.04e-19	7	23	6.08e-19	3.14e-19	1.47e-19	8.94e-20	5.40e-20	3.63e-20
5	16	4.22e-19	2.16e-19	1.01e-19	6.10e-20	3.07e-20	2.46e-20	7	24	1.07e-22	6.10e-23	2.79e-23	1.55e-23	8.73e-24	5.78e-24
5	17	2.05e-20	9.04e-21	3.02e-21	1.29e-21	5.51e-22	3.16e-22	7	25	7.60e-23	3.96e-23	1.46e-23	6.41e-24	2.67e-24	1.49e-24
5	18	2.19e-22	1.05e-22	4.09e-23	2.00e-23	9.33e-24	5.34e-24	7	26	6.55e-23	3.40e-23	1.27e-23	5.82e-24	2.44e-24	1.42e-24
5	19	3.09e-24	1.49e-24	5.80e-25	2.79e-25	1.24e-25	6.74e-26	7	27	1.00e-20	6.73e-21	3.60e-21	2.22e-21	1.34e-21	9.20e-22
5	20	2.28e-19	1.18e-19	5.51e-20	3.33e-20	2.00e-20	1.34e-20	7	28	5.22e-23	3.16e-23	1.43e-23	7.24e-24	3.22e-24	1.70e-24
5	21	1.35e-20	6.73e-21	2.79e-21	1.45e-21	7.22e-22	4.33e-22	7	29	5.51e-23	3.19e-23	1.28e-23	5.40e-24	1.79e-24	6.79e-25
5	22	1.80e-20	9.16e-21	3.04e-21	1.89e-21	1.01e-21	6.49e-22	7	30	3.55e-21	2.47e-21	1.44e-21	9.30e-22	5.71e-22	3.92e-22
5	23	1.78e-20	9.62e-21	4.43e-21	2.59e-21	1.53e-21	1.03e-21	7	31	2.22e-22	1.45e-22	7.06e-23	3.59e-23	1.50e-23	6.95e-24
5	24	2.35e-22	1.48e-22	7.83e-23	4.77e-23	2.85e-23	1.95e-23	7	32	2.60e-20	1.90e-20	1.12e-20	7.27e-21	4.47e-21	3.06e-21
5	25	7.49e-22	4.80e-22	2.61e-22	1.62e-22	9.79e-23	6.70e-23	7	33	8.22e-20	5.86e-20	3.48e-20	2.30e-20	1.43e-20	9.91e-21
5	26	8.53e-23	5.27e-23	2.70e-23	1.61e-23	9.45e-24	6.39e-24	7	34	5.09e-23	3.84e-23	2.39e-23	1.56e-23	9.32e-24	6.15e-24
5	27	2.46e-22	1.46e-22	6.94e-23	3.49e-23	2.15e-23	1.40e-23	7	35	3.47e-23	2.57e-23	1.54e-23	9.73e-24	5.69e-24	3.71e-24
5	28	9.47e-23	8.12e-23	3.15e-23	1.82e-23	9.81e-24	6.10e-24	7	36	7.21e-23	5.50e-23	3.39e-23	2.19e-23	1.31e-23	8.59e-24
5	29	4.81e-23	3.08e-23	1.67e-23	1.00e-23	5.62e-24	3.58e-24	7	37	1.41e-23	9.63e-24	4.63e-24	2.55e-24	1.22e-24	7.16e-25
5	32	2.69e-23	1.88e-23	1.05e-23	6.50e-24	3.83e-24	2.55e-24	8	9	8.91e-20	2.04e-20	5.31e-21	1.95e-21	5.99e-22	2.20e-22
5	33	7.77e-22	5.63e-22	3.37e-22	2.24e-22	1.41e-22	9.74e-23	8	10	1.03e-23	2.26e-24	4.96e-25	1.45e-25	3.21e-26	8.02e-27
5	34	5.06e-24	3.34e-24	1.62e-24	8.10e-25	3.54e-25	1.88e-25	8	11	7.25e-22	2.00e-22	4.77e-23	1.51e-23	3.85e-24	1.23e-24
5	35	0.	0.	0.	0.	0.	0.	8	12	2.18e-18	9.82e-19	4.62e-19	2.02e-19	1.65e-19	1.07e-19
5	36	5.00e-24	3.31e-24	1.54e-24	7.71e-25	3.63e-25	2.16e-25	8	13	0.	0.	0.	0.	0.	0.
5	37	3.07e-24	2.09e-24	1.06e-24	5.90e-25	3.18e-25	2.04e-25	8	14	1.03e-22	4.00e-23	1.16e-23	4.00e-24	1.08e-24	3.50e-25
6	7	4.67e-20	1.10e-20	3.28e-21	1.47e-21	6.48e-22	3.80e-22	8	15	2.17e-21	1.03e-21	4.17e-22	2.22e-22	1.51e-22	7.08e-23
6	8	4.40e-24	1.11e-24	3.77e-25	1.97e-25	1.07e-25	7.06e-26	8	16	1.54e-23	6.01e-24	1.79e-24	7.34e-25	3.30e-25	2.05e-25
6	9	6.47e-23	1.47e-23	3.69e-24	1.33e-24	4.29e-25	1.84e-25	8	17	4.08e-18	1.95e-18	9.13e-19	5.59e-19	3.35e-19	2.22e-19
6	10	1.72e-19	4.33e-20	1.29e-20	5.65e-21	2.42e-21	1.32e-21	8	18	2.03e-20	7.90e-21	2.17e-21	7.16e-22	1.87e-22	5.98e-23
6	11	1.62e-20	4.82e-21	1.34e-21	4.98e-22	1.51e-22	5.44e-23	8	19	1.03e-22	4.19e-23	1.27e-22	4.82e-24	1.65e-24	7.72e-25
6	12	9.43e-23	3.93e-23	1.47e-23	7.34e-24	3.58e-24	2.12e-24	8	20	3.39e-21	1.34e-21	3.67e-22	1.21e-22	3.11e-23	9.84e-24
6	13	3.10e-21	1.37e-21	5.55e-22	3.04e-22	1.70e-22	1.12e-22	8	21	2.36e-23	9.24e-24	2.48e-24	7.74e-25	1.81e-25	5.21e-26
6	14	8.54e-21	3.79e-21	1.52e-21	8.31e-22	4.76e-22	2.08e-22	8	22	3.27e-22	1.41e-22	4.31e-23	1.52e-23	4.13e-24	1.35e-24
6	15	2.71e-19	1.28e-19	5.85e-20	3.53e-20	2.10e-20	1.39e-20	8	23	1.15e-21	6.95e-20	3.31e-20	1.88e-20	1.01e-20	6.29e-21
6	16	1.03e-19	4.07e-20	2.21e-20	1.33e-20	7.96e-21	5.28e-21	8	24	1.62e-19	9.87e-20	4.78e-20	2.74e-20	1.49e-20	9.31e-21
6	17	2.21e-18	1.07e-18	5.02e-19	3.08e-19	1.82e-19	1.21e-19	8	25	1.51e-20	7.81e-21	2.51e-21	8.83e-22	2.30e-22	7.08e-23
6	18	1.08e-20	4.81e-21	1.82e-21	8.76e-22	4.00e-22	2.26e-22	8	26	6.03e-21	3.08e-21	1.03e-21	3.64e-22	9.52e-23	2.94e-23
6	19	2.45e-20	1.09e-20	3.97e-21	1.78e-21	7.11e-21	3.43e-22	8	27	1.22e-19	8.03e-20	4.44e-20	2.76e-20	1.66e-20	1.13e-20
6	20	8.86e-21	3.52e-21	9.84e-22	3.25e-22	8.44e-23	2.83e-23	8	28	1.40e-21	8.60e-22	3.91e-22	1.90e-22	7.45e-23	3.17e-23
6	21	1.06e-21	4.49e-22	1.45e-22	5.60e-23	1.75e-23	6.40e-24	8	29	0.	0.	0.	0.	0.	0.
6	22	3.32e-19	1.63e-19	7.50e-20	4.55e-20	2.72e-20	1.31e-20	8	30	5.50e-23	3.43e-23	1.52e-23	6.90e-24	2.48e-24	1.00e-24
6	23	4.52e-19	1.92e-21	5.59e-21	1.86e-22	4.89e-23	1.61e-23	8	31	1.44e-23	8.73e-24	3.85e-24	1.85e-24	4.81e-25	5.01e-25
6	24	4.97e-23	2.94e-23	1.42e-23	8.20e-24	4.74e-24	3.17e-24	8	32	1.19e-23	7.34e-24	3.10e-24	1.34e-24	4.49e-25	1.71e-25
6	25	7.19e-23	4.08e-23	1.65e-23	1.02e-23	5.49e-24	3.46e-24	8	33	5.62e-22	4.32e-22	2.76e-22	1.90e-22	1.28e-22	8.98e-23
6	26	6.06e-22	3.79e-22	1.99e-22	1.22e-22	7.35e-23	5.01e-23	8	34	8.65e-24	5.50e-24	2.32e-24	9.81e-25	3.02e-25	1.08e-25
6	27	1.09e-22	5.62e-23	1.93e-23	7.38e-24	2.43e-24	1.11e-24	8	35	6.03e-21	2.41e-23	1.72e-23	9.70e-24	5.94e-24	3.47e-24
6	28	1.80e-22	1.16e-22	6.12e-23	3.64e-23	2.04e-23	1.30e-23	8	36	6.90e-24	4.33e-24	1.74e-24	8.75e-25	1.88e-25	6.10e-26
6	29	6.65e-24	3.78e-24	1.45e-24	5.85e-25	1.81e-25	8.46e-26	9	10	8.38e-21	1.89e-21	3.81e-22	1.98e-22	1.55e-22	9.48e-23
6	30	1.88e-24	1.17e-24	5.28e-25	2.71e-25	1.36e-25	8.46e-26	9	11	8.68e-20	3.61e-20	1.61e-20	8.99e-21	4.76e-21	2.93e-21
6	31	1.91e-23	1.23e-23	5.77e-24	2.85e-24	1.16e-24	5.32e-25	9	12	1.55e-18	6.94e-19	3.27e-19	1.99e-19	1.17e-19	7.56e-20
6	32	1.03e-19	7.31e-20	4.33e-20	2.05e-20	1.77e-20	1.22e-20	9	13	2.33e-23	8.84e-24	2.52e-24	8.85e-25	2.51e-25	8.70e-26
6	33	1.62e-21	1.08e-21	5.28e-22	2.85e-22	1.06e-22	4.53e-23	9	14	6.14e-22	2.74e-22	1.06e-22	5.39e-23		

TABLE IIC. Electron Collision Cross Sections for Ne-like Y ($Z = 39$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	P	50.	200.	600.	1200.	2400.	4000.	I	P	50.	200.	600.	1200.	2400.	4000.
9	26	1.35e-19	8.32e-20	3.92e-20	2.22e-20	1.19e-20	7.42e-21	12	16	7.20e-22	2.37e-22	9.37e-23	4.94e-23	2.56e-23	1.57e-23
9	27	5.28e-20	3.20e-20	1.56e-20	8.94e-21	4.83e-21	3.02e-21	12	17	7.91e-23	2.20e-23	5.92e-24	2.29e-24	8.93e-25	4.86e-25
9	28	8.17e-20	5.35e-20	2.94e-20	1.83e-20	1.09e-20	7.44e-21	12	18	2.86e-19	8.88e-20	3.00e-20	1.48e-20	7.30e-21	4.45e-21
9	29	6.43e-20	4.28e-20	2.42e-20	1.53e-20	9.26e-21	6.34e-21	12	19	3.04e-19	9.45e-20	3.12e-20	1.50e-20	7.28e-21	4.36e-21
9	30	7.07e-24	4.36e-24	1.08e-24	6.40e-25	2.93e-25	1.15e-25	12	20	1.76e-22	5.68e-23	1.88e-23	8.52e-24	3.88e-24	2.25e-24
9	31	2.50e-23	1.64e-23	8.24e-24	4.56e-24	2.36e-24	1.44e-24	12	21	3.25e-21	9.68e-21	2.70e-21	1.00e-21	3.07e-22	1.11e-22
9	32	3.72e-23	2.31e-23	1.06e-23	5.00e-23	1.94e-24	8.73e-25	12	22	6.28e-23	1.98e-23	6.15e-24	2.88e-24	1.40e-24	8.80e-25
9	33	6.28e-23	4.52e-23	2.66e-23	1.89e-23	9.87e-24	6.42e-24	12	23	3.34e-21	1.38e-21	6.10e-22	3.49e-22	1.92e-22	1.20e-22
9	34	2.86e-24	1.81e-24	7.62e-25	3.31e-25	1.26e-25	6.44e-26	12	24	2.07e-18	1.05e-18	4.96e-19	3.02e-19	1.82e-19	1.22e-19
9	35	1.47e-22	1.12e-22	7.00e-23	4.76e-23	3.10e-23	2.19e-23	12	25	2.21e-20	1.05e-20	4.15e-21	2.15e-21	1.14e-21	7.37e-22
9	36	1.71e-23	1.19e-23	6.21e-24	3.46e-24	1.78e-24	1.09e-24	12	26	3.07e-20	1.40e-20	4.96e-21	2.27e-21	1.05e-21	6.35e-22
9	37	2.66e-22	2.04e-22	1.29e-22	8.78e-23	5.72e-23	4.05e-23	12	27	4.24e-19	2.28e-19	1.08e-19	6.52e-20	3.94e-20	2.66e-20
10	11	7.90e-20	2.45e-20	8.38e-21	4.16e-21	2.07e-21	1.26e-21	12	28	2.53e-22	1.44e-22	6.40e-23	3.42e-23	1.72e-23	1.03e-23
10	12	1.89e-21	6.63e-21	2.26e-23	1.02e-23	4.36e-24	2.34e-24	12	29	2.93e-23	1.53e-23	6.55e-24	2.23e-24	7.05e-25	2.58e-25
10	13	1.49e-21	5.40e-22	1.40e-22	4.29e-23	9.82e-24	2.80e-24	12	30	4.33e-20	2.84e-20	1.57e-20	9.82e-21	5.90e-21	4.03e-21
10	14	1.65e-19	7.50e-20	3.48e-20	2.10e-20	1.25e-20	8.22e-21	12	31	8.95e-20	5.68e-20	3.26e-20	2.03e-20	1.22e-20	8.29e-21
10	15	6.63e-20	3.04e-20	1.35e-20	7.92e-21	4.59e-21	3.01e-21	12	32	3.92e-23	2.44e-23	1.18e-23	6.59e-24	3.52e-24	2.24e-24
10	16	5.95e-19	2.78e-19	1.29e-19	7.87e-20	4.89e-20	3.10e-20	12	33	1.21e-21	8.11e-22	4.56e-22	2.28e-22	1.75e-22	1.20e-22
10	17	1.89e-20	7.69e-21	2.56e-21	1.14e-21	5.23e-22	3.16e-22	12	34	1.28e-23	9.23e-24	5.41e-24	3.40e-24	1.98e-24	1.29e-24
10	18	1.58e-20	6.88e-21	2.51e-21	1.15e-21	4.83e-22	2.48e-22	12	35	3.58e-23	2.45e-23	1.30e-23	7.45e-24	3.93e-24	2.39e-24
10	19	2.50e-20	1.10e-20	4.13e-21	1.97e-21	8.79e-22	4.81e-22	12	36	2.70e-23	1.06e-23	9.81e-24	5.74e-24	3.18e-24	2.03e-24
10	20	2.06e-19	9.71e-20	4.45e-20	2.69e-20	1.60e-20	1.08e-20	13	14	8.37e-20	1.06e-20	4.37e-21	1.45e-21	4.03e-22	1.39e-22
10	21	4.77e-21	2.22e-21	9.02e-22	4.74e-22	2.43e-22	1.49e-22	13	15	1.11e-19	2.69e-20	8.63e-21	2.43e-21	7.30e-22	2.65e-22
10	22	1.98e-19	9.48e-19	4.44e-19	2.71e-19	1.62e-19	1.07e-19	13	16	4.58e-21	1.25e-19	4.25e-20	2.16e-20	1.11e-20	6.85e-21
10	23	1.21e-20	5.88e-21	2.51e-21	1.42e-21	8.16e-22	5.42e-22	13	17	5.70e-20	1.34e-20	3.29e-21	1.27e-21	5.49e-22	3.36e-22
10	24	8.86e-23	4.06e-23	1.99e-23	1.17e-23	6.89e-24	4.65e-24	13	18	7.67e-20	2.22e-20	8.08e-21	4.12e-21	2.09e-21	1.27e-21
10	25	9.57e-22	5.94e-22	3.09e-22	1.89e-22	1.14e-22	7.79e-23	13	19	5.14e-23	1.24e-23	2.86e-24	8.89e-25	2.21e-25	6.87e-26
10	26	8.24e-23	4.99e-23	2.51e-23	1.50e-23	8.95e-24	6.07e-24	13	20	6.68e-20	1.68e-20	4.36e-21	1.66e-21	6.42e-22	3.43e-22
10	27	5.40e-22	3.29e-22	1.66e-22	9.92e-23	5.86e-23	3.96e-23	13	21	8.66e-22	2.25e-22	5.36e-23	1.70e-23	4.23e-24	1.30e-24
10	28	6.23e-23	3.46e-23	1.42e-23	6.28e-24	2.26e-24	9.48e-25	13	22	4.48e-20	1.10e-20	2.34e-21	6.53e-23	1.38e-22	3.70e-23
10	29	1.68e-23	1.09e-23	5.74e-24	3.40e-24	1.90e-24	1.20e-24	13	23	5.14e-20	1.49e-20	3.68e-21	1.19e-21	3.07e-22	9.82e-23
10	30	1.77e-24	1.02e-24	3.74e-24	1.40e-25	3.92e-26	1.32e-26	13	24	1.07e-20	5.59e-21	3.30e-21	1.61e-21	7.44e-22	4.24e-22
10	31	1.02e-21	7.08e-22	4.16e-22	2.73e-22	1.60e-22	1.16e-22	13	25	1.61e-21	8.00e-22	3.34e-22	1.60e-22	9.44e-23	5.80e-23
10	32	5.78e-20	4.06e-20	2.39e-20	1.56e-20	9.68e-21	6.65e-21	13	26	7.13e-23	3.00e-23	9.14e-24	3.35e-24	9.98e-25	3.58e-25
10	33	5.28e-20	3.74e-20	2.21e-20	1.45e-20	9.02e-21	6.22e-21	13	27	1.90e-20	8.77e-21	3.11e-21	1.30e-21	4.44e-22	1.73e-22
10	34	0.	0.	0.	0.	0.	0.	13	28	3.30e-22	1.91e-22	9.28e-23	5.54e-23	3.30e-23	2.24e-23
10	35	7.24e-24	5.23e-24	2.97e-24	1.78e-24	9.72e-25	6.07e-25	13	29	1.73e-23	8.37e-24	2.66e-24	9.38e-25	2.56e-25	8.39e-26
10	36	1.17e-23	8.30e-24	4.47e-24	2.53e-24	1.29e-24	7.85e-25	13	30	0.	0.	0.	0.	0.	0.
10	37	2.60e-24	1.74e-24	9.44e-25	5.28e-25	2.80e-25	1.49e-25	13	31	2.53e-23	1.44e-23	5.84e-24	2.56e-24	8.96e-25	3.56e-25
11	12	1.16e-20	3.77e-21	1.09e-21	4.08e-22	1.26e-22	4.59e-23	14	15	1.93e-19	4.70e-20	1.38e-20	6.10e-21	2.69e-21	1.51e-21
11	13	5.35e-21	1.78e-21	4.62e-22	1.49e-22	3.73e-23	1.14e-23	14	16	1.21e-19	2.95e-20	8.32e-21	1.53e-21	8.52e-22	6.52e-22
11	14	5.53e-20	2.32e-20	1.00e-20	5.75e-21	3.20e-21	2.02e-21	14	17	6.46e-20	1.47e-20	3.56e-21	1.33e-21	5.35e-22	3.07e-22
11	15	2.21e-20	6.91e-21	3.46e-21	1.87e-21	1.04e-21	6.87e-22	14	18	2.76e-23	8.81e-23	9.12e-24	5.09e-24	2.79e-24	1.82e-24
11	16	1.20e-20	4.15e-21	1.07e-21	3.38e-22	8.12e-23	2.41e-23	14	19	6.34e-22	4.23e-22	2.07e-22	1.03e-22	4.10e-23	1.75e-23
11	17	2.02e-20	7.03e-21	1.85e-21	5.98e-22	1.47e-22	4.43e-23	14	20	1.02e-19	3.33e-20	1.13e-20	6.26e-21	2.32e-21	1.19e-25
11	18	1.02e-20	3.95e-21	1.33e-21	5.69e-22	2.04e-22	8.24e-23	14	21	1.38e-19	6.47e-20	2.50e-20	1.02e-20	4.24e-21	1.98e-24
11	19	1.86e-20	7.79e-21	2.88e-21	1.43e-21	6.82e-22	4.05e-22	14	22	9.72e-21	3.23e-21	1.36e-21	7.55e-22	3.98e-22	2.42e-22
11	20	7.72e-21	2.70e-21	6.87e-22	2.11e-22	4.87e-23	1.40e-23	14	23	8.64e-21	2.65e-21	1.02e-21	5.59e-22	2.65e-22	1.73e-22
11	21	0.	0.	0.	0.	0.	0.	14	24	7.96e-20	1.93e-20	4.81e-21	1.74e-21	5.96e-22	2.65e-22
11	22	1.38e-20	6.84e-21	2.36e-21	1.32e-21	7.54e-22	5.08e-22	14	25	1.94e-21	1.55e-21	4.11e-22	1.79e-22	6.75e-23	3.03e-23
11	23	2.91e-18	1.38e-18	6.43e-19	3.93e-19	2.35e-19	1.55e-19	14	26	1.94e-20	8.44e-22	3.31e-22	1.55e-22	6.74e-23	3.07e-23
11	24	1.42e-21	6.58e-22	2.03e-22	6.89e-23	1.75e-22	5.33e-24	14	27	1.58e-20	7.34e-21	2.71e-21	1.21e-21	4.77e-22	2.27e-22
11	25	2.31e-21	1.09e-21	3.38e-22	2.09e-22	9.25e-23	6.09e-24	14	28	1.37e-19	3.75e-20	1.16e-20	5.44e-21	2.62e-21	1.50e-21
11	26	2.75e-21	1.47e-21	6.43e-22	8.53e-22	1.95e-22	1.28e-22	14	29	3.28e-20	9.70e-21	2.69e-21	1.00e-21	4.43e-22	2.44e-22
11	27	4.85e-20	2.92e-20	1.48e-20	9.02e-21	5.46e-21	3.72e-21	14	30	1.95e-20	8.08e-21	3.42e-21	1.67e-21	7.81e-22	4.46e-22
11	28	3.51e-22	1.96e-22	7.79e-23	3.39e-23	1.18e-23	4.66e-24	14	31	2.56e-21	1.15e-21	4.11e-22	1.79e-22	6.75e-23	3.03e-23
11	29	0.	0.	0.	0.	0.									

TABLE IIC. Electron Collision Cross Sections for Ne-like Y ($Z = 39$)
See page 133 for Explanation of Tables

TABLE IIC. Electron Collision Cross Sections for Ne-like Y ($Z = 39$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD						
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.	
22	25	1.59e-20	6.06e-21	2.40e-21	1.13e-21	4.62e-22	2.33e-22	27	31	3.11e-22	1.56e-22	6.54e-23	3.46e-23	1.76e-23	1.07e-23	
22	26	2.31e-20	1.02e-20	3.78e-21	1.78e-21	7.79e-22	4.18e-22	27	32	9.99e-23	4.72e-23	1.63e-23	6.78e-24	2.55e-24	1.25e-24	
22	27	9.38e-22	4.13e-22	1.52e-22	7.36e-23	3.57e-23	2.15e-23	27	33	1.84e-22	9.82e-23	4.27e-23	2.30e-23	1.19e-23	7.28e-24	
22	28	1.28e-21	5.67e-24	1.65e-24	5.40e-25	1.38e-25	4.74e-26	27	34	2.33e-20	1.49e-20	8.00e-21	4.88e-21	2.88e-21	1.95e-21	
22	29	1.21e-24	6.49e-25	2.92e-25	1.68e-25	9.70e-26	6.56e-26	27	35	1.10e-19	7.14e-20	3.90e-20	2.41e-20	1.45e-20	9.95e-21	
22	30	4.75e-24	2.33e-24	6.99e-25	2.20e-25	4.95e-26	1.30e-26	27	36	2.26e-22	1.28e-22	5.24e-23	2.37e-23	9.03e-24	4.08e-24	
22	31	9.39e-24	4.63e-24	1.50e-24	5.55e-25	1.90e-25	9.65e-26	27	37	7.79e-20	5.13e-20	2.86e-20	1.79e-20	1.09e-20	7.46e-21	
22	32	2.83e-23	1.61e-23	6.61e-24	3.02e-24	1.21e-24	5.99e-25									
22	33	3.29e-23	1.96e-23	8.96e-24	4.77e-24	2.45e-24	1.50e-24									
22	34	2.25e-24	1.47e-24	7.15e-25	3.57e-25	1.42e-25	8.06e-26	28	29	5.49e-20	1.43e-20	3.82e-21	1.39e-21	4.15e-22	1.50e-22	
22	35	9.46e-21	6.84e-21	3.90e-21	2.54e-21	1.57e-21	1.08e-21	28	30	7.55e-19	3.37e-19	1.59e-19	9.70e-20	5.71e-20	3.72e-20	
22	36	6.58e-20	4.63e-20	2.73e-20	1.78e-20	1.11e-20	7.80e-21	28	31	1.66e-19	7.49e-19	3.52e-19	2.15e-19	1.26e-19	8.22e-20	
22	37	3.88e-20	2.76e-20	1.63e-20	1.07e-20	6.66e-21	4.50e-21	28	32	3.17e-18	1.52e-18	7.10e-19	4.34e-19	2.60e-19	1.72e-19	
23	24	6.43e-21	2.45e-21	7.90e-22	3.32e-22	1.27e-22	6.18e-23	28	33	4.96e-19	2.38e-19	1.10e-19	6.71e-20	4.03e-20	2.87e-20	
23	25	1.25e-20	4.97e-21	1.89e-21	7.21e-22	2.61e-22	1.10e-22	28	34	5.88e-20	3.47e-20	1.65e-20	9.30e-21	4.98e-21	3.10e-21	
23	26	1.48e-20	6.05e-21	2.17e-21	1.03e-21	4.65e-22	2.84e-22	28	35	9.45e-20	5.63e-20	2.86e-20	1.50e-20	8.01e-21	4.98e-21	
23	27	3.19e-21	1.32e-21	4.45e-22	1.86e-22	6.57e-23	2.74e-23	28	36	1.39e-19	8.10e-20	3.86e-20	2.18e-20	1.17e-20	7.27e-21	
23	28	8.89e-23	4.62e-23	1.97e-23	1.10e-23	6.18e-24	4.03e-24	28	37	1.35e-20	7.16e-21	2.66e-21	1.16e-21	4.59e-22	2.37e-22	
23	29	1.48e-21	8.28e-22	3.99e-22	2.42e-22	1.46e-22	9.89e-23	29	30	5.62e-21	1.86e-21	4.76e-22	1.55e-22	4.04e-23	1.31e-23	
23	30	8.24e-24	4.18e-24	1.42e-24	5.27e-25	1.53e-25	5.30e-26	29	31	1.96e-18	8.67e-19	4.10e-19	2.47e-19	1.42e-19	9.09e-20	
23	31	1.42e-23	7.74e-24	2.77e-24	1.15e-24	4.01e-25	1.72e-25	29	32	2.33e-20	8.55e-21	2.29e-21	7.53e-22	1.97e-22	6.37e-23	
23	32	3.83e-23	2.17e-23	8.84e-24	4.07e-24	1.65e-24	8.18e-25	29	33	4.93e-18	2.29e-18	1.07e-18	6.56e-19	3.90e-19	2.57e-19	
23	33	9.43e-24	5.36e-24	2.26e-24	1.11e-24	5.10e-25	2.90e-25	29	34	7.29e-21	3.51e-21	1.12e-21	3.88e-22	1.00e-22	3.06e-23	
23	34	1.99e-20	1.38e-20	8.08e-21	5.24e-21	3.22e-21	2.22e-21	29	35	2.22e-20	1.18e-20	4.70e-21	2.27e-21	1.05e-21	6.04e-22	
23	35	2.50e-20	1.74e-20	1.01e-20	6.60e-21	4.06e-21	2.79e-21	29	36	1.86e-20	8.06e-21	2.59e-21	9.01e-22	2.33e-22	7.12e-23	
23	36	2.25e-21	1.46e-21	8.99e-22	3.47e-22	1.38e-22	5.87e-23	29	37	2.65e-19	1.80e-19	7.72e-20	4.43e-20	2.40e-20	1.51e-20	
23	37	8.61e-20	6.06e-20	3.58e-20	2.35e-20	1.46e-20	1.01e-20									
24	25	1.00e-19	2.29e-20	5.81e-21	2.28e-21	9.57e-22	5.52e-22		30	31	6.93e-20	1.58e-20	4.12e-21	1.53e-21	4.83e-22	1.84e-22
24	26	2.51e-19	5.96e-20	1.55e-20	8.14e-21	2.48e-21	1.30e-21		30	32	5.45e-19	1.69e-19	5.75e-20	2.86e-20	1.42e-20	6.63e-21
24	27	1.33e-19	3.83e-20	1.08e-20	4.71e-21	2.05e-21	1.14e-21		30	33	5.20e-20	1.48e-20	3.61e-21	1.18e-21	3.04e-22	9.69e-23
24	28	1.21e-22	4.64e-23	1.68e-23	8.62e-24	4.58e-24	2.97e-24		30	34	2.51e-18	1.27e-18	5.94e-19	3.63e-19	2.19e-19	1.48e-19
24	29	5.02e-24	4.82e-24	4.83e-25	1.56e-25	3.83e-26	1.15e-26		30	35	1.87e-20	7.80e-21	2.24e-21	7.38e-22	1.84e-22	5.58e-23
24	30	6.08e-23	3.19e-23	1.39e-23	7.47e-24	3.85e-24	2.36e-24		30	36	3.18e-20	1.54e-20	6.45e-21	3.54e-21	1.97e-21	1.31e-21
24	31	2.02e-22	9.77e-23	3.69e-23	1.73e-23	7.69e-24	4.26e-24		30	37	1.84e-20	7.98e-21	2.34e-21	7.79e-22	1.95e-22	5.92e-23
24	32	7.99e-23	3.76e-23	1.26e-23	5.29e-24	2.22e-24	1.27e-24									
24	33	2.34e-23	1.09e-23	3.49e-24	1.27e-24	3.66e-25	1.29e-25		31	32	3.72e-19	1.05e-19	3.45e-20	1.68e-20	8.16e-21	4.90e-21
24	34	6.27e-20	4.11e-20	2.27e-20	1.41e-20	8.47e-21	5.79e-21		31	33	2.66e-19	8.46e-20	2.07e-20	1.42e-20	7.04e-21	4.26e-21
24	35	5.87e-20	3.85e-20	2.13e-20	1.32e-20	7.93e-21	5.41e-21		31	34	4.93e-19	2.49e-19	1.16e-19	7.03e-20	4.23e-20	2.83e-20
24	36	2.63e-23	1.74e-23	9.80e-24	6.17e-24	3.72e-24	2.55e-24		31	35	1.72e-18	8.69e-19	4.08e-19	2.49e-19	1.50e-19	1.00e-19
24	37	2.13e-20	1.42e-20	7.97e-21	5.02e-21	3.03e-21	2.07e-21		31	36	3.20e-20	1.44e-20	5.16e-21	2.40e-21	1.14e-21	7.01e-22
31	37	2.82e-19	1.48e-19	8.96e-20	4.20e-20	2.52e-20	1.42e-20									
25	26	2.20e-19	4.98e-20	1.28e-20	4.99e-21	1.91e-21	9.83e-22		32	33	1.61e-19	3.90e-20	1.14e-20	4.98e-21	2.14e-21	1.18e-21
25	27	1.17e-19	2.89e-20	7.69e-21	3.08e-21	1.28e-21	6.93e-22		32	34	4.52e-20	2.06e-20	9.02e-21	3.08e-21	2.04e-21	
25	28	9.08e-22	3.88e-22	1.79e-22	1.07e-22	6.11e-23	3.90e-23		32	35	4.56e-19	2.14e-19	9.84e-20	5.97e-20	3.55e-20	2.35e-20
25	29	3.28e-23	1.15e-23	3.03e-24	9.81e-25	2.48e-25	7.75e-26		32	36	2.41e-18	1.16e-18	5.41e-19	3.30e-19	1.97e-19	1.30e-19
25	30	6.86e-24	1.17e-24	1.12e-24	4.99e-25	2.18e-25	1.21e-25		32	37	3.41e-20	1.51e-20	5.67e-21	2.86e-21	1.48e-21	9.26e-22
25	31	5.56e-23	2.36e-23	6.72e-24	2.22e-24	6.00e-25	2.24e-25									
25	32	1.90e-23	9.57e-24	3.70e-24	1.71e-24	7.14e-25	3.66e-25									
25	33	1.05e-22	5.48e-23	2.25e-23	1.10e-23	4.94e-24	2.66e-24									
25	34	3.99e-23	2.45e-23	1.21e-23	6.05e-24	3.91e-24	2.57e-24		33	34	2.03e-19	9.28e-20	4.22e-20	2.54e-20	1.50e-20	9.82e-21
25	35	8.69e-21	5.65e-21	3.08e-21	1.90e-21	1.13e-21	7.70e-22		33	35	2.41e-19	1.12e-19	5.09e-20	3.05e-20	1.80e-20	1.18e-20
25	36	1.44e-19	9.44e-20	5.23e-20	3.27e-20	1.98e-20	1.36e-20		33	36	2.85e-20	1.13e-20	3.46e-21	1.37e-21	5.22e-22	2.78e-22
25	37	3.13e-20	2.07e-20	1.15e-20	7.18e-21	4.31e-21	2.93e-21		33	37	2.39e-18	1.17e-18	5.46e-19	3.34e-19	2.01e-19	1.33e-19
26	27	4.46e-20	1.05e-20	2.56e-21	9.86e-22	3.93e-22	2.27e-22		34	35	2.99e-19	7.09e-20	2.12e-20	9.76e-21	4.00e-21	2.72e-21
26	28	1.15e-22	4.05e-23	1.29e-23	5.83e-24	2.74e-24	1.68e-24		34	36	1.27e-19	2.86e-20	7.12e-21	2.77e-21	1.16e-21	6.74e-22
26	29	5.83e-24	2.37e-24	9.13e-25	4.89e-25	2.70e-25	1.79e-25		34	37	1.58e-19	3.93e-20	9.41e-21	3.10e-21	8.70e-22	3.25e-22
26	30	5.09e-24	2.21e-24	6.59e-25	2.23e-25	5.68e-26	1.72e-26									
26	31	7.12e-23	3.08e-23	9.65e-24	3.89e-24	1.60e-24	9.13e-25									
26	32	1.34e-22	6.45e-23	2.												

TABLE IID. Electron Collision Cross Sections for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.
1	2	2.62e-22	2.36e-22	1.82e-22	1.28e-22	7.03e-23	3.66e-23	2	37	6.69e-24	5.25e-24	3.40e-24	2.28e-24	1.46e-24	1.06e-24
1	3	2.71e-22	2.77e-22	2.92e-22	3.12e-22	3.35e-22	3.46e-22								
1	4	4.56e-22	4.10e-22	3.12e-22	2.17e-22	1.16e-22	5.99e-23								
1	5	6.37e-22	5.93e-22	4.99e-22	4.05e-22	3.00e-22	2.29e-22								
1	6	7.03e-22	6.26e-22	4.66e-22	3.17e-22	1.65e-22	8.17e-23								
1	7	3.55e-22	3.18e-22	2.41e-22	1.65e-22	8.75e-23	4.43e-23								
1	8	4.89e-22	4.59e-22	3.94e-22	3.28e-22	2.52e-22	1.99e-22								
1	9	4.85e-23	4.38e-23	3.40e-23	2.41e-23	1.34e-23	7.05e-24								
1	10	2.23e-22	2.21e-22	2.18e-22	2.17e-22	2.18e-22	2.16e-22								
1	11	3.05e-21	2.92e-21	2.62e-21	2.27e-21	1.79e-21	1.40e-21								
1	12	3.46e-22	3.07e-22	2.27e-22	1.52e-22	7.70e-23	3.74e-23								
1	13	8.81e-22	7.82e-22	5.80e-22	3.89e-22	2.00e-22	9.99e-23								
1	14	2.79e-22	2.49e-22	1.88e-22	1.29e-22	6.80e-23	3.41e-23								
1	15	7.99e-22	7.29e-22	5.84e-22	4.46e-22	3.04e-22	2.18e-22								
1	16	8.39e-22	7.41e-22	5.41e-22	3.56e-22	1.75e-22	8.20e-23								
1	17	1.15e-21	1.01e-21	7.37e-22	4.82e-22	2.35e-22	1.09e-22								
1	18	6.85e-22	6.03e-22	4.38e-22	2.86e-22	1.39e-22	6.42e-23								
1	19	5.56e-22	5.06e-22	4.05e-22	3.11e-22	2.17e-22	1.61e-22								
1	20	4.18e-21	4.01e-21	3.61e-21	3.15e-21	2.50e-21	1.98e-21								
1	21	3.31e-22	2.96e-22	2.26e-22	1.57e-22	8.45e-23	4.32e-23								
1	22	1.13e-20	1.12e-20	1.09e-20	1.04e-20	9.80e-21	8.72e-21								
1	23	5.22e-22	4.86e-22	4.12e-22	3.36e-22	2.50e-22	1.93e-22								
1	24	5.31e-23	4.69e-22	3.44e-22	2.26e-22	1.11e-22	5.18e-23								
1	25	8.22e-22	7.78e-22	5.39e-22	3.58e-22	1.79e-22	8.54e-23								
1	26	6.41e-22	5.86e-22	4.74e-22	3.66e-22	2.53e-22	1.84e-22								
1	27	9.09e-21	9.09e-21	8.77e-21	8.43e-21	7.83e-21	7.17e-21								
1	28	1.49e-21	1.33e-21	9.98e-23	6.78e-23	3.54e-23	1.79e-23								
1	29	2.47e-21	2.38e-21	2.19e-21	1.94e-21	1.58e-21	1.26e-21								
1	30	4.18e-23	3.77e-23	2.92e-23	2.06e-23	1.14e-23	5.97e-24								
1	31	2.37e-22	2.34e-22	2.31e-22	2.30e-22	2.30e-22	2.30e-22								
1	32	1.91e-22	1.73e-22	1.35e-22	9.60e-23	5.36e-23	2.83e-23								
1	33	4.22e-22	4.37e-22	4.72e-22	5.15e-22	5.66e-22	5.98e-22								
1	34	2.69e-22	2.42e-22	1.84e-22	1.28e-22	6.79e-23	3.44e-23								
1	35	5.47e-22	5.03e-22	4.11e-22	3.18e-22	2.16e-22	1.52e-22								
1	36	6.22e-22	5.58e-22	4.25e-22	2.93e-22	1.56e-22	7.85e-23								
1	37	2.19e-21	2.19e-21	2.16e-21	2.10e-21	1.95e-21	1.78e-21								
2	3	8.13e-20	1.99e-20	5.64e-21	2.27e-21	8.17e-22	3.63e-22								
2	4	1.10e-18	5.02e-19	2.35e-19	1.44e-19	8.50e-20	5.57e-20								
2	5	8.85e-19	3.78e-19	1.98e-19	1.09e-19	5.74e-20	3.53e-20								
2	6	2.08e-18	1.05e-18	4.94e-19	3.01e-19	1.81e-19	1.21e-19								
2	7	6.43e-20	3.18e-20	1.45e-20	8.66e-21	5.17e-21	3.45e-21								
2	8	7.50e-19	3.84e-19	1.79e-19	1.09e-19	6.57e-20	4.41e-20								
2	9	6.23e-21	3.15e-21	1.31e-21	6.73e-22	3.28e-22	1.92e-22								
2	10	2.03e-20	1.01e-20	4.03e-21	1.92e-21	8.25e-22	4.22e-22								
2	11	1.15e-21	5.29e-22	1.66e-21	5.91e-23	1.64e-21	5.49e-24								
2	12	8.74e-21	5.32e-21	2.60e-21	1.48e-21	8.01e-22	5.00e-22								
2	13	2.60e-20	1.59e-20	7.82e-21	4.48e-21	2.42e-21	1.51e-21								
2	14	2.09e-23	1.27e-23	6.26e-24	3.60e-24	2.02e-24	1.31e-24								
2	15	2.94e-20	1.77e-20	8.62e-21	4.81e-21	2.54e-21	1.57e-21								
2	16	4.21e-20	2.64e-20	1.30e-20	7.46e-21	4.04e-21	2.53e-21								
2	17	7.73e-20	4.89e-20	2.41e-20	1.38e-20	7.45e-21	4.66e-21								
2	18	4.54e-21	2.48e-21	9.36e-22	3.87e-22	1.34e-22	5.91e-23								
2	19	3.45e-20	2.13e-20	1.06e-20	6.08e-21	3.29e-21	2.05e-21								
2	20	5.45e-23	2.93e-23	1.03e-23	3.82e-24	1.00e-24	3.03e-25								
2	21	2.66e-22	1.77e-22	9.92e-23	6.19e-23	3.71e-23	2.51e-23								
2	22	2.28e-21	1.27e-21	4.81e-22	1.93e-22	6.09e-23	2.38e-23								
2	23	3.30e-22	2.19e-22	1.22e-22	7.67e-23	4.65e-23	3.19e-23								
2	24	4.03e-24	2.58e-24	1.18e-24	5.57e-25	2.38e-25	1.26e-25								
2	25	7.07e-23	5.07e-23	2.89e-23	1.79e-23	1.03e-23	6.63e-24								
2	26	2.61e-23	1.91e-23	1.08e-23	6.65e-24	3.82e-24	2.46e-24								
2	27	6.49e-23	4.34e-23	2.19e-23	1.19e-23	5.91e-24	3.48e-24								
2	28	7.57e-20	5.60e-20	3.40e-20	2.26e-20	1.43e-20	9.88e-21								
2	29	8.04e-22	5.62e-22	2.94e-22	1.55e-22	6.58e-23	2.90e-23								
2	30	4.61e-24	3.36e-24	1.91e-24	1.12e-24	5.93e-25	3.58e-25								
2	31	8.07e-24	5.82e-24	3.21e-24	1.82e-24	9.17e-25	5.31e-25								
2	32	1.09e-23	8.48e-24	5.45e-24	3.61e-24	2.20e-24	1.46e-24								
2	33	4.12e-24	2.91e-24	1.49e-24	7.60e-25	3.19e-25	1.56e-25								
2	34	5.04e-24	3.99e-24	2.81e-24	1.76e-24	1.13e-24	8.01e-25								
2	35	3.58e-24	2.72e-24	1.62e-24	9.99e-25	5.75e-25	3.81e-25								
2	36	1.43e-23	1.15e-23	7.80e-24	5.43e-24	3.58e-24	2.60e-24								

TABLE IID. Electron Collision Cross Sections for Ne-like Mo ($Z = 42$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.
5	6	1.45e-19	4.71e-20	1.55e-20	7.41e-21	3.52e-21	2.07e-21	7	14	6.14e-22	2.74e-22	1.02e-22	4.70e-23	1.97e-23	1.01e-23
5	7	1.07e-19	3.53e-20	1.22e-20	6.01e-21	2.97e-21	1.79e-21	7	15	1.38e-20	6.38e-21	2.56e-21	1.36e-21	7.31e-22	4.78e-22
5	8	1.46e-19	5.07e-20	1.76e-20	8.70e-21	4.29e-21	2.58e-21	7	16	1.46e-20	6.52e-21	2.41e-21	1.17e-21	5.72e-22	3.45e-22
5	9	9.09e-24	3.21e-24	1.01e-24	4.14e-25	1.45e-25	5.92e-26	7	17	1.23e-20	5.19e-21	1.61e-21	8.04e-22	1.95e-22	8.51e-23
5	10	2.17e-22	9.24e-23	4.16e-23	2.46e-23	1.39e-23	8.89e-24	7	18	1.62e-18	8.12e-19	3.81e-19	2.32e-19	1.40e-19	9.33e-20
5	11	2.24e-20	9.31e-21	3.51e-21	1.80e-21	9.10e-22	5.53e-22	7	19	1.31e-20	5.92e-21	2.08e-21	9.32e-22	4.11e-22	2.38e-22
5	12	1.24e-21	5.47e-22	1.69e-22	5.96e-23	1.59e-23	5.06e-24	7	20	7.42e-22	3.45e-22	1.19e-22	4.79e-23	1.54e-23	5.71e-24
5	13	9.78e-20	5.14e-20	2.39e-20	1.44e-20	8.63e-21	5.82e-21	7	21	9.74e-21	4.76e-21	1.84e-21	8.33e-22	3.19e-22	1.39e-22
5	14	1.95e-20	9.61e-21	3.80e-21	1.81e-21	7.71e-22	3.92e-22	7	22	4.70e-19	2.53e-19	1.20e-19	7.24e-20	4.38e-20	2.95e-20
5	15	1.31e-18	7.05e-19	3.36e-19	2.04e-19	1.23e-19	8.32e-20	7	23	1.63e-20	8.32e-21	3.45e-21	1.76e-21	8.44e-22	4.88e-22
5	16	3.86e-19	2.08e-19	9.86e-20	5.96e-20	3.80e-20	2.43e-20	7	24	6.13e-23	3.80e-23	1.90e-23	1.10e-23	6.24e-24	4.16e-24
5	17	1.52e-20	7.23e-21	2.50e-21	1.13e-21	4.80e-22	2.70e-22	7	25	6.26e-23	3.81e-23	1.82e-23	1.00e-23	5.36e-24	3.44e-24
5	18	1.01e-19	5.74e-20	2.99e-20	1.85e-20	1.11e-20	7.28e-21	7	26	3.06e-23	1.74e-23	7.08e-24	3.24e-24	1.41e-24	8.00e-25
5	19	1.26e-20	6.40e-21	2.61e-21	1.34e-21	6.79e-22	4.25e-22	7	27	5.25e-21	3.50e-21	1.97e-21	1.24e-21	7.56e-22	5.19e-22
5	20	8.47e-21	4.61e-21	2.03e-21	1.08e-21	5.42e-22	3.24e-22	7	28	4.32e-23	2.79e-23	1.37e-23	7.31e-24	3.48e-24	1.92e-24
5	21	1.01e-22	5.48e-23	2.33e-23	1.19e-23	5.73e-24	3.31e-24	7	29	3.87e-23	2.38e-23	1.03e-23	4.61e-24	1.63e-24	6.45e-25
5	22	1.17e-20	6.75e-21	3.40e-21	2.04e-21	1.22e-21	8.12e-22	7	30	1.69e-21	1.22e-21	7.28e-22	4.79e-22	2.98e-22	2.05e-22
5	23	1.03e-24	5.45e-25	2.23e-25	1.06e-25	4.44e-26	2.21e-26	7	31	1.19e-22	8.18e-23	4.32e-23	2.41e-23	1.63e-23	6.33e-24
5	24	1.11e-22	7.41e-23	4.15e-23	2.80e-23	1.56e-23	1.07e-23	7	32	2.00e-20	1.48e-20	8.92e-21	5.89e-21	3.68e-21	2.53e-21
5	25	3.15e-22	2.13e-22	1.22e-22	7.81e-23	4.76e-23	3.27e-23	7	33	6.23e-20	4.62e-20	2.82e-20	1.88e-20	1.19e-20	8.31e-21
5	26	3.80e-23	2.51e-23	1.36e-23	8.33e-24	4.92e-24	3.34e-24	7	34	3.62e-23	2.81e-23	1.80e-23	1.20e-23	7.28e-24	4.84e-24
5	27	1.47e-22	9.51e-23	4.88e-23	2.84e-23	1.60e-23	1.05e-23	7	35	2.44e-23	1.86e-23	1.16e-23	7.48e-24	4.43e-24	2.91e-24
5	28	5.98e-23	4.08e-23	2.20e-23	1.30e-23	7.13e-24	4.46e-24	7	36	5.20e-23	4.12e-23	2.81e-23	1.72e-23	1.04e-23	6.91e-24
5	29	3.08e-23	2.15e-23	1.22e-23	7.44e-24	4.23e-24	2.71e-24	7	37	1.08e-23	7.83e-24	4.20e-24	2.39e-24	1.21e-24	7.19e-25
5	30	8.10e-22	5.61e-22	2.91e-22	1.53e-22	6.48e-23	2.91e-23								
5	31	7.73e-20	5.72e-20	3.47e-20	2.31e-20	1.48e-20	1.01e-20								
5	32	4.63e-24	3.22e-24	1.68e-24	9.40e-25	4.88e-25	3.01e-25								
5	33	2.85e-22	2.23e-22	1.38e-22	9.23e-23	5.90e-23	4.12e-23								
5	34	3.25e-24	2.30e-24	1.19e-24	8.20e-25	2.75e-25	1.43e-25								
5	35	0.	0.	0.	0.	0.									
5	36	3.17e-24	2.21e-24	1.11e-24	5.75e-25	2.72e-25	1.60e-25								
5	37	1.97e-24	1.40e-24	7.49e-25	4.22e-25	2.25e-25	1.43e-25								
6	7	4.64e-20	1.11e-20	3.90e-21	1.58e-21	7.06e-22	3.98e-22								
6	8	1.41e-19	3.60e-20	1.09e-20	4.80e-21	2.05e-21	1.11e-21								
6	9	4.20e-24	1.30e-24	4.60e-25	2.41e-25	1.31e-25	8.59e-26								
6	10	4.21e-23	1.19e-23	3.28e-24	1.24e-24	4.21e-25	1.86e-25								
6	11	1.34e-20	4.20e-21	1.22e-21	4.72e-22	1.52e-22	5.70e-23								
6	12	2.42e-21	1.10e-21	4.52e-22	2.47e-22	1.37e-22	9.03e-23								
6	13	6.65e-21	3.06e-21	1.24e-21	6.77e-22	3.81e-22	2.40e-22								
6	14	4.11e-23	1.01e-23	7.58e-24	3.87e-24	1.91e-24	1.13e-24								
6	15	2.14e-19	1.04e-19	4.75e-20	2.86e-20	1.70e-20	1.13e-20								
6	16	8.08e-20	3.93e-20	1.79e-20	1.07e-20	6.40e-21	4.28e-21								
6	17	1.74e-18	8.67e-19	4.00e-19	2.49e-19	1.49e-19	9.88e-20								
6	18	8.10e-21	3.52e-21	1.16e-21	4.83e-22	1.90e-22	9.09e-23								
6	19	2.62e-19	1.33e-19	6.16e-20	3.72e-20	2.23e-20	1.49e-20								
6	20	4.94e-22	2.32e-22	8.11e-23	3.32e-23	1.10e-23	4.22e-24								
6	21	7.53e-21	3.77e-21	1.54e-21	7.70e-22	3.61e-22	2.05e-22								
6	22	3.53e-21	1.60e-21	5.01e-22	1.79e-22	4.87e-23	1.59e-23								
6	23	1.66e-20	8.26e-21	3.20e-21	1.53e-21	6.35e-22	3.12e-22								
6	24	2.93e-23	1.86e-23	9.72e-24	5.81e-24	3.39e-24	2.29e-24								
6	25	6.05e-23	3.78e-23	1.90e-23	1.11e-23	6.25e-24	4.13e-24								
6	26	2.83e-22	1.87e-22	1.04e-22	6.50e-23	3.93e-23	2.70e-23								
6	27	5.09e-23	2.87e-23	1.11e-23	4.72e-24	1.75e-24	8.73e-25								
6	28	1.24e-22	8.55e-23	4.56e-23	2.74e-23	1.55e-23	9.94e-24								
6	29	4.37e-24	2.85e-24	1.11e-24	4.75e-25	1.58e-25	5.90e-26								
6	30	1.19e-24	7.75e-25	3.71e-25	1.93e-25	9.57e-26	5.87e-26								
6	31	9.65e-24	6.46e-24	3.20e-24	1.65e-24	7.03e-25	3.35e-25								
6	32	7.59e-20	5.62e-20	3.42e-20	2.27e-20	1.44e-20	9.90e-21								
6	33	1.19e-21	8.20e-22	4.32e-22	2.28e-22	9.65e-23	4.34e-23								
6	34	1.68e-24	1.14e-24	5.59e-25	2.90e-25	1.44e-25	8.89e-26								
6	35	3.74e-24	2.61e-24	1.32e-24	6.83e-25	3.09e-25	1.68e-25								
6	36	0.	0.	0.	0.	0.									
6	37	3.48e-24	2.40e-24	1.10e-24	5.51e-25	2.11e-25	9.46e-26								
7	8	1.99e-19	5.10e-20	1.54e-20	6.87e-21	2.98e-21	1.62e-21								
7	9	1.20e-22	3.91e-23	1.37e-23	6.71e-24	3.21e-24	1.88e-24								
7	10	1.07e-20	4.26e-21	1.80e-21	9.74e-22	5.05e-22	3.00e-22								
7	11	2.18e-20	6.86e-21	2.02e-21	7.87e-22	2.57e-22	9.84e-23								
7	12	2.88e-20	1.35e-20	6.16e-21	3.71e-21	2.19e-21	1.45e-21								
7	13	9.32e-20	4.44e-20	2.03e-20	1.22e-20	7.25e-21	4.80e-21								

TABLE IID. Electron Collision Cross Sections for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.
9	26	1.13e-20	6.08e-21	2.18e-21	8.27e-22	2.33e-22	7.55e-23	12	16	3.86e-19	1.08e-19	3.67e-20	1.86e-20	9.58e-21	5.91e-21
9	27	4.60e-21	2.50e-21	9.07e-22	3.45e-22	9.77e-23	3.19e-23	12	17	4.57e-20	1.13e-20	2.90e-21	1.12e-21	4.84e-22	2.75e-22
9	28	9.40e-20	6.31e-20	3.54e-20	2.22e-20	1.33e-20	9.11e-21	12	18	4.45e-20	1.13e-20	2.73e-21	8.89e-22	2.39e-22	8.04e-23
9	29	1.09e-21	6.92e-22	3.28e-22	1.65e-22	6.83e-23	3.05e-23	12	19	3.54e-20	9.25e-21	2.14e-21	6.41e-22	1.46e-22	4.11e-23
9	30	0.	0.	0.	0.	0.	0.	12	20	3.64e-22	1.11e-22	2.94e-23	1.00e-23	2.70e-24	8.82e-25
9	31	4.16e-23	2.69e-23	1.25e-23	5.94e-24	2.25e-24	9.40e-25	12	21	2.51e-20	1.08e-20	4.95e-21	2.86e-21	1.56e-21	9.73e-22
9	32	9.86e-24	6.35e-24	2.92e-24	1.42e-24	6.28e-25	3.61e-25	12	22	4.19e-20	1.30e-20	3.44e-21	1.18e-21	3.23e-22	1.08e-22
9	33	8.92e-24	5.77e-24	2.60e-24	1.18e-24	4.23e-25	1.68e-25	12	23	3.64e-23	1.13e-23	2.95e-24	9.93e-25	2.67e-25	8.79e-26
9	34	5.12e-22	4.01e-22	2.60e-22	1.79e-22	1.19e-22	8.50e-23	12	24	1.20e-20	6.44e-21	2.66e-21	1.34e-21	6.29e-22	3.59e-22
9	35	7.21e-24	4.84e-24	2.23e-24	1.01e-24	3.48e-25	1.34e-25	12	25	9.32e-22	5.23e-22	2.31e-22	1.26e-22	6.79e-23	4.23e-23
9	36	1.79e-23	1.31e-23	7.71e-24	4.74e-24	2.77e-24	1.86e-24	12	26	4.08e-23	1.94e-23	6.52e-24	2.51e-24	7.73e-25	2.82e-25
9	37	5.25e-24	3.47e-24	1.52e-24	6.37e-25	1.93e-25	6.61e-26	12	27	1.22e-20	6.28e-21	2.44e-21	1.08e-21	3.95e-22	1.62e-22
12	28	2.89e-22	1.78e-22	9.09e-23	5.47e-23	3.26e-23	2.22e-23	12	29	1.12e-23	5.91e-24	2.10e-24	8.06e-25	2.41e-25	8.54e-26
10	11	4.25e-20	1.33e-20	5.11e-21	2.79e-21	1.50e-21	9.01e-22	12	30	0.	0.	0.	0.	0.	0.
10	12	2.67e-23	9.91e-24	2.92e-24	1.07e-24	3.24e-25	1.18e-25	12	31	1.98e-23	1.21e-23	5.33e-24	2.49e-24	9.41e-25	3.94e-25
10	13	5.65e-22	2.42e-22	9.08e-23	4.60e-23	2.30e-23	1.39e-23	12	32	2.35e-23	1.59e-23	8.14e-24	4.63e-24	2.45e-24	1.50e-24
10	14	1.25e-18	5.69e-19	2.67e-19	1.63e-19	9.57e-20	6.25e-20	12	33	6.80e-24	4.17e-24	1.77e-24	7.76e-25	2.64e-25	1.02e-25
10	15	9.47e-23	3.64e-23	1.10e-23	4.30e-24	1.62e-24	8.52e-25	12	34	9.90e-20	7.36e-20	4.51e-20	3.02e-20	1.03e-20	1.34e-20
10	16	3.12e-22	1.29e-22	4.39e-23	1.98e-23	6.61e-24	4.79e-24	12	35	1.50e-21	1.11e-21	5.81e-22	3.07e-22	6.31e-22	5.89e-23
10	17	1.69e-22	6.63e-23	2.02e-23	7.60e-24	2.35e-24	8.76e-25	12	36	1.08e-23	1.16e-23	8.22e-24	3.48e-24	1.90e-24	1.23e-24
10	18	6.49e-22	2.92e-22	1.12e-22	5.67e-23	2.82e-23	1.70e-23	12	37	3.89e-22	2.73e-22	1.42e-22	7.44e-23	3.13e-23	1.40e-23
10	19	5.24e-22	2.45e-22	9.40e-23	4.90e-23	2.49e-23	1.52e-23	10	21	5.68e-19	2.83e-19	1.31e-19	6.74e-20	4.05e-20	2.71e-20
10	20	4.83e-19	2.38e-19	1.11e-19	6.74e-20	4.05e-20	2.71e-20	10	22	9.01e-22	4.46e-22	1.80e-22	9.38e-23	4.73e-23	2.87e-23
10	23	2.48e-18	1.25e-18	5.85e-19	3.57e-19	2.15e-19	1.44e-19	10	24	4.78e-20	2.96e-20	1.40e-20	7.87e-21	4.18e-21	2.64e-21
10	25	3.33e-20	2.00e-20	9.60e-21	5.37e-21	2.82e-21	1.73e-21	10	26	6.07e-20	3.17e-20	1.81e-20	9.82e-21	6.13e-21	3.21e-21
10	27	1.02e-19	6.31e-20	3.17e-20	1.81e-20	9.82e-21	6.13e-21	10	28	4.04e-20	2.56e-20	1.28e-20	7.37e-21	4.01e-21	2.51e-21
10	29	2.28e-20	4.30e-20	2.40e-20	1.50e-20	9.00e-21	6.13e-21	10	30	5.00e-20	3.40e-20	1.95e-20	1.24e-20	7.53e-21	5.16e-21
10	31	5.51e-24	3.53e-24	1.81e-24	7.53e-25	2.79e-25	1.13e-25	10	32	2.54e-23	1.73e-23	9.19e-24	5.29e-24	2.08e-24	1.75e-24
10	33	2.53e-23	1.67e-23	8.05e-24	3.97e-24	1.60e-24	7.33e-25	10	34	4.61e-23	3.40e-23	2.04e-23	1.31e-23	5.04e-24	3.20e-24
10	35	1.24e-22	9.68e-23	6.21e-23	4.23e-23	2.76e-23	1.96e-23	10	36	1.37e-23	9.85e-24	5.40e-24	3.05e-24	1.57e-24	9.36e-25
10	37	2.51e-22	1.97e-22	1.27e-22	8.66e-23	5.65e-23	4.02e-23	11	12	4.48e-21	1.56e-21	4.31e-22	1.48e-22	3.95e-23	1.27e-23
11	13	2.87e-20	1.19e-20	4.88e-21	2.67e-21	1.43e-21	8.91e-22	11	14	8.92e-22	2.45e-22	8.97e-23	4.77e-23	2.52e-23	1.50e-23
11	15	5.23e-21	1.96e-21	6.13e-22	2.43e-22	7.90e-23	3.04e-23	11	16	1.69e-19	4.05e-19	2.05e-20	1.21e-20	5.38e-21	1.32e-21
11	17	1.83e-20	7.51e-21	2.92e-21	1.56e-21	8.55e-22	5.61e-22	11	18	2.33e-18	1.13e-18	5.29e-19	3.23e-19	9.01e-21	1.87e-21
11	19	9.12e-21	3.31e-21	9.12e-22	3.05e-22	7.82e-23	4.24e-23	11	20	1.02e-19	0.	0.	0.	0.	0.
11	21	7.47e-21	3.34e-21	1.23e-21	5.57e-22	2.12e-22	9.01e-23	11	22	2.23e-21	4.62e-21	2.04e-21	1.05e-21	5.02e-22	1.43e-22
11	23	9.72e-21	4.62e-21	1.80e-21	9.01e-22	4.26e-22	2.45e-22	11	24	6.50e-22	3.35e-22	1.15e-22	4.24e-22	2.23e-22	1.43e-22
11	25	1.05e-21	5.49e-22	1.91e-22	7.11e-23	1.99e-23	8.52e-24	11	26	1.26e-21	7.33e-22	3.38e-22	1.88e-22	6.20e-23	3.82e-23
11	27	1.26e-21	7.33e-22	3.38e-22	1.88e-22	1.03e-22	6.70e-23	11	28	2.36e-20	1.51e-20	8.13e-21	3.03e-21	2.07e-21	1.15e-21
11	29	2.56e-22	1.52e-22	6.49e-23	2.97e-23	1.10e-23	4.54e-24	11	30	7.50e-23	4.92e-23	2.39e-23	1.27e-23	5.95e-24	3.07e-24
11	31	7.50e-23	4.92e-23	2.39e-23	1.20e-23	4.95e-24	2.20e-24	11	32	2.44e-23	1.73e-23	9.06e-24	4.12e-24	2.10e-24	9.09e-25
11	33	1.54e-20	1.09e-20	6.44e-21	4.22e-21	2.62e-21	1.81e-21	11	34	8.59e-25	5.66e-25	2.49e-25	1.05e-25	3.19e-26	1.56e-26
11	35	2.91e-23	2.25e-23	1.41e-23	9.20e-24	5.51e-24	3.63e-24	11	36	1.15e-23	7.79e-24	3.64e-24	1.65e-24	5.52e-25	2.80e-25
11	37	4.61e-23	3.60e-23	2.31e-23	1.54e-23	9.42e-24	6.28e-24	12	13	6.88e-20	1.58e-20	3.91e-21	1.36e-21	3.98e-22	1.56e-22
12	14	2.35e-21	6.87e-22	2.81e-22	1.42e-22	7.67e-23	4.60e-23	12	15	9.20e-20	2.28e-20	6.05e-21	2.24e-21	8.06e-22	1.83e-22

TABLE IID. Electron Collision Cross Sections for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD							
I	F	50.	200.	600.	1200.	2400.	4000.	I	F	50.	200.	600.	1200.	2400.	4000.		
15	16	8.54e-20	2.01e-20	5.57e-21	2.29e-21	9.01e-22	4.60e-22	18	24	3.30e-21	1.80e-21	6.25e-22	2.98e-22	1.29e-22	6.77e-23		
15	17	1.69e-19	3.95e-20	1.06e-20	4.21e-21	1.67e-21	8.86e-22	18	25	8.76e-21	4.32e-21	1.69e-21	7.88e-22	3.20e-22	1.52e-22		
15	18	5.54e-20	1.38e-20	3.93e-21	1.69e-21	7.39e-22	4.22e-22	18	26	1.22e-20	6.20e-21	2.55e-21	1.29e-21	6.13e-22	3.50e-22		
15	19	7.19e-20	1.85e-20	5.08e-21	2.08e-21	8.61e-22	4.80e-22	18	27	3.16e-21	1.63e-21	6.87e-22	3.55e-22	1.74e-22	1.02e-22		
15	20	2.81e-22	8.89e-23	3.03e-23	1.51e-23	7.79e-24	4.98e-24	18	28	3.93e-23	2.31e-23	1.12e-23	6.54e-24	3.84e-24	2.59e-24		
15	21	4.28e-23	1.27e-23	3.48e-24	1.30e-24	4.54e-25	2.19e-25	18	29	2.55e-24	1.30e-24	4.39e-25	1.61e-25	4.48e-26	1.48e-26		
15	22	1.89e-20	5.70e-21	1.64e-21	6.76e-22	2.79e-22	1.53e-22	18	30	1.18e-23	7.43e-24	3.63e-24	2.03e-24	1.07e-24	8.65e-25		
15	23	3.03e-22	1.25e-22	5.55e-23	3.13e-23	1.67e-23	1.03e-23	18	31	1.07e-23	6.15e-24	2.45e-24	1.05e-24	3.87e-25	1.54e-25		
15	24	1.66e-20	8.22e-21	3.24e-21	1.53e-21	6.43e-22	3.20e-22	18	32	2.19e-23	1.37e-23	6.31e-24	3.13e-24	1.34e-24	8.72e-25		
15	25	9.59e-23	4.47e-23	1.50e-23	5.98e-24	2.08e-24	9.13e-25	18	33	2.01e-23	1.31e-23	6.74e-24	3.90e-24	2.14e-24	1.38e-24		
15	26	2.02e-23	1.03e-23	4.22e-24	2.11e-24	9.87e-25	5.59e-25	18	34	9.48e-21	6.95e-21	4.20e-21	2.79e-21	1.78e-21	1.22e-21		
15	27	7.82e-21	4.09e-21	1.73e-21	8.85e-22	4.27e-22	2.48e-22	18	35	1.08e-21	7.71e-22	4.35e-22	2.63e-22	1.45e-21	9.06e-23		
15	28	1.56e-23	8.52e-24	3.57e-24	1.82e-24	9.13e-25	5.71e-25	18	36	2.09e-20	1.54e-20	9.29e-21	6.14e-21	3.84e-21	2.65e-21		
15	29	1.20e-24	7.00e-25	3.32e-25	1.90e-25	1.08e-25	7.18e-26	18	37	5.64e-20	4.19e-20	2.57e-20	1.72e-20	1.00e-20	7.59e-21		
15	30	6.78e-24	3.94e-24	1.60e-24	6.88e-25	2.37e-25	9.30e-26										
15	31	1.06e-22	6.84e-23	3.55e-23	2.07e-23	1.13e-23	7.13e-24										
15	32	2.09e-23	1.34e-23	6.53e-24	3.56e-24	1.83e-24	1.11e-24	19	20	2.32e-22	8.81e-23	2.42e-23	1.29e-23	7.22e-24	4.81e-24		
15	33	6.69e-24	3.56e-24	2.43e-24	1.24e-24	6.10e-25	3.70e-25	19	21	2.02e-23	5.16e-24	1.21e-24	3.87e-25	8.34e-26	2.32e-26		
15	34	1.22e-21	8.44e-22	4.38e-22	2.31e-22	9.76e-23	4.39e-23	19	22	3.99e-20	1.10e-20	3.19e-21	1.35e-21	5.69e-22	3.15e-22		
15	35	6.43e-20	4.75e-20	2.88e-20	1.92e-20	1.21e-20	8.41e-21	19	23	1.02e-21	4.03e-22	1.69e-22	9.12e-23	4.75e-23	2.92e-23		
15	36	3.47e-23	2.56e-23	1.55e-23	1.02e-23	6.43e-24	4.45e-24	19	24	3.42e-23	1.55e-23	5.39e-24	2.32e-24	9.24e-25	4.73e-25		
15	37	1.20e-20	8.97e-21	5.49e-21	3.67e-21	2.33e-21	1.62e-21	19	25	1.08e-20	5.25e-21	2.06e-21	9.76e-22	4.16e-22	2.13e-22		
16	17	1.21e-19	2.83e-20	8.12e-21	3.59e-21	1.63e-21	9.51e-22	19	26	1.55e-20	7.07e-21	3.07e-21	1.50e-21	6.71e-22	3.80e-22		
16	18	4.44e-20	1.05e-20	2.73e-21	1.05e-21	4.02e-22	2.10e-22	19	27	4.21e-22	2.08e-22	8.32e-23	4.17e-23	2.08e-23	1.24e-23		
16	19	1.04e-19	2.66e-20	7.57e-21	3.23e-21	1.39e-21	7.83e-22	19	28	7.08e-24	3.84e-24	1.24e-24	4.36e-25	1.17e-25	3.95e-26		
16	20	3.12e-22	8.70e-23	2.20e-23	7.27e-24	1.88e-24	5.88e-25	19	29	7.91e-25	4.52e-25	2.12e-25	1.22e-25	7.03e-26	4.75e-26		
16	21	2.51e-22	9.85e-23	4.15e-23	2.26e-23	1.17e-23	7.12e-24	19	30	2.97e-24	1.59e-24	5.33e-25	1.83e-25	4.51e-26	1.31e-26		
16	22	3.17e-20	9.07e-21	2.31e-21	7.81e-22	2.17e-22	7.82e-23	19	31	5.75e-25	3.14e-25	1.13e-24	4.41e-25	1.52e-25	7.45e-26		
16	23	1.11e-21	4.02e-22	1.75e-22	9.71e-23	5.12e-23	3.14e-23	19	32	1.91e-23	1.16e-23	5.17e-24	2.49e-24	1.04e-24	5.22e-25		
16	24	1.29e-20	6.43e-21	2.59e-21	1.28e-21	5.80e-22	3.17e-22	19	33	1.93e-23	1.22e-23	5.92e-24	3.23e-24	1.67e-24	1.02e-24		
16	25	2.80e-21	1.40e-21	5.50e-22	2.58e-22	1.08e-22	5.32e-23	19	34	1.23e-24	8.44e-24	4.34e-25	2.27e-25	9.59e-26	4.31e-26		
16	26	3.35e-21	1.73e-21	7.17e-22	3.84e-22	1.74e-22	9.98e-23	19	35	5.87e-21	4.29e-21	2.58e-21	1.71e-21	1.07e-21	7.40e-22		
16	27	8.71e-21	4.44e-21	1.77e-21	8.35e-22	3.50e-22	1.75e-22	19	36	4.83e-20	3.55e-20	2.14e-20	1.42e-20	8.93e-21	6.18e-21		
16	28	1.70e-23	9.64e-24	4.36e-24	2.40e-24	1.32e-24	8.70e-25	19	37	2.88e-20	2.13e-20	1.29e-20	8.61e-21	5.43e-21	3.76e-21		
16	29	3.35e-24	1.72e-24	5.87e-25	2.16e-25	8.07e-26	2.02e-26	20	21	7.09e-20	1.61e-20	4.03e-21	1.40e-21	4.02e-22	1.39e-22		
16	30	9.00e-24	5.83e-24	3.08e-24	1.85e-24	1.07e-24	7.01e-25	20	22	3.25e-20	9.28e-21	3.50e-21	1.89e-21	1.01e-21	6.05e-22		
16	31	2.89e-23	1.76e-23	7.84e-24	3.81e-24	1.80e-24	7.96e-25	20	23	8.00e-19	1.56e-19	5.10e-20	2.51e-20	1.24e-20	7.16e-21		
16	32	2.01e-23	1.33e-23	6.74e-24	3.83e-24	2.04e-24	1.26e-24	20	24	1.31e-20	5.44e-21	1.62e-21	5.64e-22	1.50e-22	4.72e-23		
16	33	1.43e-23	9.01e-24	4.22e-24	2.19e-24	1.05e-24	6.09e-25	20	25	1.79e-20	7.60e-21	2.30e-21	8.02e-22	2.14e-22	6.82e-23		
16	34	3.43e-20	2.52e-20	1.53e-20	1.02e-20	6.43e-21	4.45e-21	20	26	2.47e-20	1.19e-20	4.98e-21	2.69e-21	1.49e-21	9.81e-22		
16	35	4.91e-20	3.63e-20	2.20e-20	1.47e-20	9.27e-21	6.43e-21	20	27	2.06e-18	1.07e-18	5.01e-19	3.05e-19	1.84e-19	1.24e-19		
16	36	7.60e-21	5.63e-21	3.43e-21	2.28e-21	1.44e-21	9.98e-22	20	28	4.00e-22	1.97e-22	6.84e-23	2.68e-23	8.26e-24	2.96e-24		
16	37	9.48e-22	6.84e-22	3.88e-22	2.34e-22	1.28e-22	7.90e-23	20	29	0.	0.	0.	0.	0.	0.		
17	18	5.42e-20	1.26e-20	3.23e-21	1.20e-21	4.10e-22	1.87e-22	20	30	1.07e-21	5.05e-22	2.90e-22	1.47e-22	6.04e-23	2.69e-23		
17	19	1.16e-19	2.93e-20	8.10e-21	3.24e-21	1.22e-21	5.95e-22	20	31	7.17e-20	4.67e-20	2.53e-20	1.55e-20	9.27e-21	6.32e-21		
17	20	2.27e-22	6.29e-23	1.60e-23	5.30e-24	1.38e-24	4.30e-25	20	32	2.13e-22	1.32e-22	5.98e-23	2.91e-23	5.07e-24			
17	21	4.43e-23	1.41e-23	4.88e-24	2.47e-24	1.30e-24	8.37e-25	20	33	1.50e-21	1.05e-21	5.70e-22	3.49e-22	2.06e-22			
17	22	2.89e-20	8.41e-21	2.27e-21	8.18e-22	2.45e-22	8.86e-23	20	34	1.82e-23	1.16e-23	5.02e-24	2.18e-24	7.21e-25			
17	23	1.18e-23	3.84e-24	1.10e-24	4.68e-25	1.85e-25	9.40e-26	20	35	1.42e-23	9.18e-24	4.24e-24	2.06e-24	8.82e-25			
17	24	1.68e-23	7.38e-24	2.29e-24	8.31e-25	2.47e-25	9.34e-26	20	36	2.79e-22	2.09e-22	1.28e-22	8.07e-23	4.78e-23	3.13e-23		
17	25	9.14e-21	4.62e-21	1.91e-21	9.65e-22	4.58e-22	2.63e-22			21	22	1.16e-21	2.84e-22	7.28e-23	2.72e-23	9.44e-24	4.40e-24
17	26	1.54e-20	7.73e-21	3.05e-21	4.13e-21	5.83e-22	2.81e-22			21	23	2.30e-19	5.60e-20	1.71e-20	7.80e-21	3.53e-21	2.00e-21
17	27	2.60e-22	1.23e-22	4.21e-23	1.87e-23	5.41e-24	2.09e-24			21	24	5.67e-20	2.70e-20	1.20e-20	7.00e-21	4.06e-21	2.68e-21
17	28	1.85e-23	1.03e-23	4.57e-24	2.49e-24	1.35e-24	8.83e-25			21	25	2.08e-18	1.04e-18	4.85e-19	2.98e-19	1.77e-19	1.18e-19
17	29	7.93e-25	4.10e-25	1.41e-25	5.22e-26	1.45e-25	4.66e-27			21	26	2.08e-18	9.13e-21	3.07e-21	1.30e-21	5.29e-22	2.89e-22
17	30	2.66e-24	1.50e-24	5.88e-25	2.88e-25	1.23e-25	7.61e-26			21	27	1.92e-19	9.73e-20	4.49e-20	2.70e-20	1.61e-20	1.08e-20
17	31	6.46e-24	3.62e-24	1.37e-24	5.70e-25												

TABLE IID. Electron Collision Cross Sections for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS										LEVELS									
ENERGY(EV) ABOVE THRESHOLD										ENERGY(EV) ABOVE THRESHOLD									
I	P	50.	200.	600.	1200.	2400.	4000.	I	P	50.	200.	600.	1200.	2400.	4000.				
22	25	8.89e-21	4.08e-21	1.52e-21	6.87e-22	2.66e-22	1.17e-22	27	31	2.25e-22	1.15e-22	4.80e-23	2.54e-23	1.29e-23	7.84e-24				
22	26	1.00e-20	4.87e-21	1.82e-21	8.91e-22	4.11e-22	2.32e-22	27	32	9.22e-23	4.68e-23	1.75e-23	7.68e-24	3.26e-24	1.71e-24				
22	27	1.02e-21	8.51e-22	3.13e-22	1.38e-22	5.11e-23	2.19e-23	27	33	1.74e-22	9.66e-23	4.26e-23	2.31e-23	1.20e-23	7.32e-24				
22	28	1.33e-22	7.43e-23	3.49e-23	2.03e-23	1.18e-23	7.89e-24	27	34	1.93e-20	1.26e-20	6.90e-21	4.24e-21	2.51e-21	1.70e-21				
22	29	7.82e-22	4.69e-22	2.36e-22	1.43e-22	8.61e-23	5.85e-23	27	35	9.92e-20	6.57e-20	3.65e-20	2.28e-20	1.37e-20	9.40e-21				
22	30	5.14e-24	2.82e-24	1.04e-24	4.12e-25	1.27e-25	4.56e-26	27	36	1.45e-22	9.53e-23	3.63e-23	1.68e-23	6.68e-24	3.18e-24				
22	31	9.70e-24	5.50e-24	2.12e-24	9.68e-25	3.53e-25	1.53e-25	27	37	4.98e-20	3.35e-20	1.90e-20	1.20e-20	7.29e-21	5.01e-21				
22	32	2.52e-23	1.54e-23	6.75e-24	3.24e-24	1.34e-24	6.56e-25												
22	33	3.21e-24	1.95e-24	8.71e-25	4.44e-25	2.14e-25	1.25e-25												
22	34	1.24e-20	8.93e-21	5.34e-21	3.52e-21	2.20e-21	1.52e-21												
22	35	1.43e-20	1.03e-20	6.16e-21	4.06e-21	2.53e-21	1.75e-21	28	29	4.49e-20	1.21e-20	3.38e-21	1.27e-21	4.02e-22	1.51e-22				
22	36	1.70e-21	1.16e-21	5.90e-22	3.07e-22	1.29e-22	5.80e-23	28	30	6.08e-19	2.78e-19	1.30e-19	7.96e-20	4.70e-20	3.08e-20				
22	37	6.88e-20	5.03e-20	3.05e-20	2.03e-20	1.28e-20	8.88e-21	28	31	1.30e-18	6.00e-19	2.81e-19	1.72e-19	1.01e-19	6.64e-20				
22	38							28	32	2.40e-18	1.21e-18	5.68e-19	3.46e-19	2.08e-19	1.39e-19				
22	39							28	33	4.05e-19	2.05e-19	9.52e-20	5.78e-20	3.48e-20	2.33e-20				
23	24	2.37e-19	1.13e-19	5.18e-20	3.11e-20	1.84e-20	1.22e-20	28	34	4.44e-20	2.74e-20	1.33e-20	7.59e-21	4.09e-21	2.55e-21				
23	25	1.70e-19	8.30e-20	3.79e-20	2.27e-20	1.35e-20	8.94e-21	28	35	7.00e-20	4.30e-20	2.11e-20	1.20e-20	6.46e-21	4.03e-21				
23	26	1.88e-18	9.37e-19	4.40e-19	2.68e-19	1.61e-19	1.07e-19	28	36	1.03e-19	6.31e-20	3.12e-20	1.78e-20	9.00e-21	5.90e-21				
23	27	2.87e-20	1.43e-20	6.31e-21	3.68e-21	2.14e-21	1.42e-21	28	37	1.12e-20	6.45e-21	2.65e-21	1.25e-21	5.33e-22	2.87e-22				
23	28	2.22e-22	1.20e-22	5.09e-23	2.61e-23	1.25e-23	7.24e-24												
23	29	7.62e-23	4.41e-23	2.07e-23	1.16e-23	6.19e-24	3.85e-24	29	30	4.43e-21	1.55e-21	4.28e-22	1.47e-22	4.06e-23	1.38e-23				
23	30	1.27e-24	6.84e-25	2.49e-25	9.93e-26	3.20e-26	1.22e-26	29	31	1.68e-18	7.54e-19	3.56e-19	2.15e-19	1.24e-19	7.98e-20				
23	31	4.42e-23	2.66e-23	1.25e-23	0.77e-24	3.51e-24	2.17e-24	29	32	1.73e-20	6.93e-21	2.02e-21	7.07e-22	1.97e-22	6.66e-23				
23	32	5.04e-20	3.78e-20	2.12e-20	1.32e-20	7.94e-21	5.42e-21	29	33	3.69e-18	1.79e-18	8.38e-19	5.12e-19	3.07e-19	2.04e-19				
23	33	5.60e-20	3.76e-20	2.12e-20	1.34e-20	8.06e-21	5.50e-21	29	34	5.47e-21	2.81e-21	9.77e-22	3.61e-22	1.02e-21	3.28e-23				
23	34	5.01e-24	3.33e-24	1.65e-24	0.94e-25	4.51e-25	2.72e-25	29	35	2.06e-20	1.19e-20	5.10e-21	2.61e-21	1.27e-21	7.45e-22				
23	35	4.82e-24	3.05e-24	1.36e-24	0.71e-25	3.16e-25	1.89e-25	29	36	1.24e-20	6.45e-21	2.20e-21	8.45e-22	3.36e-22	7.62e-23				
23	36	2.52e-23	1.69e-23	8.26e-24	4.31e-24	1.99e-24	1.08e-24	29	37	1.95e-19	1.25e-19	6.09e-20	3.53e-20	1.93e-20	1.21e-20				
24	25	8.03e-20	1.93e-20	5.07e-21	2.00e-21	8.18e-22	4.59e-22												
24	26	2.02e-19	5.02e-20	1.36e-20	5.44e-21	2.17e-21	1.17e-21	30	32	4.06e-19	1.37e-19	4.77e-20	2.30e-20	1.19e-20	7.19e-21				
24	27	1.12e-19	3.09e-20	9.36e-21	4.13e-21	1.79e-21	9.87e-22	30	33	3.88e-20	1.19e-20	3.15e-21	1.09e-21	3.00e-22	9.94e-23				
24	28	1.11e-22	4.26e-23	1.54e-23	7.81e-24	4.00e-24	2.63e-24	30	34	1.90e-18	1.01e-18	4.78e-19	2.91e-19	1.76e-19	1.18e-19				
24	29	4.49e-24	1.66e-24	4.67e-25	1.60e-25	4.20e-26	1.33e-26	30	35	1.38e-20	6.21e-21	1.94e-21	6.88e-22	1.85e-22	5.89e-23				
24	30	5.09e-23	2.71e-23	1.18e-23	6.36e-24	3.26e-24	2.01e-24	30	36	2.35e-20	1.21e-20	5.21e-21	2.87e-21	1.59e-21	1.05e-21				
24	31	1.84e-22	9.15e-23	3.53e-23	1.68e-23	7.48e-24	4.10e-24	30	37	1.40e-20	6.55e-21	2.10e-21	7.51e-22	2.03e-22	6.50e-23				
24	32	6.29e-23	3.13e-23	1.11e-23	4.73e-24	1.96e-24	1.09e-24												
24	33	1.87e-23	8.33e-24	2.87e-24	1.10e-24	3.36e-25	1.22e-25	31	32	2.54e-19	8.38e-20	2.83e-20	1.38e-20	6.72e-21	4.01e-21				
24	34	5.04e-20	3.37e-20	1.89e-20	1.19e-20	7.13e-21	4.87e-21	31	33	2.02e-19	6.91e-20	2.40e-20	1.20e-20	5.92e-21	3.57e-21				
24	35	4.87e-20	3.26e-20	1.83e-20	1.15e-20	6.89e-21	4.70e-21	31	34	3.69e-19	1.95e-19	9.15e-20	5.53e-20	3.34e-20	2.25e-20				
24	36	2.94e-23	2.00e-23	1.16e-23	7.38e-24	4.51e-24	3.10e-24	31	35	1.32e-20	7.04e-19	3.34e-19	2.03e-19	1.22e-19	8.25e-20				
24	37	1.38e-20	9.40e-21	5.37e-21	3.41e-21	2.06e-21	1.41e-21	31	36	2.37e-20	1.14e-20	4.29e-21	2.02e-21	9.41e-22	5.65e-22				
24	38							31	37	1.88e-19	1.05e-19	4.99e-20	3.00e-20	1.80e-20	1.22e-20				
25	26	1.83e-19	4.24e-20	1.13e-20	4.49e-21	1.72e-21	8.73e-22												
25	27	1.01e-19	2.52e-20	6.84e-21	2.75e-21	1.10e-21	5.89e-22	32	33	1.38e-19	3.30e-20	1.01e-20	4.49e-21	1.95e-21	1.07e-21				
25	28	1.00e-21	4.32e-22	2.00e-22	1.18e-22	6.64e-23	4.21e-23	32	34	3.59e-20	1.69e-20	7.42e-21	4.34e-21	2.52e-21	1.67e-21				
25	29	2.94e-23	1.05e-23	2.90e-23	9.89e-25	2.66e-25	8.68e-26	32	35	3.56e-19	1.71e-19	7.90e-20	4.70e-20	2.85e-20	1.89e-20				
25	30	6.04e-24	3.18e-24	1.17e-24	5.44e-25	2.41e-25	1.36e-25	32	36	1.00e-18	9.37e-19	4.40e-19	2.68e-19	1.60e-19	1.07e-19				
25	31	5.35e-23	2.35e-23	7.10e-24	2.46e-24	6.76e-25	2.44e-25	32	37	3.31e-20	1.57e-20	6.35e-21	3.38e-21	1.82e-21	1.16e-21				
25	32	1.30e-22	6.81e-24	2.72e-24	1.28e-24	5.46e-25	2.82e-25												
25	33	8.29e-23	4.50e-23	1.90e-23	9.50e-24	4.33e-24	2.36e-24												
25	34	1.91e-23	1.18e-23	5.50e-24	3.07e-24	1.64e-24	1.05e-24												
25	35	5.20e-21	3.45e-21	1.91e-21	1.18e-21	7.03e-22	4.77e-22	33	35	1.71e-19	8.07e-20	3.68e-20	2.21e-20	1.31e-20	8.61e-21				
25	36	1.16e-20	7.77e-20	4.38e-20	2.75e-20	1.67e-20	1.14e-20	33	36	1.60e-19	7.60e-20	3.46e-20	2.07e-20	1.21e-20	7.99e-21				
25	37	2.50e-20	1.69e-20	9.52e-21	5.99e-21	3.59e-21	2.45e-21	33	37	1.91e-18	9.60e-19	4.51e-19	2.75e-19	1.05e-19					

TABLE III. Electron Collision Cross Sections for Ne-like Ag ($Z = 47$)
 See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	P	200.	500.	1000.	2000.	3000.	5000.	I	P	200.	500.	1000.	2000.	3000.	5000.
1	2	1.47e-22	1.28e-22	9.87e-23	6.42e-23	4.40e-23	2.32e-23	2	37	1.13e-24	7.71e-25	4.81e-25	2.66e-25	1.84e-25	1.11e-25
1	3	1.87e-22	1.73e-22	1.81e-22	1.93e-22	2.01e-22	2.08e-22								
1	4	2.37e-22	2.01e-22	1.56e-22	9.98e-23	6.74e-23	3.51e-23	3	4	4.65e-20	2.57e-20	1.60e-20	9.63e-21	8.97e-21	4.52e-21
1	5	3.71e-22	3.34e-22	2.87e-22	2.28e-22	1.88e-22	1.45e-22	3	5	4.82e-19	2.69e-19	1.68e-19	1.01e-19	7.34e-20	4.77e-20
1	6	3.87e-22	3.25e-22	2.49e-22	1.55e-22	1.03e-22	5.18e-23	3	6	3.29e-21	1.37e-21	5.59e-22	1.82e-22	8.43e-23	2.87e-23
1	7	2.06e-22	1.74e-22	1.35e-22	8.54e-23	5.77e-23	2.96e-23	3	7	4.50e-19	2.49e-19	1.56e-19	9.65e-20	7.21e-20	4.84e-20
1	8	2.81e-22	2.56e-22	2.23e-22	1.80e-22	1.53e-22	1.22e-22	3	8	4.07e-19	2.27e-19	1.42e-19	8.70e-20	6.54e-20	4.40e-20
1	9	2.18e-21	2.04e-21	1.85e-21	1.55e-21	1.34e-21	1.05e-21	3	9	1.47e-19	8.25e-20	5.09e-20	3.14e-20	2.37e-20	1.61e-20
1	10	2.76e-23	2.36e-23	1.86e-23	1.22e-23	8.36e-24	4.44e-24	3	10	2.26e-21	1.16e-21	5.89e-22	2.52e-22	1.40e-22	5.94e-23
1	11	1.57e-22	1.56e-22	1.55e-22	1.55e-22	1.55e-22	1.55e-22	3	11	6.95e-21	3.73e-21	2.05e-21	1.03e-21	6.72e-21	3.88e-21
1	12	1.91e-22	1.60e-22	1.21e-22	7.43e-23	4.87e-23	2.41e-23	3	12	3.40e-22	1.63e-22	7.23e-23	2.47e-23	1.15e-23	3.85e-24
1	13	4.89e-22	3.92e-22	2.96e-22	1.81e-22	1.18e-22	5.81e-23	3	13	9.66e-22	4.65e-22	2.07e-22	7.03e-23	3.28e-23	1.09e-23
1	14	4.54e-22	3.98e-22	3.28e-22	2.41e-22	1.92e-22	1.39e-22	3	14	2.47e-20	1.46e-20	8.69e-21	4.84e-21	3.36e-21	2.10e-21
1	15	3.84e-22	3.17e-22	2.36e-22	1.40e-22	8.95e-23	4.22e-23	3	15	3.83e-21	2.12e-21	1.17e-21	5.90e-22	3.88e-22	2.23e-22
1	16	6.27e-22	5.19e-22	3.88e-22	2.31e-22	1.48e-22	6.99e-23	3	16	2.86e-21	1.39e-21	6.20e-22	2.11e-22	9.78e-23	3.22e-23
1	17	4.38e-22	3.63e-22	2.72e-22	1.62e-22	1.04e-22	4.98e-23	3	17	2.53e-20	1.52e-20	9.20e-21	5.10e-21	3.64e-21	2.29e-21
1	18	3.13e-22	2.73e-22	2.24e-22	1.86e-22	1.33e-22	9.90e-23	3	18	1.80e-20	1.07e-20	8.45e-21	3.80e-21	2.51e-21	1.57e-21
1	19	7.55e-21	7.41e-21	7.18e-21	6.77e-21	6.41e-21	5.83e-21	3	19	1.50e-20	9.47e-21	5.84e-21	3.34e-21	2.35e-21	1.48e-21
1	20	1.55e-22	1.31e-22	1.01e-22	6.39e-23	4.29e-23	2.20e-23	3	20	1.46e-23	9.10e-24	5.84e-24	3.33e-24	2.45e-24	1.05e-24
1	21	2.13e-21	2.00e-21	1.82e-21	1.53e-21	1.33e-21	1.05e-21	3	21	2.36e-21	1.56e-21	1.01e-21	4.01e-22	2.48e-22	2.75e-22
1	22	1.88e-22	1.61e-22	1.25e-22	8.01e-23	5.45e-23	2.85e-23	3	22	1.22e-22	7.99e-23	5.14e-23	3.04e-23	2.17e-23	1.41e-23
1	23	2.89e-22	2.60e-22	2.24e-22	1.76e-22	1.47e-22	1.13e-22	3	23	3.82e-23	2.56e-23	1.68e-23	1.01e-23	7.26e-24	4.75e-24
1	24	2.87e-22	2.38e-22	1.80e-22	1.08e-22	6.95e-23	3.31e-23	3	24	1.97e-24	1.13e-24	5.88e-25	2.47e-25	1.38e-25	6.23e-26
1	25	4.50e-22	3.70e-22	2.85e-22	1.74e-22	1.13e-22	5.52e-23	3	25	4.07e-24	2.35e-24	1.22e-24	5.03e-25	2.69e-25	1.12e-25
1	26	3.53e-22	3.11e-22	2.57e-22	1.91e-22	1.53e-22	1.12e-22	3	26	2.81e-24	1.65e-24	8.90e-25	4.03e-25	2.41e-25	1.27e-25
1	27	4.97e-21	4.89e-21	4.76e-21	4.52e-21	4.31e-21	3.95e-21	3	27	6.43e-23	4.42e-23	2.96e-23	8.18e-23	5.12e-23	8.55e-24
1	28	8.30e-23	6.99e-23	5.35e-23	3.35e-23	2.24e-23	1.15e-23	3	28	1.32e-20	9.35e-21	6.48e-21	4.10e-21	3.12e-21	2.14e-21
1	29	1.47e-21	1.39e-21	1.28e-21	1.11e-21	9.72e-22	7.02e-22	3	29	2.71e-20	1.94e-20	1.37e-20	8.99e-21	6.83e-21	4.74e-21
1	30	2.42e-23	2.07e-23	1.63e-23	1.07e-23	7.33e-24	3.89e-24	3	30	1.24e-24	7.88e-25	4.52e-25	2.06e-25	1.18e-25	4.92e-26
1	31	1.50e-22	1.48e-22	1.48e-22	1.48e-22	1.48e-22	1.48e-22	3	31	1.39e-21	8.87e-25	5.15e-25	2.48e-25	1.51e-25	7.50e-26
1	32	1.08e-22	9.28e-23	7.38e-23	4.88e-23	3.38e-23	1.81e-23	3	32	2.72e-24	1.77e-24	1.03e-24	4.85e-25	2.81e-25	1.30e-25
1	33	2.86e-22	2.80e-22	2.99e-22	3.26e-22	3.43e-22	3.61e-22	3	33	3.17e-24	2.24e-24	1.50e-24	8.89e-25	6.29e-25	3.93e-25
1	34	1.49e-22	1.27e-22	9.89e-23	6.29e-23	4.25e-23	2.19e-23	3	34	4.36e-24	3.30e-24	2.40e-24	1.64e-24	1.29e-24	9.47e-25
1	35	3.57e-22	3.23e-22	2.78e-22	2.19e-22	1.82e-22	1.39e-22	3	35	7.55e-24	5.76e-24	4.22e-24	2.91e-24	2.31e-24	1.71e-24
1	36	3.43e-22	2.92e-22	2.27e-22	1.44e-22	9.67e-23	4.98e-23	3	36	1.23e-24	8.62e-25	5.57e-25	3.20e-25	2.23e-25	1.41e-25
1	37	1.30e-21	1.29e-21	1.27e-21	1.21e-21	1.15e-21	1.04e-21	3	37	8.21e-24	6.21e-24	4.49e-24	2.99e-24	2.31e-24	1.84e-24
2	3	1.55e-20	5.65e-21	2.42e-21	9.36e-22	5.10e-22	2.28e-22	4	5	2.21e-20	8.17e-21	3.63e-21	1.50e-21	8.71e-22	4.32e-22
2	4	3.19e-19	1.78e-19	1.12e-19	6.87e-20	5.02e-20	3.29e-20	4	6	7.67e-20	3.29e-20	1.68e-20	8.44e-21	5.64e-21	3.42e-21
2	5	2.52e-19	1.17e-19	8.00e-20	4.43e-20	3.07e-20	1.96e-20	4	7	7.60e-21	3.09e-21	1.43e-21	6.32e-22	3.91e-22	2.18e-22
2	6	8.76e-19	3.78e-19	2.36e-19	1.40e-19	1.09e-19	7.29e-20	4	8	2.29e-20	9.83e-21	4.92e-21	2.41e-21	1.58e-21	9.47e-22
2	7	2.95e-20	1.61e-20	9.89e-21	6.08e-21	4.54e-21	3.05e-21	4	9	1.08e-21	4.25e-22	1.69e-22	5.38e-23	2.45e-23	8.05e-24
2	8	2.45e-19	1.36e-19	8.45e-20	5.23e-20	3.92e-20	2.64e-20	4	10	1.84e-21	1.01e-21	6.36e-22	3.94e-22	2.94e-22	1.86e-22
2	9	3.87e-22	1.70e-22	7.11e-23	2.33e-23	1.09e-23	3.68e-24	4	11	6.09e-22	3.10e-22	1.74e-22	9.43e-23	6.58e-23	4.17e-23
2	10	2.08e-21	1.13e-21	6.31e-22	3.24e-22	2.15e-22	1.28e-22	4	12	1.28e-19	7.13e-20	4.41e-20	2.73e-20	2.05e-20	1.39e-20
2	11	6.47e-21	3.43e-21	1.82e-21	6.57e-22	5.26e-22	2.75e-22	4	13	2.75e-19	1.53e-19	9.48e-20	5.86e-20	4.40e-20	2.99e-20
2	12	3.57e-21	2.07e-21	1.23e-21	6.81e-22	4.71e-22	2.94e-22	4	14	2.73e-21	1.20e-21	5.09e-22	1.70e-22	8.05e-23	2.90e-23
2	13	1.10e-20	6.34e-21	3.79e-21	2.10e-21	1.46e-21	9.10e-22	4	15	2.32e-20	1.28e-19	7.22e-20	3.99e-20	2.81e-20	1.80e-20
2	14	1.10e-20	6.90e-21	4.04e-21	2.19e-21	1.51e-21	9.23e-22	4	16	5.59e-21	2.98e-21	1.69e-21	9.40e-22	6.70e-22	4.45e-22
2	15	1.85e-20	9.88e-21	5.91e-21	3.29e-21	2.26e-21	1.43e-21	4	17	6.54e-21	3.36e-21	1.80e-21	9.10e-22	6.08e-22	3.61e-22
2	16	3.19e-20	1.91e-20	1.15e-20	6.46e-21	4.50e-21	2.83e-21	4	18	3.41e-21	1.69e-21	8.55e-22	4.06e-22	2.65e-22	1.61e-22
2	17	2.98e-21	1.60e-21	8.59e-22	4.15e-22	2.64e-22	1.51e-22	4	19	1.02e-20	2.03e-20	8.25e-21	3.75e-21	2.80e-21	1.91e-21
2	18	1.47e-20	8.75e-21	5.24e-21	2.91e-21	2.02e-21	1.26e-21	4	20	6.25e-21	3.36e-21	1.84e-21	9.22e-22	5.97e-22	3.42e-22
2	19	8.71e-22	4.42e-22	2.03e-22	7.19e-23	3.47e-23	1.24e-23	4	21	2.45e-21	1.29e-21	6.01e-22	2.82e-22	1.55e-22	6.54e-23
2	20	4.79e-24	2.84e-24	1.88e-24	9.28e-25	6.46e-25	4.13e-25	4	22	5.28e-23	2.83e-23	1.46e-23	6.28e-24	3.50e-24	1.51e-24
2	21	9.91e-24	4.93e-24	2.20e-24	7.50e-25	3.52e-25	2.12e-25	4	23	1.03e-22	5.81e-23	3.32e-23	1.73e-23	1.15e-23	6.75e-24
2	22	4.37e-23	2.75e-23	1.71e-23	9.82e-24	6.97e-24	4.46e-24	4	24	2.82e-23	1.91e-23	1.27e-23	7.74e-24	5.63e-24	3.73e-24
2	23	7.49e-23	5.03e-23	3.33e-23	2.08e-23	1.54e-23	1.08e-23	4							

TABLE IIIE. Electron Collision Cross Sections for Ne-like Ag ($Z = 47$)
 See page 133 for Explanation of Tables

LEVELS							LEVELS								
ENERGY(EV) ABOVE THRESHOLD							ENERGY(EV) ABOVE THRESHOLD								
I	F	200.	500.	1000.	2000.	3000.	5000.	I	F	200.	500.	1000.	2000.	3000.	5000.
5	6	3.37e-20	1.41e-20	6.90e-21	3.30e-21	2.15e-21	1.27e-21	7	14	4.69e-21	2.28e-21	1.22e-21	6.48e-22	4.53e-22	2.96e-22
5	7	2.58e-20	1.11e-20	5.63e-21	2.81e-21	1.87e-21	1.13e-21	7	15	7.05e-21	3.53e-21	1.97e-21	1.08e-21	7.58e-22	4.83e-22
5	8	3.60e-20	1.56e-20	7.89e-21	3.92e-21	2.60e-21	1.57e-21	7	16	3.99e-21	1.70e-21	7.29e-22	2.68e-22	1.44e-22	6.78e-23
5	9	7.13e-21	3.33e-21	1.76e-21	9.00e-22	6.05e-22	3.70e-22	7	17	5.27e-19	2.94e-19	1.84e-19	1.14e-19	8.43e-20	5.62e-20
5	10	3.40e-24	1.48e-24	6.50e-25	2.48e-25	1.26e-25	4.95e-26	7	18	4.07e-21	1.83e-21	0.54e-22	3.07e-22	2.24e-22	1.27e-22
5	11	1.11e-22	6.02e-23	3.70e-23	2.25e-23	1.66e-23	1.11e-23	7	19	1.68e-19	9.31e-20	5.77e-20	3.57e-20	2.67e-20	1.81e-20
5	12	3.90e-22	1.68e-22	6.98e-23	2.25e-23	1.02e-23	3.28e-24	7	20	8.36e-23	4.11e-23	2.07e-23	9.31e-24	5.56e-24	2.85e-24
5	13	3.34e-20	1.84e-20	1.13e-20	6.92e-21	5.18e-21	3.52e-21	7	21	1.22e-22	5.78e-23	2.87e-23	1.00e-23	5.10e-24	1.92e-24
5	14	4.57e-19	2.57e-19	1.80e-19	9.89e-20	7.40e-20	5.02e-20	7	22	3.08e-21	1.60e-21	8.20e-22	3.58e-22	2.03e-22	9.07e-23
5	15	1.55e-19	8.66e-20	5.34e-20	3.30e-20	2.47e-20	1.68e-20	7	23	5.13e-21	2.76e-21	1.52e-21	7.69e-22	5.02e-22	2.92e-22
5	16	5.02e-21	2.37e-21	1.13e-21	4.85e-22	2.94e-22	1.65e-22	7	24	4.27e-24	2.26e-24	1.12e-24	4.67e-25	2.67e-25	1.25e-25
5	17	1.57e-20	9.17e-21	6.02e-21	3.67e-21	2.68e-21	1.78e-21	7	25	5.49e-23	3.53e-23	2.23e-23	1.29e-23	9.21e-24	5.93e-24
5	18	4.17e-21	2.12e-21	1.12e-21	5.59e-22	3.75e-22	2.33e-22	7	26	5.85e-24	3.13e-24	1.56e-24	8.67e-25	3.93e-25	2.09e-25
5	19	3.89e-21	2.23e-21	1.41e-21	8.37e-22	6.15e-22	4.11e-22	7	27	1.11e-21	7.37e-22	4.65e-22	2.99e-22	2.42e-22	1.55e-22
5	20	6.08e-21	3.20e-21	1.69e-21	7.87e-22	4.78e-22	2.46e-22	7	28	2.11e-23	1.28e-23	7.38e-24	3.70e-24	2.34e-24	1.25e-24
5	21	2.53e-21	1.42e-21	8.11e-22	4.25e-22	2.84e-22	1.71e-22	7	29	1.27e-23	7.21e-24	3.75e-24	1.56e-24	8.35e-25	3.50e-25
5	22	1.60e-23	9.08e-24	5.11e-24	2.62e-24	1.73e-24	9.96e-25	7	30	3.37e-22	2.35e-22	1.61e-22	1.02e-22	7.55e-23	5.10e-23
5	23	1.57e-25	8.65e-26	4.63e-26	2.14e-26	1.28e-26	6.39e-27	7	31	5.46e-23	3.73e-23	2.49e-23	1.50e-23	1.08e-23	6.70e-24
5	24	2.92e-23	1.97e-23	1.30e-23	7.87e-24	5.67e-24	3.71e-24	7	32	9.13e-21	6.48e-21	4.49e-21	2.89e-21	2.17e-21	1.49e-21
5	25	4.04e-23	2.77e-23	1.85e-23	1.41e-23	8.22e-24	5.40e-24	7	33	3.01e-20	2.14e-20	1.51e-20	9.83e-21	7.45e-21	5.17e-21
5	26	7.30e-24	4.81e-24	3.11e-24	1.87e-24	1.38e-24	9.41e-25	7	34	1.40e-23	1.03e-23	7.22e-24	4.62e-24	3.43e-24	2.31e-24
5	27	1.12e-22	7.46e-23	4.86e-23	2.92e-23	2.11e-23	1.38e-23	7	35	1.16e-23	8.39e-24	5.81e-24	3.65e-24	2.68e-24	1.78e-24
5	28	2.03e-23	1.33e-23	8.41e-24	4.86e-24	3.41e-24	2.15e-24	7	36	2.33e-23	1.65e-23	1.16e-23	7.41e-24	5.49e-24	3.85e-24
5	29	1.17e-23	7.68e-24	5.14e-24	3.07e-24	2.20e-24	1.41e-24	7	37	7.74e-24	5.48e-24	3.68e-24	2.22e-24	1.60e-24	1.02e-24
5	31	3.66e-20	2.60e-20	1.82e-20	1.18e-20	8.94e-21	6.18e-21								
5	32	1.78e-24	1.18e-24	7.35e-25	4.13e-25	2.88e-25	1.77e-25								
5	33	8.34e-23	6.06e-23	4.32e-23	2.80e-23	2.20e-23	1.55e-23								
5	34	1.24e-24	8.07e-25	4.74e-25	2.20e-25	1.39e-25	7.13e-26								
5	35	3.18e-25	2.22e-25	1.47e-25	8.05e-26	6.41e-26	4.14e-26								
5	36	1.11e-24	7.01e-25	4.06e-25	2.02e-25	1.30e-25	7.02e-26								
5	37	7.05e-25	4.59e-25	2.70e-25	1.50e-25	1.03e-25	6.53e-26								
6	7	1.03e-20	3.92e-21	1.85e-21	8.60e-22	5.49e-22	3.15e-22								
6	8	2.76e-20	1.04e-20	4.75e-21	2.07e-21	1.26e-21	6.81e-22								
6	9	3.32e-21	1.28e-21	5.41e-22	1.96e-22	9.90e-23	3.77e-23								
6	10	3.63e-24	1.67e-24	8.94e-25	4.82e-25	3.41e-25	2.24e-25								
6	11	1.46e-23	5.97e-24	2.68e-24	1.09e-24	6.48e-25	3.58e-25								
6	12	7.94e-22	3.89e-23	2.12e-22	1.16e-22	8.22e-23	5.43e-23								
6	13	2.21e-21	1.08e-21	5.87e-22	3.20e-22	2.30e-22	1.46e-22								
6	14	6.81e-20	3.72e-20	2.30e-20	1.40e-20	1.03e-20	6.81e-21								
6	15	2.37e-20	1.28e-20	7.87e-21	4.80e-21	3.55e-21	2.37e-21								
6	16	5.81e-19	3.24e-19	2.03e-19	1.24e-19	9.16e-20	6.07e-20								
6	17	3.90e-21	1.81e-21	8.88e-22	4.12e-22	2.62e-22	1.45e-22								
6	18	8.88e-20	4.89e-20	3.03e-20	1.88e-20	1.38e-20	9.25e-21								
6	19	1.19e-21	5.11e-22	2.12e-22	6.81e-23	3.09e-23	9.97e-24								
6	20	6.06e-24	3.10e-24	1.69e-24	8.64e-25	5.74e-25	3.43e-25								
6	21	8.22e-23	3.96e-23	1.87e-23	7.24e-24	3.76e-24	1.54e-24								
6	22	2.46e-21	1.33e-21	7.26e-22	3.62e-22	2.35e-22	1.35e-22								
6	23	5.19e-21	2.73e-21	1.43e-21	6.56e-22	3.92e-22	1.95e-22								
6	24	6.52e-24	4.11e-24	2.56e-24	1.47e-24	1.04e-24	6.63e-25								
6	25	2.19e-23	1.37e-23	8.50e-24	4.92e-24	3.51e-24	2.27e-24								
6	26	6.37e-23	4.21e-23	2.73e-23	1.63e-23	1.17e-23	7.56e-24								
6	27	9.18e-24	4.87e-24	2.38e-24	9.84e-25	5.40e-25	2.68e-25								
6	28	5.02e-23	3.24e-23	2.06e-23	1.21e-23	8.59e-24	5.51e-24								
6	29	1.64e-24	9.18e-25	4.68e-25	1.88e-25	9.82e-26	3.95e-26								
6	30	3.89e-25	2.32e-25	1.31e-25	6.57e-26	4.33e-26	2.84e-26								
6	31	2.42e-24	1.48e-24	8.45e-25	4.04e-25	2.41e-25	1.17e-25								
6	32	3.63e-20	2.58e-20	1.81e-20	1.18e-20	8.90e-21	6.15e-21								
6	33	5.45e-22	3.51e-22	2.09e-22	1.02e-22	6.04e-23	2.75e-23								
6	34	5.38e-25	3.25e-25	1.77e-25	8.09e-26	4.96e-26	2.51e-26								
6	35	9.50e-25	5.72e-25	3.07e-25	1.33e-25	7.59e-26	3.45e-26								
6	36	0.	0.	0.	0.	0.	0.								
6	37	1.49e-24	9.19e-25	5.01e-25	2.14e-25	1.16e-25	4.88e-26								
7	8	3.64e-20	1.38e-20	6.29e-21	2.75e-21	1.67e-21	9.05e-22								
7	9	5.61e-21	2.17e-21	9.23e-22	3.38e-22	1.72e-22	6.66e-23								
7	10	3.47e-23	1.57e-23	8.02e-24	4.01e-24	2.69e-24	1.61e-24								
7	11	2.27e-21	1.10e-21	6.21e-22	3.36e-22	2.36e-22	1.51e-22								
7	12	1.35e-20	7.42e-21	4.62e-21	2.82e-21	2.07e-21	1.37e-21								
7	13	3.00e-20	1.50e-20	8.38e-21	4.53e-21	3.16e-21	2.01e-21								
9	17	2.61e-21	1.01e-21	3.94e-22	1.21e-22	5.34e-23	1.68e-23								
9	18	3.64e-21	1.76e-21	9.64e-22	3.04e-22	4.09e-23	1.72e-23								
9	19	7.55e-19	4.20e-19	2.64e-19	1.63e-19	1									

TABLE III. Electron Collision Cross Sections for Ne-like Ag ($Z = 47$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	F	200.	500.	1000.	2000.	3000.	5000.	I	F	200.	500.	1000.	2000.	3000.	5000.
9	26	2.45e-22	1.43e-22	8.41e-23	4.71e-23	3.36e-23	2.17e-23	12	16	8.64e-21	2.99e-21	1.20e-21	4.60e-22	2.84e-22	1.67e-22
9	27	5.55e-21	3.54e-21	2.23e-21	1.30e-21	9.32e-22	6.06e-22	12	17	1.09e-20	3.83e-21	1.53e-21	5.51e-22	2.99e-22	1.44e-22
9	28	9.13e-23	5.08e-23	2.65e-23	1.13e-23	6.19e-24	2.60e-24	12	18	7.03e-21	2.33e-21	8.20e-22	2.25e-22	9.26e-23	2.65e-23
9	29	6.00e-24	3.76e-24	2.26e-24	1.26e-24	8.62e-25	5.23e-25	12	19	1.02e-20	3.75e-21	1.40e-21	4.65e-22	2.15e-22	7.28e-23
9	30	1.84e-23	1.10e-23	6.20e-24	2.88e-24	1.66e-24	7.42e-25	12	20	2.01e-21	9.50e-22	5.33e-22	2.92e-22	2.09e-22	1.30e-22
9	31	4.59e-21	3.19e-21	2.18e-21	1.37e-21	1.00e-21	6.74e-22	12	21	3.33e-23	1.32e-23	5.31e-24	1.72e-24	8.00e-25	2.81e-25
9	32	9.09e-22	5.74e-22	3.36e-22	1.63e-22	9.61e-23	4.36e-23	12	22	7.43e-21	3.74e-21	2.11e-21	1.16e-21	8.24e-22	5.39e-22
9	33	2.89e-20	2.03e-20	1.40e-20	8.99e-21	6.75e-21	4.06e-21	12	23	2.41e-23	9.68e-24	3.87e-24	1.24e-24	5.75e-25	1.95e-25
9	34	6.61e-25	3.98e-25	2.12e-25	8.66e-26	4.52e-26	1.78e-26	12	24	3.69e-21	1.99e-21	1.08e-21	5.30e-22	3.40e-22	1.94e-22
9	35	1.71e-23	1.23e-23	8.43e-24	5.26e-24	3.84e-24	2.53e-24	12	25	4.94e-22	2.88e-22	1.71e-22	9.56e-23	6.67e-23	4.20e-23
9	36	5.98e-24	3.65e-24	1.98e-24	8.28e-25	4.38e-25	1.77e-25	12	26	2.35e-23	1.12e-23	5.00e-24	1.73e-24	8.23e-25	2.83e-25
9	37	4.82e-23	3.56e-23	2.52e-23	1.63e-23	1.22e-23	8.24e-24	12	27	3.69e-21	1.94e-21	9.90e-22	4.21e-22	2.32e-22	9.75e-23
12	13	1.22e-20	4.12e-21	1.59e-21	5.23e-22	2.52e-22	9.13e-23	12	28	2.13e-22	1.29e-22	7.88e-23	4.54e-23	3.25e-23	2.12e-23
12	14	1.77e-20	6.23e-21	2.52e-21	8.83e-22	4.42e-22	1.68e-22	12	29	5.23e-24	2.73e-24	1.34e-24	5.37e-25	2.87e-25	1.21e-25
12	15	7.88e-20	3.23e-20	1.64e-20	8.37e-21	5.68e-21	3.52e-21	12	30	0.	0.	0.	0.	0.	0.
10	11	1.35e-20	4.77e-21	1.97e-21	7.11e-22	3.62e-22	1.41e-22	12	31	1.04e-23	6.00e-24	3.24e-24	1.43e-24	8.06e-25	3.47e-25
10	12	0.	0.	0.	0.	0.	0.	12	32	1.02e-23	6.60e-24	4.14e-24	2.36e-24	1.64e-24	1.02e-24
10	13	7.74e-23	2.90e-23	1.18e-23	4.03e-24	1.95e-24	6.99e-25	12	33	1.03e-24	1.00e-24	5.53e-25	2.18e-25	1.12e-25	4.37e-26
10	14	6.79e-23	2.59e-23	1.08e-23	3.83e-24	1.93e-24	7.37e-25	12	34	4.49e-20	3.21e-20	2.26e-20	1.48e-20	1.12e-20	7.82e-21
10	15	8.40e-22	3.86e-22	1.90e-22	9.74e-23	6.60e-23	4.06e-23	12	35	7.75e-22	5.00e-22	2.90e-22	1.46e-22	8.67e-23	3.05e-23
10	16	3.18e-23	1.19e-23	4.03e-24	1.96e-24	1.19e-24	7.06e-25	12	36	5.09e-24	3.27e-24	2.00e-24	1.11e-24	7.75e-25	5.00e-25
10	17	1.01e-22	4.03e-23	1.83e-23	7.84e-24	4.78e-24	2.05e-24	12	37	1.27e-22	6.21e-23	4.87e-23	2.36e-23	1.39e-23	6.31e-24
10	18	2.83e-23	1.02e-23	3.73e-24	1.06e-24	4.43e-25	1.34e-25	10	19	6.35e-23	2.69e-23	1.21e-23	4.62e-24	2.43e-24	9.80e-25
10	20	5.39e-19	3.01e-19	1.89e-19	1.14e-19	8.34e-20	5.43e-20	13	14	3.19e-20	1.19e-20	5.42e-21	2.40e-21	1.49e-21	8.28e-22
10	21	9.12e-22	3.72e-22	1.49e-22	4.78e-23	2.20e-23	7.41e-24	13	15	1.68e-20	6.12e-21	2.66e-21	1.10e-21	6.52e-22	3.43e-22
10	22	1.01e-18	5.61e-19	3.50e-19	2.17e-19	1.62e-19	1.09e-19	13	16	9.20e-21	3.13e-21	1.24e-21	4.67e-22	2.73e-22	1.53e-22
10	23	4.53e-21	1.91e-21	7.83e-22	2.55e-22	1.19e-22	4.04e-23	13	17	1.41e-20	4.90e-21	2.02e-21	7.57e-22	4.22e-22	2.10e-22
10	24	3.64e-20	2.16e-20	1.29e-20	7.23e-21	5.04e-21	3.16e-21	13	18	2.26e-20	8.87e-21	4.19e-21	1.97e-21	1.28e-21	7.66e-22
10	25	5.08e-20	3.08e-20	1.86e-20	1.05e-20	7.38e-21	4.68e-21	13	19	7.64e-21	2.94e-21	1.29e-21	5.34e-22	3.21e-22	1.75e-22
10	26	4.22e-21	2.07e-21	9.30e-22	3.18e-22	1.48e-22	4.87e-23	13	20	5.24e-22	2.47e-22	1.37e-22	7.48e-23	5.23e-23	3.34e-23
10	27	1.79e-21	8.82e-22	3.97e-22	1.36e-22	6.37e-23	2.12e-23	13	21	7.51e-22	4.15e-22	2.58e-22	1.55e-22	1.12e-22	7.22e-23
10	28	4.31e-20	2.73e-20	1.73e-20	1.04e-20	7.75e-21	5.33e-21	13	22	9.57e-22	4.80e-22	2.69e-22	1.47e-22	1.03e-22	6.59e-23
10	29	4.97e-22	2.87e-22	1.59e-22	7.38e-23	4.29e-23	1.93e-23	13	23	2.14e-21	1.07e-21	6.04e-23	3.33e-22	2.33e-22	1.50e-22
10	30	0.	0.	0.	0.	0.	0.	13	24	4.10e-21	2.20e-21	1.21e-21	5.99e-22	3.87e-22	2.22e-22
10	31	1.71e-23	9.82e-24	5.20e-24	2.23e-24	1.22e-24	5.30e-25	13	25	4.53e-22	2.39e-22	1.26e-22	5.74e-23	3.41e-23	1.68e-23
10	32	3.93e-24	2.24e-24	1.18e-24	5.23e-25	3.18e-25	1.78e-25	13	26	2.93e-22	1.57e-22	8.41e-23	4.01e-23	2.51e-23	1.37e-23
10	33	3.72e-24	2.16e-24	1.14e-24	4.82e-25	2.61e-25	1.11e-25	13	27	3.41e-21	1.82e-21	9.56e-22	4.35e-22	2.57e-22	1.28e-22
10	34	3.64e-22	2.65e-22	1.91e-22	1.28e-22	9.85e-23	7.00e-23	13	28	1.27e-22	7.70e-23	4.77e-23	2.07e-23	2.13e-23	1.47e-23
10	35	6.15e-24	3.80e-24	2.13e-24	9.55e-25	5.36e-25	2.29e-25	13	29	6.77e-23	4.18e-23	2.56e-23	1.47e-23	1.04e-23	6.82e-24
10	36	9.08e-24	6.14e-24	4.00e-24	2.39e-24	1.74e-24	1.18e-24	13	30	1.59e-24	8.57e-25	4.21e-25	1.63e-25	8.30e-26	3.13e-26
10	37	2.84e-24	1.66e-24	8.46e-25	3.26e-25	1.63e-25	5.95e-26	13	31	2.09e-23	1.27e-23	7.47e-23	3.49e-24	2.53e-24	1.42e-24
13	32	5.11e-22	3.13e-22	6.64e-23	3.30e-23	2.20e-23	1.31e-23	13	33	5.11e-24	3.16e-24	1.87e-24	9.81e-25	6.48e-25	3.72e-25
11	12	2.40e-23	8.87e-24	3.63e-24	1.26e-24	6.25e-25	2.33e-25	13	34	7.50e-24	4.76e-24	2.92e-24	1.81e-24	6.67e-25	3.37e-22
11	13	1.85e-22	7.87e-23	3.74e-23	1.79e-23	1.18e-23	6.85e-24	13	35	2.99e-20	2.13e-20	1.50e-20	9.78e-21	7.40e-21	5.14e-21
11	14	6.13e-23	2.32e-23	9.91e-24	4.03e-24	2.44e-24	1.27e-24	13	36	1.28e-20	9.12e-21	6.41e-21	4.18e-21	3.14e-21	2.16e-21
11	15	9.21e-23	3.49e-23	1.46e-23	5.53e-24	3.07e-24	1.41e-24	13	37	1.18e-21	8.35e-23	6.05e-23	3.62e-23	1.78e-23	1.09e-22
11	16	1.23e-22	4.67e-23	1.92e-23	6.77e-24	3.42e-24	1.36e-24	14	15	1.73e-20	6.23e-21	2.70e-21	1.11e-21	8.50e-22	3.37e-22
11	17	4.45e-22	1.05e-22	9.79e-23	4.82e-23	3.18e-23	1.88e-23	14	16	3.00e-20	1.06e-20	4.42e-21	1.75e-21	1.02e-21	5.42e-22
11	18	2.05e-22	1.31e-22	6.64e-23	3.30e-23	2.20e-23	1.31e-23	14	17	8.33e-21	2.99e-21	1.28e-21	5.38e-22	3.31e-22	1.89e-22
11	19	1.85e-22	8.31e-23	4.27e-23	1.41e-23	8.09e-20	3.84e-20	14	18	1.40e-20	5.05e-21	2.14e-21	8.74e-22	5.26e-22	2.92e-22
11	20	3.80e-19	2.12e-19	1.34e-19	8.09e-20	5.89e-20	3.84e-20	14	19	4.06e-21	1.53e-21	6.60e-22	2.70e-22	1.63e-22	9.03e-23
11	21	1.64e-19	9.07e-20	5.69e-20	3.52e-20	2.82e-20	1.75e-20	14	20	3.36e-24	1.26e-24	5.16e-25	1.81e-25	9.15e-26	3.70e-26
11	22	1.82e-19	1.00e-20	6.25e-20	3.87e-20	2.89e-20	1.94e-20	14	21	4.06e-21	1.28e-21	5.20e-22	2.70e-22	1.63e-22	9.03e-23
11	23	7.90e-19	4.44e-19	2.77e-19	1.71e-19	1.28e-19	8.50e-20	14	22	2.59e-21	1.32e-21	7.92e-22	4.03e-22	2.61e-22	1.55e-22
11	24	1.94e-20	1.13e-20	6.64e-21	3.63e-21	2.50e-21	1.54e-21	14	23	2.91e-23	1.32e-23	6.74e-24	3.44e-24	2.37e-24	1.52e-24
11	25	1.36e-20	7.90e-21	4.65e-21	2.50e-21	1.70e-21	1.05e-21	14	24	2.01e-23	1.42e-23	7.02e-22	3.44e-23	2.61e-23	1.55e-23
11	26	4.25e-20	2.54e-20	1.53e-											

TABLE IIE. Electron Collision Cross Sections for Ne-like Ag ($Z = 47$)
See page 133 for Explanation of Tables

LEVELS						ENERGY(EV) ABOVE THRESHOLD											
I	F	200.	500.	1000.	2000.	3000.	5000.	I	F	200.	500.	1000.	2000.	3000.	5000.		
15	16	1.94e-20	7.00e-21	3.09e-21	1.35e-21	8.48e-22	4.93e-22	18	24	4.85e-24	2.28e-24	1.05e-24	4.11e-25	2.24e-25	1.03e-25		
15	17	1.17e-20	4.18e-21	1.77e-21	7.20e-22	4.31e-22	2.37e-22	18	25	3.34e-24	1.75e-24	9.26e-24	4.33e-22	2.65e-22	1.39e-22		
15	18	1.83e-20	6.58e-21	2.79e-21	1.13e-21	6.72e-22	3.67e-22	18	26	4.80e-24	2.53e-24	1.36e-21	6.51e-22	4.07e-22	2.20e-22		
15	19	6.23e-21	2.23e-21	8.72e-22	2.93e-22	1.47e-22	6.17e-23	18	27	6.27e-24	3.26e-23	1.74e-23	8.04e-24	5.70e-24	3.43e-24		
15	20	1.46e-22	6.42e-23	3.56e-23	1.95e-23	1.40e-23	9.32e-24	18	28	1.94e-24	8.92e-25	3.77e-25	1.20e-25	5.42e-24	1.80e-24		
15	21	2.63e-23	9.93e-24	3.86e-24	1.19e-24	5.25e-25	1.72e-25	18	29	2.43e-25	1.40e-25	8.25e-26	4.75e-26	3.49e-26	2.34e-26		
15	22	3.94e-23	1.93e-23	1.06e-23	5.69e-24	3.94e-24	2.48e-24	18	30	8.14e-25	3.92e-25	1.66e-25	5.12e-26	2.20e-26	6.52e-27		
15	23	6.84e-23	3.36e-23	1.85e-23	9.98e-24	6.93e-24	4.37e-24	18	31	1.60e-24	8.02e-25	3.67e-25	1.37e-25	7.43e-26	3.65e-26		
15	24	4.63e-21	2.46e-21	1.32e-21	6.39e-22	4.02e-22	2.21e-22	18	32	6.47e-24	3.76e-24	2.05e-24	9.41e-25	5.50e-25	2.79e-25		
15	25	3.43e-22	1.80e-22	9.42e-23	4.30e-23	2.57e-23	1.28e-23	18	33	5.47e-24	3.32e-24	1.95e-24	1.04e-24	7.11e-25	4.37e-24		
15	26	4.13e-22	2.22e-22	1.22e-22	6.15e-23	4.00e-23	2.31e-23	18	34	3.20e-25	2.04e-25	1.20e-25	5.83e-26	3.44e-26	1.50e-26		
15	27	3.06e-21	1.83e-21	8.68e-22	4.06e-22	2.47e-22	1.28e-22	18	35	1.99e-21	1.40e-21	9.75e-22	6.28e-22	4.72e-22	3.25e-22		
15	28	1.54e-23	9.04e-24	5.36e-24	2.99e-24	2.09e-24	1.32e-24	18	36	2.28e-20	1.61e-20	1.13e-20	7.28e-21	5.49e-21	3.79e-21		
15	29	7.87e-25	3.77e-25	1.84e-25	5.42e-26	2.47e-26	8.29e-27	18	37	1.40e-20	9.94e-21	6.96e-21	4.52e-21	3.41e-21	2.35e-21		
15	30	4.50e-24	2.87e-24	1.82e-24	1.08e-24	7.81e-25	5.13e-25										
15	31	1.21e-23	6.85e-24	3.65e-24	1.81e-24	9.18e-25	4.20e-25										
15	32	4.19e-24	2.56e-24	1.51e-24	8.00e-25	5.38e-25	3.17e-25										
15	33	4.14e-24	2.48e-24	1.41e-24	7.18e-25	4.70e-25	2.65e-25										
15	34	1.84e-20	1.31e-20	9.16e-21	5.94e-21	4.49e-21	3.10e-21										
15	35	2.12e-20	1.51e-20	1.08e-20	6.84e-21	5.17e-21	3.57e-21										
15	36	1.35e-21	9.84e-22	6.76e-22	4.39e-22	3.32e-22	2.30e-22										
15	37	1.72e-22	1.12e-22	6.85e-23	3.51e-23	2.18e-23	1.10e-23										
16	17	1.12e-20	3.93e-21	1.63e-21	6.28e-22	3.55e-22	1.77e-22	19	20	4.07e-22	1.71e-22	8.86e-23	4.53e-23	3.07e-23	1.92e-23		
16	18	2.25e-20	8.08e-21	3.41e-21	1.33e-21	7.47e-22	3.66e-22	19	21	5.49e-22	2.87e-22	1.68e-22	9.01e-23	6.17e-23	3.80e-23		
16	19	6.80e-21	2.39e-21	9.60e-22	3.25e-22	1.58e-22	5.80e-23	19	22	3.53e-22	1.79e-22	1.03e-22	5.61e-23	3.86e-23	2.38e-23		
16	20	1.45e-24	5.40e-25	2.27e-25	8.80e-26	5.05e-26	2.65e-26	19	23	5.87e-21	2.73e-21	1.52e-21	8.27e-22	5.80e-22	3.81e-22		
16	21	2.31e-23	8.73e-24	3.41e-24	1.06e-24	4.73e-25	1.57e-25	19	24	8.93e-22	4.46e-22	2.31e-21	1.09e-22	6.87e-23	3.81e-23		
16	22	4.59e-24	2.14e-24	1.12e-24	5.86e-25	4.07e-25	2.64e-25	19	25	2.94e-21	1.49e-21	7.61e-22	3.36e-22	1.94e-22	8.93e-23		
16	23	1.52e-24	6.66e-25	3.13e-25	1.32e-25	7.62e-26	3.73e-26	19	26	2.87e-21	1.49e-21	7.93e-22	3.85e-22	2.45e-22	1.39e-22		
16	24	2.22e-24	1.01e-24	4.33e-24	1.49e-25	7.31e-26	2.81e-26	19	27	4.60e-22	2.31e-22	1.16e-22	5.03e-23	2.85e-23	1.31e-23		
16	25	2.94e-21	1.60e-21	8.79e-22	4.43e-22	2.89e-22	1.68e-22	19	28	1.31e-22	7.56e-23	4.59e-23	2.74e-23	2.02e-23	1.37e-23		
16	26	4.89e-21	2.58e-21	1.35e-21	6.14e-22	3.63e-22	1.78e-22	19	29	9.75e-23	5.80e-23	3.58e-23	2.17e-23	1.82e-23	1.10e-23		
16	27	3.86e-23	1.86e-23	8.54e-24	3.20e-24	1.84e-24	6.43e-25	19	30	1.44e-24	7.31e-25	3.90e-25	1.22e-25	5.99e-26	2.17e-26		
16	28	5.01e-24	2.78e-24	1.58e-24	9.55e-25	6.00e-25	3.91e-25	19	31	7.00e-25	4.08e-25	2.26e-25	1.13e-25	7.37e-26	4.34e-26		
16	29	3.39e-25	1.64e-25	7.26e-26	2.43e-26	1.11e-26	3.74e-27	19	32	1.30e-22	7.56e-23	4.59e-23	2.74e-23	2.02e-23	1.37e-23		
16	30	7.83e-25	3.90e-25	1.98e-25	6.88e-26	5.69e-26	3.50e-26	19	33	5.82e-21	3.09e-21	1.81e-21	6.55e-22	3.89e-21	2.24e-21		
16	31	1.83e-24	9.42e-25	4.46e-25	1.78e-25	1.02e-25	5.36e-26	19	34	5.61e-20	2.35e-20	1.17e-20	5.71e-21	3.75e-21	2.24e-21		
16	32	3.46e-23	2.26e-23	1.44e-23	8.47e-24	6.04e-24	3.88e-24	19	35	5.42e-19	3.05e-19	1.89e-19	1.17e-19	8.74e-20	5.94e-20		
16	33	3.30e-24	1.82e-24	9.08e-25	3.61e-25	1.89e-25	7.50e-26	19	36	5.70e-21	2.93e-21	1.57e-21	8.18e-22	5.63e-22	3.81e-22		
16	34	3.48e-26	2.04e-26	1.09e-26	4.94e-27	3.01e-27	1.52e-27	19	37	7.73e-21	3.76e-21	1.86e-21	8.50e-22	5.40e-22	3.19e-22		
16	35	8.44e-23	5.40e-23	3.19e-23	1.56e-23	9.19e-24	4.18e-24	19	38	1.22e-19	6.89e-20	4.23e-20	2.26e-20	1.95e-20	1.33e-20		
16	36	3.55e-20	2.52e-20	1.77e-20	1.15e-20	8.70e-21	6.01e-21	19	39	1.41e-20	7.57e-21	4.30e-20	2.27e-20	1.53e-20	9.29e-21		
16	37	5.21e-22	3.37e-22	2.01e-22	9.84e-23	5.84e-23	2.66e-23	19	40	1.05e-23	5.24e-24	2.50e-24	9.68e-25	5.01e-25	1.94e-25		
16	38	1.31e-20	1.13e-20	4.94e-21	2.05e-21	1.21e-21	6.31e-22	19	41	1.66e-20	1.05e-20	6.67e-21	4.03e-21	2.99e-21	2.06e-21		
16	39	3.07e-20	1.24e-20	6.02e-21	2.86e-21	1.85e-21	1.08e-21	19	42	3.39e-20	2.15e-20	1.36e-20	8.24e-21	6.11e-21	4.19e-21		
16	40	8.83e-24	3.63e-24	1.54e-24	6.70e-25	4.14e-25	2.34e-25	19	43	9.15e-23	6.01e-23	3.90e-23	2.37e-23	1.75e-23	1.20e-23		
16	41	3.27e-23	1.22e-23	4.73e-24	1.46e-24	6.47e-25	2.14e-25	19	44	5.80e-24	3.95e-24	2.62e-24	1.59e-24	1.15e-24	7.48e-25		
16	42	9.92e-24	4.52e-24	2.31e-24	1.16e-24	7.81e-25	4.75e-25	19	45	1.37e-23	8.71e-24	5.32e-24	2.88e-24	1.94e-24	1.16e-24		
16	43	1.36e-22	6.79e-23	3.78e-23	2.08e-23	1.44e-23	9.16e-24	19	46	1.44e-23	7.57e-24	4.77e-24	2.75e-24	1.94e-24	1.24e-24		
16	44	3.91e-22	2.03e-22	1.06e-22	4.95e-23	3.03e-23	1.60e-23	19	47	1.82e-24	1.05e-24	5.46e-25	2.34e-25	6.88e-26			
16	45	3.23e-21	1.60e-21	8.80e-22	3.98e-22	2.34e-22	1.13e-22	19	48	3.00e-23	1.96e-23	1.26e-23	7.61e-24	5.62e-24	3.82e-24		
16	46	4.40e-21	2.35e-21	1.29e-21	6.45e-22	4.18e-22	2.40e-22	19	49	9.16e-22	6.01e-22	3.90e-22	2.37e-22	1.75e-22	1.20e-22		
16	47	4.47e-22	2.43e-22	1.35e-22	6.98e-23	4.64e-23	2.77e-23	19	50	1.12e-19	4.59e-20	2.29e-20	1.13e-20	7.53e-21	4.55e-21		
16	48	5.95e-23	3.56e-23	2.19e-23	1.32e-23	9.91e-24	6.80e-24	19	51	4.03e-21	1.89e-21	8.91e-22	2.20e-22	9.94e-23	3.19e-23		
16	49	9.45e-25	4.52e-25	1.98e-25	6.68e-26	3.12e-26	1.05e-26	19	52	5.60e-21	2.39e-21	9.87e-22	3.17e-22	1.44e-22	4.06e-23		
16	50	2.47e-24	1.44e-24	8.24e-25	4.30e-25	2.08e-25	1.74e-25	19	53	8.41e-21	4.32e-21	2.40e-21	1.31e-21	9.28e-22	6.12e-22		
16	51	2.28e-24	1.23e-24	6.26e-25	2.70e-25	1.58e-25	8.00e-26	19	54	6.92e-19	3.85e-19	2.40e-19	1.48e-19	1.11e-19	7.52e-20		
16	52	1.19e-23	7.34e-24	4.37e-24	2.30e-24	1.51e-24	8.63e-25	19	55	1.26e-22	5.77e-23	2.55e-23	9.05e-24	4.41e-24	1.58e-24		
16	53	3.85e-24	2.33e-24	1.37e-24	7.28e-25	4.93e-25	3.02e-25	19	56	0.	0.	0.	0.	0.	0.		
16	54	1.87e-21	1.18e-21	8.26e-22	5.34e-22	4.02e-22	2.78e-22	19	57	4.87e-22	2.73e-22	1.48e-22	8.81e-23	3.95e-23	1.77e-23		
16	55	9.85e-22	6.91e-22	4.75e-22	3.01e-22	2.24e-22	1.52e-22	19	58	3.55e-20	2.17e-20	1.35e-20	8.15e-21	6.05e-21	4.16e-21		
16	56	1.09e-20	7.73e-21	5.38e-21	3.46e-21	2.60e-21	1.79e-21	19	59	5.56e-23	3.09e-23	1.62e-23	7.05e-24	3.94e-24	1.70e-24		
16	57	2.75e-20	1.98e-20	1.38e-20	9.01e-21	6.83e-21	4.74e-21	19	60	3.04e-22	1.95e-22	1.26e-22	7.63e-23	5.62e-23	3.79e-23		
16	58	4.67e-24	2.37e-24	1.32e-24	7.63e-25	4.26e-24	2.83e-24	19	61	4.67e-24	2.37e-24	1.32e-24	5.29e-25	2.83e-25	1.25e-25		
16	59	4.32e-20	1.64e-20	8.18e-22	3.77e-22	2.09e-22	1.11e-22	19	62	4.26e-24	2.35e-24	1.34e-					

TABLE III. Electron Collision Cross Sections for Ne-like Ag ($Z = 47$)
See page 133 for Explanation of Tables

LEVELS		ENERGY(EV) ABOVE THRESHOLD						LEVELS		ENERGY(EV) ABOVE THRESHOLD					
I	P	200.	500.	1000.	2000.	3000.	5000.	I	P	200.	500.	1000.	2000.	3000.	5000.
22	25	6.86e-19	3.82e-19	2.39e-19	1.47e-19	1.09e-19	7.27e-20	27	31	7.60e-23	3.64e-23	1.95e-23	1.00e-23	6.69e-24	4.05e-24
22	26	6.70e-21	2.95e-21	1.34e-21	5.52e-22	3.27e-22	1.78e-22	27	32	5.00e-23	2.38e-23	1.20e-23	5.59e-24	3.50e-24	1.98e-24
22	27	6.52e-20	3.57e-20	2.20e-20	1.35e-20	9.99e-21	6.66e-21	27	33	1.02e-22	5.51e-23	3.08e-23	1.62e-23	1.10e-23	6.70e-24
22	28	3.49e-23	1.75e-23	9.39e-24	4.69e-24	3.06e-24	1.78e-24	27	34	8.69e-21	5.36e-21	3.34e-21	1.99e-21	1.47e-21	9.99e-22
22	29	5.21e-23	2.42e-23	1.10e-23	4.06e-24	2.04e-24	7.65e-25	27	35	6.03e-20	3.78e-20	2.37e-20	1.44e-20	1.08e-20	7.43e-21
22	30	2.87e-23	1.71e-23	1.05e-23	6.25e-24	4.64e-24	3.14e-24	27	36	5.46e-23	2.90e-23	1.47e-23	6.36e-24	3.73e-24	1.89e-24
22	31	1.32e-22	7.96e-23	4.92e-23	2.98e-23	2.22e-23	1.52e-23	27	37	1.70e-20	1.09e-20	6.92e-21	4.23e-21	3.16e-21	2.18e-21
22	32	5.98e-20	3.79e-20	2.41e-20	1.47e-20	1.10e-20	7.50e-21	22	33	4.27e-21	4.56e-21	1.26e-21	6.57e-22	7.27e-22	7.27e-22
22	33	7.27e-21	4.56e-21	2.88e-21	1.72e-21	1.26e-21	6.57e-22	22	34	3.49e-23	1.32e-23	9.42e-24	6.03e-24	9.38e-21	9.62e-23
22	34	5.36e-23	3.49e-23	2.25e-23	1.32e-23	9.42e-24	6.03e-24	28	29	9.38e-21	3.42e-21	1.42e-21	5.04e-22	2.53e-22	9.62e-23
22	35	1.31e-22	8.45e-23	5.44e-23	3.22e-23	2.29e-23	1.47e-23	28	30	1.86e-19	1.04e-19	6.55e-20	3.99e-20	2.92e-20	1.91e-20
22	36	2.51e-22	1.71e-22	1.11e-22	6.62e-23	4.75e-23	3.06e-23	28	31	3.00e-19	2.18e-19	1.37e-19	8.33e-20	6.10e-20	3.90e-20
22	37	1.73e-23	9.91e-24	5.23e-24	2.28e-24	1.32e-24	6.57e-25	28	32	7.70e-19	4.29e-19	2.68e-19	1.66e-19	1.24e-19	8.31e-20
23	24	7.59e-20	4.14e-20	2.56e-20	1.55e-20	1.14e-20	7.51e-21	28	33	1.42e-20	7.87e-20	4.88e-20	3.01e-20	2.25e-20	1.52e-20
23	25	5.52e-20	3.01e-20	1.85e-20	1.12e-20	8.28e-21	5.50e-21	28	34	2.79e-20	1.67e-20	9.88e-21	5.46e-21	3.77e-21	2.35e-21
23	26	6.24e-19	3.48e-19	2.18e-19	1.34e-19	9.89e-20	6.57e-20	28	35	4.21e-20	2.55e-20	1.52e-20	8.43e-21	5.84e-21	3.64e-21
23	27	9.96e-21	5.25e-21	3.11e-21	1.84e-21	1.34e-21	9.94e-22	28	36	5.59e-21	2.98e-21	1.60e-21	7.64e-22	4.84e-22	2.75e-22
23	28	1.21e-22	6.02e-23	3.19e-23	1.57e-23	1.01e-23	5.85e-24	29	30	1.17e-21	4.44e-22	1.74e-22	5.56e-23	2.59e-23	8.88e-24
23	29	3.61e-23	1.92e-23	1.09e-23	5.85e-24	3.99e-24	2.47e-24	29	31	5.50e-19	3.07e-19	1.91e-19	1.14e-19	8.18e-20	5.25e-20
23	30	4.56e-25	2.13e-25	9.23e-26	3.18e-26	1.54e-26	5.54e-27	29	32	4.93e-21	2.02e-21	8.21e-22	2.07e-22	1.25e-22	4.27e-23
23	31	1.99e-23	1.11e-23	6.34e-24	3.38e-24	2.34e-24	1.48e-24	29	33	1.11e-18	6.16e-19	3.86e-19	2.39e-19	1.78e-19	1.19e-19
23	32	2.76e-20	1.74e-20	1.10e-20	6.65e-21	4.93e-21	3.38e-21	29	34	1.98e-21	9.42e-22	4.15e-22	1.40e-22	6.47e-23	2.12e-23
23	33	2.77e-20	1.76e-20	1.12e-20	6.75e-21	5.01e-21	3.45e-21	29	35	1.21e-20	6.38e-21	3.57e-21	1.85e-21	7.45e-22	2.43e-22
23	34	2.23e-24	1.33e-24	7.59e-25	3.88e-25	2.56e-25	1.52e-25	29	36	4.50e-21	2.16e-21	9.58e-22	3.24e-22	1.50e-22	4.93e-23
23	35	2.23e-24	1.25e-24	6.81e-25	3.11e-25	1.99e-25	1.18e-25	29	37	7.01e-20	4.75e-20	2.87e-20	1.02e-20	1.13e-20	7.08e-21
23	36	1.08e-23	6.39e-24	3.60e-24	1.76e-24	1.10e-24	6.01e-25	30	31	1.07e-20	3.78e-21	1.57e-21	5.74e-22	2.97e-22	1.19e-22
23	37	3.24e-25	2.03e-25	1.21e-25	6.30e-26	4.08e-26	2.30e-26	30	32	9.80e-20	4.23e-20	2.15e-20	1.08e-20	7.22e-21	4.38e-21
24	25	1.46e-20	5.12e-21	2.11e-21	8.34e-22	4.98e-22	2.78e-22	30	33	8.42e-21	3.15e-21	1.24e-21	4.00e-22	1.85e-22	6.23e-23
24	26	3.82e-20	1.37e-20	5.73e-21	2.28e-21	1.34e-21	7.16e-22	30	34	6.52e-19	3.65e-19	2.26e-19	1.40e-19	1.05e-19	7.13e-20
24	27	2.38e-20	9.08e-21	4.12e-21	1.80e-21	1.10e-21	6.07e-22	30	35	4.29e-21	1.88e-21	7.83e-22	2.53e-22	1.15e-22	3.72e-23
24	28	4.26e-23	1.84e-23	9.35e-24	4.77e-24	3.27e-24	2.09e-24	30	36	8.24e-21	4.36e-21	2.45e-21	1.35e-21	9.57e-22	6.32e-22
24	29	1.46e-24	5.47e-25	2.13e-25	6.59e-26	2.95e-26	9.44e-27	30	37	4.74e-21	2.12e-21	8.98e-22	2.93e-22	1.34e-22	4.34e-23
24	30	2.15e-23	1.07e-23	5.86e-24	3.05e-24	2.05e-24	1.25e-24	31	32	5.80e-20	2.48e-20	1.24e-20	6.05e-21	3.98e-21	2.38e-21
24	31	9.28e-23	4.34e-23	2.15e-23	9.81e-24	6.07e-24	3.34e-24	31	33	4.93e-20	2.14e-20	1.09e-20	5.43e-21	3.61e-21	2.19e-21
24	32	2.39e-23	1.11e-23	5.22e-24	2.24e-24	1.38e-24	7.86e-25	31	34	1.24e-19	6.80e-20	4.24e-20	2.61e-20	1.95e-20	1.33e-20
24	33	5.59e-24	2.57e-24	1.13e-24	3.98e-25	1.94e-25	7.15e-26	31	35	4.68e-21	2.63e-21	1.63e-21	9.63e-22	5.62e-22	3.35e-22
24	34	2.52e-20	1.50e-20	1.01e-20	6.09e-21	4.52e-21	3.11e-21	31	36	1.24e-19	6.80e-20	4.24e-20	2.61e-20	1.95e-20	1.33e-20
24	35	2.59e-20	1.84e-20	1.04e-20	6.27e-21	4.66e-21	3.20e-21	31	37	4.68e-21	2.63e-21	1.63e-21	9.74e-22	5.12e-20	3.12e-20
24	36	2.04e-23	1.32e-23	8.52e-24	5.24e-24	3.93e-24	2.70e-24	31	38	7.90e-21	3.82e-21	1.90e-21	8.78e-22	5.62e-22	3.35e-22
24	37	4.67e-21	3.02e-21	1.94e-21	1.18e-21	8.75e-22	6.02e-22	31	39	5.26e-20	2.96e-20	1.81e-20	1.10e-20	8.21e-21	5.58e-21
25	26	3.32e-20	1.16e-20	4.84e-21	1.89e-21	1.08e-21	5.51e-22	32	33	2.69e-20	1.01e-20	4.63e-21	2.05e-21	1.28e-21	6.97e-22
25	27	2.04e-20	7.16e-21	3.00e-21	1.19e-21	6.99e-22	3.73e-22	32	34	1.19e-20	6.26e-21	3.74e-21	2.22e-21	1.62e-21	1.07e-21
25	28	6.68e-22	3.51e-22	2.04e-22	1.11e-22	7.63e-23	4.71e-23	32	35	1.13e-19	6.19e-20	3.85e-20	2.35e-20	1.73e-20	1.15e-20
25	29	9.20e-24	3.36e-24	1.29e-24	4.03e-25	1.83e-25	6.02e-26	32	36	6.23e-19	3.47e-19	2.17e-19	1.33e-19	9.84e-20	6.53e-20
25	30	3.09e-24	1.41e-24	6.87e-25	3.14e-25	1.97e-25	1.12e-25	32	37	1.54e-20	7.92e-21	4.54e-21	2.50e-21	1.86e-21	1.21e-21
25	31	2.59e-23	1.04e-23	4.10e-24	1.26e-24	5.62e-25	1.89e-25	33	34	5.76e-20	3.15e-20	1.95e-20	1.18e-20	8.87e-21	5.69e-21
25	32	9.93e-24	1.94e-24	9.74e-25	4.37e-25	2.63e-25	1.37e-25	33	35	4.76e-20	2.48e-20	1.24e-20	6.05e-21	3.98e-21	2.38e-21
25	33	3.38e-23	1.72e-23	9.09e-24	4.37e-24	2.75e-24	1.51e-24	33	36	3.49e-20	1.88e-20	1.44e-20	6.75e-21	4.92e-21	3.22e-21
25	34	6.12e-24	3.39e-24	1.86e-24	9.48e-25	6.38e-25	3.98e-25	33	37	8.92e-21	2.98e-21	1.33e-21	5.29e-22	3.08e-22	1.61e-22
25	35	1.53e-21	9.52e-22	5.95e-22	3.56e-22	2.62e-22	1.78e-22	33	38	6.55e-19	3.65e-19	2.28e-19	1.41e-19	1.05e-19	6.98e-20
25	36	5.80e-20	3.68e-20	2.34e-20	1.42e-20	1.08e-20	7.32e-21	33	39	4.37e-20	1.64e-20	7.61e-21	3.51e-21	2.25e-21	1.32e-21
25	37	1.28e-20	8.15e-21	5.18e-21	3.12e-21	1.58e-21	4.49e-21	33	40	1.84e-20	6.37e-21	2.60e-21	1.02e-21	6.10e-22	3.43e-22
26	27	7.53e-21	2.53e-21	1.01e-21	3.87e-22	2.28e-22	1.27e-22	34	35	2.69e-20	1.01e-20	4.63e-21	2.05e-21	1.28e-21	6.97e-22
26	28	3.76e-23	1.45e-23	6.55e-24	2.87e-24	1.81e-24	1.07e-24	34	36	1.19e-20	6.26e-21	3.74e-21	2.22e-21	1.62e-21	1.07e-21
26	29	1.82e-24	8.05e-25	4.19e-25	2.21e-25	1.55e-25	1.02e-25	34	37	2.69e-20	9.44e-21	3.71e-21	1.27e-21	6.42e-22	2.71e-22
26	30	1.46e-24	6.07e-25	2.50e-25	8.08e-26	3.67e-26	1.18e-26	35							

TABLE IIIA. Rate Coefficients for Ne-like Fe ($Z = 26$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	100.	250.	500.	750.	1000.	1500.	I	P	100.	250.	500.	750.	1000.	1500.
1	2	8.70e-15	3.83e-13	1.02e-12	1.21e-12	1.21e-12	1.03e-12	2	37	4.11e-15	7.70e-15	6.43e-15	4.84e-15	3.73e-15	2.42e-15
1	3	1.10e-14	6.70e-13	2.70e-12	4.34e-12	5.48e-12	6.79e-12	3	4	2.13e-11	1.27e-11	7.81e-12	5.61e-12	4.35e-12	2.97e-12
1	4	1.53e-15	7.17e-14	1.80e-13	2.22e-13	2.21e-13	1.94e-13	3	5	6.06e-11	3.89e-11	2.64e-11	2.08e-11	1.75e-11	1.30e-11
1	5	8.66e-15	5.80e-13	2.24e-12	3.59e-12	4.53e-12	5.80e-12	3	6	1.05e-10	1.40e-10	1.07e-10	8.99e-11	7.95e-11	6.65e-11
1	6	1.59e-14	8.28e-13	2.26e-12	2.69e-12	2.68e-12	2.36e-12	3	7	3.07e-09	2.64e-09	2.23e-09	2.00e-09	1.84e-09	1.61e-09
1	7	1.53e-14	8.84e-13	2.78e-12	3.72e-12	4.12e-12	4.31e-12	3	8	2.16e-11	1.29e-11	7.32e-12	4.95e-12	3.65e-12	2.29e-12
1	8	1.65e-14	8.60e-13	2.41e-12	2.09e-12	2.07e-12	2.44e-12	3	9	3.19e-09	2.75e-09	2.33e-09	2.09e-09	1.93e-09	1.69e-09
1	9	5.73e-15	3.27e-13	9.35e-13	1.08e-12	1.03e-12	8.25e-13	3	10	2.52e-09	2.19e-09	1.86e-09	1.67e-09	1.54e-09	1.35e-09
1	10	1.20e-14	7.40e-13	2.44e-12	3.37e-12	3.83e-12	4.13e-12	3	11	7.17e-10	6.35e-10	5.40e-10	4.84e-10	4.46e-10	3.93e-10
1	11	1.01e-14	6.40e-13	2.15e-12	2.95e-12	3.32e-12	3.53e-12	3	12	6.79e-12	5.60e-12	4.36e-12	3.70e-12	3.27e-12	2.74e-12
1	12	5.66e-15	3.41e-13	9.92e-13	1.16e-12	1.11e-12	8.97e-13	3	13	9.01e-13	6.65e-13	4.55e-13	3.56e-13	2.98e-13	2.32e-13
1	13	5.45e-15	3.15e-13	9.07e-13	1.10e-12	1.10e-12	9.42e-13	3	14	2.51e-11	2.14e-11	1.69e-11	1.45e-11	1.29e-11	1.09e-11
1	14	1.26e-14	8.24e-13	2.76e-12	3.83e-12	4.34e-12	4.69e-12	3	15	2.40e-10	2.39e-10	2.09e-10	1.89e-10	1.75e-10	1.55e-10
1	15	1.24e-13	9.25e-12	3.29e-11	4.65e-11	5.33e-11	5.78e-11	3	16	1.85e-12	1.43e-12	8.87e-13	8.18e-13	4.82e-13	2.94e-13
1	16	5.37e-15	3.87e-13	1.16e-12	1.38e-12	1.32e-12	1.05e-12	3	17	8.88e-12	7.93e-12	5.84e-12	4.68e-12	3.96e-12	3.11e-12
1	17	1.58e-14	1.08e-12	3.21e-12	3.98e-12	4.06e-12	3.71e-12	3	18	4.72e-11	4.77e-11	3.98e-11	3.42e-11	3.05e-11	2.57e-11
1	18	2.37e-14	1.89e-12	5.03e-12	5.42e-12	4.93e-12	3.70e-12	3	19	1.59e-11	1.25e-11	7.70e-12	5.44e-12	4.07e-12	2.58e-12
1	19	2.14e-14	1.72e-12	4.50e-12	4.72e-12	4.20e-12	3.07e-12	3	20	1.37e-10	1.42e-10	1.21e-10	1.06e-10	9.49e-11	8.06e-11
1	20	1.25e-14	8.94e-13	2.85e-12	3.71e-12	4.01e-12	4.01e-12	3	21	1.23e-10	1.30e-10	1.12e-10	9.80e-11	8.83e-11	7.53e-11
1	21	1.74e-14	9.42e-13	1.94e-12	1.83e-12	1.52e-12	1.01e-12	3	22	1.12e-10	1.18e-10	1.00e-10	8.76e-11	7.68e-11	6.70e-11
1	22	8.57e-15	6.48e-13	2.19e-12	2.90e-12	3.34e-12	3.53e-12	3	23	7.55e-11	8.33e-11	7.28e-11	6.45e-11	5.94e-11	5.01e-11
1	23	5.78e-14	5.35e-12	2.23e-11	3.50e-11	4.30e-11	5.13e-11	3	24	5.57e-13	5.33e-13	3.94e-13	3.13e-13	2.62e-13	2.03e-13
1	24	8.77e-15	7.73e-13	2.04e-12	2.13e-12	1.88e-12	1.35e-12	3	25	6.43e-13	5.73e-13	3.85e-13	2.84e-13	2.23e-13	1.54e-13
1	25	1.13e-14	9.97e-13	2.67e-12	2.81e-12	2.50e-12	1.82e-12	3	26	1.42e-12	1.52e-12	1.26e-12	1.08e-12	9.55e-13	7.96e-13
1	26	9.06e-15	7.29e-13	2.49e-12	3.40e-12	3.79e-12	3.97e-12	3	27	1.04e-11	1.24e-11	1.11e-11	9.92e-12	9.02e-12	7.77e-12
1	27	1.95e-13	2.00e-11	8.68e-11	1.30e-10	1.72e-10	2.07e-10	3	28	7.13e-11	1.07e-10	1.00e-10	9.44e-11	8.50e-11	7.50e-11
1	28	1.35e-15	1.41e-13	4.92e-13	6.06e-13	5.98e-13	4.95e-13	3	29	9.64e-11	1.52e-10	1.55e-10	1.48e-10	1.40e-10	1.26e-10
1	29	2.15e-14	5.27e-12	1.08e-11	1.62e-11	1.92e-11	2.15e-11	3	30	4.50e-15	6.62e-15	5.26e-15	4.07e-15	3.25e-15	2.27e-15
1	30	2.50e-16	2.99e-14	1.11e-13	1.49e-13	1.56e-13	1.41e-13	3	31	1.07e-14	1.59e-14	1.30e-14	1.04e-14	8.54e-15	6.24e-15
1	31	1.01e-15	1.42e-13	6.53e-13	1.05e-12	1.32e-12	1.60e-12	3	32	2.90e-14	4.50e-14	3.83e-14	3.12e-14	2.60e-14	1.93e-14
1	32	1.19e-15	1.45e-13	5.42e-13	7.27e-13	7.67e-13	6.92e-13	3	33	3.12e-14	5.71e-14	5.89e-14	5.51e-14	5.13e-14	4.53e-14
1	33	2.50e-15	4.58e-13	2.72e-12	5.05e-12	6.90e-12	9.26e-12	3	34	1.88e-14	4.49e-14	5.27e-14	5.20e-14	5.15e-14	4.82e-14
1	34	1.18e-15	2.00e-13	8.29e-13	1.07e-12	1.08e-12	9.00e-13	3	35	4.71e-14	1.15e-13	1.39e-13	1.42e-13	1.40e-13	1.33e-13
1	35	3.29e-15	6.14e-13	2.19e-12	2.80e-12	2.48e-12	1.97e-12	3	36	8.28e-15	1.78e-14	1.85e-14	1.71e-14	1.58e-14	1.37e-14
1	36	9.05e-15	1.87e-12	1.01e-11	1.72e-11	2.19e-11	2.70e-11	3	37	4.68e-14	1.14e-13	1.33e-13	1.32e-13	1.28e-13	1.10e-13
2	3	8.30e-11	4.68e-11	2.81e-11	2.04e-11	1.61e-11	1.15e-11	4	5	7.31e-11	3.92e-11	2.23e-11	1.54e-11	1.17e-11	7.72e-12
2	4	1.80e-11	1.17e-11	8.00e-12	6.43e-12	5.46e-12	4.34e-12	4	6	2.26e-10	1.65e-10	1.25e-10	1.06e-10	9.40e-11	7.91e-11
2	5	6.33e-11	3.04e-11	2.52e-11	1.89e-11	1.53e-11	1.12e-11	4	7	3.74e-13	2.16e-13	1.23e-13	8.40e-14	6.30e-14	4.10e-14
2	6	2.11e-09	1.80e-09	1.52e-09	1.30e-09	1.25e-09	1.09e-09	4	8	1.78e-14	1.32e-14	1.02e-14	8.81e-15	7.92e-15	6.78e-15
2	7	1.34e-09	1.05e-09	8.14e-10	6.91e-10	6.12e-10	5.14e-10	4	9	1.54e-11	1.14e-11	8.64e-12	7.24e-12	6.38e-12	5.27e-12
2	8	4.57e-09	3.97e-09	3.37e-09	3.02e-09	2.76e-09	2.44e-09	4	10	2.20e-14	1.31e-14	7.31e-15	4.92e-15	3.62e-15	2.26e-15
2	9	7.82e-11	5.94e-11	4.51e-11	3.78e-11	3.32e-11	2.78e-11	4	11	2.84e-12	1.56e-12	8.77e-13	5.91e-13	4.38e-13	2.73e-13
2	10	1.74e-09	1.52e-09	1.29e-09	1.16e-09	1.06e-09	9.35e-10	4	12	3.88e-09	3.34e-09	2.83e-09	2.54e-09	2.33e-09	2.05e-09
2	11	1.55e-12	9.70e-13	5.70e-13	3.88e-13	2.87e-13	1.80e-13	4	13	5.93e-09	5.17e-09	4.38e-09	3.93e-09	3.62e-09	3.18e-09
2	12	7.37e-13	5.88e-13	4.39e-13	3.63e-13	3.15e-13	2.58e-13	4	14	2.98e-11	1.82e-11	1.04e-11	7.03e-12	5.19e-12	3.26e-12
2	13	4.78e-11	4.12e-11	3.28e-11	2.81e-11	2.49e-11	2.10e-11	4	15	2.81e-12	1.89e-12	1.11e-12	7.50e-13	5.62e-13	3.54e-13
2	14	1.86e-11	1.43e-11	1.14e-11	9.70e-12	8.71e-12	7.35e-12	4	16	0.	0.	0.	0.	0.	0.
2	15	9.10e-13	6.80e-13	3.97e-13	2.74e-13	2.04e-13	1.29e-13	4	17	4.06e-13	2.97e-13	1.81e-13	1.25e-13	9.35e-14	5.93e-14
2	16	2.14e-11	2.20e-11	1.86e-11	1.63e-11	1.46e-11	1.24e-11	4	18	1.63e-11	1.57e-11	1.30e-11	1.12e-11	1.01e-11	8.50e-12
2	17	5.93e-11	6.13e-11	5.20e-11	4.54e-11	4.08e-11	3.47e-11	4	19	9.61e-15	7.73e-15	5.45e-15	4.35e-15	3.71e-15	2.98e-15
2	18	7.54e-11	7.85e-11	6.65e-11	5.81e-11	5.21e-11	4.43e-11	4	20	3.57e-13	2.66e-13	1.63e-13	1.13e-13	8.45e-14	5.37e-14
2	19	1.91e-10	1.99e-10	1.69e-10	1.48e-10	1.33e-10	1.13e-10	4	21	7.57e-12	7.46e-12	6.23e-12	5.41e-12	4.85e-12	4.11e-12
2	20	7.23e-11	7.45e-11	6.24e-11	5.41e-11	4.84e-11	4.08e-11	4	22	1.02e-13	7.67e-14	4.68e-14	3.24e-14	2.42e-14	1.53e-14
2	21	3.12e-11	3.17e-11	2.60e-11	2.23e-11	1.98e-11	1.65e-11	4	23	2.24e-12	1.74e-12	1.08e-12	7.53e-13	5.63e-13	3.58e-13
2	22	7.86e-11	8.29e-11	7.02e-11	6.12e-11	5.49e-11	4.65e-11	4	24	2.48e-10	2.63e-10	2.25e-10	1.98e-10	1.78e-10	1.52e-10
2	23	6.68e-12	6.51e-12	4.99e-12	3.49e-12	3.49e-12	2.79e-12	4	25	2.39e-10	2.54e-10	2.18e-10	1.92e-10	1.73e-10	1.48e-10
2	24	4.02e-12	4.21e-13	3.42e-13	2.89e-13	2.53e-13	2.08e-13	4</							

TABLE IIIA. Rate Coefficients for Ne-like Fe ($Z = 26$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	100.	250.	500.	750.	1000.	1500.	I	F	100.	250.	500.	750.	1000.	1500.
5	6	1.11e-10	8.04e-11	6.10e-11	5.16e-11	4.56e-11	3.83e-11	7	14	5.56e-14	3.51e-14	2.28e-14	1.72e-14	1.40e-14	1.05e-14
5	7	1.48e-12	9.86e-13	6.83e-13	5.48e-13	4.68e-13	3.77e-13	7	15	4.22e-11	3.16e-11	2.34e-11	1.93e-11	1.68e-11	1.38e-11
5	8	4.11e-13	2.30e-13	1.27e-13	8.51e-14	6.29e-14	4.01e-14	7	16	2.35e-12	1.48e-12	8.53e-13	5.78e-13	4.27e-13	2.07e-13
5	9	3.23e-12	2.30e-12	1.70e-12	1.43e-12	1.28e-12	1.09e-12	7	17	1.91e-10	1.68e-10	1.42e-10	1.27e-10	1.17e-10	1.03e-10
5	10	5.48e-11	4.11e-11	3.15e-11	2.68e-11	2.38e-11	2.00e-11	7	18	2.14e-10	1.91e-10	1.61e-10	1.45e-10	1.33e-10	1.17e-10
5	11	3.18e-10	2.46e-10	1.90e-10	1.61e-10	1.43e-10	1.20e-10	7	19	3.34e-11	2.39e-11	1.59e-11	1.23e-11	1.02e-11	7.83e-12
5	12	2.05e-09	1.75e-09	1.48e-09	1.33e-09	1.22e-09	1.07e-09	7	20	3.11e-09	2.82e-09	2.41e-09	2.17e-09	2.00e-09	1.77e-09
5	13	1.32e-09	1.14e-09	9.82e-10	8.62e-10	7.92e-10	6.96e-10	7	21	9.19e-10	8.35e-10	7.12e-10	6.39e-10	5.89e-10	5.19e-10
5	14	5.43e-09	4.72e-09	4.00e-09	3.59e-09	3.30e-09	2.90e-09	7	22	5.10e-11	4.28e-11	3.28e-11	2.75e-11	2.42e-11	2.02e-11
5	15	6.25e-10	5.77e-10	4.94e-10	4.45e-10	4.10e-10	3.62e-10	7	23	5.68e-11	5.25e-11	4.45e-11	3.98e-11	3.65e-11	3.21e-11
5	16	4.56e-14	3.30e-14	2.00e-14	1.39e-14	1.04e-14	6.65e-15	7	24	8.27e-12	7.54e-12	6.09e-12	5.23e-12	4.66e-12	3.94e-12
5	17	3.26e-12	3.01e-12	2.42e-12	2.07e-12	1.83e-12	1.53e-12	7	25	1.74e-11	1.60e-11	1.30e-11	1.12e-11	9.99e-12	8.44e-12
5	18	4.92e-12	4.45e-12	3.47e-12	2.91e-12	2.54e-12	2.09e-12	7	26	1.10e-12	9.45e-13	7.21e-13	5.99e-13	5.23e-13	4.31e-13
5	19	4.08e-13	3.01e-13	1.84e-13	1.29e-13	9.61e-14	6.15e-14	7	27	2.55e-12	2.33e-12	1.84e-12	1.56e-12	1.39e-12	1.17e-12
5	20	7.79e-13	6.12e-13	4.05e-13	3.03e-13	2.43e-13	1.78e-13	7	28	2.42e-13	2.85e-13	2.48e-13	2.17e-13	1.95e-13	1.65e-13
5	21	7.04e-13	5.33e-13	3.32e-13	2.35e-13	1.80e-13	1.20e-13	7	29	8.16e-14	1.03e-13	9.29e-14	8.30e-14	7.55e-14	6.49e-14
5	22	6.18e-12	6.07e-12	5.08e-12	4.41e-12	3.98e-12	3.36e-12	7	30	1.62e-12	2.11e-12	1.70e-12	1.35e-12	1.11e-12	8.02e-13
5	23	1.36e-11	1.35e-11	1.11e-11	9.81e-12	8.56e-12	7.20e-12	7	31	1.43e-10	2.17e-10	2.18e-10	2.06e-10	1.94e-10	1.75e-10
5	24	9.63e-11	9.83e-11	8.19e-11	7.09e-11	6.33e-11	5.33e-11	7	32	8.61e-13	1.32e-12	1.32e-12	1.24e-12	1.17e-12	1.05e-12
5	25	9.04e-11	9.26e-11	7.73e-11	6.69e-11	5.97e-11	5.04e-11	7	33	9.06e-12	1.41e-11	1.43e-11	1.35e-11	1.28e-11	1.15e-11
5	26	2.46e-10	2.58e-10	2.19e-10	1.92e-10	1.72e-10	1.47e-10	7	34	7.16e-15	1.12e-14	9.22e-15	7.27e-15	5.91e-15	4.23e-15
5	27	8.12e-11	8.99e-11	7.83e-11	6.02e-11	5.25e-11	5.35e-11	7	35	2.51e-15	4.25e-15	3.98e-15	3.53e-15	3.19e-15	2.71e-15
5	28	8.87e-11	1.24e-10	1.21e-10	1.12e-10	1.05e-10	9.43e-11	7	36	7.29e-15	1.16e-14	9.98e-15	8.34e-15	7.18e-15	5.73e-15
5	29	9.22e-11	1.36e-11	1.35e-10	1.27e-10	1.20e-10	1.08e-10	7	37	5.17e-15	9.34e-15	9.13e-15	8.20e-15	7.56e-15	6.52e-15
5	31	1.11e-14	1.54e-14	1.27e-14	1.04e-14	8.77e-15	6.75e-15								
5	32	4.95e-14	7.18e-14	5.98e-14	4.83e-14	4.00e-14	2.95e-14	8	9	2.28e-11	1.26e-11	7.60e-12	5.54e-12	4.41e-12	3.19e-12
5	33	8.25e-14	1.46e-13	1.52e-13	1.44e-13	1.35e-13	1.20e-13	8	10	1.69e-10	1.00e-10	6.51e-11	5.02e-11	4.18e-11	3.23e-11
5	34	1.08e-14	4.48e-14	5.21e-14	5.22e-14	5.09e-14	4.77e-14	8	11	1.15e-11	6.41e-12	3.68e-12	2.55e-12	1.92e-12	1.27e-12
5	35	8.14e-14	1.86e-13	2.18e-13	2.19e-13	2.15e-13	2.01e-13	8	12	1.15e-11	7.32e-12	5.01e-13	3.98e-13	3.39e-13	2.69e-13
5	36	1.56e-14	3.09e-14	3.07e-14	2.76e-14	2.50e-14	2.12e-14	8	13	1.88e-11	1.16e-11	7.54e-12	5.73e-12	4.70e-12	3.55e-12
5	37	8.80e-14	1.55e-13	1.76e-13	1.73e-13	1.67e-13	1.53e-13	8	14	4.81e-11	2.97e-11	1.87e-11	1.38e-11	1.09e-11	7.72e-12
8	7	2.04e-10	1.25e-10	8.45e-11	6.69e-11	5.67e-11	4.49e-11	8	15	7.10e-12	4.49e-12	2.69e-12	1.89e-12	1.44e-12	9.54e-13
8	8	5.27e-10	3.37e-10	2.38e-10	1.93e-10	1.67e-10	1.36e-10	8	16	1.16e-10	1.01e-10	8.41e-11	7.47e-11	6.84e-11	5.98e-11
8	9	5.95e-12	3.10e-12	1.71e-12	1.18e-12	8.97e-13	6.10e-13	8	17	1.37e-11	1.12e-11	8.80e-12	7.58e-12	6.77e-12	5.77e-12
8	10	6.65e-11	4.09e-11	2.72e-11	2.13e-11	1.78e-11	1.40e-11	8	18	1.16e-10	1.01e-10	8.41e-11	7.47e-11	6.84e-11	5.98e-11
8	11	6.94e-12	3.92e-12	2.25e-12	1.55e-12	1.17e-12	7.64e-13	8	19	3.60e-09	3.23e-09	2.76e-09	2.40e-09	2.28e-09	2.01e-09
8	12	6.96e-11	4.70e-11	3.33e-11	2.69e-11	2.31e-11	1.86e-11	8	20	4.48e-10	3.97e-10	3.35e-10	2.99e-10	2.75e-10	2.41e-10
8	13	1.50e-11	9.98e-12	6.41e-12	4.80e-12	3.87e-12	2.84e-12	8	21	4.71e-11	3.99e-11	2.11e-11	2.79e-11	2.53e-11	2.18e-11
8	14	1.52e-11	2.19e-11	1.53e-11	1.22e-11	1.04e-11	8.26e-12	8	22	5.18e-10	4.07e-10	3.97e-10	3.55e-10	3.27e-10	2.88e-10
8	15	5.14e-12	4.23e-12	3.36e-12	2.91e-12	2.62e-12	2.25e-12	8	23	5.43e-12	3.80e-12	2.37e-12	1.71e-12	1.35e-12	9.54e-13
8	16	3.24e-11	2.19e-11	1.53e-11	1.22e-11	1.04e-11	8.26e-12	8	24	6.20e-13	7.08e-13	5.42e-13	4.53e-13	3.96e-13	3.27e-13
8	17	2.70e-11	1.77e-11	1.08e-11	7.63e-12	5.84e-12	3.90e-12	8	25	4.78e-12	4.32e-12	3.48e-12	2.99e-12	2.66e-12	2.25e-12
8	18	8.89e-10	7.99e-10	6.80e-10	6.11e-10	5.63e-10	4.96e-10	8	26	1.28e-11	1.23e-11	1.06e-11	9.57e-12	8.81e-12	7.77e-12
8	19	2.00e-09	1.81e-09	1.55e-09	1.39e-09	1.28e-09	1.13e-09	8	27	1.32e-12	9.73e-13	5.92e-13	4.13e-13	3.12e-13	2.04e-13
8	20	1.49e-09	1.28e-09	1.02e-09	8.74e-10	7.79e-10	6.57e-10	8	28	3.73e-13	4.51e-13	4.07e-13	3.84e-13	3.32e-13	2.87e-13
8	21	4.09e-11	3.49e-11	2.79e-11	2.41e-11	2.17e-11	1.86e-11	8	29	1.40e-14	1.41e-14	9.84e-15	7.26e-15	5.68e-15	3.84e-15
8	22	2.01e-11	1.53e-11	1.07e-11	6.56e-12	7.28e-12	5.00e-12	8	30	4.03e-15	5.26e-15	4.56e-15	3.94e-15	3.51e-15	2.95e-15
8	23	8.21e-11	7.08e-11	5.59e-11	4.76e-11	4.22e-11	3.55e-11	8	31	2.01e-13	2.59e-13	2.09e-13	1.87e-13	1.37e-13	9.98e-14
8	24	1.11e-11	7.88e-12	5.02e-12	3.73e-12	3.00e-12	2.21e-12	8	32	1.44e-10	2.21e-10	2.22e-10	2.10e-10	1.98e-10	1.79e-10
8	25	9.78e-12	7.47e-12	5.03e-12	3.84e-12	3.15e-12	2.38e-12	8	33	2.20e-12	2.91e-12	2.37e-12	1.88e-12	1.55e-12	1.22e-12
8	26	1.30e-11	1.22e-11	9.98e-12	8.81e-12	7.69e-12	6.50e-12	8	34	3.57e-15	5.57e-15	4.78e-15	3.99e-15	3.45e-15	2.76e-15
8	27	3.97e-12	3.03e-12	1.86e-12	1.50e-12	9.80e-13	6.38e-13	8	35	6.48e-15	9.86e-15	8.11e-15	6.52e-15	5.43e-15	4.12e-15
8	28	5.63e-14	5.91e-14	4.49e-14	3.59e-14	3.01e-14	2.32e-14	8	36	0.	0.	0.	0.	0.	0.
8	29	5.63e-13	2.76e-13	1.97e-13	1.47e-13	1.16e-13	7.95e-14	8	37	7.32e-15	1.12e-14	8.78e-15	6.68e-15	5.27e-15	3.60e-15
6	30	6.28e-11	9.79e-11	9.93e-11	9.42e-11	8.91e-11	8.06e-11	9	10	2.99e-10	1.79e-10	1.19e-10	9.35e-11	7.87e-11	6.21e-11
6	31	6.85e-11	1.09e-10	1.03e-10	9.68e-11	8.66e-11	8.06e-11	9	11	1.51e-11	8.70e-12	5.20e-12	3.69e-12	2.84e-12	1.92e-12
6	32	3.72e-11	5.90e-11	6.02e-11	5.72e-11	5.41e-11	4.88e-11	9	12	2.20e-11	1.36e-11	8.89e-12			

TABLE IIIA. Rate Coefficients for Ne-like Fe ($Z = 26$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	100.	250.	500.	750.	1000.	1500.	I	P	100.	250.	500.	750.	1000.	1500.
9	26	9.39e-13	7.20e-13	5.04e-13	3.95e-13	3.31e-13	2.58e-13	12	16	6.20e-13	4.90e-13	3.71e-13	2.99e-13	2.54e-13	1.99e-13
9	27	1.37e-10	1.32e-10	1.09e-10	9.40e-11	8.51e-11	7.24e-11	12	17	4.45e-12	3.35e-12	2.51e-12	2.09e-12	1.63e-12	1.50e-12
9	28	5.48e-14	5.87e-14	4.68e-14	3.88e-14	3.34e-14	2.68e-14	12	18	1.52e-11	1.18e-11	8.99e-12	7.00e-12	6.72e-12	5.84e-12
9	29	2.46e-14	2.49e-14	1.76e-14	1.31e-14	1.03e-14	7.05e-15	12	19	5.08e-13	3.09e-13	1.79e-13	1.24e-13	9.38e-14	6.23e-14
9	30	4.65e-11	6.97e-11	6.98e-11	6.56e-11	6.19e-11	5.58e-11	12	20	9.06e-13	5.53e-13	3.19e-13	2.19e-13	1.65e-13	1.09e-13
9	31	1.83e-12	2.34e-12	1.89e-12	1.50e-12	1.23e-12	8.92e-13	12	21	4.46e-12	3.47e-12	2.64e-12	2.22e-12	1.96e-12	1.64e-12
9	32	2.90e-11	3.92e-11	3.90e-11	3.66e-11	3.44e-11	3.08e-11	12	22	7.94e-13	6.08e-13	4.58e-13	3.85e-13	3.40e-13	2.80e-13
9	33	7.88e-11	1.21e-10	1.22e-10	1.16e-10	1.09e-10	9.88e-11	12	23	5.31e-11	4.32e-11	3.35e-11	2.83e-11	2.49e-11	2.07e-11
9	34	2.94e-14	3.94e-14	4.18e-14	3.97e-14	3.73e-14	3.32e-14	12	24	3.72e-09	3.37e-09	2.88e-09	2.59e-09	2.39e-09	2.11e-09
9	35	2.14e-14	3.98e-14	4.08e-14	3.79e-14	3.51e-14	3.07e-14	12	25	4.50e-11	3.74e-11	2.94e-11	2.53e-11	2.26e-11	1.93e-11
9	36	4.93e-14	9.49e-14	1.00e-13	9.52e-14	8.94e-14	7.97e-14	12	26	5.01e-11	3.74e-11	2.60e-11	2.06e-11	1.75e-11	1.38e-11
9	37	1.60e-14	3.16e-14	3.26e-14	3.03e-14	2.82e-14	2.40e-14	12	27	6.42e-10	6.08e-10	5.23e-10	4.71e-10	4.34e-10	3.83e-10
10	11	5.44e-11	3.49e-11	2.46e-11	2.01e-11	1.73e-11	1.41e-11	12	28	2.23e-13	2.32e-13	1.88e-13	1.58e-13	1.38e-13	1.13e-13
10	12	4.59e-12	2.80e-12	1.97e-12	1.57e-12	1.33e-12	1.06e-12	12	29	1.90e-14	1.78e-14	1.21e-14	8.83e-15	6.85e-15	4.62e-15
10	13	3.24e-11	2.01e-11	1.30e-11	9.88e-12	8.07e-12	6.05e-12	12	30	4.88e-11	6.90e-11	6.73e-11	6.29e-11	5.91e-11	5.30e-11
10	14	5.53e-11	3.53e-11	2.38e-11	1.88e-11	1.56e-11	1.22e-11	12	31	9.03e-11	1.27e-10	1.24e-10	1.16e-10	1.09e-10	9.73e-11
10	15	3.48e-11	2.56e-11	1.89e-11	1.57e-11	1.37e-11	1.12e-11	12	32	3.00e-12	4.32e-12	4.25e-12	3.98e-12	3.74e-12	3.30e-12
10	16	1.77e-12	1.09e-12	6.05e-13	3.97e-13	2.66e-13	1.73e-13	12	33	1.59e-11	2.32e-11	2.29e-11	2.15e-11	2.02e-11	1.82e-11
10	17	2.78e-10	2.42e-10	2.04e-10	1.82e-10	1.68e-10	1.47e-10	12	34	3.72e-15	6.83e-15	7.10e-15	6.81e-15	6.40e-15	5.72e-15
10	18	1.32e-09	1.16e-09	8.86e-10	8.84e-10	8.13e-10	7.15e-10	12	35	2.00e-14	3.07e-14	2.61e-14	2.15e-14	1.81e-14	1.40e-14
10	19	2.75e-11	2.00e-11	1.40e-11	1.12e-11	9.54e-12	7.63e-12	12	36	1.04e-14	1.80e-14	1.42e-14	1.23e-14	1.09e-14	9.05e-15
10	20	5.63e-11	4.48e-11	3.42e-11	2.88e-11	2.54e-11	2.13e-11	12	37	2.70e-14	4.71e-14	4.59e-14	4.14e-14	3.76e-14	3.21e-14
10	21	2.71e-11	2.06e-11	1.49e-11	1.22e-11	1.06e-11	8.67e-12	13	14	2.53e-10	1.51e-10	1.00e-10	7.88e-11	6.64e-11	5.24e-11
10	22	3.20e-09	2.88e-09	2.45e-09	2.21e-09	2.03e-09	1.79e-09	13	15	5.19e-12	3.03e-12	1.80e-12	1.27e-12	9.80e-13	6.81e-13
10	23	1.05e-11	8.62e-12	6.65e-12	5.01e-12	4.22e-12	3.48e-12	13	16	6.22e-11	5.25e-11	4.43e-11	3.98e-11	3.64e-11	3.18e-11
10	24	1.85e-12	1.41e-12	1.28e-12	1.09e-12	9.70e-13	8.16e-13	13	17	6.48e-11	5.46e-11	4.58e-11	4.10e-11	3.76e-11	3.29e-11
10	25	5.22e-11	4.93e-11	4.24e-11	3.82e-11	3.53e-11	3.12e-11	13	18	4.24e-11	3.58e-11	3.01e-11	2.68e-11	2.45e-11	2.15e-11
10	26	1.96e-12	1.74e-12	1.39e-12	1.19e-12	1.06e-12	8.94e-13	13	19	2.25e-12	1.70e-12	1.29e-12	1.10e-12	9.75e-13	8.20e-13
10	27	6.90e-12	6.45e-12	5.26e-12	4.54e-12	4.07e-12	3.45e-12	13	20	1.41e-12	8.76e-13	5.28e-13	3.80e-13	3.00e-13	2.14e-13
10	28	8.78e-14	8.50e-14	5.98e-14	4.43e-14	3.48e-14	2.39e-14	13	21	4.32e-12	3.29e-12	2.48e-12	2.08e-12	1.84e-12	1.53e-12
10	29	8.24e-14	1.02e-13	9.23e-14	8.28e-14	7.54e-14	6.51e-14	13	22	4.94e-13	2.88e-13	1.57e-13	1.04e-13	7.60e-14	4.77e-14
10	30	4.55e-15	5.21e-15	3.81e-15	2.87e-15	2.26e-15	1.56e-15	13	23	7.92e-11	6.78e-11	5.65e-11	5.02e-11	4.60e-11	4.02e-11
10	31	8.80e-12	1.28e-11	1.27e-11	1.19e-11	1.11e-11	9.89e-12	13	24	1.69e-10	1.49e-10	1.24e-10	1.11e-10	1.02e-10	8.90e-11
10	32	7.73e-11	1.16e-10	1.15e-10	1.06e-10	1.02e-10	9.18e-11	13	25	4.05e-09	3.63e-09	3.10e-09	2.78e-09	2.56e-09	2.28e-09
10	33	7.82e-11	1.16e-10	1.16e-10	1.10e-10	1.04e-10	9.35e-11	13	26	3.77e-11	2.72e-11	1.84e-11	1.44e-11	1.20e-11	9.38e-12
10	34	4.18e-15	6.97e-15	6.49e-15	5.70e-15	5.08e-15	4.25e-15	13	27	4.09e-10	3.78e-10	3.23e-10	2.90e-10	2.67e-10	2.35e-10
10	35	1.02e-14	1.81e-14	1.77e-14	1.60e-14	1.45e-14	1.24e-14	13	28	1.74e-13	1.78e-13	1.42e-13	1.19e-13	1.03e-13	8.30e-14
10	36	1.80e-14	3.15e-14	3.04e-14	2.71e-14	2.44e-14	2.06e-14	13	29	4.08e-14	4.43e-14	2.95e-14	2.13e-14	1.64e-14	1.10e-14
10	37	7.20e-15	1.38e-14	1.43e-14	1.36e-14	1.25e-14	1.11e-14	13	30	4.50e-12	6.28e-12	6.12e-12	5.71e-12	5.36e-12	4.81e-12
11	12	6.30e-11	3.38e-11	1.92e-11	1.33e-11	1.00e-11	6.80e-12	13	31	5.27e-12	7.27e-12	7.00e-12	6.51e-12	6.09e-12	5.46e-12
11	13	2.54e-11	1.32e-11	7.16e-12	4.80e-12	3.55e-12	2.27e-12	13	32	1.26e-10	1.79e-10	1.75e-10	1.63e-10	1.53e-10	1.38e-10
11	14	1.70e-10	1.09e-10	7.66e-11	6.24e-11	5.40e-11	4.41e-11	13	33	4.05e-11	5.75e-11	5.61e-11	5.24e-11	4.91e-11	4.40e-11
11	15	6.55e-14	4.67e-14	3.40e-14	2.78e-14	2.40e-14	1.95e-14	13	34	1.83e-14	3.16e-14	3.17e-14	2.92e-14	2.70e-14	2.36e-14
11	16	3.94e-12	2.35e-12	1.33e-12	9.00e-13	6.63e-13	4.15e-13	13	35	8.30e-14	1.48e-13	1.52e-13	1.43e-13	1.34e-13	1.19e-13
11	17	4.17e-10	3.57e-10	3.01e-10	2.69e-10	2.47e-10	2.16e-10	13	36	2.30e-13	4.30e-13	4.48e-13	4.24e-13	3.97e-13	3.54e-13
11	18	6.79e-12	4.05e-12	2.26e-12	1.51e-12	1.11e-12	6.89e-13	13	37	2.01e-14	3.18e-14	2.70e-14	2.36e-14	2.05e-14	1.64e-14
11	19	1.48e-11	8.87e-12	5.03e-12	3.40e-12	2.50e-12	1.57e-12	14	15	5.67e-11	3.89e-11	2.81e-11	2.31e-11	2.01e-11	1.65e-11
11	20	2.23e-11	1.82e-11	1.46e-11	1.28e-11	1.16e-11	1.00e-11	14	16	2.70e-14	1.55e-14	8.81e-15	5.77e-15	4.23e-15	2.63e-15
11	21	3.47e-12	2.09e-12	1.14e-12	7.38e-13	5.25e-13	3.15e-13	14	17	1.25e-11	1.05e-11	8.80e-12	7.85e-12	7.20e-12	6.31e-12
11	22	1.29e-11	1.06e-11	8.51e-12	7.43e-12	6.73e-12	5.82e-12	14	18	5.78e-11	4.88e-11	4.09e-11	3.65e-11	3.35e-11	2.92e-11
11	23	4.29e-09	3.84e-09	3.27e-09	2.94e-09	2.71e-09	2.39e-09	14	19	3.05e-13	2.08e-13	1.43e-13	1.13e-13	9.61e-14	7.65e-14
11	24	9.95e-12	6.54e-12	3.01e-12	2.59e-12	1.92e-12	1.20e-12	14	20	5.77e-12	4.37e-12	3.30e-12	2.76e-12	2.43e-12	2.02e-12
11	25	1.79e-11	1.19e-11	6.93e-12	4.73e-12	3.50e-12	2.20e-12	14	21	8.91e-13	5.73e-13	3.59e-13	2.67e-13	2.16e-13	1.60e-13
11	26	2.43e-11	2.04e-11	1.01e-11	1.38e-11	1.23e-11	1.04e-11	14	22	4.88e-12	4.18e-12	3.52e-12	3.15e-12	2.89e-12	2.55e-12
11	27	2.05e-10	1.87e-10	1.51e-10	1.29e-10	1.15e-10	9.81e-11	14	23	1.59e-11	1.26e-11	9.70e-12	8.22e-12	7.30e-12	6.15e-12
11	28	3.48e-13	3.33e-13	2.37e-13	1.79e-13	1.42e-13	9.90e-14	14	24	3.90e-10	3.				

TABLE IIIA. Rate Coefficients for Ne-like Fe ($Z = 26$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	100.	250.	500.	750.	1000.	1500.	I	P	100.	250.	500.	750.	1000.	1500.
15	16	3.65e-12	1.92e-12	1.04e-12	6.94e-13	5.08e-13	3.15e-13	18	24	1.64e-11	1.06e-11	7.27e-12	5.80e-12	4.93e-12	3.93e-12
15	17	1.34e-11	7.69e-12	4.50e-12	3.14e-12	2.39e-12	1.59e-12	18	25	3.16e-11	1.97e-11	1.27e-11	9.48e-12	7.65e-12	5.62e-12
15	18	1.68e-11	9.97e-12	4.88e-12	3.25e-12	2.38e-12	1.48e-12	18	26	5.87e-11	3.86e-11	2.66e-11	2.12e-11	1.80e-11	1.43e-11
15	19	1.43e-11	7.62e-12	4.14e-12	2.75e-12	2.01e-12	1.25e-12	18	27	3.00e-11	1.79e-11	1.05e-11	7.37e-12	5.63e-12	3.77e-12
15	20	1.65e-11	1.09e-11	7.75e-12	6.38e-12	5.56e-12	4.61e-12	18	28	5.77e-13	5.20e-13	4.19e-13	3.60e-13	3.22e-13	2.72e-13
15	21	5.26e-12	2.81e-12	1.51e-12	9.96e-13	7.24e-13	4.48e-13	18	29	2.44e-14	1.78e-14	1.06e-14	7.35e-15	5.40e-15	3.47e-15
15	22	1.48e-11	1.10e-11	8.74e-12	7.64e-12	6.94e-12	6.03e-12	18	30	1.17e-14	1.15e-14	8.95e-15	7.39e-15	6.39e-15	5.17e-15
15	23	2.09e-10	1.55e-10	1.18e-10	9.89e-11	8.72e-11	7.25e-11	18	31	4.89e-14	4.83e-14	3.68e-14	2.98e-14	2.52e-14	1.98e-14
15	24	1.42e-11	8.17e-12	4.53e-12	3.03e-12	2.22e-12	1.38e-12	18	32	8.63e-14	9.14e-14	7.45e-14	6.29e-14	5.51e-14	4.52e-14
15	25	1.80e-11	1.04e-11	5.77e-12	3.86e-12	2.83e-12	1.76e-12	18	33	5.73e-14	5.60e-14	4.16e-14	3.30e-14	2.70e-14	2.13e-14
15	26	3.92e-11	3.01e-11	2.36e-11	2.03e-11	1.63e-11	1.57e-11	18	34	1.39e-11	2.11e-11	2.12e-11	2.00e-11	1.89e-11	1.70e-11
15	27	4.80e-09	4.18e-09	3.54e-09	3.18e-09	2.93e-09	2.57e-09	18	35	8.14e-11	1.24e-10	1.25e-10	1.19e-10	1.12e-10	1.01e-10
15	28	9.74e-13	7.74e-13	4.96e-13	3.54e-13	2.71e-13	1.81e-13	18	36	8.48e-11	1.30e-10	1.31e-10	1.24e-10	1.17e-10	1.05e-10
15	29	0.	0.	0.	0.	0.	0.	18	37	1.90e-11	2.98e-11	2.97e-11	2.80e-11	2.63e-11	2.36e-11
15	30	1.18e-12	1.27e-12	9.71e-13	7.59e-13	6.17e-13	4.42e-13								
15	31	4.02e-11	4.98e-11	4.49e-11	3.98e-11	3.59e-11	3.06e-11								
15	32	2.24e-12	2.45e-12	1.88e-12	1.47e-12	1.19e-12	8.55e-13	19	20	1.40e-10	7.70e-11	4.74e-11	3.56e-11	2.91e-11	2.21e-11
15	33	4.95e-11	6.26e-11	5.77e-11	5.25e-11	4.63e-11	4.24e-11	19	21	4.06e-11	2.07e-11	1.14e-11	7.87e-12	6.02e-12	4.14e-12
15	34	2.31e-14	2.90e-14	2.17e-14	1.63e-14	1.28e-14	8.50e-15	19	22	1.36e-10	7.57e-11	4.57e-11	3.35e-11	2.88e-11	1.96e-11
15	35	3.38e-14	4.57e-14	3.78e-14	3.12e-14	2.67e-14	2.11e-14	19	23	2.77e-11	1.48e-11	8.22e-12	5.58e-12	4.17e-12	2.71e-12
15	36	3.84e-14	4.78e-14	3.54e-14	2.64e-14	2.05e-14	1.36e-14	19	24	1.06e-12	5.90e-13	3.43e-13	2.44e-13	1.91e-13	1.36e-13
15	37	5.55e-13	9.49e-13	9.79e-13	9.23e-13	8.66e-13	7.72e-13	19	25	2.37e-11	1.49e-11	9.73e-12	7.43e-12	6.11e-12	4.63e-12
19	26	4.57e-11	2.82e-11	1.28e-11	1.29e-11	1.02e-11	7.15e-12	19	27	7.76e-12	4.55e-12	2.62e-12	1.80e-12	1.36e-12	8.88e-12
16	17	6.93e-11	3.53e-11	1.92e-11	1.29e-11	9.59e-12	6.18e-12	19	28	9.40e-14	8.24e-14	6.55e-14	5.62e-14	5.03e-14	4.28e-14
16	18	3.11e-10	1.97e-10	1.39e-10	1.14e-10	9.88e-11	8.10e-11	19	29	2.01e-15	1.45e-15	8.75e-16	8.03e-16	4.48e-16	2.83e-16
16	19	5.11e-11	2.77e-11	1.70e-11	1.28e-11	1.06e-11	8.29e-12	19	30	9.76e-15	9.08e-15	6.77e-15	5.51e-15	4.75e-15	3.86e-15
16	20	9.71e-11	5.18e-11	2.92e-11	2.00e-11	1.51e-11	9.91e-12	19	31	2.48e-14	2.22e-14	1.58e-14	1.24e-14	1.03e-14	7.99e-15
16	21	2.10e-10	1.35e-10	9.56e-11	7.83e-11	6.80e-11	5.58e-11	19	32	4.27e-13	4.03e-13	4.22e-13	3.73e-13	3.37e-13	2.88e-13
16	22	4.19e-11	2.07e-11	1.06e-11	8.75e-12	4.77e-12	2.83e-12	19	33	6.21e-14	5.67e-14	3.82e-14	2.79e-14	2.17e-14	1.47e-14
16	23	3.81e-11	2.01e-11	1.09e-11	7.29e-12	5.36e-12	3.35e-12	19	34	0.	0.	0.	0.	0.	0.
16	24	3.33e-11	2.12e-11	1.38e-11	1.06e-11	8.66e-12	6.54e-12	19	35	9.87e-13	1.28e-12	1.03e-12	8.23e-13	6.75e-13	4.88e-13
16	25	2.45e-11	1.70e-11	1.24e-11	1.03e-11	8.95e-12	7.38e-12	19	36	1.43e-10	2.17e-10	2.18e-10	2.06e-10	1.94e-10	1.78e-10
16	26	1.01e-12	5.76e-13	3.30e-13	2.28e-13	1.72e-13	1.13e-13	19	37	1.66e-12	2.22e-12	1.82e-12	1.45e-12	1.19e-12	8.64e-13
16	27	5.59e-11	3.46e-11	2.07e-11	1.46e-11	1.11e-11	7.41e-12								
16	28	8.81e-13	8.43e-13	7.21e-13	6.45e-13	5.91e-13	5.48e-13								
16	29	3.76e-14	2.77e-14	1.69e-14	1.17e-14	8.76e-15	5.58e-15	20	21	1.19e-10	6.97e-11	4.53e-11	3.51e-11	2.93e-11	2.28e-11
16	30	0.	0.	0.	0.	0.	0.	20	22	8.61e-11	4.82e-11	3.01e-11	2.29e-11	1.89e-11	1.45e-11
16	31	4.05e-14	3.76e-14	2.57e-14	1.89e-14	1.48e-14	1.01e-14	20	23	3.06e-11	1.77e-11	1.10e-11	8.22e-12	6.88e-12	5.00e-12
16	32	6.66e-14	7.14e-14	5.82e-14	4.90e-14	4.28e-14	3.49e-14	20	24	4.47e-11	2.76e-11	1.77e-11	1.33e-11	1.07e-11	7.89e-12
16	33	2.97e-14	2.68e-14	1.76e-14	1.26e-14	9.58e-15	6.20e-15	20	25	5.39e-12	3.16e-12	1.94e-12	1.42e-12	1.14e-12	8.35e-13
16	34	2.07e-14	3.23e-10	3.28e-10	3.11e-10	2.94e-10	2.86e-10	20	26	5.20e-13	3.27e-13	2.18e-13	1.71e-13	1.43e-13	1.13e-13
16	35	2.50e-12	3.31e-12	2.70e-12	2.15e-12	1.77e-12	1.28e-12	20	27	2.39e-11	1.60e-11	1.10e-11	0.71e-12	7.37e-12	5.84e-12
16	36	6.87e-14	9.57e-14	8.69e-14	7.72e-14	7.00e-14	6.01e-14	20	28	7.26e-14	5.96e-14	4.44e-14	3.87e-14	3.19e-14	2.62e-14
16	37	1.44e-12	1.94e-12	1.58e-12	1.28e-12	1.03e-12	7.46e-13	20	29	3.98e-15	3.70e-15	3.05e-15	2.66e-15	2.41e-15	2.08e-15
16	38	2.05e-11	2.85e-11	1.93e-11	1.52e-11	1.28e-11	9.98e-12	20	30	2.57e-14	2.30e-14	1.55e-14	1.13e-14	8.79e-15	5.95e-15
16	39	2.89e-13	3.27e-13	2.81e-13	2.30e-13	2.04e-13	1.74e-13	20	31	2.89e-13	3.27e-13	2.80e-13	2.45e-13	2.19e-13	1.86e-13
17	18	1.32e-10	7.68e-11	4.98e-11	3.86e-11	3.23e-11	2.52e-11	20	32	9.70e-14	9.95e-14	7.95e-14	6.67e-14	5.83e-14	4.78e-14
17	19	5.91e-11	3.16e-11	1.88e-11	1.39e-11	1.12e-11	8.40e-12	20	33	4.45e-14	4.45e-14	3.46e-14	2.87e-14	2.49e-14	2.03e-14
17	20	1.51e-10	8.83e-10	5.71e-11	4.40e-11	3.66e-11	2.84e-11	20	34	2.44e-12	3.16e-12	2.55e-12	2.03e-12	1.68e-12	1.20e-12
17	21	5.88e-11	3.15e-11	1.81e-11	1.28e-11	9.97e-12	7.02e-12	20	35	1.11e-10	1.69e-10	1.69e-10	1.60e-10	1.51e-10	1.38e-10
17	22	1.50e-10	9.27e-11	6.32e-11	5.05e-11	4.32e-11	3.48e-11	20	36	9.71e-14	1.30e-13	1.11e-13	9.31e-14	8.04e-14	6.42e-14
17	23	1.89e-11	1.05e-11	6.13e-12	4.38e-12	3.44e-12	2.45e-12	20	37	3.29e-11	5.12e-11	5.10e-11	4.80e-11	4.61e-11	4.16e-11
17	24	4.38e-11	2.85e-11	1.93e-11	1.52e-11	1.28e-11	9.98e-12								
17	25	1.01e-11	5.89e-12	3.49e-12	2.46e-12	1.90e-12	1.28e-12								
17	26	7.99e-12	4.95e-12	3.16e-12	2.38e-12	1.93e-12	1.45e-12								
17	27	3.89e-11	2.55e-11	1.66e-11	1.26e-11	1.02e-11	7.84e-12								
17	28	5.79e-13	5.48e-13	4.66e-13	4.16e-13	3.81e-13	3.33e-13								
17	29	4.09e-14	3.20e-14	2.10e-14	1.56e-14	1.24e-14	8.92e-15								
17	30	1.99e-14	1.79e-14	1.20e-14	8.69e-15	6.72e-15	4.51e-15								
17	31	1.55e-13	1.73e-13	1.49e-13	1.30e-13	1.17e-13	9.87e-14								
17	32	8.42e-14	8.91e-14	7.18e-14	6.01e-14	5.23e-14	4.25e-14								
17	33	6.68e-14	6.89e-14	5.37e-14	4.40e-14	3.77e-14	3.01e-14								
17	34	9.91e-11	1.53e-11	1.05e-10	1.47e-10	1.39e-10	1.25e-10								
17	35	1.03e-10	1.59e-10	1.61e-10	1.53e-10	1.44e-10	1.30e-10								
17	36	8.81e-13	1.16e-12	9.53e-13	7.84e-13	6.30e-13	4.80e-13								
17	37	2.87e-12	4.21e-12	3.90e-12	3.46e-12	3.12e-12	2.64e-12								
18	19	1.28e-10	7.29e-11	4.61e-11	3.51e-11	2.90e-11	2.22e-11								
18	20	5.62e-11	2.94e-11	1.69e-11	1.21e-11	9.54e-12	6.88e-12								
18	21	3.82e-11	2.02e-11	1.18e-11	8.51e-12	6.76e-12	4.92e-12								
18	22	1.67e-10	9.91e-11	6.47e-11	5.02e-11	4.19e-11	3.27								

TABLE IIIA. Rate Coefficients for Ne-like Fe ($Z = 26$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	100.	250.	500.	750.	1000.	1500.	I	F	100.	250.	500.	750.	1000.	1500.
22	25	3.16e-11	1.90e-11	1.18e-11	8.67e-12	6.80e-12	4.84e-12	27	31	2.41e-13	2.28e-13	1.83e-13	1.55e-13	1.37e-13	1.13e-13
22	26	4.71e-11	2.98e-11	1.98e-11	1.53e-11	1.27e-11	9.81e-12	27	32	1.37e-13	1.19e-13	8.61e-14	6.85e-14	5.76e-14	4.49e-14
22	27	1.14e-11	7.40e-12	5.01e-12	3.95e-12	3.35e-12	2.86e-12	27	33	3.18e-13	3.14e-13	2.63e-13	2.28e-13	2.04e-13	1.73e-13
22	28	3.03e-14	2.04e-14	1.20e-14	8.30e-15	6.26e-15	4.12e-15	27	34	1.72e-11	2.25e-11	2.11e-11	1.94e-11	1.79e-11	1.58e-11
22	29	2.56e-15	2.36e-15	1.96e-15	1.73e-15	1.57e-15	1.36e-15	27	35	4.24e-11	5.63e-11	5.37e-11	4.97e-11	4.64e-11	4.13e-11
22	30	1.01e-14	8.14e-15	4.91e-15	3.28e-15	2.37e-15	1.43e-15	27	36	1.24e-12	1.39e-12	1.05e-12	8.20e-13	6.63e-13	4.73e-13
22	31	2.32e-14	2.01e-14	1.38e-14	1.06e-14	8.68e-15	6.50e-15	27	37	2.16e-10	2.99e-10	2.92e-10	2.73e-10	2.56e-10	2.30e-10
22	32	6.29e-14	5.77e-14	4.04e-14	3.05e-14	2.45e-14	1.74e-14								
22	33	1.04e-13	1.08e-13	8.71e-14	7.37e-14	6.47e-14	5.34e-14								
22	34	1.10e-14	1.40e-14	1.12e-14	8.91e-15	7.29e-15	5.27e-15	28	29	5.22e-11	2.07e-11	1.84e-11	1.13e-11	8.55e-12	5.62e-12
22	35	2.29e-11	3.41e-11	3.39e-11	3.19e-11	3.00e-11	2.70e-11	28	30	1.10e-09	9.48e-10	8.02e-10	7.20e-10	6.62e-10	5.82e-10
22	36	9.05e-11	1.35e-10	1.34e-10	1.26e-10	1.19e-10	1.07e-10	28	31	2.93e-09	2.52e-09	2.14e-09	1.91e-09	1.76e-09	1.55e-09
22	37	5.22e-11	8.01e-11	8.04e-11	7.61e-11	7.18e-11	6.49e-11	28	32	5.35e-09	4.04e-09	3.94e-09	3.53e-09	3.25e-09	2.88e-09
28	33	3.67e-10	3.16e-10	2.65e-10	2.37e-10	2.18e-10	1.91e-10								
23	24	3.80e-11	2.11e-11	1.22e-11	8.51e-12	6.51e-12	4.38e-12	28	34	1.06e-10	1.10e-10	9.30e-11	8.12e-11	7.30e-11	6.20e-11
23	25	3.73e-11	1.98e-11	1.12e-11	7.85e-12	6.04e-12	4.16e-12	28	35	1.77e-10	1.83e-10	1.55e-10	1.35e-10	1.21e-10	1.03e-10
23	26	2.98e-11	1.69e-11	1.05e-11	7.03e-12	6.51e-12	4.97e-12	28	36	2.48e-10	2.57e-10	2.18e-10	1.90e-10	1.71e-10	1.45e-10
23	27	1.66e-11	1.02e-11	6.44e-12	4.81e-12	3.89e-12	2.87e-12	28	37	1.65e-11	1.36e-11	8.57e-12	8.03e-12	4.57e-12	2.99e-12
23	28	7.62e-14	6.14e-14	4.47e-14	3.54e-14	2.97e-14	2.28e-14								
23	29	1.63e-12	1.47e-12	1.18e-12	1.01e-12	8.98e-13	7.51e-13	29	30	6.88e-12	3.98e-12	2.21e-12	1.49e-12	1.10e-12	6.01e-13
23	31	6.50e-14	6.36e-14	6.58e-14	5.47e-14	4.74e-14	3.84e-14	29	31	1.31e-09	1.10e-09	9.24e-10	8.25e-10	7.57e-10	6.62e-10
23	32	3.94e-14	3.34e-14	2.20e-14	1.81e-14	1.26e-14	8.66e-15	29	32	3.34e-11	1.95e-11	1.10e-11	7.42e-12	5.48e-12	3.44e-12
23	33	2.86e-11	2.48e-14	1.05e-14	1.21e-14	9.52e-15	6.57e-15	29	33	9.63e-09	8.23e-09	6.97e-09	6.24e-09	5.73e-09	5.03e-09
23	34	6.92e-11	1.00e-10	9.90e-11	9.31e-11	8.76e-11	7.89e-11	29	34	1.13e-11	8.56e-12	5.20e-12	3.86e-12	2.73e-12	1.73e-12
23	35	7.39e-11	1.07e-10	1.06e-10	9.97e-11	9.38e-11	8.43e-11	29	35	1.98e-11	1.53e-11	9.80e-12	8.80e-12	5.20e-12	3.47e-12
23	36	2.29e-12	2.83e-12	2.25e-12	1.78e-12	1.46e-12	1.05e-12	29	36	2.61e-11	1.99e-11	1.22e-11	8.51e-12	8.38e-12	4.03e-12
23	37	4.70e-11	7.04e-11	7.04e-11	6.83e-11	6.24e-11	5.62e-11	29	37	5.10e-10	5.32e-10	4.55e-10	4.00e-10	3.60e-10	3.08e-10
30	31	5.27e-11	2.80e-11	1.59e-11	1.10e-11	8.36e-12	5.54e-12								
24	25	8.29e-11	4.54e-11	2.79e-11	2.11e-11	1.74e-11	1.34e-11	30	32	6.74e-10	4.25e-10	2.98e-10	2.43e-10	2.10e-10	1.71e-10
24	26	2.14e-10	1.16e-10	6.94e-11	5.11e-11	4.12e-11	3.07e-11	30	33	6.55e-11	3.40e-11	1.85e-11	1.24e-11	9.16e-12	5.88e-12
24	27	1.08e-10	6.56e-11	4.31e-11	3.33e-11	2.78e-11	2.16e-11	30	34	4.49e-09	4.04e-09	3.45e-09	3.10e-09	2.88e-09	2.52e-09
24	28	1.02e-13	8.05e-14	6.12e-14	5.18e-14	4.56e-14	3.83e-14	30	35	2.93e-11	1.88e-11	1.09e-11	7.37e-12	5.44e-12	3.41e-12
24	29	2.51e-15	1.66e-15	9.67e-16	6.59e-16	4.87e-16	3.05e-16	30	36	5.97e-11	4.99e-11	3.98e-11	3.42e-11	3.07e-11	2.63e-11
24	30	5.27e-14	5.19e-14	4.21e-14	3.58e-14	3.16e-14	2.63e-14	30	37	2.61e-11	1.73e-11	1.01e-11	6.88e-12	5.09e-12	3.19e-12
24	32	9.25e-14	7.96e-14	5.81e-14	4.38e-14	3.65e-14	2.82e-14								
24	33	4.91e-14	4.07e-14	2.62e-14	1.87e-14	1.43e-14	9.52e-15	31	32	4.76e-10	2.97e-10	2.06e-10	1.66e-10	1.43e-10	1.18e-10
24	34	6.00e-11	8.40e-11	8.16e-11	7.61e-11	7.14e-11	6.40e-11	31	33	2.51e-10	1.50e-10	1.11e-10	8.97e-11	7.73e-11	6.28e-11
24	35	6.76e-11	9.49e-11	9.24e-11	8.62e-11	8.09e-11	7.25e-11	31	34	1.03e-09	9.22e-10	7.83e-10	7.03e-10	6.47e-10	5.70e-10
24	36	2.96e-12	4.17e-12	4.07e-12	3.81e-12	3.58e-12	3.22e-12	31	35	3.16e-09	2.84e-09	2.42e-09	2.18e-09	2.01e-09	1.77e-09
24	37	4.47e-11	6.49e-11	6.39e-11	6.00e-11	5.64e-11	5.06e-11	31	36	5.55e-11	4.26e-11	3.10e-11	2.54e-11	2.20e-11	1.80e-11
31	37	3.66e-10	3.13e-10	2.47e-10	2.11e-10	1.87e-10	1.56e-10								
25	26	1.75e-10	9.58e-11	5.79e-11	4.27e-11	3.43e-11	2.54e-11								
25	27	8.58e-11	5.10e-11	3.30e-11	2.55e-11	2.13e-11	1.66e-11	32	33	1.08e-10	6.06e-11	3.71e-11	2.74e-11	2.20e-11	1.62e-11
25	28	2.84e-13	2.43e-13	2.00e-13	1.76e-13	1.61e-13	1.40e-13	32	34	7.12e-11	6.08e-11	5.01e-11	4.42e-11	4.03e-11	3.51e-11
25	29	2.06e-14	1.36e-14	7.97e-15	5.45e-15	4.04e-15	2.55e-15	32	35	7.46e-10	6.58e-10	5.57e-10	4.98e-10	4.58e-10	4.03e-10
25	30	5.29e-15	4.09e-15	2.53e-15	1.78e-15	1.36e-15	9.04e-16	32	36	3.95e-09	3.53e-09	3.00e-09	2.70e-09	2.48e-09	2.19e-09
25	32	4.83e-14	4.46e-14	3.29e-14	2.80e-14	2.17e-14	1.65e-14	32	37	2.73e-11	1.81e-11	1.08e-11	7.52e-12	5.71e-12	3.80e-12
25	33	1.81e-13	1.53e-13	1.15e-13	9.21e-14	7.74e-14	5.98e-14								
25	34	3.08e-12	4.30e-12	4.20e-12	3.93e-12	3.69e-12	3.32e-12	33	34	1.47e-10	1.25e-10	1.03e-10	9.09e-11	8.29e-11	7.24e-11
25	35	2.51e-11	3.49e-11	3.39e-11	3.18e-11	2.96e-11	2.66e-11	33	35	2.94e-10	2.36e-10	1.82e-10	1.53e-10	1.35e-10	1.13e-10
25	36	1.36e-10	1.92e-10	1.87e-10	1.75e-10	1.65e-10	1.48e-10	33	36	3.86e-11	2.50e-11	1.51e-11	1.07e-11	8.34e-12	5.81e-12
25	37	4.80e-11	6.95e-11	6.79e-11	6.30e-11	5.86e-11	5.19e-11	33	37	4.09e-09	3.70e-09	3.16e-09	2.84e-09	2.62e-09	2.31e-09
26	27	2.83e-11	1.56e-11	9.38e-12	6.95e-12	5.65e-12	4.27e-12	34	35	2.88e-10	1.71e-10	1.14e-10	9.06e-11	7.70e-11	6.14e-11
26	28	9.55e-14	7.12e-14	5.08e-14	4.12e-14	3.55e-14	2.88e-14	34	36	1.10e-10	5.92e-11	3.60e-11	2.70e-11	2.21e-11	1.70e-11
26	29	4.87e-15	4.14e-15	3.30e-15	2.85e-15	2.57e-15	2.20e-15	34	37	1.40e-10	7.17e-11	3.85e-11	2.56e-11	1.89e-11	1.20e-11
26	30	5.80e-15	4.52e-15	2.81e-15	1.06e-15	1.47e-15	9.32e-16								
26	31	7.09e-14	6.29e-14	4.65e-14	3.77e-14	3.22e-14	2.58e-14								
26	32	1.62e-13	1.41e-13	1.00e-13	7.77e-14	6.41e-14	4.85e-14	35	36	2.42e-10	1.40e-10	9.14e-11	7.14e-11	6.02e-11	4.76e-11
26	33	7.69e-14	7.60e-14	6.13e-14	5.21e-14	4.60e-14	3.83e-14	35	37	4.10e-11	2.06e-11	1.10e-11	7.33e-12	5.44e-12	3.53e-12
26	34	3.86e													

TABLE IIIB. Rate Coefficients for Ne-like Se ($Z = 34$)

See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	200.	400.	700.	1000.	1500.	2500.	I	F	200.	400.	700.	1000.	1500.	2500.
1	2	3.70e-15	9.50e-14	3.25e-13	4.54e-13	4.85e-13	3.85e-13	2	37	1.97e-15	2.98e-15	2.78e-15	2.28e-15	1.82e-15	9.23e-16
1	3	3.80e-15	9.96e-14	3.62e-13	5.75e-13	7.82e-13	9.22e-13								
1	4	5.86e-16	1.87e-14	6.01e-14	8.55e-14	9.28e-14	7.47e-14	3	4	7.23e-12	5.35e-12	3.77e-12	2.05e-12	1.95e-12	1.12e-12
1	5	2.56e-15	7.29e-14	2.69e-13	4.25e-13	5.68e-13	6.47e-13	3	5	2.07e-11	1.56e-11	1.12e-11	8.57e-12	5.95e-12	3.46e-12
1	6	6.18e-15	1.78e-13	6.39e-13	9.07e-13	9.81e-13	7.83e-13								
1	7	7.29e-15	2.04e-13	7.11e-13	1.05e-12	1.25e-12	1.20e-12	3	6	5.63e-12	4.06e-12	2.79e-12	2.08e-12	1.41e-12	8.05e-13
1	8	7.57e-15	2.24e-13	8.13e-13	1.15e-12	1.24e-12	9.67e-13	3	7	1.13e-09	9.37e-10	7.29e-10	5.82e-10	4.21e-10	2.54e-10
1	9	3.27e-15	9.70e-14	3.54e-13	5.03e-13	5.40e-13	4.25e-13								
1	10	5.49e-15	1.60e-13	5.70e-13	8.52e-13	1.03e-12	1.01e-12	3	8	8.17e-12	5.87e-12	3.96e-12	2.85e-12	1.83e-12	9.59e-13
1	11	1.74e-14	5.34e-13	1.97e-12	2.99e-12	3.67e-12	3.61e-12	3	9	1.24e-09	1.03e-09	8.05e-10	6.43e-10	4.65e-10	2.81e-10
1	12	2.57e-15	8.27e-14	3.13e-13	4.51e-13	4.89e-13	3.86e-13	3	10	9.90e-10	8.32e-10	6.48e-10	5.16e-10	3.75e-10	2.27e-10
1	13	2.76e-15	9.15e-14	3.51e-13	5.09e-13	5.56e-13	4.44e-13								
1	14	5.12e-15	1.64e-13	6.08e-13	9.21e-13	1.13e-12	1.11e-12	3	12	4.66e-13	4.07e-13	3.18e-13	2.53e-13	1.83e-13	1.11e-13
1	15	5.06e-14	1.71e-12	6.59e-12	1.02e-11	1.27e-11	1.27e-11								
1	16	2.80e-15	9.80e-14	3.73e-13	5.41e-13	5.86e-13	4.58e-13	3	13	9.83e-14	8.47e-14	6.45e-14	5.06e-14	3.60e-14	2.15e-14
1	17	7.77e-15	2.62e-13	9.96e-13	1.45e-12	1.62e-12	1.35e-12	3	14	8.70e-13	7.90e-13	6.30e-13	5.07e-13	3.70e-13	2.26e-13
1	18	9.08e-15	3.18e-13	1.23e-12	1.79e-12	1.92e-12	1.48e-12	3	15	4.38e-11	4.11e-11	3.32e-11	2.69e-11	1.97e-11	1.21e-11
1	19	6.51e-15	2.14e-13	7.88e-13	1.18e-12	1.41e-12	1.34e-12								
1	20	8.87e-15	3.09e-13	1.21e-12	1.75e-12	1.89e-12	1.47e-12	3	19	5.81e-11	5.49e-11	4.42e-11	3.58e-11	2.59e-11	1.58e-11
1	21	3.86e-15	1.84e-13	6.34e-13	8.41e-13	8.23e-13	6.03e-13								
1	22	4.44e-15	1.48e-13	5.52e-13	8.32e-13	1.01e-12	9.73e-13	3	21	8.11e-11	5.83e-11	4.72e-11	3.82e-11	2.79e-11	1.70e-11
1	23	6.87e-14	2.44e-12	9.88e-12	1.59e-11	2.10e-11	2.29e-11								
1	24	3.83e-15	1.67e-13	6.80e-13	9.29e-13	9.36e-13	7.03e-13	3	22	4.60e-11	4.40e-11	3.56e-11	2.88e-11	2.10e-11	1.28e-11
1	25	5.20e-15	2.03e-13	8.34e-13	1.23e-12	1.35e-12	1.05e-12								
1	26	4.42e-15	1.84e-13	6.37e-13	9.77e-13	1.20e-12	1.16e-12	3	24	3.67e-14	3.55e-14	2.78e-14	2.18e-14	1.55e-14	9.14e-15
1	27	7.72e-14	3.11e-12	1.32e-11	2.16e-11	2.89e-11	3.20e-11								
1	28	7.84e-16	3.45e-14	1.49e-13	2.27e-13	2.55e-13	2.07e-13	3	25	5.05e-14	5.63e-14	4.30e-14	3.40e-14	2.39e-14	1.40e-14
1	29	1.38e-14	6.16e-13	2.68e-12	4.37e-12	5.69e-12	5.91e-12								
1	30	1.72e-16	8.61e-15	3.97e-14	6.21e-14	7.20e-14	6.05e-14	3	26	5.58e-11	5.91e-11	6.34e-11	5.43e-11	4.18e-11	2.69e-11
1	31	8.39e-16	4.12e-14	1.90e-13	3.28e-13	4.61e-13	5.47e-13								
1	32	7.80e-16	4.02e-14	1.88e-13	2.05e-13	3.44e-13	2.91e-13	3	31	5.43e-15	6.93e-15	5.21e-15	5.19e-15	3.87e-15	2.41e-15
1	33	1.52e-15	8.00e-14	3.98e-13	7.27e-13	1.12e-12	1.47e-12								
1	34	8.44e-16	5.09e-14	2.55e-13	4.09e-13	4.79e-13	3.99e-13	3	32	1.10e-14	1.42e-14	1.27e-14	1.05e-14	7.79e-15	4.77e-15
1	35	1.50e-15	8.75e-14	4.25e-13	6.88e-13	8.35e-13	7.50e-13								
1	36	1.94e-15	1.18e-13	5.90e-13	9.48e-13	1.11e-12	9.24e-13	3	34	4.76e-14	7.80e-14	8.10e-14	7.32e-14	5.91e-14	4.02e-14
1	37	7.20e-15	4.49e-13	2.29e-12	4.04e-12	5.72e-12	6.56e-12								
2	3	3.17e-11	2.10e-11	1.40e-11	1.03e-11	8.88e-12	3.87e-12	4	5	2.78e-11	1.81e-11	1.19e-11	8.68e-12	5.76e-12	3.22e-12
2	4	6.09e-12	4.62e-12	3.34e-12	2.58e-12	1.78e-12	1.04e-12								
2	5	2.04e-11	1.53e-11	1.10e-11	8.33e-12	5.75e-12	3.32e-12	4	6	2.50e-11	1.82e-11	1.32e-11	1.01e-11	7.09e-12	4.14e-12
2	6	8.30e-10	6.88e-10	5.34e-10	4.26e-10	3.08e-10	1.86e-10								
2	7	5.60e-10	4.45e-10	3.33e-10	2.80e-10	1.84e-10	1.09e-10	4	8	6.71e-15	4.83e-15	3.44e-15	2.63e-15	1.83e-15	1.06e-15
2	8	1.70e-09	1.43e-09	1.12e-09	8.92e-10	6.45e-10	3.90e-10								
2	9	8.20e-12	6.34e-12	4.59e-12	3.52e-12	2.45e-12	1.43e-12	4	9	2.50e-12	1.89e-12	1.40e-12	1.09e-12	7.74e-13	4.57e-13
2	10	6.45e-10	5.42e-10	4.22e-10	3.37e-10	2.44e-10	1.48e-10								
2	11	7.98e-13	6.05e-13	4.17e-13	3.03e-13	1.95e-13	1.03e-13	4	12	1.24e-09	1.03e-09	8.02e-10	6.40e-10	4.63e-10	2.79e-10
2	12	1.53e-13	1.34e-13	1.04e-13	8.28e-14	5.95e-14	3.58e-14								
2	13	3.37e-12	3.07e-12	2.45e-12	1.97e-12	1.43e-12	8.74e-13	4	14	1.13e-11	8.21e-12	5.57e-12	4.02e-12	2.58e-12	1.35e-12
2	14	1.20e-12	1.10e-12	9.76e-13	7.05e-13	5.13e-13	3.13e-13								
2	15	1.62e-13	1.35e-13	9.69e-14	7.15e-14	4.66e-14	2.48e-14	4	15	1.61e-12	1.20e-12	8.26e-13	5.98e-13	3.84e-13	2.02e-13
2	16	8.89e-12	8.17e-12	6.58e-12	5.31e-12	3.86e-12	2.35e-12								
2	17	2.55e-11	2.41e-11	1.94e-11	1.57e-11	1.14e-11	6.95e-12	4	17	7.15e-14	5.52e-14	3.88e-14	2.82e-14	1.82e-14	9.65e-15
2	18	7.90e-11	7.56e-11	6.10e-11	4.92e-11	3.59e-11	2.19e-11								
2	19	3.03e-11	2.84e-11	2.26e-11	1.82e-11	1.32e-11	7.99e-12	4	20	2.70e-12	2.29e-12	1.75e-12	1.38e-12	9.87e-13	5.90e-13
2	20	3.79e-11	3.64e-11	2.90e-11	2.39e-11	1.75e-11	1.07e-11								
2	21	7.35e-12	6.72e-12	5.23e-12	4.13e-12	2.94e-12	1.75e-12	4	22	1.42e-14	1.10e-14	7.87e-15	5.57e-15	3.58e-15	1.86e-15
2	22	3.49e-11	3.34e-11	2.71e-11	2.16e-11	1.59e-11	9.70e-12								
2	23	2.26e-12	2.05e-12	1.55e-12	1.20e-12	8.38e-13	4.89e-13	4	24	9.05e-11	8.58e-11	6.92e-11	5.59e-11	4.07e-11	2.48e-11
2	24	1.89e-14	1.87e-14	1.49e-14	1.18e-14	8.48e-15	5.07e-15								
2	25	3.18e-13	3.38e-13	2.88e-13	2.36e-13	1.77e-13	1.10e-13	4	26	9.91e-12	8.62e-12	6.36e-12	4.73e-12	3.10e-12	1.65e-12
2	26	1.24e-13	1.32e-13	1.12e-13	9.29e-14	6.91e-14	4.30e-14								
2	27	1.68e-13	1.71e-13	1.37e-13	1.09e-13	7.82e-14	4.67e-14	4	27	3.76e-12	3.34e-12	2.49e-12	1.86e-12	1.22e-12	6.53e-13
2	28	7.39e-11	8.97e-11	8.15e-11	6.94e-11	5.30e-11	3.41e-11								
2	29	7.83e-13	9.30e-13	8.13e-13	8.72e-13	4.97e-13	3.04e-13	4	29	9.58e-13	1.02e-12	8.55e-13	6.94e-13	5.05e-13	3.05e-13
2	30	4.59e-15	6.05e-15	5.57e-15	4.73e-15	3.59e-15	2.27e-15								
2	31	9.77e-15	1.28e-14	1.17e-14	9.90e-15	7.48e-15	4.70e-15	4	31	3.67e-14	4.21e-14	3.58e-14	2.91e-14	2.12e-14	1.28e-14
2	32	1.77e-14	2.48e-14	2.40e-14	2.09e-14	1.63e									

TABLE IIIB. Rate Coefficients for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

TABLE IIIB. Rate Coefficients for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	200.	400.	700.	1000.	1500.	2500.	I	P	200.	400.	700.	1000.	1500.	2500.
9	26	9.35e-14	7.87e-14	5.78e-14	4.43e-14	3.07e-14	1.78e-14	12	16	2.32e-13	1.86e-13	1.42e-13	1.12e-13	8.03e-14	4.79e-14
9	27	1.88e-11	1.80e-11	1.47e-11	1.20e-11	8.79e-12	5.41e-12	12	17	1.49e-13	1.07e-13	7.45e-14	5.61e-14	3.84e-14	2.21e-14
9	28	4.82e-14	4.06e-14	3.81e-14	3.08e-14	2.24e-14	1.30e-14	12	18	6.20e-14	4.28e-14	2.88e-14	2.12e-14	1.42e-14	8.02e-15
9	29	2.85e-14	2.82e-14	2.25e-14	1.75e-14	1.20e-14	6.69e-15	12	19	9.91e-14	6.69e-14	4.39e-14	3.19e-14	2.11e-14	1.17e-14
9	30	7.34e-12	8.69e-12	7.79e-12	6.60e-12	5.02e-12	3.21e-12	12	20	2.32e-12	1.88e-12	1.44e-12	1.14e-12	8.21e-13	4.91e-13
9	31	3.61e-13	4.09e-13	3.50e-13	2.87e-13	2.11e-13	1.29e-13	12	21	1.57e-13	1.18e-13	8.61e-14	6.63e-14	4.64e-14	2.72e-14
9	32	1.91e-11	2.31e-11	2.10e-11	1.79e-11	1.37e-11	8.76e-12	12	22	5.61e-14	4.08e-14	2.86e-14	2.16e-14	1.49e-14	8.58e-15
9	33	5.46e-11	6.68e-11	6.08e-11	5.19e-11	3.97e-11	2.56e-11	12	23	7.65e-12	6.28e-12	4.84e-12	3.85e-12	2.78e-12	1.67e-12
9	34	3.03e-14	4.29e-14	4.16e-14	3.84e-14	2.85e-14	1.86e-14	12	24	1.37e-09	1.18e-09	9.20e-10	7.36e-10	5.33e-10	3.24e-10
9	35	1.91e-14	2.67e-14	2.56e-14	2.22e-14	1.72e-14	1.12e-14	12	25	1.45e-11	1.18e-11	8.77e-12	6.81e-12	4.80e-12	2.84e-12
9	36	3.70e-14	5.22e-14	5.04e-14	4.39e-14	3.42e-14	2.23e-14	12	26	1.93e-11	1.53e-11	1.10e-11	0.40e-12	5.82e-12	3.38e-12
9	37	1.13e-14	1.57e-14	1.49e-14	1.20e-14	9.85e-15	6.32e-15	12	27	2.94e-10	2.57e-10	2.03e-10	1.62e-10	1.18e-10	7.17e-11
							12	28	1.41e-13	1.32e-13	1.05e-13	8.35e-14	6.02e-14	3.63e-14	
							12	29	1.61e-14	1.47e-14	1.13e-14	8.60e-15	5.80e-15	3.20e-15	
10	11	2.89e-11	2.06e-11	1.45e-11	1.10e-11	7.59e-12	4.39e-12	12	30	3.02e-11	3.31e-11	2.86e-11	2.38e-11	1.79e-11	1.13e-11
10	12	2.22e-13	1.59e-13	1.11e-13	8.36e-14	5.72e-14	3.28e-14	12	31	6.11e-11	6.69e-11	5.79e-11	4.83e-11	3.62e-11	2.28e-11
10	13	1.06e-11	7.90e-12	5.62e-12	4.27e-12	2.95e-12	1.70e-12	12	32	4.52e-14	4.87e-14	4.11e-14	3.38e-14	2.49e-14	1.54e-14
10	14	1.70e-11	1.28e-11	9.13e-12	6.97e-12	4.82e-12	2.80e-12	12	33	2.21e-12	2.48e-12	2.18e-12	1.82e-12	1.38e-12	8.71e-13
10	15	6.14e-12	4.82e-12	3.56e-12	2.76e-12	1.94e-12	1.14e-12	12	34	6.88e-15	8.97e-15	6.38e-15	7.22e-15	5.56e-15	3.58e-15
10	16	7.34e-13	5.23e-13	3.49e-13	2.49e-13	1.58e-13	8.18e-14	12	35	2.06e-14	2.58e-14	2.33e-14	1.98e-14	1.48e-14	9.29e-15
10	17	9.95e-11	8.28e-11	6.40e-11	5.10e-11	3.68e-11	2.22e-11	12	36	1.42e-14	1.77e-14	1.60e-14	1.34e-14	1.01e-14	6.40e-15
10	18	1.05e-11	7.90e-12	5.64e-12	4.28e-12	2.95e-12	1.70e-12	12	37	7.80e-15	9.57e-15	8.36e-15	6.89e-15	5.07e-15	3.11e-15
10	19	3.39e-11	2.78e-11	2.13e-11	1.86e-11	1.21e-11	7.24e-12								
10	20	4.84e-10	3.89e-10	3.02e-10	2.41e-10	1.74e-10	1.05e-10								
10	21	3.73e-11	3.07e-11	2.35e-11	1.88e-11	1.33e-11	7.99e-12	13	14	8.09e-11	5.86e-11	3.99e-11	2.98e-11	2.02e-11	1.15e-11
10	22	1.21e-09	1.03e-09	8.01e-10	6.40e-10	4.64e-10	2.81e-10	13	15	2.83e-12	1.81e-12	1.18e-12	8.14e-13	5.13e-13	2.07e-13
10	23	6.25e-12	5.19e-12	3.94e-12	3.09e-12	2.20e-12	1.32e-12	13	16	1.11e-11	8.76e-12	6.63e-12	5.22e-12	3.71e-12	2.20e-12
10	24	2.13e-13	1.93e-13	1.53e-13	1.23e-13	8.92e-14	5.44e-14	13	17	9.88e-12	7.82e-12	5.94e-12	4.68e-12	3.34e-12	1.98e-12
10	25	2.84e-12	2.61e-12	2.09e-12	1.69e-12	1.23e-12	7.53e-13	13	18	2.27e-13	1.63e-13	1.18e-13	8.80e-14	6.10e-14	3.54e-14
10	26	2.98e-13	2.74e-13	2.19e-13	1.77e-13	1.29e-13	7.90e-14	13	19	1.59e-13	1.06e-13	6.95e-14	5.05e-14	3.35e-14	1.88e-14
10	27	9.37e-13	8.74e-13	7.03e-13	5.67e-13	4.14e-13	2.53e-13	13	20	6.13e-12	4.89e-12	3.73e-12	2.95e-12	2.11e-12	1.26e-12
10	28	4.60e-14	4.44e-14	3.50e-14	2.77e-14	1.97e-14	1.17e-14	13	21	1.58e-13	1.17e-13	8.41e-14	6.45e-14	4.50e-14	2.63e-14
10	29	2.73e-14	2.90e-14	2.47e-14	2.04e-14	1.52e-14	9.42e-15	13	22	5.74e-14	3.78e-14	2.42e-14	1.70e-14	1.08e-14	5.41e-15
10	30	1.31e-15	1.38e-15	1.10e-15	8.55e-16	5.80e-16	3.20e-16	13	23	4.96e-12	3.95e-12	3.00e-12	2.36e-12	1.69e-12	1.01e-12
10	31	1.48e-12	1.74e-12	1.57e-12	1.33e-12	1.02e-12	6.54e-13	13	24	5.02e-11	4.16e-11	3.19e-11	2.53e-11	1.82e-11	1.09e-11
10	32	4.13e-11	4.98e-11	4.48e-11	3.81e-11	2.91e-11	1.86e-11	13	25	1.00e-09	1.30e-09	1.06e-09	8.46e-10	6.12e-10	3.71e-10
10	33	4.00e-11	4.85e-11	4.40e-11	3.75e-11	2.87e-11	1.84e-11	13	26	1.51e-11	1.14e-11	7.99e-12	6.00e-12	4.00e-12	2.34e-12
10	34	1.03e-15	1.33e-15	1.19e-15	9.88e-16	7.38e-16	4.57e-16	13	27	1.55e-12	1.33e-12	1.03e-12	8.24e-13	5.95e-13	3.81e-13
10	35	5.42e-15	7.40e-15	6.08e-15	5.97e-15	4.58e-15	2.93e-15	13	28	7.88e-14	7.18e-14	5.61e-14	4.45e-14	3.19e-14	1.91e-14
10	36	8.18e-15	8.22e-15	7.52e-15	6.35e-15	4.79e-15	3.00e-15	13	29	4.65e-14	4.27e-14	3.20e-14	2.42e-14	1.81e-14	8.79e-15
10	37	4.46e-15	6.37e-15	6.18e-15	5.39e-15	4.20e-15	2.74e-15	13	30	3.14e-13	3.33e-13	2.84e-13	2.35e-13	1.75e-13	1.10e-13
							13	31	5.73e-13	6.08e-13	5.15e-13	4.25e-13	3.16e-13	2.10e-13	
							13	32	8.79e-11	9.62e-11	8.35e-11	6.97e-11	5.24e-11	3.30e-11	
11	12	1.08e-11	7.38e-12	4.97e-12	3.61e-12	2.35e-12	1.26e-12	13	33	1.80e-11	1.08e-11	1.71e-11	1.42e-11	1.08e-11	6.89e-12
11	13	5.46e-12	3.83e-12	2.62e-12	1.95e-12	1.32e-12	7.49e-13	13	34	3.13e-14	3.94e-14	3.80e-14	3.07e-14	2.34e-14	1.50e-14
11	14	2.24e-11	1.63e-11	1.16e-11	8.86e-12	6.14e-12	3.56e-12	13	35	1.03e-13	1.30e-13	1.20e-13	1.02e-13	7.82e-14	5.01e-14
11	15	0.	0.	0.	0.	0.	13	36	2.42e-12	3.07e-13	2.84e-13	2.43e-13	1.86e-13	1.20e-13	
11	16	2.20e-12	1.54e-12	1.03e-12	7.34e-13	4.67e-13	2.44e-13	13	37	1.47e-14	1.72e-14	1.44e-14	1.17e-14	8.41e-15	5.04e-15
11	17	5.88e-11	4.78e-11	3.86e-11	2.92e-11	2.10e-11	1.26e-11								
11	18	8.51e-12	6.03e-12	4.04e-12	2.90e-12	1.84e-12	9.62e-13								
11	19	1.07e-11	8.29e-12	6.11e-12	4.74e-12	3.34e-12	1.97e-12								
11	20	5.31e-12	3.74e-12	2.50e-12	1.78e-12	1.13e-12	5.00e-13	14	15	3.23e-11	2.28e-11	1.60e-11	1.21e-11	1.37e-12	4.83e-12
11	21	2.56e-12	1.79e-12	1.18e-12	8.41e-13	5.31e-13	2.74e-13	14	16	3.93e-12	2.56e-15	1.65e-15	1.16e-15	7.34e-16	3.80e-16
11	22	7.04e-12	5.57e-12	4.15e-12	3.24e-12	2.30e-12	1.36e-12	14	17	2.53e-12	1.93e-12	1.44e-12	1.12e-12	7.98e-13	4.70e-13
11	23	1.71e-09	1.44e-09	1.12e-09	8.96e-10	6.48e-10	3.93e-10	14	18	2.63e-14	1.80e-14	1.21e-14	9.73e-15	5.82e-15	4.57e-15
11	24	1.84e-12	1.44e-12	1.01e-12	7.41e-13	4.78e-13	2.52e-13	14	19	9.66e-13	7.73e-13	5.82e-13	4.57e-13	3.25e-13	1.93e-13
11	25	3.07e-12	2.43e-12	1.71e-12	1.25e-12	8.10e-13	4.28e-13	14	20	5.15e-12	4.10e-12	3.13e-12	2.47e-12	1.77e-12	1.05e-12
11	26	4.01e-12	3.43e-12	2.62e-12	2.06e-12	1.47e-12	8.81e-13	14	21	2.41e-13	1.84e-13	1.36e-13	1.06e-13	7.45e-14	4.38e-14
11	27	6.85e-11	2.33e-11	4.98e-11	4.01e-11	2.93e-11	1.79e-11	14	22	5.20e-12	4.18e-13	3.17e-13	2.51e-13	1.79e-13	1.07e-13
11</td															

TABLE IIIB. Rate Coefficients for Ne-like Se ($Z = 34$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	200.	400.	700.	1000.	1500.	2500.	I	F	200.	400.	700.	1000.	1500.	2500.
15	16	6.80e-13	4.33e-13	2.77e-13	1.95e-13	1.23e-13	6.34e-14	18	24	5.85e-14	4.03e-14	2.66e-14	1.93e-14	1.28e-14	7.12e-15
15	17	1.08e-11	7.42e-12	5.20e-12	3.94e-12	2.71e-12	1.57e-12	18	25	8.66e-12	6.57e-12	4.72e-12	3.60e-12	2.50e-12	1.45e-12
15	18	2.79e-12	1.80e-12	1.15e-12	8.13e-13	5.11e-13	2.64e-13	18	26	1.54e-11	1.10e-11	8.26e-12	6.27e-12	4.32e-12	2.49e-12
15	19	3.03e-12	2.09e-12	1.45e-12	1.09e-12	7.47e-13	4.29e-13	18	27	8.47e-13	6.24e-13	4.31e-13	3.16e-13	2.06e-13	1.11e-13
15	20	2.91e-12	1.87e-12	1.20e-12	8.48e-13	5.34e-13	2.76e-13	18	28	2.71e-14	2.32e-14	1.77e-14	1.39e-14	9.90e-15	5.91e-15
15	21	1.12e-12	7.17e-13	4.58e-13	3.21e-13	2.01e-13	1.03e-13	18	29	8.82e-16	7.18e-16	5.13e-16	3.77e-16	2.44e-16	1.29e-16
15	22	2.35e-12	1.71e-12	1.23e-12	9.46e-13	6.62e-13	3.87e-13	18	30	3.50e-15	3.13e-15	2.35e-15	1.81e-15	1.27e-15	7.43e-16
15	23	9.44e-11	7.64e-11	5.88e-11	4.67e-11	3.35e-11	2.00e-11	18	31	8.60e-15	7.61e-15	5.63e-15	4.30e-15	2.97e-15	1.72e-15
15	24	7.97e-12	5.69e-12	3.03e-12	2.75e-12	1.75e-12	9.11e-13	18	32	1.49e-13	1.52e-13	1.27e-13	1.04e-13	7.69e-14	4.75e-14
15	25	1.10e-11	7.93e-12	5.34e-12	3.84e-12	2.44e-12	1.28e-12	18	33	2.01e-14	1.90e-14	1.47e-14	1.13e-14	7.65e-15	4.24e-15
15	26	1.82e-11	1.44e-11	1.06e-11	8.27e-12	5.84e-12	3.45e-12	18	34	0.	0.	0.	0.	0.	0.
15	27	1.71e-09	1.44e-09	1.12e-09	8.94e-10	6.47e-10	3.92e-10	18	35	3.83e-13	4.43e-13	3.83e-13	3.15e-13	2.32e-13	1.42e-13
15	28	3.72e-13	3.10e-13	2.26e-13	1.69e-13	1.12e-13	6.06e-14	18	36	7.35e-11	8.91e-11	8.08e-11	6.88e-11	5.26e-11	3.38e-11
15	29	0.	0.	0.	0.	0.	0.	18	37	9.14e-13	1.08e-12	9.43e-13	7.79e-13	5.78e-13	3.53e-13
15	30	8.19e-13	8.10e-13	6.54e-13	5.24e-13	3.77e-13	2.26e-13								
15	31	4.51e-11	4.63e-11	3.89e-11	3.20e-11	2.37e-11	1.47e-11								
15	32	5.30e-13	5.35e-13	4.35e-13	3.49e-13	2.52e-13	1.51e-13								
15	33	9.72e-12	1.03e-11	8.70e-12	7.10e-12	5.34e-12	3.33e-12								
15	34	1.52e-14	1.71e-14	1.43e-14	1.12e-14	7.72e-15	4.29e-15								
15	35	2.07e-14	2.41e-14	2.09e-14	1.72e-14	1.28e-14	7.91e-15								
15	36	1.55e-14	1.74e-14	1.44e-14	1.12e-14	7.82e-15	4.10e-15								
15	37	2.52e-13	3.20e-13	2.97e-13	2.54e-13	1.98e-13	1.28e-13								
16	17	2.56e-11	1.83e-11	1.05e-11	7.44e-12	4.74e-12	2.49e-12								
16	18	1.85e-11	1.17e-11	7.50e-12	5.41e-12	3.57e-12	1.99e-12								
16	19	3.68e-11	2.42e-11	1.59e-11	1.15e-11	7.41e-12	3.99e-12								
16	20	1.42e-10	9.94e-11	6.97e-11	5.29e-11	3.65e-11	2.11e-11								
16	21	4.60e-11	3.16e-11	2.17e-11	1.63e-11	1.11e-11	6.36e-12								
16	22	1.55e-11	9.70e-12	6.08e-12	4.22e-12	2.62e-12	1.33e-12								
16	23	1.89e-11	1.25e-11	8.18e-12	5.79e-12	3.67e-12	1.91e-12								
16	24	1.27e-11	9.68e-12	6.90e-12	5.34e-12	3.70e-12	2.15e-12								
16	25	2.11e-12	1.64e-12	9.38e-13	6.60e-13	3.89e-13	2.11e-13								
16	26	8.50e-14	6.21e-14	4.28e-14	3.13e-14	2.04e-14	1.10e-14								
16	27	1.50e-11	1.14e-11	8.12e-12	6.14e-12	4.20e-12	2.41e-12								
16	28	2.46e-13	2.21e-13	1.75e-13	1.41e-13	1.02e-13	6.23e-14								
16	29	1.36e-14	1.12e-14	8.08e-15	5.99e-15	3.89e-15	2.07e-15								
16	30	0.	0.	0.	0.	0.	0.								
16	31	1.75e-14	1.65e-14	1.28e-14	1.00e-14	7.05e-15	4.14e-15								
16	32	3.18e-14	3.21e-14	2.63e-14	2.13e-14	1.55e-14	9.47e-15								
16	33	1.10e-14	1.06e-14	8.33e-15	6.40e-15	4.34e-15	2.40e-15								
16	34	1.03e-10	1.27e-10	1.16e-10	9.91e-11	7.61e-11	4.90e-11								
16	35	1.37e-12	1.61e-12	1.40e-12	1.16e-12	8.56e-13	5.24e-13								
16	36	2.48e-14	2.89e-14	2.50e-14	2.07e-14	1.54e-14	9.63e-15								
16	37	5.63e-13	6.71e-13	5.86e-13	4.85e-13	3.58e-13	2.19e-13								
17	18	2.07e-11	1.31e-11	8.40e-12	6.08e-12	3.99e-12	2.21e-12								
17	19	6.07e-11	4.07e-11	2.76e-11	2.05e-11	1.39e-11	7.87e-12								
17	20	4.34e-11	2.88e-11	1.93e-11	1.43e-11	9.63e-12	5.45e-12								
17	21	2.40e-11	1.54e-11	9.93e-12	7.17e-12	4.73e-12	2.62e-12								
17	22	5.17e-11	3.54e-11	2.43e-11	1.82e-11	1.24e-11	7.12e-12								
17	23	1.09e-11	7.29e-12	4.82e-12	3.53e-12	2.38e-12	1.32e-12								
17	24	1.36e-11	1.03e-11	7.47e-12	5.72e-12	3.97e-12	2.31e-12								
17	25	2.12e-12	1.58e-12	1.12e-12	8.46e-13	5.80e-13	3.33e-13								
17	26	1.59e-12	1.20e-12	8.55e-13	6.49e-13	4.48e-13	2.58e-13								
17	27	1.19e-11	9.18e-12	6.60e-12	5.03e-12	3.47e-12	2.01e-12								
17	28	1.24e-13	1.10e-13	8.69e-14	6.00e-14	5.04e-14	3.06e-14								
17	29	1.99e-14	1.71e-14	1.28e-14	9.98e-15	7.03e-15	4.15e-15								
17	30	6.84e-15	6.37e-15	4.80e-15	3.73e-15	2.51e-15	1.30e-15								
17	31	4.54e-14	4.51e-14	3.68e-14	2.98e-14	2.17e-14	1.32e-14								
17	32	3.04e-14	3.02e-14	2.45e-14	1.98e-14	1.43e-14	8.70e-15								
17	33	3.98e-14	4.04e-14	3.33e-14	2.70e-14	1.90e-14	1.21e-14								
17	34	5.82e-11	7.11e-11	6.48e-11	5.53e-11	4.24e-11	2.73e-11								
17	35	4.04e-11	4.94e-11	4.51e-11	3.85e-11	2.95e-11	1.90e-11								
17	36	3.36e-13	3.93e-13	3.42e-13	2.82e-13	2.08e-13	1.28e-13								
17	37	1.97e-12	2.42e-12	2.19e-12	1.86e-12	1.42e-12	9.01e-13								
18	19	5.01e-11	3.22e-11	2.10e-11	1.53e-11	1.02e-11	5.70e-12								
18	20	3.06e-11	2.03e-11	1.37e-11	1.02e-11	6.90e-12	3.92e-12								
18	21	1.55e-11	9.70e-12	6.14e-12	4.32e-12	2.73e-12	1.43e-12								
18	22	4.81e-11	3.16e-11	2.08e-11	1.53e-11	1.02e-11	5.71e-12								
18	23	1.29e-11	8.57e-12	5.84e-12	4.04e-12	2.59e-12	1.37e-12								
19	23	1.44e-11	9.69e-12	6.50e-12	4.80e-12	3.23e-12	1.82e-12								
19	24	1.07e-13	7.89e-14	5.32e-14	3.98e-14	2.71e-14	1.54e-14								
20	23	4.75e-11	3.03e-11	1.96e-11	1.42e-11	9.36e-12	5.19e-12								
20	24	8.93e-12	1.09e-11	9.88e-12	8.39e-12	6.40e-12	4.09e-12								
21	22	4.75e-11	3.03e-11	1.96e-11	1.42e-11	9.36e-12	5.19e-12								
21	23	4.61e-11	3.26e-11	2.29e-11	1.73e-11	1.19e-11	6.89e-12								
21	24	9.70e-12	7.16e-12	5.06e-12	3.83e-12	2.04e-12	1.04e-12								
21	25	3.94e-12	2.88e-12	2.02e-12	1.52e-12	1.04e-12	5.97e-13								

TABLE IIIB. Rate Coefficients for Ne-like Se ($Z = 34$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	200.	400.	700.	1000.	1500.	2500.	I	F	200.	400.	700.	1000.	1500.	2500.
22	25	1.00e-11	7.86e-12	5.51e-12	4.16e-12	2.85e-12	1.63e-12	27	31	2.14e-13	1.84e-13	1.42e-13	1.12e-13	8.01e-14	4.79e-14
22	26	1.58e-11	1.18e-11	8.38e-12	6.37e-12	4.40e-12	2.54e-12	27	32	4.78e-14	3.85e-14	2.75e-14	2.05e-14	1.35e-14	7.37e-15
22	27	1.21e-12	9.29e-13	6.70e-13	5.13e-13	3.58e-13	2.08e-13	27	33	9.81e-14	8.70e-14	6.79e-14	5.39e-14	3.87e-14	2.33e-14
22	28	1.05e-13	8.01e-15	5.49e-15	3.98e-15	2.57e-15	1.36e-15	27	34	1.51e-11	1.57e-11	1.32e-11	1.09e-11	8.06e-12	5.02e-12
22	29	9.17e-16	8.17e-16	6.43e-16	5.13e-16	3.71e-16	2.25e-16	27	35	5.69e-11	5.98e-11	5.05e-11	4.17e-11	3.11e-11	1.94e-11
22	30	4.04e-15	3.41e-15	2.43e-15	1.78e-15	1.14e-15	5.99e-16	27	36	2.60e-13	2.55e-13	2.02e-13	1.60e-13	1.14e-13	6.79e-14
22	31	6.87e-15	5.96e-15	4.36e-15	3.30e-15	2.26e-15	1.30e-15	27	37	7.82e-11	8.37e-11	7.17e-11	5.95e-11	4.45e-11	2.79e-11
22	32	2.33e-14	2.18e-14	1.69e-14	1.32e-14	9.34e-15	5.51e-15								
22	33	3.16e-14	3.12e-14	2.53e-14	2.04e-14	1.48e-14	9.00e-15								
22	34	2.84e-15	3.17e-15	2.68e-15	2.10e-15	1.60e-15	9.68e-16	28	29	2.16e-11	1.42e-11	9.32e-12	6.69e-12	4.31e-12	2.30e-12
22	35	9.50e-12	1.12e-11	9.98e-12	8.42e-12	6.38e-12	4.08e-12	28	30	4.21e-10	3.45e-10	2.67e-10	2.13e-10	1.54e-10	9.28e-11
22	36	5.03e-11	5.96e-11	5.32e-11	4.49e-11	3.41e-11	2.17e-11	28	31	9.94e-10	8.16e-10	6.31e-10	5.03e-10	3.63e-10	2.19e-10
22	37	2.82e-11	3.40e-11	3.00e-11	2.59e-11	1.97e-11	1.26e-11	28	32	1.91e-09	1.60e-09	1.25e-09	9.99e-10	7.24e-10	4.36e-10
23	24	5.83e-12	4.02e-12	2.71e-12	2.00e-12	1.34e-12	7.57e-13	28	33	2.40e-10	2.02e-10	1.58e-10	1.27e-10	9.19e-11	5.57e-11
23	25	7.52e-12	5.25e-12	3.58e-12	2.66e-12	1.80e-12	1.02e-12	28	34	4.48e-11	4.22e-11	3.39e-11	2.73e-11	1.98e-11	1.21e-11
23	26	8.76e-12	6.34e-12	4.45e-12	3.38e-12	2.31e-12	1.33e-12	28	35	7.37e-11	6.94e-11	5.58e-11	4.50e-11	3.27e-11	1.99e-11
23	27	2.91e-12	2.09e-12	1.44e-12	1.08e-12	7.30e-13	4.16e-13	28	36	1.05e-10	9.89e-11	7.98e-11	6.41e-11	4.86e-11	2.84e-11
23	28	1.97e-14	1.60e-14	1.18e-14	9.08e-15	6.35e-15	3.71e-15	28	37	7.95e-12	6.93e-12	5.12e-12	3.92e-12	2.71e-12	1.56e-12
23	29	1.25e-12	1.11e-12	8.87e-13	7.14e-13	5.21e-13	3.18e-13	29	30	2.77e-12	1.88e-12	1.24e-12	8.82e-13	5.61e-13	2.94e-13
23	30	8.98e-15	7.86e-15	5.88e-15	4.43e-15	2.97e-15	1.63e-15	29	31	1.00e-09	7.99e-10	6.10e-10	4.63e-10	3.47e-10	2.08e-10
23	31	1.46e-14	1.29e-14	9.70e-15	7.51e-15	5.24e-15	3.06e-15	29	32	1.30e-11	9.12e-12	8.06e-12	4.34e-12	2.77e-12	1.45e-12
23	32	1.91e-14	1.73e-14	1.31e-14	1.02e-14	7.12e-15	4.16e-15	29	33	3.12e-09	2.57e-09	1.99e-09	1.59e-09	1.15e-09	8.94e-10
23	33	1.06e-14	1.00e-14	7.81e-15	6.27e-15	4.48e-15	2.66e-15	29	34	5.16e-12	4.22e-12	3.01e-12	2.21e-12	1.43e-12	7.58e-13
23	34	2.09e-11	2.40e-11	2.11e-11	1.77e-11	1.34e-11	8.47e-12	29	35	1.07e-11	9.18e-12	8.66e-12	5.29e-12	3.69e-12	2.16e-12
23	35	2.78e-11	3.20e-11	2.83e-11	2.37e-11	1.79e-11	1.14e-11	29	36	1.19e-11	9.78e-12	6.98e-12	5.13e-12	3.33e-12	1.78e-12
23	36	1.64e-12	1.80e-12	1.51e-12	1.22e-12	8.91e-13	5.39e-13	29	37	2.13e-10	2.01e-10	1.62e-10	1.31e-10	9.52e-11	5.80e-11
23	37	5.35e-11	6.30e-11	5.62e-11	4.74e-11	3.60e-11	2.29e-11								
24	25	2.75e-11	1.81e-11	1.20e-11	8.79e-12	5.89e-12	3.31e-12	30	31	2.23e-11	1.43e-11	9.28e-12	6.74e-12	4.47e-12	2.49e-12
24	26	7.38e-11	4.86e-11	3.22e-11	2.36e-11	1.58e-11	8.87e-12	30	32	2.25e-10	1.59e-10	1.12e-10	8.52e-11	5.89e-11	3.40e-11
24	27	4.53e-11	3.13e-11	2.14e-11	1.60e-11	1.09e-11	6.23e-12	30	33	2.35e-11	1.51e-11	9.68e-12	6.84e-12	4.32e-12	2.25e-12
24	28	9.29e-14	9.80e-14	8.17e-14	3.89e-14	2.10e-14	1.09e-14	30	34	1.50e-09	1.20e-09	1.02e-09	8.22e-10	5.98e-10	3.65e-10
24	29	1.83e-15	1.31e-15	8.74e-16	6.25e-16	3.97e-16	2.07e-16	30	35	1.23e-11	9.08e-12	8.16e-12	4.44e-12	2.83e-12	1.48e-12
24	30	2.47e-14	2.17e-14	1.86e-14	1.33e-14	9.49e-15	5.67e-15	30	36	2.10e-11	1.72e-11	1.30e-11	1.02e-11	7.26e-12	4.33e-12
24	31	1.32e-13	1.15e-13	8.78e-14	6.87e-14	4.87e-14	2.89e-14	30	37	1.18e-11	9.93e-12	6.12e-12	4.43e-12	2.84e-12	1.49e-12
24	32	4.17e-14	3.55e-14	2.63e-14	2.02e-14	1.41e-14	8.19e-15								
24	33	1.92e-14	1.60e-14	1.16e-14	8.75e-15	6.00e-15	3.44e-15	31	32	1.43e-10	1.01e-10	7.07e-11	5.35e-11	3.89e-11	2.13e-11
24	34	4.28e-11	4.59e-11	3.92e-11	3.25e-11	2.12e-11	1.52e-11	31	33	1.06e-10	7.54e-11	5.31e-11	4.03e-11	2.79e-11	1.61e-11
24	35	3.83e-11	4.12e-11	3.52e-11	2.92e-11	2.18e-11	1.37e-11	31	34	3.04e-10	2.62e-10	2.07e-10	1.66e-10	1.21e-10	7.37e-11
24	36	1.20e-13	1.29e-13	1.11e-13	9.20e-14	6.08e-14	4.32e-14	31	35	1.02e-09	8.83e-10	6.97e-10	5.60e-10	4.08e-10	2.48e-10
24	37	1.98e-11	2.17e-11	1.88e-11	1.56e-11	1.17e-11	7.38e-12	31	36	1.83e-11	1.47e-11	1.08e-11	8.30e-12	5.84e-12	3.42e-12
31	37	1.90e-10	1.67e-10	1.33e-10	1.07e-10	7.78e-11		31	37	1.90e-10	1.67e-10	1.33e-10	1.07e-10	7.78e-11	4.75e-11
25	26	6.32e-11	4.12e-11	2.72e-11	1.99e-11	1.33e-11	7.43e-12	32	33	4.77e-11	3.20e-11	2.16e-11	1.60e-11	1.09e-11	6.15e-12
25	27	3.31e-11	2.23e-11	1.50e-11	1.11e-11	7.48e-12	4.21e-12	32	34	2.42e-11	2.02e-11	1.56e-11	1.24e-11	8.95e-12	5.39e-12
25	28	3.69e-13	3.01e-13	2.31e-13	1.84e-13	1.32e-13	7.97e-14	32	35	2.58e-10	2.18e-10	1.70e-10	1.30e-10	9.87e-11	5.99e-11
25	29	1.46e-14	1.04e-14	6.97e-15	5.00e-15	3.19e-15	1.67e-15	32	36	1.42e-09	1.20e-09	9.40e-10	7.53e-10	5.46e-10	3.31e-10
25	30	2.54e-15	2.02e-15	1.51e-15	1.15e-15	7.90e-16	4.58e-16	32	37	1.25e-11	9.88e-12	7.15e-12	5.46e-12	3.78e-12	2.19e-12
25	31	2.41e-14	1.88e-14	1.31e-14	9.54e-15	6.18e-15	3.29e-15								
25	32	1.53e-14	1.33e-14	1.00e-14	7.80e-15	5.49e-15	3.23e-15	33	33	4.77e-11	3.20e-11	2.16e-11	1.60e-11	1.09e-11	6.15e-12
25	33	6.97e-14	6.17e-14	4.75e-14	3.73e-14	2.85e-14	1.57e-14	33	34	9.39e-11	7.85e-11	6.10e-11	4.87e-11	3.52e-11	2.13e-11
25	34	1.24e-13	1.32e-13	1.12e-13	9.24e-14	6.87e-14	4.29e-14	33	35	1.58e-10	1.32e-10	1.03e-10	8.20e-11	5.93e-11	3.58e-11
25	35	9.38e-12	1.00e-11	8.54e-12	7.06e-12	5.27e-12	3.30e-12	33	36	1.48e-11	1.10e-11	7.61e-12	5.67e-12	3.84e-12	2.18e-12
25	36	9.63e-11	1.04e-10	8.88e-11	7.37e-11	5.51e-11	3.46e-11	33	37	1.37e-09	1.17e-09	9.24e-10	7.42e-10	5.40e-10	3.28e-10
26	27	1.12e-11	7.42e-12	4.89e-12	3.58e-12	2.30e-12	1.34e-12	34	35	9.10e-11	6.19e-11	4.25e-11	3.19e-11	2.17e-11	1.24e-11
26	28	4.25e-14	3.20e-14	2.29e-14	1.74e-14	1.20e-14	6.98e-15	34	36	3.39e-11	2.22e-11	1.48e-11	1.07e-11	7.15e-12	4.01e-12
26	29	2.55e-15	2.05e-15	1.53e-15	1.20e-15	8.49e-16	5.04e-16	34	37	5.64e-11	3.58e-11	2.29e-11	1.61e-11	1.02e-11	5.35e-12
26	30	3.14e-15	2.47e-15	1.73e-15	1.28e-15	8.13e-16	4.28e-16								
26	31	3.18e-14	2.84e-14	1.94e-14	1.49e-14	1.03e-14	6.01e-15	35	35	7.62e-11	5.13e-11	3.49e-11	2.60e-11	1.78e-11	1.00e-11
26	32	7.71e-14	6.56e-14	4.88e-14	3.76e-14	2.62e-14	1.53e-14								

TABLE IIIC. Rate Coefficients for Ne-like Y ($Z = 39$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	400.	750.	1000.	1500.	2000.	3000.	I	F	400.	750.	1000.	1500.	2000.	3000.
1	2	1.90e-14	1.40e-13	2.18e-13	2.87e-13	2.90e-13	2.50e-13	2	37	1.93e-15	2.01e-15	1.81e-15	1.42e-15	1.12e-15	7.63e-16
1	3	1.67e-14	1.30e-13	2.24e-13	3.70e-13	4.60e-13	5.45e-13	3	4	2.99e-11	2.07e-11	1.68e-11	1.18e-11	8.86e-12	5.67e-12
1	4	3.11e-14	2.46e-13	3.90e-13	5.19e-13	5.27e-13	4.53e-13	3	5	8.03e-10	5.64e-10	4.59e-10	3.25e-10	2.45e-10	1.57e-10
1	5	3.87e-14	2.91e-13	4.74e-13	6.92e-13	7.71e-13	7.69e-13	3	6	5.54e-12	3.50e-12	2.68e-12	1.72e-12	1.22e-12	7.19e-13
1	6	4.34e-14	3.54e-13	5.63e-13	7.44e-13	7.49e-13	6.33e-13	3	7	8.41e-10	5.97e-10	4.87e-10	3.45e-10	2.81e-10	1.68e-10
1	7	2.10e-14	1.71e-13	2.73e-13	3.64e-13	3.67e-13	3.13e-13	3	8	4.48e-12	3.00e-12	2.38e-12	1.63e-12	1.21e-12	7.57e-13
1	8	3.05e-15	2.47e-14	3.98e-14	5.35e-14	5.49e-14	4.80e-14	3	9	1.29e-11	8.81e-12	7.05e-12	4.88e-12	3.63e-12	2.29e-12
1	9	1.18e-14	9.67e-14	1.67e-13	2.71e-13	3.31e-13	3.81e-13	3	10	7.00e-10	5.00e-10	4.08e-10	2.90e-10	2.19e-10	1.42e-10
1	10	2.08e-14	2.24e-13	3.70e-13	5.50e-13	6.20e-13	6.29e-13	3	11	2.43e-10	1.77e-10	1.46e-10	1.04e-10	7.90e-11	5.13e-11
1	11	1.51e-13	1.22e-12	2.05e-12	3.09e-12	3.51e-12	3.59e-12	3	12	1.29e-13	9.84e-14	8.19e-14	5.94e-14	4.54e-14	2.98e-14
1	12	1.53e-14	1.34e-13	2.18e-13	2.95e-13	3.01e-13	2.57e-13	3	13	5.66e-13	4.01e-13	3.16e-13	2.10e-13	1.50e-13	8.96e-14
1	13	1.84e-14	1.64e-13	2.87e-13	3.59e-13	3.62e-13	3.05e-13	3	14	1.72e-12	1.22e-12	9.77e-13	6.75e-13	5.00e-13	3.14e-13
1	14	4.76e-14	4.21e-13	6.88e-13	9.33e-13	9.52e-13	8.20e-13	3	15	4.12e-11	3.21e-11	2.68e-11	1.95e-11	1.49e-11	9.75e-12
1	15	3.91e-14	3.22e-13	5.36e-13	7.93e-13	8.84e-13	8.75e-13	3	16	2.74e-12	1.90e-12	1.56e-12	1.05e-12	7.56e-13	4.60e-13
1	16	5.01e-14	4.52e-13	7.38e-13	9.86e-13	9.89e-13	8.26e-13	3	17	4.07e-12	3.49e-12	2.76e-12	1.83e-12	1.31e-12	7.86e-13
1	17	6.01e-14	5.43e-13	8.84e-13	1.18e-12	1.18e-12	9.79e-13	3	18	1.02e-13	7.90e-14	6.60e-14	4.80e-14	3.68e-14	2.42e-14
1	18	1.72e-14	1.54e-13	2.53e-13	3.46e-13	3.55e-13	3.08e-13	3	19	1.98e-13	1.57e-13	1.32e-13	9.70e-14	7.48e-14	4.95e-14
1	19	2.68e-14	2.28e-13	3.82e-13	5.78e-13	6.56e-13	6.58e-13	3	20	4.73e-11	3.72e-11	3.12e-11	2.27e-11	1.74e-11	1.14e-11
1	20	4.80e-14	3.34e-13	5.02e-13	6.17e-13	5.92e-13	4.69e-13	3	21	1.44e-11	1.15e-11	9.74e-12	7.19e-12	5.56e-12	3.89e-12
1	21	2.43e-13	2.12e-12	3.62e-12	5.58e-12	6.41e-12	6.64e-12	3	22	3.18e-11	2.49e-11	2.09e-11	1.52e-11	1.17e-11	7.65e-12
1	22	2.66e-14	2.21e-13	3.69e-13	5.51e-13	6.18e-13	6.17e-13	3	23	2.57e-11	2.07e-11	1.75e-11	1.29e-11	9.96e-12	6.50e-12
1	23	5.10e-13	4.65e-12	8.17e-12	1.32e-11	1.59e-11	1.76e-11	3	24	1.05e-14	8.04e-15	7.00e-15	5.03e-15	3.81e-15	2.46e-15
1	24	2.42e-14	4.40e-13	4.02e-13	5.50e-13	5.56e-13	4.65e-13	3	25	1.90e-14	1.52e-14	1.27e-14	9.10e-15	6.09e-15	4.43e-15
1	25	3.67e-14	3.67e-13	6.15e-13	8.45e-13	8.59e-13	7.26e-13	3	26	1.57e-14	1.28e-14	1.07e-14	7.83e-15	5.99e-15	3.90e-15
1	26	2.69e-14	2.45e-13	4.20e-13	6.42e-13	7.28e-13	7.35e-13	3	27	4.28e-13	3.76e-13	3.27e-13	2.49e-13	1.95e-13	1.32e-13
1	27	4.16e-13	4.12e-12	7.41e-12	1.23e-11	1.50e-11	1.69e-11	3	28	2.36e-11	2.18e-11	1.93e-11	1.49e-11	1.19e-11	8.15e-12
1	28	6.07e-15	6.37e-14	1.09e-13	1.53e-13	1.59e-13	1.38e-13	3	29	4.65e-11	4.38e-11	3.90e-11	3.04e-11	2.43e-11	1.68e-11
1	29	9.88e-14	1.01e-12	8.16e-12	2.94e-12	3.47e-12	3.71e-12	3	30	2.08e-15	1.93e-15	1.89e-15	1.28e-15	9.95e-16	6.59e-16
1	30	1.50e-15	1.69e-14	2.98e-14	4.33e-14	4.59e-14	4.11e-14	3	31	3.75e-15	3.53e-15	3.11e-15	2.38e-15	1.86e-15	1.25e-15
1	31	7.06e-15	7.84e-14	1.47e-13	2.61e-13	3.32e-13	3.07e-13	3	32	7.60e-15	7.24e-15	6.38e-15	4.86e-15	3.80e-15	2.53e-15
1	32	6.72e-15	7.75e-14	1.37e-13	2.02e-13	2.15e-13	1.94e-13	3	33	9.90e-15	1.00e-14	9.07e-15	7.19e-15	5.78e-15	4.01e-15
1	33	1.16e-14	1.40e-13	2.77e-13	5.28e-13	7.10e-13	9.13e-13	3	34	3.99e-14	4.50e-14	4.23e-14	3.51e-14	2.91e-14	2.11e-14
1	34	8.21e-15	1.04e-13	1.88e-13	2.80e-13	2.97e-13	2.64e-13	3	35	4.67e-14	5.25e-14	4.92e-14	4.08e-14	3.38e-14	2.45e-14
1	35	1.42e-14	1.63e-13	2.97e-13	4.80e-13	5.57e-13	5.70e-13	3	36	2.73e-15	2.93e-15	2.68e-15	2.15e-15	1.73e-15	1.21e-15
1	36	1.88e-14	2.41e-13	4.35e-13	6.47e-13	8.87e-13	6.10e-13	3	37	2.18e-14	2.46e-14	2.31e-14	1.92e-14	1.59e-14	1.15e-14
2	3	2.37e-11	1.37e-11	1.04e-11	6.74e-12	4.84e-12	2.95e-12	4	5	3.78e-11	2.21e-11	1.68e-11	1.10e-11	7.93e-12	4.84e-12
2	4	5.75e-10	4.03e-10	3.27e-10	2.31e-10	1.74e-10	1.12e-10	4	6	1.32e-10	8.17e-11	6.35e-11	4.27e-11	3.12e-11	1.94e-11
2	5	4.80e-10	3.24e-10	2.64e-10	1.87e-10	1.41e-10	9.00e-11	4	7	1.05e-11	6.31e-12	4.83e-12	3.19e-12	2.31e-12	1.42e-12
2	6	1.19e-09	8.47e-10	6.92e-10	4.92e-10	3.72e-10	2.40e-10	4	8	4.91e-12	3.27e-12	2.81e-12	1.81e-12	1.35e-12	8.50e-13
2	7	2.39e-11	1.68e-11	1.36e-11	9.63e-12	7.25e-12	4.66e-12	4	9	2.03e-12	1.35e-12	1.08e-12	7.46e-13	5.55e-13	3.51e-13
2	8	3.81e-12	2.61e-12	2.09e-12	1.45e-12	1.08e-12	8.85e-13	4	10	3.12e-11	1.94e-11	1.51e-11	1.01e-11	7.39e-12	4.58e-12
2	9	1.25e-11	8.51e-12	6.79e-12	4.69e-12	3.49e-12	2.19e-12	4	11	1.76e-12	1.08e-12	8.13e-13	5.18e-13	3.64e-13	2.14e-13
2	10	4.44e-10	3.18e-10	2.59e-10	1.84e-10	1.40e-10	9.01e-11	4	12	1.28e-11	8.75e-12	7.01e-12	4.87e-12	3.62e-12	2.29e-12
2	11	6.09e-13	4.01e-13	3.10e-13	2.02e-13	1.43e-13	8.51e-14	4	13	2.41e-10	1.74e-10	1.42e-10	1.01e-10	7.69e-11	4.97e-11
2	12	3.76e-14	2.88e-14	2.40e-14	1.74e-14	1.33e-14	8.70e-15	4	14	4.90e-10	3.61e-10	2.98e-10	2.11e-10	1.60e-10	1.04e-10
2	13	6.10e-12	4.72e-12	3.94e-12	2.86e-12	2.19e-12	1.43e-12	4	15	4.60e-12	3.02e-12	2.37e-12	1.59e-12	1.17e-12	7.22e-13
2	14	1.81e-11	1.41e-11	1.18e-11	8.55e-12	6.54e-12	4.28e-12	4	16	3.66e-10	2.69e-10	2.21e-10	1.58e-10	1.20e-10	7.79e-11
2	15	2.05e-11	1.59e-11	1.33e-11	9.63e-12	7.36e-12	4.80e-12	4	17	0.82e-12	6.98e-12	5.68e-12	3.98e-12	3.00e-12	1.93e-12
2	16	3.00e-11	2.35e-11	1.97e-11	1.44e-11	1.10e-11	7.22e-12	4	18	3.86e-13	2.66e-13	2.13e-13	1.47e-13	1.09e-13	6.88e-14
2	17	5.52e-11	4.33e-11	3.63e-11	2.65e-11	2.03e-11	1.33e-11	4	19	7.56e-13	5.36e-13	4.34e-13	3.05e-13	2.28e-13	1.46e-13
2	18	5.82e-13	4.49e-13	3.80e-13	2.80e-13	2.16e-13	1.43e-13	4	20	4.57e-11	3.33e-11	2.73e-11	1.95e-11	1.48e-11	9.60e-12
2	19	3.82e-13	3.05e-13	2.58e-13	1.90e-13	1.47e-13	9.72e-14	4	21	5.20e-12	3.61e-12	2.89e-12	2.00e-12	1.48e-12	9.33e-13
2	20	2.66e-12	1.92e-12	1.53e-12	1.03e-12	7.41e-13	4.48e-13	4	22	5.06e-12	3.47e-12	2.77e-12	1.91e-12	1.42e-12	8.95e-13
2	21	5.54e-14	3.96e-14	3.13e-14	2.08e-14	1.49e-14	8.94e-15	4	23	2.79e-11	2.08e-11	1.72e-11	1.24e-11	9.41e-12	6.13e-12
2	22	2.48e-11	1.95e-11	1.64e-11	1.19e-11	9.16e-12	6.00e-12	4	24	1.26e-13	1.03e-13	8.74e-14	6.48e-14	5.02e-14	3.34e-14
2	23	1.52e-12	1.12e-12	9.07e-13	6.35e-13	4.74e-13	3.00e-13	4	25	3.30e-13	2.78e-13	2.37e-13	1.70e-13	1.37e-13	9.12e-14
2	24	5.01e-15	4.05e-15	3.40e-15											

TABLE IIIC. Rate Coefficients for Ne-like Y ($Z = 39$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	400.	750.	1000.	1500.	2000.	3000.	I	F	400.	750.	1000.	1500.	2000.	3000.
5	6	5.49e-11	3.34e-11	2.57e-11	1.71e-11	1.25e-11	7.69e-12	7	14	3.91e-11	2.75e-11	2.24e-11	1.58e-11	1.19e-11	7.66e-12
5	7	4.07e-11	2.51e-11	1.94e-11	1.30e-11	9.50e-12	5.88e-12	7	15	7.12e-12	4.84e-12	3.87e-12	2.68e-12	2.00e-12	1.27e-12
5	8	4.18e-15	2.49e-15	1.90e-15	1.25e-15	9.05e-16	5.54e-16	7	16	3.61e-11	2.54e-11	2.06e-11	1.46e-11	1.10e-11	7.05e-12
5	9	1.23e-13	8.23e-14	6.58e-14	4.56e-14	3.39e-14	2.14e-14	7	17	5.77e-12	3.66e-12	2.84e-12	1.89e-12	1.37e-12	8.44e-13
5	10	5.93e-11	3.68e-11	2.66e-11	1.92e-11	1.41e-11	8.73e-12	7	18	5.71e-12	3.85e-12	3.07e-12	2.11e-12	1.56e-12	9.78e-13
5	11	1.02e-11	6.62e-12	5.22e-12	3.57e-12	2.63e-12	1.65e-12	7	19	1.02e-11	7.03e-12	5.63e-12	3.91e-12	2.91e-12	1.04e-12
5	12	1.18e-11	7.97e-12	6.35e-12	4.38e-12	3.24e-12	2.04e-12	7	20	8.79e-10	6.30e-10	5.15e-10	3.86e-10	2.77e-10	1.79e-10
5	13	6.51e-13	4.23e-13	3.25e-13	2.10e-13	1.40e-13	8.76e-14	7	21	6.00e-13	3.95e-13	3.11e-13	2.11e-13	1.54e-13	9.60e-14
5	14	5.65e-11	4.06e-11	3.32e-11	2.38e-11	1.79e-11	1.15e-11	7	22	7.13e-12	4.73e-12	3.74e-12	2.55e-12	1.88e-12	1.18e-12
5	15	8.00e-10	5.82e-10	4.77e-10	3.41e-10	2.50e-10	1.68e-10	7	23	2.79e-10	2.03e-10	1.87e-10	1.19e-10	9.07e-11	5.88e-11
5	16	1.92e-10	1.40e-10	1.15e-10	8.19e-11	6.21e-11	4.02e-11	7	24	5.44e-14	4.16e-14	3.46e-14	2.49e-14	1.90e-14	1.24e-14
5	17	8.44e-12	5.64e-12	4.48e-12	3.04e-12	2.24e-12	1.40e-12	7	25	3.64e-14	2.65e-14	2.15e-14	1.51e-14	1.13e-14	7.18e-15
5	18	9.87e-14	6.76e-14	5.45e-14	3.80e-14	2.84e-14	1.80e-14	7	26	3.12e-14	2.28e-14	1.85e-14	1.30e-14	9.72e-15	6.19e-15
5	19	1.38e-15	9.66e-16	7.79e-16	5.44e-16	4.00e-16	2.58e-16	7	27	5.86e-12	4.75e-12	4.03e-12	2.98e-12	2.31e-12	1.54e-12
5	20	1.05e-10	7.67e-11	6.30e-11	4.50e-11	3.41e-11	2.21e-11	7	28	2.85e-14	2.31e-14	1.94e-14	1.42e-14	1.09e-14	7.09e-15
5	21	6.18e-12	4.39e-12	3.57e-12	2.51e-12	1.89e-12	1.21e-12	7	29	2.89e-14	2.29e-14	1.91e-14	1.37e-14	1.04e-14	6.07e-15
5	22	8.38e-12	5.87e-12	4.74e-12	3.31e-12	2.48e-12	1.58e-12	7	30	2.09e-12	1.90e-12	1.67e-12	1.29e-12	1.02e-12	7.00e-13
5	23	8.54e-12	6.32e-12	5.20e-12	3.72e-12	2.83e-12	1.84e-12	7	31	1.28e-13	1.12e-13	9.67e-14	7.24e-14	5.62e-14	3.71e-14
5	24	1.30e-13	1.05e-13	8.90e-14	6.59e-14	5.10e-14	3.39e-14	7	32	1.59e-11	1.48e-11	1.31e-11	1.02e-11	8.10e-12	5.58e-12
5	25	4.19e-13	3.44e-13	2.93e-13	2.10e-13	1.69e-13	1.13e-13	7	33	4.88e-11	4.57e-11	4.06e-11	3.18e-11	2.52e-11	1.74e-11
5	26	4.65e-14	3.75e-14	3.17e-14	2.34e-14	1.81e-14	1.20e-14	7	34	3.07e-14	3.14e-14	2.86e-14	2.29e-14	1.85e-14	1.29e-14
5	27	1.31e-13	1.04e-13	8.73e-14	6.38e-14	4.90e-14	3.22e-14	7	35	2.08e-14	2.08e-14	1.89e-14	1.50e-14	1.21e-14	8.40e-15
5	28	5.39e-14	4.57e-14	3.92e-14	2.93e-14	2.28e-14	1.52e-14	7	36	4.35e-14	4.47e-14	4.07e-14	3.26e-14	2.63e-14	1.84e-14
5	29	2.69e-14	2.34e-14	2.02e-14	1.53e-14	1.20e-14	8.04e-15	7	37	7.74e-15	7.54e-15	6.70e-15	5.17e-15	4.08e-15	2.76e-15
5	31	6.21e-11	5.78e-11	5.12e-11	3.98e-11	3.17e-11	2.18e-11								
5	32	1.57e-14	1.46e-14	1.29e-14	1.00e-14	7.94e-15	5.44e-15	8	9	2.09e-11	1.19e-11	8.98e-12	5.79e-12	4.15e-12	2.51e-12
5	33	4.63e-13	4.42e-13	3.95e-13	3.10e-13	2.48e-13	1.72e-13	8	10	2.37e-15	1.32e-15	9.66e-16	5.95e-16	4.10e-16	2.30e-16
5	34	2.71e-15	2.63e-15	2.32e-15	1.78e-15	1.40e-15	9.43e-16	8	11	2.01e-13	1.17e-13	8.70e-14	5.47e-14	3.82e-14	2.23e-14
5	35	0.	0.	0.	0.	0.	0.	8	12	8.86e-10	6.24e-10	5.07e-10	2.71e-10	1.74e-10	0.
5	36	2.63e-15	2.53e-15	2.23e-15	1.71e-15	1.34e-15	9.04e-16	8	13	0.	0.	0.	0.	0.	0.
5	37	1.65e-15	1.64e-15	1.46e-15	1.14e-15	9.05e-16	6.19e-16	8	14	3.87e-14	2.48e-14	1.91e-14	1.24e-14	8.80e-15	5.23e-15
6	7	1.11e-11	6.47e-12	4.91e-12	3.22e-12	2.32e-12	1.42e-12	8	15	2.35e-15	1.52e-14	1.17e-14	7.67e-15	5.47e-15	3.28e-15
6	8	1.08e-15	6.43e-16	4.93e-16	3.27e-16	2.38e-16	1.46e-16	8	16	9.26e-13	6.44e-13	5.19e-13	3.63e-13	2.72e-13	1.73e-13
6	9	1.50e-14	8.50e-15	6.36e-15	4.09e-15	2.92e-15	1.76e-15	8	17	5.67e-15	3.86e-15	2.80e-15	1.87e-15	1.38e-15	8.43e-16
6	10	4.32e-11	2.54e-11	1.93e-11	1.27e-11	9.17e-12	5.60e-12	8	18	1.70e-09	1.26e-09	1.03e-09	7.29e-10	5.51e-10	3.50e-10
6	11	4.71e-12	2.83e-12	2.16e-12	1.42e-12	1.03e-12	6.27e-13	8	19	7.65e-12	4.89e-12	3.74e-12	2.42e-12	1.71e-12	1.01e-12
6	12	3.62e-12	2.42e-14	1.92e-14	1.32e-14	9.79e-15	6.16e-15	8	20	3.96e-14	2.56e-14	2.00e-14	1.34e-14	9.82e-15	6.08e-15
6	13	1.25e-12	8.48e-13	6.80e-13	4.72e-13	3.52e-13	2.24e-13	8	21	1.29e-12	8.28e-13	6.35e-13	4.10e-13	2.90e-13	1.71e-13
6	14	3.45e-12	2.36e-12	1.89e-12	1.32e-12	9.84e-13	6.20e-13	8	22	8.97e-15	5.73e-15	4.37e-15	2.80e-15	1.97e-15	1.15e-15
6	15	1.16e-10	8.19e-11	6.87e-11	4.72e-11	3.57e-11	2.30e-11	8	23	1.35e-13	9.04e-14	7.03e-14	4.61e-14	3.29e-14	1.96e-14
6	16	4.40e-11	3.11e-11	2.53e-11	1.79e-11	1.35e-11	9.70e-12	8	24	6.16e-11	4.82e-11	4.03e-11	2.93e-11	2.25e-11	1.47e-11
6	17	9.60e-10	8.87e-10	5.61e-10	4.00e-10	3.02e-10	1.95e-10	8	25	8.72e-11	6.88e-11	5.78e-11	4.22e-11	3.24e-11	2.13e-11
6	18	4.47e-12	3.05e-12	2.44e-12	1.68e-12	1.25e-12	7.90e-13	8	26	7.20e-12	5.21e-12	4.13e-12	2.75e-12	1.98e-12	1.18e-12
6	19	1.02e-11	6.94e-12	5.54e-12	3.82e-12	2.83e-12	1.78e-12	8	27	2.90e-12	2.12e-12	1.69e-12	1.13e-12	8.12e-13	4.87e-13
6	20	3.39e-12	2.18e-12	1.67e-12	1.08e-12	7.64e-13	4.52e-13	8	28	7.00e-11	5.92e-11	5.08e-11	3.82e-11	2.98e-11	2.00e-11
6	21	4.25e-12	2.81e-13	2.22e-13	1.50e-13	1.11e-13	8.88e-14	8	29	7.80e-13	6.42e-13	5.43e-13	3.98e-13	3.05e-13	1.99e-13
6	22	1.46e-10	1.05e-10	8.54e-11	6.07e-11	4.59e-11	2.97e-11	8	30	0.	0.	0.	0.	0.	0.
6	23	1.84e-12	1.22e-12	9.41e-13	6.12e-13	4.35e-13	2.58e-13	8	31	3.03e-14	2.58e-14	2.20e-14	1.62e-14	1.24e-14	8.13e-15
6	24	2.60e-14	2.02e-14	1.69e-14	1.23e-14	9.41e-15	6.18e-15	8	32	7.60e-15	6.50e-15	5.54e-15	4.09e-15	3.15e-15	2.07e-15
6	25	3.68e-14	2.85e-14	2.35e-14	1.70e-14	1.29e-14	8.42e-15	8	33	6.38e-15	5.49e-15	4.67e-15	3.44e-15	2.64e-15	1.72e-15
6	26	3.31e-13	2.85e-13	2.24e-13	1.65e-13	1.27e-13	8.46e-14	8	34	3.37e-13	3.46e-13	3.16e-13	2.72e-15	2.69e-15	2.02e-15
6	27	5.18e-14	3.75e-14	3.03e-14	2.10e-14	1.56e-14	9.88e-15	8	35	4.61e-14	4.33e-14	3.72e-14	3.02e-15	1.27e-15	9.54e-16
6	28	1.03e-13	8.61e-14	7.37e-14	5.51e-14	4.28e-14	2.85e-14	8	36	1.37e-14	1.38e-14	1.23e-14	9.66e-15	7.73e-15	5.35e-15
6	29	3.49e-15	2.77e-15	2.28e-15	1.58e-15	1.16e-15	7.18e-16	8	37	3.80e-15	3.40e-15	2.90e-15	2.08e-15	1.54e-15	9.54e-16
6	30	1.01e-15	8.60e-16	7.33e-16	5.42e-16	4.18e-16	2.76e-16	9	10	1.79e-12	9.62e-13	7.07e-13	4.46e-13	3.16e-13	1.89e-13
6	31	1.08e-14	9.40e-15	8.07e-15	6.01e-15	4.65e-15	3.08e-15	9	11	3.15e-11	2.15e-11	1.73e-11	1.21e-11	9.05e-12	5.74e-12
6	32	6.11e-11	5.70e-11	5.05e-11	3.92e-11	3.13e-11	2.18e-11	9	12	6.27e-10	4.40e-10	3.58e-10	2.53e-10	1.91e-10	1.23e-10
6	33	9.37e-13	8.44e												

TABLE IIIC. Rate Coefficients for Ne-like Y ($Z = 39$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	400.	750.	1000.	1500.	2000.	3000.	I	P	400.	750.	1000.	1500.	2000.	3000.
9	26	7.29e-11	5.73e-11	4.80e-11	3.50e-11	2.68e-11	1.76e-11	12	16	2.23e-13	1.43e-13	1.13e-13	7.70e-14	5.68e-14	3.56e-14
9	27	2.86e-11	2.27e-11	1.91e-11	1.40e-11	1.07e-11	7.04e-12	12	17	2.15e-14	1.26e-14	9.55e-15	6.22e-15	4.47e-15	2.72e-15
9	28	4.87e-11	3.93e-11	3.38e-11	2.53e-11	1.98e-11	1.33e-11	12	18	0.43e-11	5.22e-11	4.05e-11	2.72e-11	1.99e-11	1.23e-11
9	29	3.72e-11	3.20e-11	2.76e-11	2.09e-11	1.63e-11	1.10e-11	12	19	9.00e-11	5.55e-11	4.30e-11	2.87e-11	2.10e-11	1.30e-11
9	30	3.85e-15	3.26e-15	2.77e-15	2.03e-15	1.56e-15	1.01e-15	12	20	5.37e-14	3.32e-14	2.57e-14	1.72e-14	1.25e-14	7.76e-15
9	31	1.42e-14	1.24e-14	1.07e-14	8.08e-15	6.30e-15	4.21e-15	12	21	9.46e-12	5.66e-12	4.34e-12	2.66e-12	2.06e-12	1.26e-12
9	32	2.04e-14	1.78e-14	1.52e-14	1.13e-14	8.73e-15	5.73e-15	12	22	1.07e-14	1.14e-14	8.78e-15	5.84e-15	4.24e-15	2.62e-15
9	33	3.81e-14	3.57e-14	3.16e-14	2.46e-14	1.95e-14	1.34e-14	12	23	1.25e-14	8.52e-13	6.86e-13	4.79e-13	3.59e-13	2.28e-13
9	34	1.48e-15	1.35e-15	1.17e-15	8.76e-16	6.77e-16	4.46e-16	12	24	9.42e-10	6.85e-10	5.62e-10	4.02e-10	3.05e-10	1.98e-10
9	35	8.74e-14	8.93e-14	8.13e-14	6.52e-14	5.29e-14	3.74e-14	12	25	9.62e-12	7.60e-12	5.40e-12	3.77e-12	2.82e-12	1.79e-12
9	36	9.61e-15	9.38e-15	8.34e-15	6.47e-15	5.13e-15	3.49e-15	12	26	1.30e-11	8.84e-12	7.04e-12	4.04e-12	3.59e-12	2.26e-12
9	37	1.58e-13	1.84e-13	1.50e-13	1.21e-13	9.84e-14	6.97e-14	12	27	2.02e-10	1.49e-10	1.23e-10	8.82e-11	6.71e-11	4.37e-11
12	28	1.30e-13	9.85e-14	8.16e-14	5.87e-14	4.16e-14	2.87e-14	12	29	1.42e-14	1.04e-14	8.41e-15	5.89e-15	4.39e-15	2.78e-15
10	11	2.33e-11	1.44e-11	1.12e-11	7.53e-12	5.51e-12	3.41e-12	12	30	2.48e-11	2.10e-11	1.80e-11	1.35e-11	1.06e-11	7.10e-12
10	12	6.21e-14	4.03e-14	3.17e-14	2.15e-14	1.58e-14	9.86e-15	12	31	5.13e-11	4.34e-11	3.73e-11	2.80e-11	2.19e-11	1.47e-11
10	13	5.25e-13	3.28e-13	2.47e-13	1.57e-13	1.10e-13	6.41e-14	12	32	2.16e-14	1.79e-14	1.53e-14	1.13e-14	8.74e-15	5.79e-15
10	14	6.80e-11	4.78e-11	3.88e-11	2.75e-11	2.07e-11	1.33e-11	12	33	7.02e-13	6.10e-13	5.29e-13	4.01e-13	3.15e-13	2.13e-13
10	15	2.78e-11	1.93e-11	1.56e-11	1.10e-11	8.28e-12	5.31e-12	12	34	7.72e-15	7.32e-15	6.51e-15	5.06e-15	4.03e-15	2.77e-15
10	16	2.51e-10	1.78e-10	1.45e-10	1.03e-10	7.76e-11	5.00e-11	12	35	2.08e-14	1.92e-14	1.68e-14	1.29e-14	1.01e-14	6.85e-15
10	17	7.19e-12	4.68e-12	3.68e-12	2.49e-12	1.83e-12	1.14e-12	12	36	1.55e-14	1.43e-14	1.26e-14	9.65e-15	7.01e-15	5.16e-15
10	18	6.44e-12	4.34e-12	3.46e-12	2.38e-12	1.76e-12	1.11e-12	12	37	3.77e-15	3.31e-15	2.79e-15	1.98e-15	1.48e-15	9.24e-16
10	19	1.03e-11	6.97e-12	5.57e-12	3.84e-12	2.85e-12	1.80e-12	12	29	1.42e-14	1.04e-14	8.41e-15	5.89e-15	4.39e-15	2.78e-15
10	20	8.77e-11	6.21e-11	5.06e-11	3.50e-11	2.70e-11	1.74e-11	12	30	2.48e-11	2.10e-11	1.80e-11	1.35e-11	1.06e-11	7.10e-12
10	21	2.03e-12	1.41e-12	1.13e-12	7.91e-13	5.92e-13	3.76e-13	13	14	1.93e-11	1.09e-11	8.03e-12	5.04e-12	3.52e-12	2.06e-12
10	22	8.52e-10	6.10e-10	4.99e-10	3.55e-10	2.69e-10	1.73e-10	13	15	2.72e-11	1.56e-11	1.17e-11	7.57e-12	5.41e-12	3.28e-12
10	23	5.30e-12	3.75e-12	3.04e-12	2.14e-12	1.61e-12	1.03e-12	13	16	1.21e-10	7.34e-12	5.87e-11	3.78e-11	2.76e-11	1.70e-11
10	24	3.50e-14	2.78e-14	2.32e-14	1.69e-14	1.30e-14	8.52e-15	13	17	1.30e-11	7.62e-12	5.68e-12	3.64e-12	2.59e-12	1.56e-12
10	25	5.17e-13	4.11e-13	3.48e-13	2.54e-13	1.96e-13	1.30e-13	13	18	2.13e-11	1.32e-11	1.02e-11	6.90e-12	5.05e-12	3.14e-12
10	26	4.38e-14	3.44e-14	2.89e-14	2.12e-14	1.63e-14	1.07e-14	13	19	1.27e-14	7.19e-15	5.32e-15	3.32e-15	2.30e-15	1.34e-15
10	27	2.90e-13	2.30e-13	1.93e-13	1.42e-13	1.09e-13	7.21e-14	13	20	1.68e-11	9.65e-12	7.27e-12	4.70e-12	3.36e-12	2.04e-12
10	28	3.21e-14	2.51e-14	2.08e-14	1.49e-14	1.13e-14	7.28e-15	13	21	2.29e-13	1.31e-13	9.74e-14	6.09e-14	4.24e-14	2.47e-14
10	29	9.50e-15	8.10e-15	6.95e-15	5.20e-15	4.04e-15	2.70e-15	13	22	1.13e-11	6.32e-12	4.84e-12	2.88e-12	1.97e-12	1.13e-12
10	30	9.20e-16	7.53e-16	6.20e-16	4.29e-16	3.13e-16	1.92e-16	13	23	1.49e-11	8.75e-12	6.55e-12	4.14e-12	2.90e-12	1.70e-12
10	31	6.02e-13	5.47e-13	4.81e-13	3.70e-13	2.94e-13	2.01e-13	13	24	7.98e-12	5.48e-12	4.39e-12	3.05e-12	2.27e-12	1.44e-12
10	32	3.41e-11	3.16e-11	2.80e-11	2.17e-11	1.72e-11	1.19e-11	13	25	7.18e-13	5.08e-13	4.12e-13	2.90e-13	2.18e-13	1.39e-13
10	33	3.13e-11	2.91e-11	2.58e-11	2.00e-11	1.59e-11	1.10e-11	13	26	2.84e-14	1.86e-14	1.46e-14	9.86e-15	7.22e-15	4.47e-15
10	34	0.	0.	0.	0.	0.	0.	13	27	8.27e-12	5.69e-12	4.54e-12	3.14e-12	2.32e-12	1.46e-12
10	35	4.23e-15	4.21e-15	3.78e-15	2.97e-15	2.37e-15	1.63e-15	13	28	1.68e-13	1.28e-13	1.07e-13	7.74e-14	5.92e-14	3.88e-14
10	36	6.72e-15	6.61e-15	5.90e-15	4.00e-15	3.65e-15	2.49e-15	13	29	7.95e-15	5.62e-15	4.44e-15	2.96e-15	2.12e-15	1.27e-15
10	37	1.45e-15	1.43e-15	1.27e-15	9.92e-16	7.87e-16	5.36e-16	13	30	0.	0.	0.	0.	0.	0.
11	12	3.64e-12	2.23e-12	1.71e-12	1.13e-12	8.23e-13	5.05e-13	13	32	2.04e-14	1.70e-14	1.44e-14	1.07e-14	8.25e-15	5.46e-15
11	13	1.74e-12	1.06e-12	8.00e-13	5.09e-13	3.57e-13	2.09e-13	13	33	5.90e-15	4.73e-15	3.89e-15	2.71e-15	2.00e-15	1.24e-15
11	14	2.11e-11	1.44e-11	1.16e-11	8.09e-12	6.05e-12	3.85e-12	13	34	8.19e-11	7.68e-11	6.82e-11	5.31e-11	4.24e-11	2.93e-11
11	15	8.14e-12	5.30e-12	4.27e-12	2.94e-12	2.18e-12	1.38e-12	13	35	1.20e-12	1.08e-12	9.42e-13	7.11e-13	5.53e-13	3.87e-13
11	16	4.04e-12	2.40e-12	1.88e-12	1.19e-12	8.35e-13	4.88e-13	13	36	1.54e-14	1.38e-14	1.20e-14	9.06e-15	7.09e-15	4.77e-15
11	17	6.85e-12	4.23e-12	3.20e-12	2.04e-12	1.43e-12	8.40e-13	13	37	3.65e-13	3.32e-13	2.90e-13	2.19e-13	1.70e-13	1.13e-13
11	18	3.76e-12	2.45e-12	1.93e-12	1.31e-12	9.63e-13	6.00e-13	14	15	4.72e-11	2.75e-11	2.09e-11	1.37e-11	9.88e-12	6.02e-12
11	19	7.11e-12	4.73e-12	3.75e-12	2.58e-12	1.91e-12	1.20e-12	14	16	2.05e-11	1.71e-11	1.29e-11	8.44e-12	6.08e-12	3.70e-12
11	20	2.63e-12	1.81e-12	1.22e-12	7.72e-13	5.40e-13	3.15e-13	14	17	1.50e-17	8.38e-12	6.25e-12	3.99e-12	2.84e-12	1.71e-12
11	21	0.	0.	0.	0.	0.	0.	14	18	2.93e-12	1.91e-12	1.62e-12	1.12e-12	7.75e-13	4.87e-13
11	22	5.30e-12	3.57e-12	2.85e-12	1.97e-12	1.47e-12	9.32e-13	14	19	2.47e-12	1.56e-12	1.23e-12	8.39e-13	6.19e-13	3.87e-13
11	23	1.24e-09	8.81e-10	7.19e-10	5.10e-10	3.86e-10	2.49e-10	14	20	1.95e-11	1.11e-11	8.30e-12	5.34e-12	3.82e-12	2.30e-12
11	24	6.29e-13	4.34e-13	3.40e-13	2.23e-13	1.59e-13	9.47e-14	14	21	1.66e-12	7.15e-13	5.55e-13	3.72e-13	2.72e-13	1.68e-13
11	25	1.04e-12	7.20e-12	5.65e-12	3.72e-12	2.66e-12	1.58e-12	14	22	3.66e-11	2.19e-11	1.67e-11	1.11e-11	8.02e-12	4.93e-12
11	26	1.33e-12	9.07e-13	8.10e-13	5.78e-13	4.38e-13	2.84e-13	14	23	9.42e-12	5.60e-12	4.26e-12	2.79e-12	2.02e-12	1.23e-12
11	27	2.55e-11	1.99e-11	1.67e-11	1.22e-11	9.38e-12	6.18e-12	14	24	8.22e-12	5.84e-12	4.52e-12	3.14e-12	2.34e-12	1.48e-12
11	28	1.80e-13	1.38e-13	1.14e-13											

TABLE IIIC. Rate Coefficients for Ne-like Y ($Z = 39$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	400.	750.	1000.	1500.	2000.	3000.	I	F	400.	750.	1000.	1500.	2000.	3000.
15	16	2.08e-11	1.18e-11	8.87e-12	5.73e-12	4.10e-12	2.48e-12	18	24	3.01e-11	2.11e-11	1.71e-11	1.20e-11	9.04e-12	5.80e-12
15	17	4.80e-11	2.71e-11	2.03e-11	1.31e-11	9.33e-12	5.63e-12	18	25	1.14e-09	8.17e-10	6.68e-10	4.75e-10	3.59e-10	2.32e-10
15	18	2.63e-14	1.47e-14	1.10e-14	7.02e-15	5.00e-15	3.01e-15	18	26	1.04e-11	6.81e-12	5.34e-12	3.61e-12	2.65e-12	1.65e-12
15	19	2.41e-13	1.50e-13	1.17e-13	7.68e-14	5.78e-14	3.59e-14	18	27	1.10e-10	7.88e-11	6.44e-11	4.58e-11	3.46e-11	2.24e-11
15	20	2.07e-11	1.19e-11	8.95e-12	5.81e-12	4.18e-12	2.54e-12	18	28	5.61e-14	4.13e-14	3.38e-14	2.40e-14	1.81e-14	1.17e-14
15	21	1.66e-13	9.88e-14	7.54e-14	4.98e-14	3.61e-14	2.22e-14	18	29	4.96e-12	3.54e-14	2.81e-14	1.90e-14	1.37e-14	8.37e-15
15	22	2.21e-11	1.27e-11	9.54e-12	6.18e-12	4.43e-12	2.68e-12	18	30	5.53e-14	4.50e-14	3.82e-14	2.83e-14	2.19e-14	1.45e-14
15	23	6.90e-12	4.07e-12	3.09e-12	2.02e-12	1.46e-12	8.90e-13	18	31	5.97e-14	4.80e-14	4.04e-14	2.97e-14	2.29e-14	1.51e-14
15	24	1.01e-11	8.88e-12	5.47e-12	3.77e-12	2.79e-12	1.76e-12	18	32	7.85e-11	6.04e-11	5.71e-11	4.29e-11	3.35e-11	2.26e-11
15	25	8.89e-14	5.62e-14	4.39e-14	2.95e-14	2.18e-14	1.33e-14	18	33	1.31e-11	1.11e-11	9.55e-12	7.17e-12	5.59e-12	3.75e-12
15	26	1.79e-14	1.23e-14	9.83e-15	6.81e-15	5.06e-15	3.20e-15	18	34	4.23e-14	3.88e-14	3.42e-14	2.63e-14	2.07e-14	1.41e-14
15	27	5.05e-12	3.52e-12	2.83e-12	1.98e-12	1.49e-12	9.37e-13	18	35	1.23e-13	1.13e-13	9.99e-14	7.70e-14	6.09e-14	4.15e-14
15	28	1.18e-14	8.45e-15	6.85e-15	4.81e-15	3.61e-15	2.31e-15	18	36	2.68e-13	2.47e-13	2.19e-13	1.69e-13	1.34e-13	9.14e-14
15	29	9.09e-18	6.83e-16	5.64e-16	4.05e-16	3.00e-16	2.00e-16	18	37	1.53e-14	1.32e-14	1.10e-14	7.79e-15	5.75e-15	3.56e-15
15	30	5.41e-15	4.09e-15	3.35e-15	2.37e-15	1.78e-15	1.13e-15								
15	31	8.35e-14	6.78e-14	5.74e-14	4.23e-14	3.28e-14	2.15e-14								
15	32	1.83e-14	1.48e-14	1.24e-14	9.10e-15	6.98e-15	4.58e-15								
15	33	7.53e-15	5.91e-15	4.91e-15	3.54e-15	2.70e-15	1.75e-15								
15	34	9.61e-13	8.59e-13	7.44e-13	5.80e-13	4.35e-13	2.88e-13								
15	35	5.01e-11	4.66e-11	4.13e-11	3.20e-11	2.55e-11	1.76e-11								
15	36	2.95e-14	2.74e-14	2.43e-14	1.88e-14	1.50e-14	1.03e-14								
15	37	1.15e-11	1.08e-11	9.63e-12	7.52e-12	6.00e-12	4.15e-12								
16	17	3.85e-11	2.10e-11	1.59e-11	1.03e-11	7.42e-12	4.51e-12								
16	18	1.65e-13	1.03e-13	8.09e-14	5.53e-14	4.09e-14	2.57e-14								
16	19	8.74e-13	5.44e-13	4.25e-13	2.87e-13	2.11e-13	1.31e-13								
16	20	8.32e-12	4.61e-12	3.42e-12	2.17e-12	1.54e-12	9.23e-13								
16	21	1.99e-13	1.12e-13	8.23e-14	5.11e-14	3.54e-14	2.05e-14								
16	22	3.49e-11	2.03e-11	1.54e-11	1.01e-11	7.26e-12	4.43e-12								
16	23	1.31e-11	7.60e-12	5.73e-12	3.71e-12	2.66e-12	1.61e-12								
16	24	6.51e-12	4.43e-12	3.54e-12	2.44e-12	1.82e-12	1.15e-12								
16	25	2.87e-12	1.95e-12	1.55e-12	1.07e-12	7.94e-13	5.00e-13								
16	26	3.73e-12	2.57e-12	2.06e-12	1.43e-12	1.07e-12	6.78e-13								
16	27	4.74e-12	3.24e-12	2.50e-12	1.78e-12	1.32e-12	8.31e-13								
16	28	1.33e-14	9.77e-15	8.00e-15	5.68e-15	4.30e-15	2.77e-15								
16	29	3.08e-15	2.14e-15	1.68e-15	1.11e-15	7.94e-16	4.74e-16								
16	30	5.12e-15	4.13e-15	3.49e-15	2.57e-15	1.98e-15	1.31e-15								
16	31	1.52e-14	1.17e-14	9.67e-15	0.91e-15	5.22e-15	3.35e-15								
16	32	2.07e-14	1.70e-14	1.44e-14	1.06e-14	8.22e-15	5.43e-15								
16	33	1.03e-14	8.11e-15	6.75e-15	4.87e-15	3.70e-15	2.39e-15								
16	34	2.22e-11	2.06e-11	1.82e-11	1.41e-11	1.12e-11	7.75e-12								
16	35	4.04e-11	3.75e-11	3.32e-11	2.58e-11	2.05e-11	1.41e-11								
16	36	1.06e-11	9.92e-12	8.78e-12	6.82e-12	5.44e-12	3.75e-12								
16	37	2.38e-12	2.22e-12	1.97e-12	1.53e-12	1.21e-12	8.32e-13								
17	18	2.81e-14	1.68e-14	1.27e-14	8.38e-15	6.05e-15	3.71e-15								
17	19	6.62e-15	3.80e-15	2.86e-15	1.86e-15	1.33e-15	8.09e-16								
17	20	1.34e-11	7.49e-12	5.57e-12	3.58e-12	2.53e-12	1.52e-12								
17	21	1.25e-13	7.00e-14	5.18e-14	3.20e-14	2.22e-14	1.29e-14								
17	22	3.50e-11	2.01e-11	1.52e-11	9.86e-12	7.08e-12	4.29e-12								
17	23	9.68e-12	5.65e-12	4.27e-12	2.77e-12	1.99e-12	1.21e-12								
17	24	1.49e-14	9.48e-15	7.27e-15	4.71e-15	3.35e-15	1.99e-15								
17	25	5.58e-12	3.82e-12	3.06e-12	2.12e-12	1.58e-12	9.97e-13								
17	26	9.56e-12	6.51e-12	5.19e-12	3.58e-12	2.65e-12	1.67e-12								
17	27	2.42e-13	1.50e-13	1.25e-13	8.42e-14	6.17e-14	3.83e-14								
17	28	1.42e-14	1.04e-14	8.47e-15	6.01e-15	4.54e-15	2.92e-15								
17	29	5.47e-16	3.82e-16	3.00e-16	1.98e-16	1.41e-16	8.42e-17								
17	30	2.03e-15	1.50e-15	1.22e-15	8.56e-16	6.42e-16	4.10e-16								
17	31	4.93e-15	3.62e-15	2.93e-15	2.05e-15	1.53e-15	9.69e-16								
17	32	8.88e-14	7.41e-14	6.33e-14	4.71e-14	3.66e-14	2.43e-14								
17	33	1.06e-14	8.16e-15	6.73e-15	4.78e-15	3.60e-15	2.30e-15								
17	34	0.	0.	0.	0.	0.	0.								
17	35	2.43e-13	2.17e-13	1.88e-13	1.41e-13	1.10e-13	7.27e-14								
17	36	6.03e-11	5.61e-11	4.97e-11	3.86e-11	3.07e-11	2.12e-11								
17	37	8.03e-13	7.28e-13	6.33e-13	4.79e-13	3.73e-13	2.47e-13								
18	19	6.61e-11	3.86e-11	2.94e-11	1.93e-11	1.39e-11	8.51e-12								
18	20	9.13e-14	5.61e-14	4.33e-14	2.89e-14	2.11e-14	1.30e-14								
18	21	3.02e-12	1.67e-12	1.23e-12	7.59e-13	5.25e-13	3.03e-13								
18	22	2.32e-14	1.28e-14	9.39e-15	5.76e-15	3.99e-15	2.27e-15								
18	23	9.78e-13	6.18e-13	4.63e-13	3.27e-13	2.40e-13	1.50e-13								
19	21	9.20e-13	5.53e-13	4.26e-13	2.84e-13	2.07e-13	1.28e-13								
19	22	4.28e-11	2.76e-11	2.18e-11	1.49e-11	1.10e-11	6.90e-12								
19	23	6.01e-11	2.39e-12	2.99e-12	1.92e-12	1.35e-12	7.95e-13								
19	24	6.20e-12	3.92e-12	2.64e-12	1.81e-12	1.25e-12	9.22e-13								
19	25	8.64e-12	5.50e-12	4.21e-12	2.70e-12	1.56e-12	1.16e-12								
19	26	1.33e-11	9.14e-12	7.34e-12	5.11e-12	3.82e-12	2.43e-12								
19	27	1.19e-09	8.53e-10	6.97e-10	4.97e-10	3.76e-10	2.43e-10								
19	28	2.30e-13	1.65e-13	1.30e-13</											

TABLE IIIC. Rate Coefficients for Ne-like Y ($Z = 39$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	400.	750.	1000.	1500.	2000.	3000.	I	F	400.	750.	1000.	1500.	2000.	3000.
22	25	6.43e-12	4.33e-12	3.44e-12	2.36e-12	1.75e-12	1.10e-12	27	31	1.41e-13	1.01e-13	8.19e-14	5.78e-14	4.34e-14	2.78e-14
22	26	9.47e-12	6.42e-12	5.12e-12	3.53e-12	2.62e-12	1.65e-12	27	32	4.40e-14	3.04e-14	2.42e-14	1.67e-14	1.24e-14	7.77e-15
22	27	3.84e-13	2.59e-13	2.00e-13	1.42e-13	1.08e-13	6.66e-14	27	33	6.87e-14	6.52e-14	5.35e-14	3.81e-14	2.88e-14	1.85e-14
22	28	5.43e-15	3.05e-15	2.03e-15	1.85e-15	1.31e-15	7.79e-16	27	34	1.31e-11	1.08e-11	9.21e-12	6.86e-12	5.33e-12	3.55e-12
22	29	5.84e-16	4.33e-16	3.56e-16	2.55e-16	1.94e-16	1.26e-16	27	35	6.23e-11	5.17e-11	4.42e-11	3.30e-11	2.57e-11	1.72e-11
22	30	2.21e-15	1.59e-15	1.25e-15	8.24e-16	5.86e-16	3.40e-16	27	36	1.17e-13	9.12e-14	7.50e-14	5.42e-14	4.11e-14	2.64e-14
22	31	4.31e-15	3.09e-15	2.48e-15	1.71e-15	1.27e-15	7.97e-16	27	37	4.46e-11	3.77e-11	3.24e-11	2.43e-11	1.90e-11	1.20e-11
22	32	1.47e-14	1.15e-14	9.50e-15	6.82e-15	5.17e-15	3.33e-15								
22	33	1.76e-14	1.41e-14	1.18e-14	8.64e-15	6.62e-15	4.34e-15								
22	34	1.30e-15	1.15e-15	9.90e-16	7.42e-16	5.75e-16	3.80e-16	28	29	1.43e-11	8.34e-12	6.31e-12	4.11e-12	2.95e-12	1.80e-12
22	35	5.80e-12	5.15e-12	4.55e-12	3.52e-12	2.79e-12	1.92e-12	28	30	3.05e-10	2.14e-10	1.74e-10	1.23e-10	9.31e-11	5.98e-11
22	36	3.90e-11	3.00e-11	3.18e-11	2.46e-11	1.96e-11	1.35e-11	28	31	6.77e-10	4.76e-10	3.87e-10	2.74e-10	2.07e-10	1.33e-10
22	37	2.31e-11	2.15e-11	1.91e-11	1.48e-11	1.18e-11	8.14e-12	28	32	1.37e-09	9.75e-10	7.96e-10	5.66e-10	4.28e-10	2.76e-10
23	24	2.32e-12	1.49e-12	1.16e-12	7.84e-13	5.74e-13	3.56e-13	28	33	2.15e-10	1.53e-10	1.25e-10	8.87e-11	6.71e-11	4.33e-11
23	25	4.73e-12	3.10e-12	2.44e-12	1.66e-12	1.22e-12	7.63e-13	28	34	3.10e-11	2.41e-11	2.01e-11	1.40e-11	1.12e-11	7.32e-12
23	26	5.65e-12	3.74e-12	2.90e-12	2.02e-12	1.49e-12	9.36e-13	28	35	5.00e-11	3.90e-11	3.28e-11	2.37e-11	1.81e-11	1.18e-11
23	27	1.25e-12	8.25e-13	6.51e-13	4.44e-13	3.27e-13	2.04e-13	28	36	7.30e-11	5.68e-11	4.75e-11	3.45e-11	2.64e-11	1.73e-11
23	28	4.08e-14	2.94e-14	2.40e-14	1.70e-14	1.28e-14	8.27e-15	28	37	6.57e-12	4.84e-12	3.94e-12	2.77e-12	2.08e-12	1.32e-12
23	29	7.28e-13	5.46e-13	4.53e-13	3.27e-13	2.49e-13	1.63e-13	29	30	1.82e-12	1.10e-12	8.34e-13	5.31e-13	3.73e-13	2.20e-13
23	30	3.95e-15	2.88e-15	2.30e-15	1.55e-15	1.12e-15	6.82e-16	29	31	7.78e-10	5.44e-10	4.43e-10	3.13e-10	2.36e-10	1.51e-10
23	31	6.92e-15	5.11e-15	4.18e-15	2.92e-15	2.19e-15	1.39e-15	29	32	8.30e-12	5.20e-12	3.96e-12	2.54e-12	1.80e-12	1.06e-12
23	32	1.98e-14	1.53e-14	1.26e-14	9.03e-15	6.83e-15	4.39e-15	29	33	2.06e-09	1.46e-09	1.19e-09	8.45e-10	6.38e-10	4.11e-10
23	33	4.87e-15	3.78e-15	3.14e-15	2.26e-15	1.71e-15	1.11e-15	29	34	3.34e-12	2.35e-12	1.85e-12	1.22e-12	8.73e-13	5.21e-13
23	34	1.10e-11	1.06e-11	9.34e-12	7.18e-12	5.69e-12	3.89e-12	29	35	1.08e-11	7.90e-12	6.44e-12	4.55e-12	3.42e-12	2.19e-12
23	35	1.49e-11	1.34e-11	1.18e-11	9.05e-12	7.17e-12	4.91e-12	29	36	7.66e-12	5.42e-12	4.27e-12	3.03e-12	2.02e-12	1.21e-12
23	36	1.29e-12	1.13e-12	9.69e-13	7.24e-13	5.60e-13	3.89e-13	29	37	1.42e-10	1.11e-10	9.30e-11	6.79e-11	5.20e-11	3.41e-11
24	25	2.33e-11	1.31e-11	9.82e-12	6.31e-12	4.50e-12	2.72e-12	30	31	1.61e-11	9.20e-12	6.92e-12	4.48e-12	3.21e-12	1.94e-12
24	26	6.02e-11	3.43e-11	2.58e-11	1.86e-11	1.19e-11	7.20e-12	30	32	1.60e-10	9.93e-11	7.71e-11	5.18e-11	3.79e-11	2.35e-11
24	27	3.58e-11	2.13e-11	1.62e-11	1.07e-11	7.73e-12	4.73e-12	30	33	1.47e-11	8.57e-12	6.41e-12	4.04e-12	2.82e-12	1.65e-12
24	28	4.30e-12	2.79e-14	2.19e-14	1.49e-14	1.10e-14	6.91e-15	30	34	1.13e-09	8.21e-10	6.73e-10	4.81e-10	3.65e-10	2.30e-10
24	29	1.77e-14	1.10e-15	8.36e-16	5.34e-16	3.78e-16	2.21e-16	30	35	7.51e-12	4.92e-12	3.79e-12	2.46e-12	1.74e-12	1.03e-12
24	30	2.88e-14	2.10e-14	1.72e-14	1.22e-14	9.22e-15	5.93e-15	30	36	1.40e-11	9.88e-12	7.98e-12	5.61e-12	4.21e-12	2.70e-12
24	31	9.06e-14	6.36e-14	5.12e-14	3.57e-14	2.66e-14	1.69e-14	30	37	7.66e-12	5.10e-12	3.95e-12	2.57e-12	1.82e-12	1.08e-12
24	32	3.50e-14	2.42e-14	1.92e-14	1.32e-14	9.79e-15	6.15e-15								
24	33	1.04e-14	7.28e-15	5.72e-15	3.81e-15	2.74e-15	1.65e-15	31	32	1.04e-10	0.32e-11	4.87e-11	3.24e-11	2.36e-11	1.46e-11
24	34	3.58e-14	3.02e-11	2.59e-11	1.95e-11	1.52e-11	1.02e-11	31	33	8.02e-11	4.98e-11	3.87e-11	2.80e-11	1.90e-11	1.18e-11
24	35	3.36e-11	2.83e-11	2.43e-11	1.83e-11	1.43e-11	9.57e-12	31	34	2.22e-10	1.60e-10	1.31e-10	9.37e-11	7.10e-11	4.60e-11
24	36	1.52e-14	1.29e-14	1.11e-14	8.37e-15	6.54e-15	4.41e-15	31	35	7.76e-10	5.63e-10	4.62e-10	3.30e-10	2.50e-10	1.62e-10
24	37	1.23e-11	1.06e-11	9.12e-12	6.89e-12	5.30e-12	3.84e-12	31	36	1.34e-11	9.09e-12	7.23e-12	4.97e-12	3.68e-12	2.32e-12
24	38	1.32e-10	9.69e-11	7.97e-11	5.71e-11	4.33e-11	3.13e-11	31	37	1.32e-10	9.69e-11	7.97e-11	5.71e-11	4.33e-11	2.81e-11
25	26	5.06e-11	2.86e-11	2.15e-11	1.38e-11	9.90e-12	5.90e-12								
25	27	2.89e-11	1.66e-11	1.25e-11	8.13e-12	5.83e-12	3.54e-12	32	33	3.91e-11	2.28e-11	1.73e-11	1.13e-11	8.17e-12	4.98e-12
25	28	3.51e-13	2.43e-13	1.97e-13	1.39e-13	1.04e-13	6.66e-14	32	34	1.07e-11	1.30e-11	1.05e-11	7.42e-12	5.58e-12	3.57e-12
25	29	1.13e-14	8.98e-15	5.28e-15	3.37e-15	2.37e-15	1.39e-15	32	35	1.93e-10	1.37e-10	1.11e-10	7.88e-11	5.95e-11	3.83e-11
25	30	2.95e-15	2.02e-15	1.61e-15	1.11e-15	8.21e-16	5.17e-16	32	36	1.04e-09	7.43e-10	6.07e-10	4.31e-10	3.26e-10	2.10e-10
25	31	2.27e-14	1.49e-14	1.15e-14	7.52e-15	5.35e-15	3.18e-15	32	37	1.40e-11	9.52e-12	7.60e-12	5.25e-12	3.91e-12	2.47e-12
25	32	5.05e-14	3.70e-14	3.02e-14	2.14e-14	1.61e-14	1.03e-14								
25	33	2.17e-14	1.77e-14	1.50e-14	1.10e-14	8.52e-15	5.84e-15	33	34	8.42e-11	5.92e-11	4.81e-11	3.40e-11	2.56e-11	1.64e-11
25	34	4.94e-12	4.13e-12	3.54e-12	2.65e-12	2.08e-12	1.38e-12	33	35	1.01e-10	7.12e-11	5.79e-11	4.09e-11	3.08e-11	1.98e-11
25	35	8.21e-11	6.93e-11	5.95e-11	4.47e-11	3.49e-11	2.34e-11	33	36	1.07e-11	6.86e-12	5.35e-12	3.59e-12	2.62e-12	1.62e-12
25	36	1.80e-11	1.53e-11	1.32e-11	9.94e-12	7.77e-12	5.23e-12	33	37	1.05e-09	7.52e-10	6.15e-10	4.38e-10	3.31e-10	2.14e-10
26	27	1.06e-11	5.95e-12	4.44e-12	2.85e-12	2.03e-12	1.22e-12	34	35	7.11e-11	4.14e-11	3.14e-11	2.06e-11	1.48e-11	9.00e-12
26	28	3.83e-14	2.40e-14	1.88e-14	1.24e-14	9.08e-15	5.62e-15	34	36	2.91e-11	1.63e-11	1.22e-11	7.82e-12	5.57e-12	3.30e-12
26	29	2.17e-15	1.44e-15	1.14e-15	7.84e-16	5.82e-16	3.67e-16	34	37	4.00e-11	2.20e-11	1.70e-11	1.07e-11	7.51e-12	4.42e-12
26	30	2.12e-15	1.42e-15	1.10e-15	7.16e-16	5.08e-16	3.01e-16								
26	31	2.90e-14	1.92e-14	1.51e-14	1.02e-14	7.49e-15	4.67e-15	35	36	6.24e-11	3.59e-11	2.71e-11	1.78e-11	1.26e-11	7.69e-12
26	32	8.01e-14	4.20e-14	3.37e-14	2.33e-14	1.73e-14	1.09e-14	35	37	1.38e-11	7.78e-12	5.81e-12	3.72e-12	2.65e-12	1.59e-12
26	33	2.57e-14	1.90e-14	1.56e-14	1.11e-14	8.38e-15									

TABLE IID. Rate Coefficients for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	2500.	3500.	I	P	500.	1000.	1500.	2000.	2500.	3500.
1	2	1.93e-14	1.35e-13	2.03e-13	2.22e-13	2.18e-13	1.93e-13	2	37	3.99e-15	4.13e-15	3.49e-15	2.91e-15	2.47e-15	1.86e-15
1	3	1.59e-14	1.27e-13	2.38e-13	3.16e-13	3.67e-13	4.20e-13	3	4	3.57e-11	2.27e-11	1.81e-11	1.21e-11	9.53e-12	6.49e-12
1	4	3.07e-14	2.29e-13	3.50e-13	3.82e-13	3.75e-13	3.30e-13	3	5	5.72e-10	3.67e-10	2.60e-10	1.96e-10	1.55e-10	1.06e-10
1	5	3.85e-14	2.85e-13	4.77e-13	5.69e-13	6.04e-13	6.01e-13	3	6	3.92e-12	2.26e-12	1.48e-12	1.05e-12	7.97e-13	5.13e-13
1	6	4.54e-14	3.49e-13	5.32e-13	5.76e-13	5.61e-13	4.88e-13	3	7	5.91e-10	3.85e-10	2.74e-10	2.08e-10	1.64e-10	1.13e-10
1	7	2.29e-14	1.76e-13	2.71e-13	2.95e-13	2.89e-13	2.53e-13	3	8	5.15e-10	3.38e-10	2.41e-10	1.85e-10	1.45e-10	9.95e-11
1	8	2.83e-14	2.18e-13	3.71e-13	4.48e-13	4.80e-13	4.84e-13	3	9	3.04e-12	1.92e-12	1.34e-12	1.00e-12	7.83e-13	5.27e-13
1	9	3.04e-15	2.38e-14	3.73e-14	4.14e-14	4.11e-14	3.69e-14	3	10	8.90e-12	5.72e-12	4.02e-12	3.02e-12	2.37e-12	1.61e-12
1	11	1.14e-14	9.68e-14	1.80e-13	2.35e-13	2.70e-13	3.02e-13	3	11	1.78e-10	1.20e-10	8.61e-11	6.56e-11	5.22e-11	3.60e-11
1	12	1.99e-14	1.66e-13	2.58e-13	2.80e-13	2.73e-13	2.36e-13	3	12	4.17e-13	2.67e-13	1.80e-13	1.30e-13	9.92e-14	6.44e-14
1	13	5.01e-14	4.19e-13	6.53e-13	7.12e-13	6.96e-13	6.06e-13	3	13	1.23e-12	7.97e-13	5.42e-13	3.94e-13	3.02e-13	1.98e-13
1	14	1.59e-14	1.34e-13	2.10e-13	2.31e-13	2.27e-13	2.00e-13	3	14	5.19e-14	3.72e-14	2.74e-14	2.12e-14	1.70e-14	1.19e-14
1	15	3.95e-14	3.20e-13	5.46e-13	6.54e-13	6.94e-13	6.86e-13	3	15	3.07e-11	2.19e-11	1.61e-11	1.24e-11	9.89e-12	6.87e-12
1	16	4.70e-14	4.03e-13	6.22e-13	6.72e-13	6.49e-13	5.56e-13	3	16	2.26e-12	1.49e-12	1.05e-12	7.91e-13	6.21e-13	4.20e-13
1	17	6.52e-14	5.50e-13	8.50e-13	9.15e-13	8.83e-13	7.55e-13	3	17	3.58e-12	2.32e-12	1.57e-12	1.14e-12	8.68e-13	5.84e-13
1	18	3.88e-14	3.28e-13	5.07e-13	5.45e-13	5.26e-13	4.48e-13	3	18	3.49e-11	2.52e-11	1.85e-11	1.43e-11	1.14e-11	7.97e-12
1	19	2.87e-14	2.18e-13	3.75e-13	4.52e-13	4.81e-13	4.78e-13	3	19	2.32e-11	1.68e-11	1.23e-11	9.52e-12	7.62e-12	5.31e-12
1	20	2.16e-13	1.86e-12	3.35e-12	4.15e-12	4.52e-12	4.85e-12	3	20	6.46e-12	4.84e-12	3.63e-12	2.83e-12	2.29e-12	1.62e-12
1	21	1.81e-14	1.56e-13	2.49e-13	2.77e-13	2.74e-13	2.44e-13	3	21	9.56e-14	7.05e-14	5.25e-14	4.08e-14	3.28e-14	2.31e-14
1	22	5.80e-13	5.09e-12	9.46e-12	1.22e-11	1.37e-11	1.49e-11	3	22	1.94e-11	1.43e-11	1.08e-11	8.26e-12	6.84e-12	4.65e-12
1	23	2.54e-14	2.16e-13	3.79e-13	4.63e-13	4.99e-13	5.06e-13	3	23	7.95e-14	5.94e-14	4.46e-14	3.48e-14	2.81e-14	1.99e-14
1	24	2.59e-14	2.44e-13	3.91e-13	4.27e-13	4.16e-13	3.59e-13	3	24	4.86e-15	3.62e-15	2.07e-15	2.05e-15	1.63e-15	1.12e-15
1	25	3.06e-14	3.76e-13	6.05e-13	6.66e-13	6.52e-13	5.68e-13	3	25	9.35e-15	7.02e-15	5.18e-15	3.98e-15	3.17e-15	2.18e-15
1	26	2.83e-14	2.40e-13	4.27e-13	5.24e-13	5.83e-13	5.66e-13	3	26	6.87e-15	5.23e-15	3.80e-15	3.01e-15	2.41e-15	1.67e-15
1	27	3.82e-13	3.83e-12	7.38e-12	9.68e-12	1.10e-11	1.21e-11	3	27	1.85e-11	1.52e-11	1.18e-11	9.41e-12	7.89e-12	5.52e-12
1	28	6.69e-15	6.62e-14	1.09e-13	1.22e-13	1.21e-13	1.07e-13	3	28	1.76e-11	1.51e-11	1.19e-11	9.59e-12	7.91e-12	5.76e-12
1	29	1.01e-13	1.03e-12	1.94e-12	2.47e-12	2.74e-12	2.89e-12	3	29	3.55e-11	3.10e-11	2.47e-11	1.99e-11	1.65e-11	1.21e-11
1	30	1.70e-15	1.80e-14	3.08e-14	3.53e-14	3.58e-14	3.26e-14	3	30	1.58e-15	1.37e-15	1.08e-15	8.38e-16	6.80e-16	4.78e-16
1	31	7.56e-15	8.54e-14	1.75e-13	2.41e-13	2.84e-13	3.29e-13	3	31	2.51e-11	2.18e-11	1.71e-11	1.36e-11	1.11e-11	7.90e-11
1	32	7.43e-15	8.11e-14	1.40e-13	1.63e-13	1.65e-13	1.52e-13	3	32	4.93e-15	4.38e-15	3.44e-15	2.74e-15	2.23e-15	1.58e-15
1	33	1.19e-14	1.49e-13	3.30e-13	4.78e-13	5.07e-13	7.17e-13	3	33	6.33e-15	5.94e-15	4.82e-15	3.93e-15	3.28e-15	2.39e-15
1	34	9.35e-15	1.12e-13	1.95e-13	2.25e-13	2.27e-13	2.05e-13	3	34	2.85e-15	2.98e-14	2.54e-14	2.13e-14	1.82e-14	1.39e-14
1	35	1.01e-14	1.83e-13	3.50e-13	4.45e-13	4.88e-13	5.00e-13	3	35	3.32e-14	3.45e-14	2.94e-14	2.47e-14	2.11e-14	1.61e-14
1	36	2.14e-14	2.57e-13	4.50e-13	5.18e-13	5.22e-13	4.72e-13	3	36	1.87e-15	1.86e-15	1.53e-15	1.26e-15	1.05e-15	7.71e-16
1	37	6.82e-14	8.35e-13	1.73e-12	2.38e-12	2.74e-12	3.09e-12	3	37	1.43e-14	1.50e-14	1.27e-14	1.07e-14	9.11e-15	6.93e-15
2	3	1.67e-11	8.86e-12	5.79e-12	4.17e-12	3.19e-12	2.09e-12	4	5	2.54e-11	1.36e-11	8.93e-12	6.45e-12	4.94e-12	3.24e-12
2	4	4.07e-10	2.60e-10	1.84e-10	1.39e-10	1.10e-10	7.48e-11	4	6	8.85e-11	5.09e-11	3.44e-11	2.52e-11	1.95e-11	1.30e-11
2	5	3.36e-10	2.17e-10	1.54e-10	1.16e-10	9.17e-11	6.24e-11	4	7	7.94e-12	4.42e-12	2.94e-12	2.14e-12	1.65e-12	1.09e-12
2	6	8.52e-10	5.59e-10	3.99e-10	3.03e-10	2.40e-10	1.04e-10	4	8	2.34e-11	1.35e-11	9.11e-12	6.09e-12	5.18e-12	3.44e-12
2	7	2.50e-11	1.67e-11	1.19e-11	9.00e-12	7.12e-12	4.87e-12	4	9	2.09e-12	1.33e-12	9.44e-13	7.10e-13	5.59e-13	3.80e-13
2	8	3.11e-10	2.05e-10	1.46e-10	1.11e-10	8.79e-11	6.04e-11	4	10	4.31e-13	2.72e-13	1.92e-13	1.44e-13	1.13e-13	7.89e-14
2	9	2.62e-12	1.09e-12	1.20e-12	8.00e-13	7.07e-13	4.80e-13	4	11	1.23e-12	6.04e-13	4.41e-13	3.12e-13	2.35e-13	1.51e-13
2	10	8.51e-12	5.45e-12	3.83e-12	2.87e-12	2.25e-12	1.52e-12	4	12	1.69e-10	1.12e-10	8.03e-11	6.10e-11	4.84e-11	3.33e-11
2	11	4.53e-13	2.72e-13	1.80e-13	1.29e-13	9.78e-14	6.31e-14	4	13	3.53e-12	2.35e-12	1.68e-12	1.28e-12	1.02e-12	7.00e-11
2	12	4.40e-12	3.18e-12	2.33e-12	1.79e-12	1.43e-12	9.92e-13	4	14	8.54e-12	5.51e-12	3.89e-12	2.92e-12	2.30e-12	1.50e-12
2	13	1.34e-11	9.56e-12	7.01e-12	5.40e-12	4.31e-12	2.99e-12	4	15	3.24e-12	1.96e-12	1.34e-12	1.01e-12	8.42e-13	5.07e-13
2	14	1.07e-14	7.56e-15	4.55e-15	4.27e-15	3.41e-15	2.37e-15	4	16	2.88e-11	1.93e-10	1.39e-10	1.06e-10	8.42e-11	5.81e-11
2	15	1.51e-11	1.07e-11	7.84e-12	6.02e-12	4.81e-12	3.33e-12	4	17	6.89e-12	4.50e-12	3.20e-12	2.42e-12	1.91e-12	1.31e-12
2	16	2.21e-11	1.59e-11	1.17e-11	9.00e-12	7.20e-12	5.01e-12	4	18	1.87e-11	1.25e-11	0.93e-12	6.79e-12	5.39e-12	3.71e-12
2	17	4.09e-11	2.94e-11	2.16e-11	1.87e-11	1.33e-11	9.28e-12	4	19	3.84e-12	2.44e-12	1.70e-12	1.27e-12	9.97e-13	6.74e-13
2	18	2.11e-12	1.40e-12	9.91e-13	7.44e-13	5.84e-13	3.95e-13	4	20	3.46e-12	2.26e-12	1.59e-12	1.19e-12	9.37e-13	6.33e-13
2	19	1.81e-11	1.31e-11	9.66e-12	7.45e-12	5.96e-12	4.15e-12	4	21	1.56e-11	1.02e-13	7.18e-14	5.39e-14	4.23e-14	2.86e-14
2	20	2.56e-14	1.68e-14	1.15e-14	0.81e-15	6.35e-15	4.14e-15	4	22	2.20e-11	1.51e-11	1.10e-11	8.38e-12	6.68e-12	4.63e-12
2	21	1.50e-13	1.13e-13	8.47e-14	6.82e-14	5.35e-14	3.78e-14	4	23	3.09e-13	2.08e-13	1.49e-13	1.13e-13	8.92e-14	6.10e-14
2	22	1.00e-12	7.34e-13	5.21e-13	3.92e-13	3.08e-13	2.08e-13	4	24	5.60e-14	4.26e-14	3.24e-14	2.54e-14	2.06e-14	1.46e-14
2	23	2.18e-13	1.39e-13	1.04e-13	8.14e-14	6.59e-14	4.66e-14	4	25	2.67e-13	2.07e-13	1.57e-13	1.24e-13	1.01e-13	7.17e-14
2	24	2.17e-15	1.65e-15	1.											

TABLE IIID. Rate Coefficients for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	2500.	3500.	I	P	500.	1000.	1500.	2000.	2500.	3500.
5	6	3.80e-11	2.15e-11	1.44e-11	1.05e-11	8.12e-12	5.30e-12	7	14	2.20e-13	1.40e-13	9.86e-14	7.17e-14	5.59e-14	3.75e-14
5	7	2.65e-11	1.62e-11	1.09e-11	8.02e-12	6.20e-12	4.12e-12	7	15	5.10e-12	3.23e-12	2.25e-12	1.68e-12	1.32e-12	8.90e-13
5	8	4.07e-11	2.34e-11	1.58e-11	1.16e-11	9.01e-12	5.99e-12	7	16	5.37e-12	3.28e-12	2.26e-12	1.68e-12	1.31e-12	8.82e-13
5	9	2.65e-15	1.51e-15	1.01e-15	7.42e-16	5.72e-16	3.79e-16	7	17	4.29e-12	2.51e-12	1.70e-12	1.24e-12	9.80e-13	8.36e-13
5	10	7.38e-14	4.63e-14	3.25e-14	2.44e-14	1.91e-14	1.30e-14	7	18	6.50e-10	4.31e-10	3.08e-10	2.33e-10	1.85e-10	1.27e-10
5	11	7.45e-12	4.49e-12	3.09e-12	2.29e-12	1.79e-12	1.20e-12	7	19	4.89e-12	2.97e-12	2.04e-12	1.51e-12	1.17e-12	7.87e-13
5	12	4.66e-13	2.75e-13	1.80e-13	1.29e-13	9.73e-14	6.25e-14	7	20	2.90e-13	1.79e-13	1.23e-13	9.10e-14	7.08e-14	4.73e-14
5	13	4.17e-11	2.75e-11	1.97e-11	1.50e-11	1.19e-11	8.16e-12	7	21	4.04e-12	2.57e-12	1.80e-12	1.34e-12	1.05e-12	7.08e-13
5	14	8.08e-12	5.15e-12	3.61e-12	2.70e-12	2.12e-12	1.43e-12	7	22	2.05e-10	1.37e-10	9.82e-11	7.47e-11	5.93e-11	4.09e-11
5	15	5.73e-10	3.83e-10	2.75e-10	2.10e-10	1.66e-10	1.15e-10	7	23	6.93e-12	4.49e-12	3.18e-12	2.38e-12	1.87e-12	1.27e-12
5	16	1.69e-10	1.13e-10	8.11e-11	6.17e-11	4.90e-11	3.38e-11	7	24	3.20e-14	2.31e-14	1.70e-14	1.31e-14	1.05e-14	7.36e-15
5	17	6.00e-12	3.71e-12	2.50e-12	1.90e-12	1.48e-12	9.95e-13	7	25	3.23e-14	2.31e-14	1.69e-14	1.30e-14	1.04e-14	7.24e-15
5	18	4.74e-11	3.27e-11	2.38e-11	1.83e-11	1.46e-11	1.01e-11	7	26	1.48e-14	1.01e-14	7.24e-15	5.48e-15	4.33e-15	2.90e-15
5	19	5.31e-12	3.42e-12	2.41e-12	1.81e-12	1.43e-12	9.70e-13	7	27	2.95e-12	2.23e-12	1.68e-12	1.32e-12	1.07e-12	7.55e-13
5	20	3.87e-12	2.59e-12	1.85e-12	1.40e-12	1.11e-12	7.58e-13	7	28	2.40e-14	1.81e-14	1.35e-14	1.04e-14	8.37e-15	5.83e-15
5	21	4.59e-14	3.05e-14	2.17e-14	1.64e-14	1.30e-14	8.83e-15	7	29	2.05e-14	1.50e-14	1.10e-14	8.44e-15	6.71e-15	4.80e-15
5	22	5.60e-12	3.87e-12	2.82e-12	2.16e-12	1.72e-12	1.20e-12	7	30	1.03e-12	8.59e-13	6.73e-13	5.38e-13	4.43e-13	3.21e-13
5	23	4.63e-16	3.06e-16	2.17e-16	1.63e-16	1.28e-16	8.71e-17	7	31	7.03e-14	5.72e-14	4.39e-14	3.45e-14	2.80e-14	1.97e-14
5	24	6.27e-14	4.78e-14	3.81e-14	2.82e-14	2.29e-14	1.62e-14	7	32	1.23e-11	1.06e-11	8.39e-12	6.75e-12	5.57e-12	4.06e-12
5	25	1.80e-13	1.39e-13	1.06e-13	8.31e-14	6.75e-14	4.80e-14	7	33	3.84e-11	3.32e-11	2.64e-11	2.13e-11	1.78e-11	1.29e-11
5	26	2.12e-14	1.61e-14	1.21e-14	9.49e-15	7.68e-15	5.44e-15	7	34	2.30e-14	2.17e-14	1.78e-14	1.45e-14	1.21e-14	8.06e-15
5	27	8.07e-14	6.07e-14	4.54e-14	3.53e-14	2.85e-14	2.00e-14	7	35	1.53e-14	1.43e-14	1.16e-14	9.47e-15	7.88e-15	5.79e-15
5	28	3.48e-14	2.75e-14	2.00e-14	1.64e-14	1.33e-14	9.44e-15	7	36	3.33e-14	3.16e-14	2.58e-14	2.12e-14	1.77e-14	1.30e-14
5	29	1.84e-14	1.48e-14	1.14e-14	9.02e-15	7.35e-15	5.24e-15	7	37	6.34e-15	5.75e-15	4.58e-15	3.08e-15	3.02e-15	2.18e-15
5	31	4.75e-11	4.10e-11	3.25e-11	2.62e-11	2.16e-11	1.58e-11								
5	32	2.68e-15	2.12e-15	1.75e-15	1.39e-15	1.13e-15	8.06e-16								
5	33	1.83e-13	1.63e-13	1.31e-13	1.06e-13	8.80e-14	6.46e-14								
5	34	1.88e-15	1.68e-15	1.33e-15	1.08e-15	8.66e-16	6.17e-16								
5	35	0.	0.	0.	0.	0.	0.								
5	36	1.76e-15	1.57e-15	1.24e-15	9.91e-16	8.10e-16	5.79e-16								
5	37	1.11e-15	1.02e-15	8.18e-16	6.59e-16	5.43e-16	3.94e-16								
6	7	9.26e-12	4.90e-12	3.26e-12	2.35e-12	1.80e-12	1.18e-12								
6	8	2.99e-11	1.61e-11	1.06e-11	7.68e-12	5.89e-12	3.86e-12								
6	9	1.04e-15	5.87e-16	3.94e-16	2.89e-16	2.23e-16	1.48e-16								
6	10	9.80e-15	5.26e-15	3.44e-15	2.48e-15	1.90e-15	1.24e-15								
6	11	3.45e-12	1.91e-12	1.26e-12	9.17e-13	7.04e-13	4.63e-13								
6	12	8.91e-13	5.54e-13	3.87e-13	2.89e-13	2.27e-13	1.53e-13								
6	13	2.48e-12	1.55e-12	1.08e-12	8.08e-13	6.34e-13	4.30e-13								
6	14	1.56e-14	9.78e-15	6.81e-15	5.08e-15	3.90e-15	2.69e-15								
6	15	8.41e-11	5.44e-11	3.86e-11	2.92e-11	2.31e-11	1.56e-11								
6	16	3.19e-11	2.06e-11	1.46e-11	1.10e-11	8.71e-12	5.96e-12								
6	17	7.05e-12	4.61e-10	3.29e-12	2.49e-10	1.97e-10	1.35e-10								
6	18	2.90e-12	1.73e-12	1.18e-12	8.08e-13	6.73e-13	4.48e-13								
6	19	1.06e-10	7.08e-11	5.04e-11	3.82e-11	3.02e-11	2.07e-11								
6	20	1.05e-13	1.20e-13	8.30e-14	6.15e-14	4.79e-14	3.21e-14								
6	21	3.16e-12	2.03e-12	1.43e-12	1.07e-12	8.42e-13	5.70e-13								
6	22	1.36e-12	8.12e-13	5.35e-13	3.83e-13	2.90e-13	1.87e-13								
6	23	6.97e-12	4.46e-12	3.13e-12	2.34e-12	1.84e-12	1.24e-12								
6	24	1.56e-14	1.14e-14	8.49e-15	6.58e-15	5.29e-15	3.71e-15								
6	25	3.19e-14	2.32e-14	1.72e-14	1.33e-14	1.07e-14	7.46e-15								
6	26	1.57e-13	1.81e-13	8.85e-14	6.91e-14	5.59e-14	3.95e-14								
6	27	2.44e-14	1.86e-14	1.18e-14	8.93e-15	7.03e-15	4.70e-15								
6	28	7.13e-14	5.52e-14	4.18e-14	3.27e-14	2.65e-14	1.88e-14								
6	29	2.27e-15	1.65e-15	1.20e-15	9.18e-16	7.28e-16	4.90e-16								
6	30	6.53e-16	5.10e-16	3.85e-16	3.00e-16	2.42e-16	1.70e-16								
6	31	5.56e-15	4.44e-15	3.37e-15	2.63e-15	2.12e-15	1.48e-15								
6	32	4.67e-11	4.03e-11	3.20e-11	2.57e-11	2.13e-11	1.55e-11								
6	33	7.12e-13	5.93e-13	4.50e-13	3.60e-13	2.92e-13	2.05e-13								
6	34	9.21e-16	7.94e-16	6.19e-16	4.91e-16	4.00e-16	2.85e-16								
6	35	2.12e-15	1.86e-15	1.46e-15	1.16e-15	9.44e-16	6.71e-16								
6	36	0.	0.	0.	0.	0.	0.								
6	37	1.94e-15	1.70e-15	1.32e-15	1.05e-15	8.49e-16	5.98e-16								
7	8	4.23e-11	2.28e-11	1.50e-11	1.09e-11	8.34e-12	5.47e-12								
7	9	3.10e-14	1.78e-14	1.20e-14	8.79e-15	6.80e-15	4.52e-15								
7	10	3.26e-12	1.99e-12	1.38e-12	1.03e-12	8.02e-13	5.38e-13								
7	11	5.85e-12	3.13e-12	2.07e-12	1.50e-12	1.16e-12	7.61e-13								
7	12	1.10e-11	7.05e-12	4.99e-12	3.77e-12	2.97e-12	2.03e-12								
7	13	3.61e-11	2.32e-11	1.85e-11	1.24e-11	9.82e-12	6.71e-12								

TABLE IIID. Rate Coefficients for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	500.	1000.	1500.	2000.	2500.	3500.	I	F	500.	1000.	1500.	2000.	2500.	3500.
9	26	5.31e-12	3.47e-12	2.38e-12	1.71e-12	1.31e-12	8.51e-13	12	16	8.78e-11	4.88e-11	3.26e-11	2.38e-11	1.83e-11	1.21e-11
9	27	2.19e-12	1.44e-12	9.83e-13	7.14e-13	5.46e-13	3.55e-13	12	17	9.35e-12	4.84e-12	3.12e-12	2.23e-12	1.70e-12	1.10e-12
9	28	5.33e-11	4.09e-11	3.09e-11	2.43e-11	1.97e-11	1.40e-11	12	18	9.55e-12	4.91e-12	3.09e-12	2.16e-12	1.61e-12	1.03e-12
9	29	6.03e-13	4.50e-13	3.34e-13	2.58e-13	2.00e-13	1.42e-13	12	19	7.79e-12	3.98e-12	2.47e-12	1.71e-12	1.27e-12	8.01e-13
9	30	0.	0.	0.	0.	0.	0.	12	20	9.29e-14	4.98e-14	3.18e-14	2.24e-14	1.68e-14	1.07e-14
9	31	2.32e-14	1.79e-14	1.34e-14	1.04e-14	8.29e-15	5.74e-15	12	21	8.43e-12	5.32e-12	3.74e-12	2.80e-12	2.20e-12	1.49e-12
9	32	5.34e-15	4.18e-15	3.12e-15	2.42e-15	1.95e-15	1.36e-15	12	22	1.09e-11	5.84e-12	3.73e-12	2.63e-12	1.98e-12	1.26e-12
9	33	4.90e-15	3.84e-15	2.88e-15	2.23e-15	1.78e-15	1.24e-15	12	23	9.44e-15	5.08e-15	3.23e-15	2.27e-15	1.71e-15	1.09e-15
9	34	3.24e-13	3.01e-13	2.46e-13	2.02e-13	1.69e-13	1.26e-13	12	24	5.39e-12	3.49e-12	2.46e-12	1.85e-12	1.46e-12	9.88e-13
9	35	4.09e-15	3.45e-15	2.57e-15	1.96e-15	1.55e-15	1.05e-15	12	25	4.25e-13	2.84e-13	2.03e-13	1.54e-13	1.22e-13	8.35e-14
9	36	1.07e-14	9.70e-15	7.77e-15	6.28e-15	5.19e-15	3.79e-15	12	26	1.63e-14	1.01e-14	6.93e-15	5.13e-15	3.99e-15	2.66e-15
9	37	2.92e-15	2.45e-15	1.80e-15	1.35e-15	1.06e-15	7.06e-16	12	27	5.35e-12	3.47e-12	2.44e-12	1.83e-12	1.43e-12	9.66e-13
12	28	1.47e-13	1.05e-13	7.69e-14	5.93e-14	4.75e-14	3.32e-14	12	29	5.15e-15	3.34e-15	2.28e-15	1.68e-15	1.27e-15	8.32e-16
12	30	0.	0.	0.	0.	0.	0.	12	31	1.05e-14	7.60e-15	5.56e-15	4.25e-15	3.30e-15	2.32e-15
10	11	1.06e-11	6.15e-12	4.19e-12	3.09e-12	2.40e-12	1.60e-12	12	32	1.34e-14	1.04e-14	7.84e-15	6.12e-15	4.94e-15	3.48e-15
10	12	8.16e-15	4.63e-15	3.09e-15	2.25e-15	1.73e-15	1.14e-15	12	33	3.58e-15	2.62e-15	1.92e-15	1.47e-15	1.17e-15	7.99e-16
10	13	1.94e-13	1.18e-13	8.11e-14	6.02e-14	4.89e-14	3.15e-14	12	34	6.11e-11	5.30e-11	4.21e-11	3.40e-11	2.81e-11	2.06e-11
10	14	4.61e-10	2.95e-10	2.09e-10	1.58e-10	1.24e-10	0.48e-11	12	35	9.59e-13	7.96e-13	6.15e-13	4.84e-13	3.92e-13	2.76e-13
10	15	2.97e-14	1.70e-14	1.13e-14	8.27e-15	6.37e-15	4.21e-15	12	36	9.71e-15	8.07e-15	8.24e-15	4.94e-15	4.03e-15	2.88e-15
10	16	1.05e-13	6.23e-14	4.24e-14	3.12e-14	2.42e-14	1.62e-14	12	37	2.32e-13	1.96e-13	1.52e-13	1.20e-13	9.71e-14	8.84e-14
10	18	2.35e-13	1.45e-13	1.00e-13	7.46e-14	5.83e-14	3.92e-14	12	38	0.	0.	0.	0.	0.	0.
10	19	1.96e-13	1.22e-13	8.45e-14	6.31e-14	4.94e-14	3.33e-14	10	20	1.26e-10	8.98e-11	5.37e-11	3.68e-11	2.32e-11	1.72e-11
10	21	2.30e-10	1.50e-10	1.07e-10	8.08e-11	6.40e-11	4.36e-11	10	22	1.72e-11	1.22e-11	9.47e-12	6.41e-12	4.33e-12	3.01e-12
10	22	3.61e-13	2.29e-13	1.61e-13	1.21e-13	9.47e-14	6.41e-14	10	23	1.01e-09	8.64e-10	4.74e-10	3.59e-10	2.84e-10	1.95e-10
10	24	2.46e-11	1.75e-11	1.28e-11	9.81e-12	7.83e-12	5.43e-12	10	25	1.72e-11	1.22e-11	9.85e-12	7.83e-12	5.43e-12	3.80e-12
10	25	1.72e-11	1.22e-11	8.95e-12	6.87e-12	5.46e-12	3.80e-12	10	26	5.35e-11	3.88e-11	2.84e-11	1.76e-11	1.22e-11	8.38e-12
10	27	2.15e-11	1.58e-11	1.15e-11	8.92e-12	7.15e-12	4.98e-12	10	28	6.34e-11	4.27e-11	3.10e-11	2.10e-11	1.65e-11	1.25e-11
10	28	3.64e-11	2.78e-11	2.10e-11	1.65e-11	1.34e-11	9.47e-12	10	29	2.88e-11	2.24e-11	1.71e-11	1.35e-11	1.09e-11	7.80e-12
10	30	3.04e-15	2.33e-15	1.73e-15	1.34e-15	1.07e-15	7.40e-16	10	31	1.48e-14	1.18e-14	8.99e-15	7.07e-15	5.73e-15	4.06e-15
10	31	1.48e-14	1.18e-14	8.99e-15	7.07e-15	5.73e-15	4.06e-15	10	32	6.72e-12	5.70e-12	4.21e-12	3.07e-12	2.27e-12	1.50e-12
10	32	1.43e-14	1.14e-14	8.62e-15	6.72e-15	5.40e-15	3.77e-15	10	33	4.97e-13	3.22e-13	2.27e-13	1.71e-13	1.34e-13	9.09e-14
10	33	2.87e-14	2.45e-14	1.92e-14	1.54e-14	1.27e-14	9.14e-15	10	34	4.20e-12	2.99e-12	2.11e-12	1.58e-12	1.24e-12	8.42e-13
10	34	1.24e-15	1.04e-15	8.01e-16	6.29e-16	5.09e-16	3.58e-16	10	35	7.09e-14	5.01e-14	3.67e-14	2.83e-14	2.26e-14	1.58e-14
10	35	7.83e-14	7.25e-14	5.91e-14	4.84e-14	4.04e-14	3.00e-14	10	36	3.17e-14	2.27e-14	1.67e-14	1.29e-14	1.03e-14	7.20e-15
10	36	8.11e-15	7.19e-15	5.88e-15	4.55e-15	3.73e-15	2.88e-15	10	37	1.58e-13	1.22e-13	1.00e-13	8.38e-14	6.24e-14	4.38e-14
10	37	1.58e-13	1.49e-13	1.22e-13	1.00e-13	8.38e-14	6.24e-14	11	12	1.30e-12	7.17e-13	4.61e-13	3.25e-13	2.45e-13	1.56e-13
11	12	1.30e-12	7.17e-13	4.61e-13	3.25e-13	2.45e-13	1.56e-13	11	13	1.47e-14	1.12e-13	7.52e-14	5.51e-14	4.26e-14	2.82e-14
11	13	9.60e-12	5.88e-12	4.09e-12	3.05e-12	2.38e-12	1.61e-12	11	14	1.80e-11	1.32e-11	1.20e-11	8.63e-12	6.81e-12	4.33e-12
11	14	1.61e-12	9.28e-13	6.23e-13	4.55e-13	3.52e-13	2.33e-13	11	15	6.02e-12	3.62e-12	2.50e-12	1.85e-12	1.45e-12	9.79e-13
11	15	2.76e-12	1.53e-12	9.82e-13	6.92e-13	5.20e-13	3.31e-13	11	16	4.76e-12	3.08e-12	2.15e-12	1.55e-12	1.23e-12	8.59e-13
11	17	5.14e-12	2.87e-12	1.85e-12	1.31e-12	9.86e-13	6.30e-13	11	18	2.38e-12	1.33e-12	8.52e-13	6.00e-13	4.51e-13	2.87e-13
11	19	3.92e-12	2.40e-12	1.67e-12	1.25e-12	9.75e-13	6.59e-13	11	20	0.	0.	0.	0.	0.	0.
11	21	2.80e-12	1.73e-12	1.19e-12	8.87e-13	6.92e-13	4.84e-13	11	22	9.18e-10	5.96e-10	4.24e-10	3.21e-10	2.54e-10	1.74e-10
11	22	3.75e-12	2.34e-12	1.63e-12	1.22e-12	9.54e-13	6.43e-13	11	23	1.35e-11	9.25e-12	6.22e-12	4.41e-12	3.22e-12	2.22e-12
11	23	2.91e-13	1.85e-13	1.24e-13	8.98e-14	6.84e-14	4.43e-14	11	24	4.70e-12	3.09e-12	2.50e-12	1.87e-12	1.43e-12	9.43e-13
11	24	4.70e-13	3.06e-13	2.07e-13	1.50e-13	1.14e-13	7.41e-14	11	25	5.77e-11	3.31e-11	2.23e-11	1.64e-11	1.27e-11	8.43e-12
11	26	6.15e-13	4.26e-13	3.09e-13	2.37e-13	1.88e-13	1.30e-13	11	27	2.45e-13	1.45e-13	9.90e-14	7.31e-14	5.89e-14	3.80e-14
11	27	1.26e-11	9.18e-12	6.82e-12	5.29e-12	4.26e-12	2.99e-12	11	28	8.20e-11	3.54e-11	2.39e-11	1.75e-11	1.35e-11	8.98e-12
11	28	1.31e-13	9.31e-14	6.75e-14	5.14e-14	4.07e-14	2.79e-14	11	29	6.81e-10	4.55e-10	3.27e-10	2.49e-10	1.98e-10	1.36e-10
11	29	0.	0.	0.	0.	0.	0.	11	30	6.86e-12	4.41e-12	3.11e-12	2.33e-12	1.84e-12	1.25e-12
11	30	4.27e-14	3.31e-14	2.49e-14	1.93e-14	1.55e-14	1.08e-14	11	31	9.28e-12	5.83e-12	4.06e-12	3.03e-12	2.37e-12	1.60e-12
11	31	9.18e-12	7.49e-12	5.81e-12	4.63e-12	3.79e-12	2.73e-12	11	32	1.90e-11	1.37e-11	1.12e-11	8.81e-12	7.14e-12	5.07e-12
11	32	1.15e-12	9.29e-13	7.08e-13	5.54e-13	4.47e-13	3.13e-13	11	33	4.01e-11	3.08e-11	2.33e-11	1.83e-11	1.48e-11	1.05e-11
11	33	3.35e-11	2.81e-11	2.20e-11	1.76e-11	1.45e-11	1.05e-11	11	34	1.58e-11	3.96e-12	2.89e-12	2.47e-12	1.84e-12	1.45e-12
11	34	4.03e-16	3.96e-16	2.89e-16	2.17e-16	1.69e-16	1.13e-16	11	35	1.93e-11	1.48e-11	1.12e-11	8.81e-12	7.14e-12	5.07e-12
11	35	1.85e-14	1.70e-14	1.37e-14	1.12e-14	9.26e-15	6.79e-15	11	36	4.01e-11	3.08e-11	2.33e-11	1.83e-11	1.48e-11	1.05e-11
11	36	6.63e-15	5.57e-15	4.15e-15	3.18e-15	2.50e-15	1.69e-15	11	37	1.32e-11	1.11e-11				

TABLE IIID. Rate Coefficients for Ne-like Mo ($Z = 42$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	2500.	3500.	I	P	500.	1000.	1500.	2000.	2500.	3500.
15	16	1.68e-11	8.82e-12	5.74e-12	4.12e-12	3.15e-12	2.08e-12	18	24	1.34e-12	8.48e-13	5.91e-13	4.42e-13	3.48e-13	2.34e-13
15	17	3.30e-11	1.72e-11	1.11e-11	7.96e-12	6.07e-12	3.96e-12	18	25	3.64e-12	2.32e-12	1.63e-12	1.22e-12	9.54e-13	6.44e-13
15	18	1.14e-11	8.04e-12	3.94e-12	2.04e-12	2.17e-12	1.42e-12	18	26	5.18e-12	3.33e-12	2.35e-12	1.76e-12	1.39e-12	9.40e-13
15	19	1.53e-11	8.06e-12	5.25e-12	3.77e-12	2.88e-12	1.88e-12	18	27	1.36e-12	8.88e-13	6.29e-13	4.74e-13	3.73e-13	2.54e-13
15	20	7.16e-14	4.03e-14	2.70e-14	1.98e-14	1.53e-14	1.01e-14	18	28	1.90e-14	1.32e-14	9.58e-15	7.34e-15	5.85e-15	4.08e-15
15	21	1.04e-14	5.58e-15	3.65e-15	2.03e-15	2.01e-15	1.32e-15	18	29	1.13e-15	7.13e-16	4.79e-16	3.46e-16	2.63e-16	1.71e-16
15	22	4.65e-12	2.53e-12	1.86e-12	1.20e-12	9.24e-13	6.07e-13	18	30	6.33e-15	4.64e-15	3.44e-15	2.66e-15	2.13e-15	1.49e-15
15	23	9.74e-14	6.05e-14	4.23e-14	3.16e-14	2.48e-14	1.67e-14	18	31	5.26e-15	3.65e-15	2.02e-15	1.99e-15	1.57e-15	1.07e-15
15	24	6.92e-12	4.42e-12	3.10e-12	2.32e-12	1.82e-12	1.23e-12	18	32	1.18e-14	8.74e-15	6.46e-15	4.97e-15	3.97e-15	2.74e-15
15	25	3.73e-14	2.28e-14	1.57e-14	1.16e-14	9.00e-15	6.01e-15	18	33	1.12e-14	8.52e-15	6.40e-15	4.99e-15	4.03e-15	2.84e-15
15	26	8.63e-15	5.58e-15	3.93e-15	2.98e-15	2.32e-15	1.58e-15	18	34	5.80e-12	4.95e-12	3.91e-12	3.14e-12	2.59e-12	1.89e-12
15	27	3.43e-12	2.25e-12	1.59e-12	1.20e-12	9.46e-13	6.44e-13	18	35	6.53e-13	5.49e-13	4.28e-13	3.40e-13	2.78e-13	1.99e-13
15	28	7.16e-15	4.78e-15	3.41e-15	2.58e-15	2.04e-15	1.39e-15	18	36	1.28e-11	1.10e-11	8.69e-12	6.99e-12	5.77e-12	4.20e-12
15	29	5.87e-16	4.09e-16	2.97e-16	2.28e-16	1.82e-16	1.26e-16	18	37	3.48e-11	3.02e-11	2.40e-11	1.94e-11	1.60e-11	1.17e-11
15	30	3.39e-15	2.38e-15	1.71e-15	1.30e-15	1.03e-15	7.00e-16								
15	31	5.84e-14	4.39e-14	3.28e-14	2.55e-14	2.08e-14	1.44e-14								
15	32	1.14e-14	8.60e-15	6.42e-15	4.98e-15	4.00e-15	2.80e-15								
15	33	4.56e-15	3.35e-15	2.48e-15	1.91e-15	1.53e-15	1.06e-15								
15	34	7.27e-13	6.01e-13	4.62e-13	3.64e-13	2.94e-13	2.07e-13								
15	35	3.95e-11	3.40e-11	2.89e-11	2.17e-11	1.79e-11	1.31e-11								
15	36	2.13e-14	1.83e-14	1.45e-14	1.17e-14	9.66e-15	7.05e-15								
15	37	7.43e-12	6.49e-12	5.16e-12	4.17e-12	3.45e-12	2.53e-12								
16	17	2.38e-11	1.24e-11	8.11e-12	5.83e-12	4.46e-12	2.91e-12								
16	18	8.72e-12	4.52e-12	2.92e-12	2.09e-12	1.59e-12	1.03e-12								
16	19	2.20e-11	1.17e-11	7.63e-12	5.50e-12	4.21e-12	2.75e-12								
16	20	7.30e-14	3.63e-14	2.42e-14	1.70e-14	1.27e-14	8.05e-15								
16	21	7.68e-14	4.08e-14	3.25e-14	2.42e-14	1.89e-14	1.27e-14								
16	22	7.57e-12	3.99e-12	2.54e-12	1.79e-12	1.34e-12	8.56e-13								
16	23	3.28e-13	1.99e-13	1.38e-13	1.03e-13	8.02e-14	5.38e-14								
16	24	5.38e-12	3.44e-12	2.42e-12	1.81e-12	1.42e-12	9.62e-13								
16	25	1.18e-12	7.53e-13	5.28e-13	3.95e-13	3.10e-13	2.09e-13								
16	26	1.44e-12	9.34e-13	6.60e-13	4.97e-13	3.91e-13	2.65e-13								
16	27	3.75e-12	2.42e-12	1.70e-12	1.28e-12	1.00e-12	6.79e-13								
16	28	8.02e-15	5.45e-15	3.93e-15	2.99e-15	2.38e-15	1.84e-15								
16	29	1.49e-15	9.51e-16	6.41e-16	4.63e-16	3.53e-16	2.20e-16								
16	30	4.96e-15	3.72e-15	2.79e-15	2.17e-15	1.75e-15	1.24e-15								
16	31	1.52e-14	1.09e-14	7.98e-15	6.11e-15	4.86e-15	3.34e-15								
16	32	1.13e-14	8.60e-15	6.46e-15	5.03e-15	4.06e-15	2.85e-15								
16	33	7.70e-15	5.73e-15	4.25e-15	3.28e-15	2.63e-15	1.83e-15								
16	34	2.10e-11	1.80e-11	1.43e-11	1.15e-11	9.48e-12	6.91e-12								
16	35	3.02e-11	2.60e-11	2.05e-11	1.65e-11	1.37e-11	9.96e-12								
16	36	4.88e-12	4.04e-12	3.20e-12	2.58e-12	2.13e-12	1.56e-12								
16	37	5.77e-13	4.93e-13	3.80e-13	3.08e-13	2.53e-13	1.81e-13								
17	18	1.05e-11	5.45e-12	3.52e-12	2.51e-12	1.91e-12	1.25e-12								
17	19	2.43e-11	1.29e-11	8.40e-12	6.05e-12	4.62e-12	3.02e-12								
17	20	5.28e-14	2.77e-14	1.75e-14	1.23e-14	9.18e-15	5.83e-15								
17	21	1.13e-14	6.39e-15	4.29e-15	3.14e-15	2.43e-15	1.61e-15								
17	22	6.92e-12	3.72e-12	2.43e-12	1.75e-12	1.34e-12	8.78e-13								
17	23	2.08e-15	1.65e-15	1.09e-15	7.94e-16	6.10e-16	4.02e-16								
17	24	6.26e-15	3.71e-15	2.46e-15	1.77e-15	1.34e-15	8.71e-16								
17	25	3.86e-12	2.49e-12	1.76e-12	1.32e-12	1.04e-12	7.05e-13								
17	26	6.53e-12	4.18e-12	2.94e-12	2.20e-12	1.72e-12	1.16e-12								
17	27	1.04e-13	6.41e-14	4.41e-14	3.27e-14	2.54e-14	1.70e-14								
17	28	8.80e-15	5.81e-15	4.17e-15	3.17e-15	2.52e-15	1.73e-15								
17	29	3.56e-16	2.27e-16	1.53e-16	1.11e-16	8.42e-17	5.46e-17								
17	30	1.26e-15	8.66e-16	6.20e-16	4.89e-16	3.71e-16	2.54e-16								
17	31	3.06e-15	2.09e-15	1.49e-15	1.12e-15	8.82e-16	5.99e-16								
17	32	5.77e-14	4.47e-14	3.39e-14	2.65e-14	2.15e-14	1.52e-14								
17	33	6.26e-15	4.50e-15	3.27e-15	2.49e-15	1.97e-15	1.35e-15								
17	34	0.	0.	0.	0.	0.									
17	35	1.54e-13	1.27e-13	9.79e-14	7.70e-14	6.23e-14	4.37e-14								
17	36	4.60e-11	3.97e-11	3.14e-11	2.53e-11	2.09e-11	1.53e-11								
17	37	6.39e-13	5.35e-13	4.14e-13	3.28e-13	2.64e-13	1.86e-13								
18	19	3.20e-11	1.68e-11	1.09e-11	7.86e-12	6.01e-12	3.92e-12								
18	20	6.34e-14	3.30e-14	2.08e-14	1.45e-14	1.08e-14	6.87e-15								
18	21	3.12e-14	1.83e-14	1.25e-14	9.21e-15	7.15e-15	4.77e-15								
18	22	3.18e-11	1.78e-11	1.19e-11	8.72e-12	6.73e-12	4.45e-12								
18	23	2.26e-13	1.32e-13	9.00e-14	6.04e-14	5.15e-14	3.44e-14								
19	22	2.29e-13	1.19e-13	7.70e-14	5.52e-14	4.20e-14	2.74e-14								
19	23	4.66e-11	2.50e-11	1.64e-11	1.19e-11	9.11e-12	5.98e-12								
19	24	2.20e-11	1.40e-11	9.92e-12	7.47e-12	5.89e-12	4.01e-12								
19	25	8.41e-10	5.49e-10	3.92e-10	2.97e-10	2.35e-10	1.61e-10								
19	26	7.52e-12	4.50e-12	3.07e-12	2.26e-12	1.76e-12	1.17e-12								
19	27	7.91e-11	5.17e-11	3.69e-11	2.80e-11	2.21e-11	1.52e-11								
19	28	4.08e-14	2.71e-14	1.94e-14	1.46e-14	1.16e-14	8.89e-15								
19	29	4.34e-14	2.78e-14	1.94e-1											

TABLE IIID. Rate Coefficients for Ne-like Mo ($Z = 42$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	2500.	3500.	I	P	500.	1000.	1500.	2000.	2500.	3500.
22	25	3.42e-12	2.12e-12	1.47e-12	1.09e-12	8.54e-13	5.73e-13	27	31	9.37e-14	6.04e-14	4.26e-14	3.21e-14	2.52e-14	1.71e-14
22	26	3.87e-12	2.42e-12	1.68e-12	1.26e-12	9.84e-13	6.63e-13	27	32	3.90e-14	2.48e-14	1.73e-14	1.29e-14	1.01e-14	6.03e-15
22	27	7.16e-13	4.45e-13	3.09e-13	2.29e-13	1.79e-13	1.20e-13	27	33	7.97e-14	5.33e-14	3.82e-14	2.90e-14	2.29e-14	1.57e-14
22	28	8.10e-14	4.12e-14	2.97e-14	2.26e-14	1.80e-14	1.24e-14	27	34	1.07e-14	8.00e-12	6.00e-12	4.68e-12	3.78e-12	2.67e-12
22	29	3.83e-13	2.67e-13	1.95e-13	1.50e-13	1.20e-13	8.33e-14	27	35	5.53e-11	4.17e-11	3.14e-11	2.45e-11	1.99e-11	1.41e-11
22	30	2.46e-15	1.64e-15	1.13e-15	8.28e-16	6.37e-16	4.19e-16	27	36	7.34e-14	5.18e-14	3.75e-14	2.85e-14	2.26e-14	1.55e-14
22	31	4.72e-15	3.23e-15	2.31e-15	1.75e-15	1.38e-15	9.38e-16	27	37	2.03e-11	2.17e-11	1.65e-11	1.29e-11	1.05e-11	7.45e-12
22	32	1.32e-14	9.48e-15	6.92e-15	5.29e-15	4.21e-15	2.89e-15								
22	33	1.66e-15	1.19e-15	8.74e-16	6.71e-16	5.35e-16	3.70e-16								
22	34	7.50e-12	6.27e-12	4.91e-12	3.93e-12	3.23e-12	2.34e-12	28	29	1.01e-11	5.39e-12	3.53e-12	2.55e-12	1.95e-12	1.28e-12
22	35	8.65e-12	7.25e-12	5.68e-12	4.54e-12	3.74e-12	2.71e-12	28	30	2.25e-10	1.44e-10	1.02e-10	7.72e-11	6.09e-11	4.15e-11
22	36	1.00e-12	8.10e-13	6.18e-13	4.84e-13	3.91e-13	2.74e-13	28	31	4.86e-10	3.12e-10	2.21e-10	1.67e-10	1.32e-10	8.99e-11
22	37	4.21e-11	3.58e-11	2.82e-11	2.27e-11	1.87e-11	1.36e-11	28	32	9.83e-10	6.44e-10	4.80e-10	3.49e-10	2.76e-10	1.89e-10
23	24	9.22e-11	5.94e-11	4.21e-11	3.18e-11	2.51e-11	1.71e-11	28	33	1.66e-10	1.09e-10	7.70e-11	5.89e-11	4.67e-11	3.20e-11
23	25	8.75e-11	4.37e-11	3.10e-11	2.34e-11	1.85e-11	1.27e-11	28	34	2.30e-11	1.63e-11	1.20e-11	9.21e-12	7.36e-12	5.11e-12
23	26	7.62e-10	4.98e-10	3.55e-10	2.69e-10	2.13e-10	1.46e-10	28	35	3.62e-11	2.52e-11	1.90e-11	1.48e-11	1.17e-11	8.10e-12
23	27	1.16e-11	7.49e-12	5.30e-12	4.00e-12	3.16e-12	2.16e-12	28	36	5.35e-11	3.83e-11	2.81e-11	2.17e-11	1.73e-11	1.20e-11
23	28	1.00e-13	6.63e-14	4.71e-14	3.56e-14	2.81e-14	1.91e-14	28	37	5.47e-12	3.74e-12	2.69e-12	2.03e-12	1.61e-12	1.10e-12
23	29	3.88e-14	2.53e-14	1.83e-14	1.40e-14	1.11e-14	7.65e-15	29	30	1.20e-12	7.13e-13	4.60e-13	3.25e-13	2.45e-13	1.57e-13
23	30	5.84e-16	3.89e-16	2.74e-16	2.06e-16	1.61e-16	1.09e-16	29	31	6.05e-10	3.87e-10	2.74e-10	2.06e-10	1.63e-10	1.11e-10
23	31	2.26e-14	1.61e-14	1.18e-14	9.08e-15	7.23e-15	5.01e-15	29	32	5.84e-12	3.34e-12	2.18e-12	1.55e-12	1.17e-12	7.54e-13
23	32	3.20e-11	2.44e-11	1.85e-11	1.45e-11	1.17e-11	8.33e-12	29	33	1.45e-09	9.44e-10	6.72e-10	5.08e-10	4.02e-10	2.75e-10
23	33	3.19e-11	2.45e-11	1.86e-11	1.46e-11	1.18e-11	8.39e-12	29	34	2.45e-12	1.56e-12	1.05e-12	7.57e-13	5.76e-13	3.74e-13
23	34	2.82e-15	2.23e-15	1.69e-15	1.32e-15	1.07e-15	7.52e-16	29	35	9.02e-12	6.75e-12	4.85e-12	3.68e-12	2.91e-12	2.00e-12
23	35	2.58e-15	1.98e-15	1.46e-15	1.13e-15	9.08e-16	6.33e-16	29	36	5.61e-12	3.59e-12	2.42e-12	1.75e-12	1.34e-12	8.67e-13
23	36	1.43e-14	1.14e-14	8.82e-15	6.73e-15	5.43e-15	3.81e-15	29	37	1.03e-10	7.39e-11	5.44e-11	4.19e-11	3.36e-11	2.33e-11
23	37	1.33e-15	1.07e-15	8.21e-16	6.45e-16	5.23e-16	3.70e-16								
24	25	1.60e-11	8.30e-12	5.37e-12	3.84e-12	2.93e-12	1.91e-12	30	31	1.14e-11	5.90e-12	3.89e-12	2.79e-12	2.13e-12	1.39e-12
24	26	4.17e-11	2.19e-11	1.42e-11	1.02e-11	7.78e-12	5.08e-12	30	32	1.10e-10	6.33e-11	4.27e-11	3.14e-11	2.43e-11	1.81e-11
24	27	2.56e-11	1.39e-11	9.20e-12	6.86e-12	5.11e-12	3.36e-12	30	33	9.92e-12	5.32e-12	3.40e-12	2.40e-12	1.80e-12	1.15e-12
24	28	3.43e-14	2.01e-14	1.37e-14	1.01e-14	7.84e-15	5.24e-15	30	34	8.20e-10	5.46e-10	3.92e-10	2.98e-10	2.37e-10	1.63e-10
24	29	1.39e-16	7.79e-16	5.02e-16	3.55e-16	2.67e-16	1.71e-16	30	35	5.30e-12	3.18e-12	2.08e-12	1.48e-12	1.12e-12	7.22e-13
24	30	2.23e-14	1.47e-14	1.04e-14	7.89e-15	6.23e-15	4.25e-15	30	36	9.04e-12	6.45e-12	4.57e-12	3.45e-12	2.72e-12	1.88e-12
24	31	7.63e-14	4.85e-14	3.39e-14	2.54e-14	1.99e-14	1.34e-14	30	37	5.62e-12	3.40e-12	2.25e-12	1.61e-12	1.22e-12	7.88e-13
24	32	2.61e-14	1.65e-14	1.14e-14	8.50e-15	6.84e-15	4.47e-15								
24	33	7.19e-15	4.52e-15	3.05e-15	2.22e-15	1.70e-15	1.11e-15	31	32	6.75e-11	3.84e-11	2.58e-11	1.89e-11	1.48e-11	9.70e-12
24	34	2.85e-11	2.18e-11	1.65e-11	1.29e-11	1.05e-11	7.44e-12	31	33	5.55e-11	3.19e-11	2.16e-11	1.58e-11	1.23e-11	8.15e-12
24	35	2.76e-11	2.11e-11	1.60e-11	1.25e-11	1.02e-11	7.21e-12	31	34	1.50e-10	1.05e-10	7.52e-11	5.72e-11	4.54e-11	3.12e-11
24	36	1.69e-14	1.31e-14	9.09e-15	7.88e-15	6.39e-15	4.55e-15	31	35	5.72e-10	3.81e-10	2.74e-10	2.08e-10	1.65e-10	1.14e-10
24	37	7.97e-12	6.20e-12	4.73e-12	3.72e-12	3.02e-12	2.15e-12	31	36	9.50e-12	5.94e-12	4.13e-12	3.07e-12	2.40e-12	1.62e-12
24	37	8.51e-11	5.74e-11	4.14e-11	3.16e-11	2.51e-11	1.73e-11	31	37	8.51e-11	5.74e-11	4.14e-11	3.16e-11	2.51e-11	1.73e-11
25	26	3.55e-11	1.85e-11	1.20e-11	8.57e-12	6.53e-12	4.26e-12	32	33	2.82e-11	1.51e-11	9.92e-12	7.16e-12	5.49e-12	3.60e-12
25	27	2.09e-11	1.10e-11	7.13e-12	5.12e-12	3.91e-12	2.55e-12	32	34	1.37e-11	8.71e-12	6.14e-12	4.62e-12	3.64e-12	2.48e-12
25	28	3.45e-13	2.18e-13	1.53e-13	1.15e-13	9.06e-14	6.14e-14	32	35	1.39e-10	8.99e-11	6.39e-11	4.83e-11	3.81e-11	2.61e-11
25	29	8.78e-15	4.88e-15	3.13e-15	2.21e-15	1.67e-15	1.07e-15	32	36	7.62e-10	4.97e-10	3.54e-10	2.68e-10	2.12e-10	1.45e-10
25	30	2.64e-15	1.84e-15	1.44e-15	8.48e-16	6.63e-16	4.46e-16	32	37	1.29e-11	8.12e-12	5.68e-12	4.26e-12	3.34e-12	2.27e-12
25	32	5.76e-15	3.76e-15	2.65e-15	1.99e-15	1.57e-15	1.06e-15								
25	33	3.80e-14	2.52e-14	1.80e-14	1.36e-14	1.07e-14	7.30e-15	33	34	6.56e-11	4.21e-11	2.98e-11	2.25e-11	1.78e-11	1.21e-11
25	34	9.98e-15	7.23e-15	5.32e-15	4.10e-15	3.28e-15	2.29e-15	33	35	6.18e-11	3.97e-11	2.81e-11	2.12e-11	1.68e-11	1.14e-11
25	35	2.92e-12	2.21e-12	1.67e-12	1.30e-12	1.06e-12	7.47e-13	33	36	7.70e-12	4.54e-12	3.08e-12	2.26e-12	1.75e-12	1.16e-12
25	36	6.56e-11	5.02e-11	3.80e-11	2.98e-11	2.41e-11	1.71e-11	33	37	7.80e-10	5.11e-10	3.65e-10	2.77e-10	2.19e-10	1.50e-10
26	27	7.64e-12	3.94e-12	2.53e-12	1.81e-12	1.38e-12	8.95e-13	34	35	4.88e-11	2.81e-11	1.71e-11	1.23e-11	9.46e-12	6.20e-12
26	28	3.08e-14	1.74e-14	1.18e-14	8.49e-15	6.55e-15	4.33e-15	34	36	2.00e-11	1.03e-11	6.67e-12	4.77e-12	3.63e-12	2.36e-12
26	29	1.69e-15	1.01e-15	6.94e-16	5.14e-16	4.01e-16	2.69e-16	34	37	2.81e-11	1.47e-11	9.54e-12	6.83e-12	5.21e-12	3.39e-12
26	30	1.59e-15	9.48e-16	6.25e-16	4.47e-16	3.38e-16	2.18e-16								
26	31	2.34e-14	1.40e-14	9.50e-15	6.98e-15	5.41e-15	3.60e-15	35	36	4.35e-11	2.30e-11	1.50e-11	1.08e-11	8.23e-12	5.38e-12
26	32	4.52e-14	2.88e-14	2.01e-14	1.50e-14	1.17e-14	7.92e-15	35	37	1.03e-11	5.34e-12	3.45e-12	2.47e-12	1.88e-12	1.22e-12
26	33	1.90e-14	1.27e-14	9.11e-15	6.91e-15	5.47e-1									

TABLE IIIE. Rate Coefficients for Ne-like Ag ($Z = 47$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	3000.	4000.	I	P	500.	1000.	1500.	2000.	3000.	4000.
1	2	5.01e-15	4.76e-14	8.67e-14	1.07e-13	1.18e-13	1.13e-13	2	37	5.50e-16	6.38e-16	5.51e-16	4.65e-16	3.41e-16	2.65e-16
1	3	3.13e-15	5.05e-14	1.19e-13	1.77e-13	2.51e-13	2.87e-13	3	4	2.04e-11	1.40e-11	1.02e-11	7.84e-12	5.14e-12	3.71e-12
1	4	1.04e-14	8.23e-14	1.40e-13	1.69e-13	1.81e-13	1.73e-13	3	5	2.14e-10	1.47e-10	1.08e-10	8.25e-11	5.42e-11	3.92e-11
1	5	6.88e-15	1.05e-13	2.24e-13	3.02e-13	3.68e-13	3.78e-13	3	6	1.26e-12	7.75e-13	5.32e-13	3.94e-13	2.47e-13	1.73e-13
1	6	2.16e-14	1.66e-13	2.56e-13	2.86e-13	2.81e-13	2.55e-13	3	7	2.09e-10	1.48e-10	1.08e-10	8.31e-11	5.53e-11	4.04e-11
1	7	9.07e-15	7.17e-14	1.21e-13	1.45e-13	1.55e-13	1.48e-13	3	8	1.91e-10	1.34e-10	9.91e-11	7.07e-11	5.10e-11	3.74e-11
1	8	4.87e-15	7.78e-14	1.70e-13	2.32e-13	2.88e-13	3.00e-13	3	9	7.11e-11	5.06e-11	3.75e-11	2.91e-11	1.95e-11	1.44e-11
1	10	9.88e-16	9.00e-15	1.81e-14	2.00e-14	2.20e-14	2.12e-14	3	10	1.09e-12	7.49e-13	5.41e-13	4.12e-13	2.87e-13	1.91e-13
1	11	2.26e-15	4.15e-14	1.00e-13	1.49e-13	2.10e-13	2.38e-13	3	11	3.40e-12	2.39e-12	1.75e-12	1.34e-12	8.83e-13	6.40e-13
1	12	1.27e-14	9.68e-14	1.39e-13	1.46e-13	1.33e-13	1.16e-13	3	12	1.54e-13	1.04e-13	7.37e-14	5.54e-14	3.54e-14	2.51e-14
1	13	3.18e-14	2.41e-13	3.44e-13	3.60e-13	3.24e-13	2.81e-13	3	13	4.40e-13	2.97e-13	2.11e-13	1.59e-13	1.02e-13	7.21e-14
1	14	6.55e-15	1.12e-13	2.46e-13	3.35e-13	4.09e-13	4.19e-13	3	14	1.31e-11	9.75e-12	7.30e-12	5.70e-12	3.83e-12	2.82e-12
1	15	2.91e-14	2.13e-13	2.92e-13	2.95e-13	2.51e-13	2.11e-13	3	15	1.05e-12	1.42e-12	1.05e-12	8.10e-13	5.37e-13	3.91e-13
1	16	4.67e-14	3.45e-13	4.76e-13	4.82e-13	4.14e-13	3.49e-13	3	16	1.32e-12	8.98e-13	6.40e-13	4.83e-13	3.09e-13	2.19e-13
1	17	3.21e-14	2.39e-13	3.31e-13	3.37e-13	2.91e-13	2.46e-13	3	17	1.36e-11	1.03e-11	7.76e-12	6.07e-12	4.10e-12	3.03e-12
1	18	4.34e-15	7.50e-14	1.66e-13	2.28e-13	2.80e-13	2.88e-13	3	18	9.68e-12	7.32e-12	5.51e-12	4.31e-12	2.91e-12	2.15e-12
1	19	1.07e-13	2.08e-12	4.92e-12	7.17e-12	9.70e-12	1.07e-11	3	19	8.61e-12	6.64e-12	5.05e-12	3.97e-12	2.70e-12	2.00e-12
1	20	7.06e-15	6.28e-14	1.02e-13	1.16e-13	1.16e-13	1.07e-13	3	20	8.02e-15	6.21e-15	4.73e-15	3.73e-15	2.55e-15	1.90e-15
1	21	3.01e-14	5.72e-13	1.33e-12	1.88e-12	2.40e-12	2.55e-12	3	21	1.38e-12	1.12e-12	8.69e-13	6.92e-13	4.77e-13	3.57e-13
1	22	6.38e-15	6.00e-14	1.07e-13	1.33e-13	1.46e-13	1.41e-13	3	22	7.09e-14	5.81e-14	4.52e-14	3.60e-14	2.49e-14	1.87e-14
1	23	3.72e-15	7.03e-14	1.81e-13	2.26e-13	2.86e-13	2.98e-13	3	23	2.28e-14	1.87e-14	1.48e-14	1.17e-14	8.09e-15	6.09e-15
1	24	1.77e-14	1.53e-13	2.20e-13	2.27e-13	1.97e-13	1.66e-13	3	24	1.01e-15	8.39e-16	6.43e-16	5.05e-16	3.39e-16	2.48e-16
1	25	2.61e-14	2.31e-13	3.40e-13	3.56e-13	3.16e-13	2.71e-13	3	25	2.10e-15	1.76e-15	1.35e-15	1.06e-15	7.13e-16	5.21e-16
1	26	3.70e-15	6.67e-14	1.80e-13	2.54e-13	3.21e-13	3.35e-13	3	26	1.46e-15	1.24e-15	9.50e-16	7.57e-16	5.14e-16	3.79e-16
1	27	5.34e-14	1.21e-12	3.06e-12	4.50e-12	6.40e-12	7.18e-12	3	27	3.80e-14	3.49e-14	2.83e-14	2.31e-14	1.04e-14	1.25e-14
1	28	4.25e-15	9.98e-14	6.06e-14	6.53e-14	6.05e-14	5.34e-14	3	28	7.86e-12	7.45e-12	6.13e-12	5.06e-12	3.65e-12	2.82e-12
1	29	1.56e-14	3.55e-13	8.77e-13	1.28e-12	1.70e-12	1.84e-12	3	29	1.61e-11	1.56e-11	1.30e-11	1.08e-11	7.82e-12	6.09e-12
1	30	6.45e-16	7.17e-15	1.34e-14	1.70e-14	1.92e-14	1.89e-14	3	30	6.58e-16	6.29e-16	5.08e-16	4.10e-16	2.84e-16	2.11e-16
1	31	1.20e-15	5.08e-14	8.35e-14	1.32e-13	1.96e-13	2.29e-13	3	31	7.37e-16	7.07e-16	5.73e-16	4.04e-16	3.24e-16	2.42e-16
1	32	2.61e-15	3.09e-14	5.95e-14	7.63e-14	8.76e-14	8.65e-14	3	32	1.42e-15	1.42e-15	1.17e-15	9.53e-16	6.67e-16	5.00e-16
1	33	1.83e-15	5.30e-14	1.54e-13	2.55e-13	4.04e-13	4.90e-13	3	33	1.77e-15	1.86e-15	1.58e-15	1.32e-15	9.61e-16	7.44e-16
1	34	5.55e-15	6.53e-14	1.07e-13	1.20e-13	1.15e-13	1.04e-13	3	34	2.36e-15	2.78e-15	2.48e-15	2.15e-15	1.64e-15	1.32e-15
1	35	2.54e-15	6.86e-14	1.77e-13	2.63e-13	3.52e-13	3.79e-13	3	35	4.09e-15	4.84e-15	4.34e-15	3.76e-15	2.89e-15	2.33e-15
1	36	1.29e-14	1.52e-13	2.49e-13	2.77e-13	2.84e-13	2.36e-13	3	36	6.25e-16	7.13e-16	6.20e-16	5.24e-16	3.88e-16	3.01e-16
1	37	9.28e-15	2.74e-13	7.54e-13	1.18e-12	1.71e-12	1.95e-12	3	37	4.39e-15	5.27e-15	4.72e-15	4.09e-15	3.12e-15	2.50e-15
2	3	4.38e-12	2.58e-12	1.76e-12	1.30e-12	8.12e-13	5.67e-13	4	5	6.22e-12	3.71e-12	2.54e-12	1.88e-12	1.18e-12	8.23e-13
2	4	1.42e-10	9.78e-11	7.15e-11	5.50e-11	3.62e-11	2.62e-11	4	6	2.68e-11	1.68e-11	1.18e-11	8.81e-12	5.62e-12	3.98e-12
2	5	1.08e-10	7.18e-11	5.21e-11	3.98e-11	2.80e-11	1.88e-11	4	7	2.50e-12	1.58e-12	1.08e-12	8.01e-13	5.08e-13	3.56e-13
2	6	3.18e-10	2.23e-10	1.65e-10	1.27e-10	8.47e-11	6.20e-11	4	8	8.12e-12	5.07e-12	3.55e-12	2.68e-12	1.69e-12	1.20e-12
2	7	1.36e-11	9.47e-12	6.96e-12	5.37e-12	3.57e-12	2.81e-12	4	9	3.80e-13	2.26e-13	1.54e-13	1.13e-13	7.07e-14	4.94e-14
2	8	1.15e-10	8.11e-14	5.98e-11	4.62e-11	3.08e-11	2.28e-11	4	10	8.39e-13	5.84e-13	4.29e-13	3.31e-13	2.19e-13	1.60e-13
2	9	1.60e-13	1.02e-13	7.07e-14	5.26e-14	3.32e-14	2.34e-14	4	11	2.65e-13	1.77e-13	1.28e-13	9.74e-14	6.35e-14	4.58e-14
2	10	1.03e-12	7.26e-13	5.32e-13	4.10e-13	2.70e-13	1.96e-13	4	12	6.07e-11	4.28e-11	3.16e-11	2.45e-11	1.83e-11	1.20e-11
2	11	3.16e-12	2.22e-12	1.81e-12	1.23e-12	8.08e-13	5.83e-13	4	13	1.31e-10	9.25e-11	6.83e-11	5.30e-11	3.54e-11	2.60e-11
2	12	1.87e-12	3.38e-12	1.03e-12	8.05e-13	5.40e-13	3.97e-13	4	14	1.12e-12	7.07e-12	4.91e-13	3.65e-13	2.31e-13	1.62e-13
2	13	5.76e-12	4.28e-12	3.20e-12	2.50e-12	1.60e-12	1.23e-12	4	15	1.10e-10	7.68e-11	5.00e-11	4.30e-11	2.84e-11	2.07e-11
2	14	6.24e-12	4.03e-12	3.46e-12	2.70e-12	1.81e-12	1.33e-12	4	16	2.61e-12	1.80e-12	1.31e-12	1.01e-12	6.87e-13	4.86e-13
2	15	8.86e-14	6.65e-12	5.00e-12	3.91e-12	2.63e-12	1.94e-12	4	17	3.03e-12	2.07e-12	1.50e-12	1.15e-12	7.49e-13	5.41e-13
2	16	1.72e-11	1.30e-11	9.75e-12	7.63e-12	5.14e-12	3.80e-12	4	18	1.53e-12	1.03e-12	7.36e-13	5.59e-13	3.63e-13	2.61e-13
2	17	1.49e-12	1.08e-12	7.93e-13	6.12e-13	4.05e-13	2.94e-13	4	19	9.02e-12	6.51e-12	4.84e-12	3.76e-12	2.53e-12	1.87e-12
2	18	7.90e-12	5.99e-12	4.52e-12	3.54e-12	2.39e-12	1.76e-12	4	20	3.07e-12	2.16e-12	1.58e-12	1.21e-12	7.99e-13	5.79e-13
2	19	4.15e-13	2.93e-13	2.12e-13	1.61e-13	1.04e-13	7.41e-14	4	21	1.22e-12	8.64e-13	6.30e-13	4.81e-13	3.14e-13	2.25e-13
2	20	2.56e-15	1.96e-15	1.40e-15	1.16e-15	7.85e-16	5.81e-16	4	22	2.67e-14	1.92e-14	1.41e-14	1.08e-14	7.08e-15	5.10e-15
2	21	4.65e-15	3.33e-15	2.41e-15	1.83e-15	1.18e-15	8.43e-16	4	23	5.35e-14	3.96e-14	2.95e-14	2.30e-14	1.53e-14	1.12e-14
2	22	2.46e-14	1.99e-14	1.54e-14	1.23e-14	8.43e-15	6.31e-15	4	24	1.67e-14	1.42e-14	1.12e-14	8.99e-15	6.29e-15	4.76e-15
2	23	4.37e-14	3.62e-14	2.84e-14	2.20e-14	1.59e-14	1.21e-14	4	25	3.19e-14	2.74e-14	2.17e-14	1.75e-14	1.23e-14	9.32e-15
2	24	3.10e-16	2.57e-16	1.97e-16	1										

TABLE IIIE. Rate Coefficients for Ne-like Ag ($Z = 47$)
See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	3000.	4000.	I	P	500.	1000.	1500.	2000.	3000.	4000.
5	6	1.15e-11	7.10e-12	4.94e-12	3.69e-12	2.34e-12	1.66e-12	7	14	1.93e-12	1.20e-12	8.98e-13	6.80e-13	4.41e-13	3.17e-13
5	7	8.97e-12	5.61e-12	3.93e-12	2.94e-12	1.87e-12	1.33e-12	7	15	3.00e-12	2.00e-12	1.44e-12	1.09e-12	7.12e-13	5.13e-13
5	8	1.28e-11	8.00e-12	5.60e-12	4.20e-12	2.68e-12	1.90e-12	7	16	1.53e-12	9.41e-13	6.50e-13	4.82e-13	3.04e-13	2.14e-13
5	9	2.82e-12	1.82e-12	1.29e-12	9.74e-13	6.27e-13	4.48e-13	7	17	2.44e-12	1.70e-10	1.25e-10	9.66e-11	6.41e-11	4.87e-11
5	10	1.34e-15	8.40e-16	5.85e-16	4.36e-16	2.76e-16	1.94e-16	7	18	1.63e-12	1.03e-12	7.24e-13	5.42e-13	3.46e-13	2.40e-13
5	11	5.00e-14	3.44e-14	2.52e-14	1.94e-14	1.28e-14	9.31e-15	7	19	7.91e-11	5.57e-11	4.11e-11	3.18e-11	2.12e-11	1.55e-11
5	12	1.58e-13	9.74e-14	6.73e-14	4.99e-14	3.14e-14	2.21e-14	7	20	3.73e-14	2.48e-14	1.77e-14	1.34e-14	8.64e-15	6.17e-15
5	13	1.57e-11	1.10e-11	8.14e-12	6.30e-12	4.20e-12	3.08e-12	7	21	5.41e-14	3.58e-14	2.54e-14	1.91e-14	1.22e-14	8.87e-15
5	14	2.20e-10	1.56e-10	1.15e-10	8.95e-11	5.98e-11	4.40e-11	7	22	1.49e-12	1.04e-12	7.51e-13	5.72e-13	3.72e-13	2.87e-13
5	15	7.42e-11	5.25e-11	3.88e-11	3.01e-11	2.01e-11	1.48e-11	7	23	2.52e-12	1.78e-12	1.30e-12	1.00e-12	6.61e-13	4.79e-13
5	16	2.16e-12	1.41e-12	1.00e-12	7.53e-13	4.84e-13	3.46e-13	7	24	2.12e-15	1.58e-15	1.15e-15	8.85e-16	5.81e-16	4.20e-16
5	17	8.02e-12	5.84e-12	4.36e-12	3.39e-12	2.28e-12	1.68e-12	7	25	3.14e-14	2.53e-14	1.96e-14	1.55e-14	1.07e-14	7.89e-15
5	18	1.90e-12	1.29e-12	9.32e-13	7.11e-13	4.64e-13	3.35e-13	7	26	2.90e-15	2.16e-15	1.59e-15	1.23e-15	8.11e-16	5.88e-16
5	19	1.98e-12	1.44e-12	1.07e-12	8.38e-13	5.62e-13	4.14e-13	7	27	6.41e-13	5.25e-13	4.09e-13	3.28e-13	2.28e-13	1.72e-13
5	20	2.95e-12	2.08e-12	1.50e-12	1.14e-12	7.47e-13	5.38e-13	7	28	1.17e-14	9.40e-15	7.20e-15	5.67e-15	3.83e-15	2.83e-15
5	21	1.30e-12	9.42e-13	6.98e-13	5.40e-13	3.59e-13	2.62e-13	7	29	6.65e-15	5.23e-15	3.94e-15	3.07e-15	2.04e-15	1.40e-15
5	22	8.32e-16	6.13e-15	4.56e-15	3.54e-15	2.35e-15	1.72e-15	7	30	2.02e-13	1.84e-13	1.49e-13	1.22e-13	8.68e-14	6.66e-14
5	23	8.06e-17	5.87e-17	4.33e-17	3.33e-17	2.20e-17	1.59e-17	7	31	3.25e-14	2.94e-14	2.37e-14	1.93e-14	1.36e-14	1.03e-14
5	24	1.73e-14	1.46e-14	1.15e-14	9.25e-15	6.45e-15	4.87e-15	7	32	5.42e-12	5.17e-12	4.26e-12	3.52e-12	2.54e-12	1.97e-12
5	25	2.43e-14	2.08e-14	1.65e-14	1.33e-14	9.29e-15	7.04e-15	7	33	1.79e-11	1.72e-11	1.42e-11	1.18e-11	8.54e-12	6.84e-12
5	26	4.20e-15	3.54e-15	2.78e-15	2.23e-15	1.58e-15	1.18e-15	7	34	8.15e-15	8.53e-15	7.28e-15	6.09e-15	4.48e-15	3.50e-15
5	27	6.57e-14	5.59e-14	4.40e-14	3.54e-14	2.47e-14	1.87e-14	7	35	6.68e-16	8.00e-16	5.91e-16	4.95e-16	3.82e-15	2.83e-15
5	28	1.17e-14	1.01e-14	7.97e-14	6.40e-14	4.46e-14	3.36e-15	7	36	1.33e-14	1.39e-14	1.19e-14	9.97e-15	7.33e-15	5.73e-15
5	29	8.88e-15	8.07e-15	4.85e-15	3.92e-15	2.76e-15	2.09e-15	7	37	4.34e-15	4.54e-15	3.85e-15	3.22e-15	2.35e-15	1.82e-15
5	31	2.18e-11	2.08e-11	1.72e-11	1.42e-11	1.03e-11	7.97e-12								
5	32	9.83e-16	9.40e-16	7.88e-16	6.28e-16	4.46e-16	3.40e-16	8	9	5.55e-12	3.45e-12	2.40e-12	1.80e-12	1.14e-12	8.05e-13
5	33	4.92e-14	4.95e-14	4.17e-14	3.49e-14	2.56e-14	2.01e-14	8	10	5.28e-16	3.02e-16	2.03e-16	1.48e-16	9.17e-17	8.38e-17
5	34	6.38e-16	6.51e-16	5.39e-16	4.41e-16	3.11e-16	2.35e-16	8	11	2.98e-13	1.93e-13	1.38e-13	1.04e-13	6.71e-14	4.79e-14
5	35	1.72e-16	1.84e-16	1.57e-16	1.32e-16	9.63e-17	7.49e-17	8	12	1.20e-13	7.08e-14	4.80e-14	3.52e-14	2.19e-14	1.53e-14
5	36	5.48e-16	5.59e-16	4.63e-16	3.80e-16	2.70e-16	2.05e-16	8	13	1.68e-11	1.16e-11	8.48e-12	6.52e-12	4.30e-12	3.12e-12
5	37	3.53e-16	3.70e-16	3.10e-16	2.57e-16	1.86e-16	1.43e-16	8	14	7.26e-12	4.78e-12	3.42e-12	2.59e-12	1.88e-12	
6	7	2.89e-12	1.75e-12	1.20e-12	8.92e-13	5.60e-13	3.92e-13	8	15	1.79e-11	1.21e-11	7.85e-13	5.87e-13	3.74e-13	2.86e-13
6	8	7.93e-12	4.76e-12	3.27e-12	2.42e-12	1.52e-12	1.08e-12	8	16	5.31e-11	3.69e-11	2.70e-11	2.08e-11	1.38e-11	1.00e-11
6	9	1.06e-12	6.35e-13	4.34e-13	3.21e-13	2.01e-13	1.41e-13	8	17	2.36e-10	1.64e-10	1.21e-10	9.31e-11	6.17e-11	4.50e-11
6	10	1.34e-15	8.54e-16	6.03e-16	4.54e-16	2.92e-16	2.08e-16	8	18	5.20e-16	3.02e-16	2.03e-16	1.48e-16	9.17e-17	8.30e-17
6	11	5.05e-15	3.05e-15	2.10e-15	1.56e-15	9.80e-16	6.90e-16	8	19	1.71e-12	1.16e-12	8.35e-13	6.37e-13	4.17e-13	
6	12	3.24e-13	2.12e-13	1.51e-13	1.15e-13	7.44e-14	5.35e-14	8	20	4.81e-15	3.20e-15	2.28e-15	1.73e-15	1.12e-15	8.02e-16
6	13	9.08e-13	5.86e-13	4.27e-13	3.24e-13	2.11e-13	1.51e-13	8	21	1.02e-13	1.27e-13	9.25e-14	7.11e-14	4.68e-14	3.40e-14
6	14	3.07e-11	2.12e-11	1.55e-11	1.19e-11	7.87e-12	5.72e-12	8	22	1.55e-12	1.07e-12	7.79e-13	5.96e-13	3.89e-13	2.80e-13
6	15	1.06e-11	7.29e-12	5.33e-12	4.10e-12	2.71e-12	1.97e-12	8	23	2.50e-12	1.75e-12	1.27e-12	9.74e-13	6.38e-13	4.61e-13
6	16	2.68e-10	1.87e-10	1.37e-10	1.06e-10	7.01e-11	5.11e-11	8	24	3.78e-15	2.99e-15	2.30e-15	1.81e-15	1.24e-15	9.24e-16
6	17	1.80e-12	1.03e-12	7.30e-13	5.50e-13	3.53e-13	2.52e-13	8	25	1.58e-14	1.27e-14	9.82e-15	7.79e-15	5.34e-15	3.99e-15
6	18	4.09e-11	2.85e-11	2.09e-11	1.62e-11	1.07e-11	7.82e-12	8	26	5.04e-15	4.08e-15	3.13e-15	2.49e-15	1.71e-15	1.28e-15
6	19	4.74e-13	2.95e-13	2.04e-13	1.51e-13	9.51e-14	6.68e-14	8	27	2.35e-14	1.89e-14	1.48e-14	1.16e-14	8.73e-15	5.93e-15
6	20	2.76e-15	1.87e-15	1.35e-15	1.03e-15	6.72e-16	4.84e-16	8	28	1.02e-15	8.07e-16	6.07e-15	4.74e-15	3.17e-15	2.32e-15
6	21	3.70e-14	2.46e-14	1.75e-14	1.32e-14	8.44e-15	6.00e-15	8	29	5.62e-15	4.72e-15	3.70e-15	2.96e-15	2.06e-15	1.55e-15
6	22	1.21e-12	8.51e-13	6.22e-13	4.77e-13	3.14e-13	2.28e-13	8	30	1.22e-15	9.70e-17	7.28e-17	5.61e-17	3.89e-17	2.86e-17
6	23	2.53e-12	1.77e-12	1.29e-12	9.84e-13	6.42e-13	4.62e-13	8	31	5.02e-14	4.56e-14	3.72e-14	3.05e-14	2.19e-14	1.68e-14
6	24	3.86e-15	2.92e-15	2.24e-15	1.78e-15	1.22e-15	9.07e-16	8	32	1.20e-11	1.14e-11	9.36e-12	7.72e-12	5.58e-12	4.32e-12
6	25	1.23e-14	9.81e-15	7.55e-15	5.98e-15	4.11e-15	3.07e-15	8	33	1.10e-11	1.05e-11	8.66e-12	7.15e-12	5.18e-12	4.02e-12
6	26	3.73e-14	3.05e-14	2.37e-14	1.89e-14	1.31e-14	9.80e-15	8	34	2.90e-16	2.83e-16	2.31e-16	1.89e-16	1.33e-16	1.00e-16
6	27	4.52e-15	3.35e-15	2.46e-15	1.90e-15	1.24e-15	8.99e-16	8	35	9.31e-16	9.48e-16	7.91e-16	6.55e-16	4.73e-16	3.61e-16
6	28	2.89e-14	2.39e-14	1.87e-14	1.49e-14	1.03e-14	7.78e-15	8	36	1.37e-15	1.39e-15	1.16e-15	9.50e-16	6.80e-16	5.27e-16
6	29	8.47e-16	6.62e-16	4.97e-16	3.85e-16	2.55e-16	1.85e-16	8	37	6.90e-16	7.12e-16	5.98e-16	4.96e-16	3.58e-16	2.76e-16
6	30	2.05e-16	1.73e-16	1.35e-16	1.07e-16	7.38e-17	5.49e-17	9	10	8.07e-15	4.90e-15	3.27e-15	2.38e-15	1.47e-15	1.02e-15
6	31	1.33e-15	1.14e-15	8.89e-16	7.06e-16	4.81e-16	3.56e-16	9	11	1.02e-12	0.54e-13	4.62e-13	3.47e-13	2.22e-13	1.57e-13
6	32	2.16e-11	2.06e-11	1.71e-11	1.41e-11	1.02e-11	7.93e-12	9	12	4.					

TABLE IIIE. Rate Coefficients for Ne-like Ag ($Z = 47$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	3000.	4000.	I	P	500.	1000.	1500.	2000.	3000.	4000.
9	26	1.29e-13	9.82e-14	7.41e-14	5.81e-14	3.94e-14	2.92e-14	12	16	2.33e-12	1.33e-12	8.94e-13	6.53e-13	4.05e-13	2.82e-13
9	27	3.14e-12	2.47e-12	1.09e-12	1.49e-12	1.02e-12	7.61e-13	12	17	3.08e-12	1.76e-12	1.19e-12	8.72e-13	5.41e-13	3.77e-13
9	28	4.76e-14	3.60e-14	2.08e-14	1.37e-14	9.91e-15		12	18	1.91e-12	1.07e-12	7.07e-13	5.13e-13	3.15e-13	2.18e-13
9	29	3.40e-15	2.73e-15	2.10e-15	1.66e-15	1.13e-15	8.43e-16	12	19	3.17e-12	1.84e-12	1.24e-12	9.11e-13	5.65e-13	3.94e-13
9	30	1.01e-14	8.37e-15	6.45e-15	5.09e-15	3.43e-15	2.52e-15	12	20	7.46e-13	4.83e-13	3.43e-13	2.60e-13	1.67e-13	1.19e-13
9	31	2.77e-12	2.44e-12	1.98e-12	1.59e-12	1.12e-12	8.58e-13	12	21	1.16e-14	0.89e-15	4.69e-15	3.45e-15	2.15e-15	1.50e-15
9	32	5.13e-13	4.50e-13	3.54e-13	2.83e-13	1.93e-13	1.43e-13	12	22	3.12e-12	2.07e-12	1.48e-12	1.13e-12	7.34e-13	5.28e-13
9	33	1.72e-11	1.59e-11	1.30e-11	1.07e-11	7.65e-12	5.90e-12	12	23	8.74e-15	5.25e-15	3.58e-15	2.84e-15	1.85e-15	1.15e-15
9	34	3.35e-16	3.07e-16	2.43e-16	1.94e-16	1.32e-16	9.74e-17	12	24	1.82e-12	1.28e-12	9.38e-13	7.20e-13	4.74e-13	3.43e-13
9	35	1.00e-14	1.01e-14	8.43e-15	7.01e-15	5.09e-15	3.95e-15	12	25	2.57e-13	1.89e-13	1.41e-13	1.09e-13	7.33e-14	5.38e-14
9	36	3.05e-15	2.84e-15	2.26e-15	1.81e-15	1.24e-15	9.15e-16	12	26	1.06e-14	7.12e-15	5.05e-15	3.80e-15	2.43e-15	1.72e-15
9	37	2.85e-14	2.95e-14	2.50e-14	2.10e-14	1.54e-14	1.21e-14	12	27	1.83e-12	1.29e-12	9.38e-13	7.17e-13	4.67e-13	3.35e-13
10	11	3.69e-12	2.16e-12	1.47e-12	1.08e-12	6.73e-13	4.89e-13	12	28	1.15e-13	8.69e-14	6.56e-14	5.14e-14	3.48e-14	2.58e-14
10	12	0.	0.	0.	0.	0.		12	29	2.57e-15	1.84e-15	1.34e-15	1.03e-15	6.69e-16	4.80e-16
10	13	2.42e-14	1.43e-14	9.72e-15	7.15e-15	4.46e-15	3.11e-15	12	30	0.	0.	0.	0.	0.	0.
10	14	2.18e-14	1.29e-14	8.81e-15	6.50e-15	4.06e-15	2.84e-15	12	31	5.59e-15	4.37e-15	3.29e-15	2.56e-15	1.71e-15	1.24e-15
10	15	2.93e-13	1.84e-13	1.29e-13	9.71e-14	6.20e-14	4.40e-14	12	32	5.86e-15	4.99e-15	3.92e-15	3.14e-15	2.18e-15	1.64e-15
10	16	9.87e-15	5.76e-15	3.90e-15	2.87e-15	1.79e-15	1.25e-15	12	33	9.96e-16	7.91e-16	5.96e-16	4.84e-16	3.07e-16	2.23e-16
10	17	3.37e-14	2.04e-14	1.41e-14	1.04e-14	6.58e-15	4.83e-15	12	34	2.68e-11	2.57e-11	2.13e-11	1.77e-11	1.28e-11	9.97e-12
10	18	6.83e-15	5.04e-15	3.37e-15	2.46e-15	1.52e-15	1.05e-15	12	35	4.37e-13	4.00e-13	3.20e-13	2.57e-13	1.78e-13	1.32e-13
10	19	2.37e-14	1.46e-14	1.02e-14	7.56e-15	4.77e-15	3.38e-15	12	36	2.77e-15	2.54e-15	2.05e-15	1.68e-15	1.17e-15	8.91e-16
10	20	2.40e-10	1.68e-10	1.21e-10	9.29e-11	6.11e-11	4.42e-11	13	14	8.97e-12	5.36e-12	3.68e-12	2.72e-12	1.70e-12	1.19e-12
10	21	3.39e-13	2.05e-13	1.40e-13	1.04e-13	6.48e-14	4.54e-14	13	15	4.70e-12	2.77e-12	1.89e-12	1.40e-12	8.71e-13	6.09e-13
10	22	4.72e-10	3.32e-10	2.44e-10	1.89e-10	1.26e-10	9.21e-11	13	16	2.43e-12	1.38e-12	9.29e-13	6.79e-13	4.20e-13	2.92e-13
10	23	1.77e-12	1.09e-12	7.52e-13	5.57e-13	3.50e-13	2.45e-13	13	17	3.91e-12	2.27e-12	1.53e-12	1.12e-12	6.99e-13	4.87e-13
10	24	1.94e-11	1.45e-11	1.09e-11	8.51e-12	5.72e-12	4.22e-12	13	18	6.87e-12	4.16e-12	2.87e-12	2.13e-12	1.34e-12	9.43e-13
10	25	2.75e-11	2.08e-11	1.57e-11	1.23e-11	8.32e-12	6.15e-12	13	19	2.41e-12	1.44e-12	9.85e-13	7.28e-13	4.56e-13	3.20e-13
10	26	1.96e-12	1.35e-12	9.86e-13	7.30e-13	4.68e-13	3.33e-13	13	20	1.91e-13	1.23e-13	8.76e-14	6.61e-14	4.24e-14	3.02e-14
10	27	8.34e-13	5.76e-13	4.13e-13	3.12e-13	2.00e-13	1.42e-13	13	21	3.29e-13	2.25e-13	1.64e-13	1.26e-13	8.24e-14	5.95e-14
10	28	2.39e-11	1.88e-11	1.44e-11	1.14e-11	7.83e-12	5.87e-12	13	22	4.00e-13	2.65e-13	1.90e-13	1.45e-13	9.40e-14	6.76e-14
10	29	2.69e-13	2.07e-13	1.55e-13	1.21e-13	8.05e-14	5.86e-14	13	23	8.99e-13	5.96e-13	4.28e-13	3.26e-13	2.12e-13	1.52e-13
10	30	0.	0.	0.	0.	0.		13	24	2.01e-12	1.42e-12	1.04e-12	7.97e-13	5.25e-13	3.80e-13
10	31	9.05e-15	7.20e-15	5.45e-15	4.25e-15	2.84e-15	2.06e-15	13	25	2.23e-13	1.57e-13	1.15e-13	8.77e-14	5.74e-14	4.13e-14
10	32	2.01e-15	1.64e-15	1.25e-15	9.84e-16	6.63e-16	4.88e-16	13	26	1.45e-13	1.02e-13	7.49e-14	5.75e-14	3.78e-14	2.73e-14
10	33	1.95e-15	1.62e-15	1.24e-15	9.73e-16	6.52e-16	4.76e-16	13	27	1.69e-12	1.20e-12	8.78e-13	6.71e-13	4.30e-13	3.17e-13
10	34	2.16e-13	2.16e-13	1.81e-13	1.52e-13	1.11e-13	8.74e-14	13	28	6.75e-14	5.09e-14	3.85e-14	3.02e-14	2.08e-14	1.53e-14
10	35	3.26e-15	2.99e-15	2.38e-15	1.91e-15	1.31e-15	9.69e-16	13	29	3.72e-14	2.86e-14	2.17e-14	1.70e-14	1.15e-14	8.58e-15
10	36	5.07e-15	4.91e-15	4.05e-15	3.33e-15	2.40e-15	1.65e-15	13	30	8.01e-16	6.02e-16	4.45e-16	3.42e-16	2.24e-16	1.62e-16
10	37	1.40e-15	1.26e-15	9.91e-16	7.87e-16	5.32e-16	3.90e-16	13	31	1.16e-14	9.27e-15	7.09e-15	5.59e-15	3.79e-15	2.80e-15
11	12	7.33e-15	4.31e-15	2.93e-15	2.16e-15	1.35e-15	9.40e-16	14	15	2.84e-15	2.36e-15	1.83e-15	1.45e-15	9.95e-16	7.40e-16
11	13	6.10e-14	3.76e-14	2.82e-14	1.95e-14	1.24e-14	8.74e-15	14	16	4.25e-15	3.58e-15	2.80e-15	2.24e-15	1.64e-15	1.16e-15
11	14	1.91e-14	1.13e-14	7.71e-15	5.69e-15	3.57e-15	2.50e-15	14	17	1.78e-11	1.71e-11	1.41e-11	1.17e-11	8.45e-12	6.57e-12
11	15	2.92e-14	1.73e-14	1.16e-14	8.69e-15	5.43e-15	3.80e-15	14	18	7.63e-12	7.33e-12	6.00e-12	5.02e-12	3.84e-12	2.82e-12
11	16	3.96e-14	2.34e-14	1.60e-14	1.18e-14	7.34e-15	5.13e-15	14	19	1.45e-12	1.34e-12	9.13e-13	7.31e-13	5.92e-13	4.13e-13
11	17	1.55e-13	9.93e-14	6.96e-14	5.21e-14	3.32e-14	2.30e-14	14	20	1.05e-15	6.17e-16	4.19e-16	3.08e-16	1.92e-16	1.34e-16
11	18	1.07e-13	6.75e-14	4.74e-14	3.56e-14	2.27e-14	1.61e-14	14	21	1.08e-14	6.80e-15	4.78e-15	3.59e-15	2.30e-15	1.63e-15
11	19	7.03e-14	4.48e-14	3.16e-14	2.37e-14	1.52e-14	1.08e-14	14	22	1.48e-15	8.99e-16	6.18e-16	4.58e-16	3.08e-16	2.02e-16
11	20	1.69e-10	1.16e-10	8.51e-11	6.53e-11	4.29e-11	3.10e-11	14	23	1.81e-14	1.20e-14	8.56e-15	6.52e-15	4.23e-15	3.04e-15
11	21	7.48e-11	5.21e-11	3.82e-11	2.95e-11	1.95e-11	1.42e-11	14	24	2.30e-12	4.73e-12	3.20e-12	2.35e-12	1.46e-12	1.02e-12
11	22	8.46e-11	5.92e-11	4.36e-11	3.37e-11	2.24e-11	1.64e-11	14	25	3.95e-12	2.31e-12	1.57e-12	1.15e-12	7.20e-13	5.03e-13
11	23	3.74e-10	2.63e-10	1.94e-10	1.50e-10	9.90e-11	7.29e-11	14	26	1.25e-12	7.37e-13	5.02e-13	3.71e-13	2.32e-13	1.62e-13
11	24	1.02e-11	7.57e-12	5.66e-12	4.41e-12	2.95e-12	2.17e-12	14	27	1.05e-15	6.17e-16	4.19e-16	3.08e-16	1.92e-16	1.34e-16
11	25	7.21e-12	5.38e-12	4.03e-12	3.14e-12	2.10e-12	1.55e-12	14	28	1.08e-14	6.80e-15	4.78e-15	3.59e-15	2.30e-15	1.63e-15
11	26	2.29e-11	1.73e-11	1.30e-11	1.02e-11	6.88e-12	5.08e-12	14	29	2.07e-15	1.48e-15	1.09e-15	8.43e-16	5.59e-16	4.08e-16
11	27	9.51e-12	7.18e-12	5.41e-12	4.23e-12	2.85e-12	2.10e-12	14	30	2.52e-12	1.76e-12	1.20e-12	9.77e-13	6.38e-13	4.59e-13
11	28	1.70e-11	1.33e-11	1.02e-11	8.06e-12	5.53e-12	4.15e-12	14	31	6.30e-15	4.22e-15	3.00e-15	2.27e-15	1.46e-15	1.04e-15
11	29	1.37e-11	1.10e-11	8.48e-12											

TABLE IIIE. Rate Coefficients for Ne-like Ag ($Z = 47$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	F	500.	1000.	1500.	2000.	3000.	4000.	I	F	500.	1000.	1500.	2000.	3000.	4000.
15	16	5.26e-12	3.10e-12	2.11e-12	1.56e-12	9.71e-13	6.79e-13	18	24	2.12e-15	1.40e-15	9.88e-16	7.43e-16	4.76e-16	3.38e-16
15	17	3.19e-12	1.86e-12	1.26e-12	9.30e-13	5.79e-13	4.04e-13	18	25	1.61e-12	1.12e-12	8.13e-13	6.21e-13	4.06e-13	2.92e-13
15	18	5.12e-12	2.99e-12	2.03e-12	1.49e-12	9.31e-13	6.50e-13	18	26	2.33e-12	1.62e-12	1.18e-12	9.05e-13	5.92e-13	4.28e-13
15	19	1.84e-12	1.06e-12	7.18e-13	5.24e-13	3.25e-13	2.27e-13	18	27	2.97e-14	2.08e-14	1.50e-14	1.15e-14	7.51e-15	5.44e-15
15	20	4.94e-14	3.13e-14	2.20e-14	1.66e-14	1.06e-14	7.52e-15	18	28	8.45e-16	5.57e-16	3.91e-16	2.93e-16	1.86e-16	1.31e-16
15	21	8.66e-15	5.07e-15	3.42e-15	2.51e-15	1.56e-15	1.09e-15	18	29	1.24e-16	9.17e-17	6.86e-17	5.35e-17	3.81e-17	2.67e-17
15	22	1.60e-14	1.05e-14	7.51e-15	5.69e-15	3.68e-15	2.64e-15	18	30	3.70e-16	2.59e-16	1.86e-16	1.40e-16	8.98e-17	6.37e-17
15	23	2.80e-14	1.84e-14	1.32e-14	9.98e-15	6.47e-15	4.84e-15	18	31	7.51e-16	5.37e-16	3.90e-16	2.97e-16	1.93e-16	1.38e-16
15	24	2.25e-12	1.57e-12	1.15e-12	8.78e-13	5.75e-13	4.15e-13	18	32	3.45e-15	2.74e-15	2.08e-15	1.63e-15	1.09e-15	7.98e-16
15	25	1.67e-13	1.17e-13	8.51e-14	4.25e-14	3.08e-14		18	33	2.99e-15	2.43e-15	1.87e-15	1.48e-15	1.01e-15	7.55e-16
15	26	2.04e-13	1.45e-13	1.06e-13	8.15e-14	5.37e-14	3.90e-14	18	34	1.80e-16	1.61e-16	1.27e-16	1.02e-16	8.98e-17	5.17e-17
15	27	1.51e-12	1.07e-12	7.79e-13	5.97e-13	3.91e-13	2.82e-13	18	35	1.19e-12	1.11e-12	9.11e-13	7.50e-13	5.40e-13	4.18e-13
15	28	8.12e-15	6.03e-15	4.52e-15	3.52e-15	2.37e-15	1.74e-15	18	36	1.36e-11	1.28e-11	1.06e-11	8.71e-12	6.29e-12	4.87e-12
15	29	3.57e-18	2.43e-18	1.73e-16	1.30e-16	8.34e-17	5.91e-17	18	37	8.33e-12	7.96e-12	6.57e-12	5.43e-12	3.93e-12	3.05e-12
15	30	2.55e-15	2.07e-15	1.80e-15	1.27e-15	8.79e-16	6.80e-16								
15	31	6.38e-15	4.90e-15	3.86e-15	2.85e-15	1.69e-15	1.38e-15								
15	32	2.31e-15	1.90e-15	1.47e-15	1.16e-15	7.97e-16	5.93e-16								
15	33	2.24e-15	1.83e-15	1.41e-15	1.11e-15	7.58e-16	5.82e-16								
15	34	1.10e-11	1.04e-11	6.80e-12	7.10e-12	5.13e-12	3.98e-12								
15	35	1.27e-11	1.20e-11	9.92e-12	8.19e-12	5.93e-12	4.60e-12								
15	36	8.05e-13	7.72e-13	6.38e-13	5.28e-13	3.83e-13	2.97e-13								
15	37	9.72e-14	9.01e-14	7.25e-14	5.85e-14	4.07e-14	3.05e-14								
16	17	3.01e-12	1.75e-12	1.18e-12	8.70e-13	5.41e-13	3.77e-13	19	20	1.23e-13	7.62e-14	5.32e-14	3.96e-14	2.51e-14	1.76e-14
16	18	6.28e-12	3.69e-12	2.51e-12	1.84e-12	1.15e-12	8.02e-13	19	21	2.14e-13	1.42e-13	1.02e-13	7.69e-14	4.95e-14	3.52e-14
16	19	1.97e-12	1.15e-12	7.80e-13	5.73e-13	3.56e-13	2.49e-13	19	22	1.41e-13	9.28e-14	6.65e-14	5.04e-14	3.20e-14	2.33e-14
16	20	4.30e-16	2.56e-16	1.74e-16	1.28e-16	7.98e-17	5.56e-17	19	23	2.14e-12	1.38e-12	9.82e-13	7.42e-13	4.77e-13	3.41e-13
16	21	7.54e-15	4.41e-15	2.98e-15	2.18e-15	1.36e-15	9.45e-16	19	24	4.05e-13	2.73e-13	1.96e-13	1.49e-13	9.65e-14	8.93e-14
16	22	1.77e-15	1.13e-15	8.01e-16	6.04e-16	3.89e-16	2.78e-16	19	25	1.38e-12	9.37e-13	6.74e-13	5.13e-13	3.32e-13	2.38e-13
16	23	5.80e-16	3.84e-16	2.54e-16	1.90e-16	1.21e-16	8.53e-17	19	26	1.35e-12	9.26e-13	6.70e-13	5.11e-13	3.34e-13	2.41e-13
16	24	9.48e-16	6.13e-16	4.29e-16	3.21e-16	2.04e-16	1.44e-16	19	27	2.14e-11	1.46e-13	7.94e-14	5.14e-14	3.67e-14	
16	25	1.45e-12	1.03e-12	7.51e-13	5.77e-13	3.80e-13	2.70e-13	19	28	6.82e-14	4.81e-14	3.58e-14	2.79e-14	1.88e-14	1.39e-14
16	26	2.40e-12	1.68e-12	1.22e-12	9.32e-13	6.08e-13	4.38e-13	19	29	5.07e-14	3.76e-14	2.82e-14	2.21e-14	1.50e-14	1.11e-14
16	27	1.75e-14	1.17e-14	8.30e-15	6.30e-15	4.04e-15	2.87e-15	19	30	6.90e-16	4.92e-16	3.58e-16	2.71e-16	1.75e-16	1.25e-16
16	28	2.51e-15	1.82e-15	1.35e-15	1.04e-15	6.98e-16	5.11e-16	19	31	1.74e-15	1.28e-15	9.44e-16	7.20e-16	4.77e-16	3.44e-16
16	29	1.55e-16	1.08e-16	7.55e-17	5.69e-17	3.84e-17	2.59e-17	19	32	3.09e-15	2.41e-15	1.81e-15	1.41e-15	9.38e-16	8.82e-16
16	30	3.68e-18	2.71e-18	1.99e-18	1.54e-18	1.02e-18	7.42e-17	19	33	3.72e-16	2.92e-16	2.21e-16	1.73e-16	1.17e-16	8.61e-17
16	31	8.76e-18	6.39e-18	4.87e-18	3.58e-18	2.34e-18	1.69e-18	19	34	2.63e-12	2.41e-12	1.98e-12	1.61e-12	1.15e-12	8.89e-13
16	32	2.00e-14	1.89e-14	1.32e-14	1.06e-14	7.37e-15	5.56e-15	19	35	2.61e-12	1.85e-12	1.37e-10	1.06e-10	7.09e-11	5.21e-11
16	33	1.68e-15	1.31e-15	9.80e-16	7.60e-16	5.03e-16	3.64e-16	19	36	2.60e-12	1.77e-12	1.28e-12	0.77e-13	6.44e-13	
16	34	1.79e-17	1.54e-17	1.20e-17	9.55e-18	6.50e-18	4.80e-18	19	37	3.41e-12	2.27e-12	1.62e-12	1.22e-12	7.92e-13	5.68e-13
16	35	4.76e-14	4.29e-14	3.41e-14	2.73e-14	1.88e-14	1.39e-14	19	38	5.95e-11	4.25e-11	3.15e-11	2.45e-11	1.64e-11	1.21e-11
16	36	2.12e-11	2.02e-11	1.67e-11	1.38e-11	9.99e-12	7.75e-12	19	39	6.92e-14	4.92e-14	3.61e-14	2.79e-14	1.84e-14	1.34e-14
16	37	2.94e-13	2.70e-13	2.10e-13	1.74e-13	1.20e-13	8.92e-14	19	40	4.95e-15	3.40e-15	2.44e-15	1.85e-15	1.19e-15	8.52e-16
17	18	8.66e-12	5.12e-12	3.50e-12	2.58e-12	1.61e-12	1.13e-12	20	21	2.10e-12	1.30e-12	8.66e-13	6.54e-13	4.09e-13	2.86e-13
17	19	9.71e-12	5.95e-12	4.12e-12	3.07e-12	1.94e-12	1.37e-12	20	22	1.70e-11	1.11e-11	7.79e-12	5.84e-12	3.72e-12	2.64e-12
17	20	2.76e-15	1.65e-15	1.13e-15	8.36e-16	5.24e-16	3.68e-16	20	23	1.92e-11	1.20e-11	8.38e-12	6.27e-12	3.90e-12	2.82e-12
17	21	1.05e-14	6.11e-15	4.12e-15	3.02e-15	1.87e-15	1.30e-15	20	24	2.61e-12	1.85e-12	1.37e-10	1.06e-10	7.09e-11	5.21e-11
17	22	3.78e-15	2.40e-15	1.69e-15	1.27e-15	8.17e-16	5.82e-16	20	25	2.60e-12	1.77e-12	1.28e-12	0.77e-13	6.44e-13	
17	23	5.59e-14	3.68e-14	2.62e-14	1.98e-14	1.28e-14	9.21e-15	20	26	3.21e-12	1.85e-12	1.25e-12	9.12e-13	5.66e-13	3.94e-13
17	24	1.86e-13	1.28e-13	9.30e-14	7.10e-14	4.63e-14	3.33e-14	20	27	1.72e-14	1.41e-14	1.10e-14	8.80e-15	6.12e-15	4.62e-15
17	25	1.57e-12	1.09e-12	7.92e-13	6.05e-13	3.94e-13	2.83e-13	21	22	3.21e-12	1.85e-12	1.25e-12	9.12e-13	5.66e-13	3.94e-13
17	26	2.15e-12	1.52e-12	1.11e-12	8.51e-13	5.60e-13	4.06e-13	21	23	3.53e-11	2.18e-11	1.52e-11	1.13e-11	7.17e-12	5.05e-12
17	27	2.21e-13	1.57e-13	1.15e-13	8.85e-14	5.84e-14	4.25e-14	21	24	1.55e-12	9.50e-13	6.53e-13	4.83e-13	3.03e-13	2.12e-13
17	28	3.11e-14	2.31e-14	1.74e-14	1.36e-14	9.28e-15	6.80e-15	21	25	2.21e-12	1.37e-12	9.42e-13	6.98e-13	4.39e-13	3.08e-13
17	29	4.28e-16	2.91e-16	2.07e-16	1.56e-16	9.97e-17	7.07e-17	21	30	2.37e-12	2.52e-12	1.82e-12	1.30e-12	9.09e-13	6.59e-13
17	30	1.32e-15	1.02e-15	7.72e-16	6.05e-16	4.00e-16	3.01e-16	21	31	3.27e-10	2.30e-10	1.70e-10	1.31e-10	8.75e-11	6.42e-11
17	31	1.15e-15	8.56e-16	6.35e-16	4.90e-16	3.24e-16	2.35e-16	21	32	5.40e-14	3.50e-14	2.45e-14	1.84e-14	1.17e-14	8.25e-15
17	32	6.66e-15	5.47e-15	4.22e-15	3.95e-15	2.28e-15	1.70e-15	21	33	0.	0.	0.	0.	0.	
17	33	2.10e-15	1.71e-15	1.32e-15	1.05e-15	7.18e-16	5.33e-								

TABLE IIIE. Rate Coefficients for Ne-like Ag ($Z = 47$)
 See page 133 for Explanation of Tables

LEVELS		ELECTRON TEMPERATURE(EV)						LEVELS		ELECTRON TEMPERATURE(EV)					
I	P	500.	1000.	1500.	2000.	3000.	4000.	I	P	500.	1000.	1500.	2000.	3000.	4000.
22	25	3.17e-10	2.21e-10	1.62e-10	1.25e-10	8.30e-11	6.05e-11	27	31	3.18e-14	2.09e-14	1.49e-14	1.13e-14	7.33e-15	5.25e-15
22	26	2.84e-12	1.65e-12	1.15e-12	8.00e-13	5.47e-13	3.87e-13	27	32	2.19e-14	1.46e-14	1.04e-14	7.88e-15	5.10e-15	3.65e-15
22	27	2.99e-11	2.07e-11	1.52e-11	1.17e-11	7.78e-12	5.67e-12	27	33	4.87e-14	3.38e-14	2.46e-14	1.89e-14	1.24e-14	8.99e-15
22	28	1.58e-14	1.06e-14	7.68e-15	5.83e-15	3.80e-15	2.73e-15	27	34	4.72e-12	3.62e-12	2.75e-12	2.17e-12	1.48e-12	1.11e-12
22	29	2.28e-14	1.47e-14	1.04e-14	7.79e-15	4.97e-15	3.52e-15	27	35	3.30e-11	2.55e-11	1.94e-11	1.53e-11	1.05e-11	7.86e-12
22	30	1.50e-14	1.12e-14	8.43e-15	6.61e-15	4.48e-15	3.32e-15	27	36	2.71e-14	1.97e-14	1.44e-14	1.11e-14	7.27e-15	5.26e-15
22	31	6.97e-14	5.23e-14	3.94e-14	3.09e-14	2.10e-14	1.56e-14	27	37	9.48e-12	7.47e-12	5.74e-12	4.56e-12	3.14e-12	2.36e-12
22	32	3.32e-11	2.61e-11	2.00e-11	1.59e-11	1.09e-11	6.20e-12								
22	33	4.04e-12	3.17e-12	2.43e-12	1.92e-12	1.32e-12	9.88e-13								
22	34	3.09e-14	2.65e-14	2.09e-14	1.68e-14	1.18e-14	8.88e-15	28	29	2.74e-12	1.61e-12	1.10e-12	8.07e-13	5.03e-13	3.52e-13
22	35	7.52e-14	6.45e-14	5.10e-14	4.10e-14	2.86e-14	2.16e-14	28	30	8.27e-11	5.71e-11	4.18e-11	3.21e-11	2.11e-11	1.53e-11
22	36	1.48e-13	1.30e-13	1.03e-13	8.32e-14	5.83e-14	4.42e-14	28	31	1.74e-10	1.20e-10	8.78e-11	6.75e-11	4.44e-11	3.22e-11
22	37	8.98e-15	7.31e-15	5.58e-15	4.38e-15	2.94e-15	2.15e-15	28	32	3.62e-10	2.54e-10	1.87e-10	1.45e-10	9.83e-11	7.05e-11
23	24	3.40e-11	2.34e-11	1.71e-11	1.32e-11	8.68e-12	6.30e-12	28	33	6.66e-11	4.87e-11	3.44e-11	2.66e-11	1.77e-11	1.30e-11
23	25	2.50e-11	1.73e-11	1.26e-11	9.73e-12	6.43e-12	4.68e-12	28	34	9.94e-12	7.37e-12	5.51e-12	4.29e-12	2.88e-12	2.12e-12
23	26	2.89e-10	2.01e-10	1.48e-10	1.14e-10	7.56e-11	5.51e-11	28	35	1.49e-11	1.11e-11	8.35e-12	6.51e-12	4.37e-12	3.22e-12
23	27	4.42e-12	3.02e-12	2.20e-12	1.69e-12	1.11e-12	8.08e-13	28	36	2.28e-12	1.72e-12	1.29e-11	1.01e-11	6.79e-12	5.01e-12
23	28	5.42e-14	3.64e-14	2.81e-14	1.99e-14	1.29e-14	9.28e-15	28	37	2.79e-12	2.02e-12	1.49e-12	1.15e-12	7.60e-13	5.53e-13
23	29	1.71e-14	1.19e-14	8.67e-15	6.65e-15	4.38e-15	3.18e-15	29	30	3.86e-13	2.28e-13	1.53e-13	1.12e-13	6.99e-14	4.88e-14
23	30	2.02e-16	1.35e-16	9.58e-17	7.20e-17	4.60e-17	3.26e-17	29	31	2.40e-10	1.64e-10	1.20e-10	9.10e-11	5.99e-11	4.32e-11
23	31	1.01e-14	7.32e-15	5.42e-15	4.20e-15	2.80e-15	2.06e-15	29	32	1.85e-12	1.13e-12	7.71e-13	5.70e-13	3.57e-13	2.50e-13
23	32	1.53e-11	1.20e-11	9.18e-12	7.25e-12	4.98e-12	3.73e-12	29	33	5.13e-10	3.50e-10	2.63e-10	2.03e-10	1.35e-10	9.80e-11
23	33	1.54e-11	1.21e-11	9.30e-12	7.37e-12	5.07e-12	3.80e-12	29	34	8.92e-13	5.95e-13	4.21e-13	3.17e-13	2.02e-13	1.43e-13
23	34	1.20e-15	9.82e-16	7.57e-16	5.98e-16	4.08e-16	3.03e-16	29	35	5.93e-12	4.24e-12	3.12e-12	2.41e-12	1.59e-12	1.16e-12
23	35	1.13e-15	9.03e-16	6.88e-16	5.38e-16	3.63e-16	2.67e-16	29	36	2.05e-12	1.38e-12	9.80e-13	7.37e-13	4.71e-13	3.34e-13
23	36	5.80e-15	4.79e-15	3.69e-15	2.91e-15	1.98e-15	1.46e-15	29	37	4.24e-11	3.19e-11	2.40e-11	1.88e-11	1.27e-11	8.35e-12
23	37	1.82e-16	1.55e-16	1.21e-16	9.64e-17	6.62e-17	4.93e-17								
24	25	3.96e-12	2.28e-12	1.54e-12	1.13e-12	7.02e-13	4.89e-13	30	31	2.91e-12	1.71e-12	1.16e-12	8.55e-13	5.33e-13	3.72e-13
24	26	1.06e-11	6.21e-12	4.21e-12	3.09e-12	1.93e-12	1.34e-12	30	32	3.43e-11	2.15e-11	1.51e-11	1.13e-11	7.21e-12	5.11e-12
24	27	7.07e-12	4.24e-12	2.91e-12	2.15e-12	1.35e-12	9.47e-13	30	33	2.70e-12	1.58e-12	1.07e-12	7.85e-13	4.88e-13	3.40e-13
24	28	1.45e-14	9.03e-15	6.31e-15	4.72e-15	3.00e-15	2.13e-15	30	34	3.11e-10	2.20e-10	1.63e-10	1.28e-10	8.43e-11	6.19e-11
24	29	4.73e-16	2.76e-16	1.86e-16	1.37e-16	8.48e-17	5.91e-17	30	35	1.75e-12	1.10e-12	7.61e-13	5.60e-13	3.56e-13	2.51e-13
24	30	9.43e-15	6.30e-15	4.53e-15	3.45e-15	2.24e-15	1.61e-15	30	36	3.02e-12	2.03e-12	1.91e-12	1.47e-12	9.67e-13	7.04e-13
24	31	3.90e-14	2.53e-14	1.79e-14	1.35e-14	8.70e-15	6.20e-15	30	37	2.00e-12	1.28e-12	8.89e-13	6.82e-13	4.19e-13	2.95e-13
24	32	1.03e-14	6.73e-15	4.76e-15	3.59e-15	2.31e-15	1.65e-15								
24	33	2.42e-15	1.57e-15	1.11e-15	8.27e-16	5.26e-16	3.72e-16	31	32	2.02e-11	1.26e-11	8.78e-12	6.56e-12	4.17e-12	2.05e-12
24	34	1.40e-11	1.09e-11	8.37e-12	6.63e-12	4.55e-12	3.41e-12	31	33	1.74e-11	1.09e-11	7.85e-12	5.73e-12	3.68e-12	2.59e-12
24	35	1.44e-11	1.13e-11	8.64e-12	6.85e-12	4.71e-12	3.53e-12	31	34	5.06e-11	4.13e-11	3.05e-11	1.59e-11	1.16e-11	
24	36	1.15e-14	9.18e-15	7.07e-15	5.62e-15	3.89e-15	2.92e-15	31	35	2.24e-10	1.59e-10	1.17e-10	9.10e-11	6.08e-11	4.47e-11
24	37	2.64e-12	2.12e-12	1.64e-12	1.30e-12	9.00e-13	6.77e-13	31	36	3.45e-12	2.28e-12	1.63e-12	1.23e-12	7.98e-13	5.71e-13
24	38	2.56e-11	1.87e-11	1.37e-11	1.07e-11	7.75e-12	5.91e-12	31	37	2.56e-11	1.83e-11	1.35e-11	1.05e-11	7.04e-12	5.18e-12
25	26	8.83e-12	5.14e-12	3.48e-12	2.56e-12	1.59e-12	1.11e-12								
25	27	5.48e-12	3.19e-12	2.16e-12	1.59e-12	9.86e-13	6.87e-13	32	33	7.61e-12	4.56e-12	3.13e-12	2.32e-12	1.45e-12	1.02e-12
25	28	2.02e-13	1.73e-13	1.24e-13	9.41e-14	6.08e-14	4.32e-14	32	34	5.17e-12	3.51e-12	2.55e-12	1.95e-12	1.28e-12	9.29e-13
25	29	2.86e-15	1.85e-15	1.12e-15	8.16e-16	5.06e-16	3.52e-16	32	35	5.06e-11	3.51e-11	2.57e-11	1.98e-11	1.31e-11	9.49e-12
25	30	1.25e-15	7.99e-16	5.63e-16	4.23e-16	2.71e-16	1.93e-16	32	36	2.87e-10	2.00e-10	1.47e-10	1.13e-10	7.48e-11	5.45e-11
25	31	9.55e-15	5.74e-15	3.91e-15	2.88e-15	1.80e-15	1.26e-15	32	37	6.77e-12	4.59e-12	3.32e-12	2.54e-12	1.87e-12	1.21e-12
25	32	1.78e-15	1.19e-15	8.56e-16	6.48e-16	4.19e-16	3.00e-16								
25	33	1.57e-14	1.07e-14	7.75e-15	5.91e-15	3.85e-15	2.77e-15	33	34	2.57e-11	1.77e-11	1.29e-11	9.05e-12	6.55e-12	4.75e-12
25	34	3.10e-15	2.28e-15	1.70e-15	1.32e-15	8.78e-16	6.43e-16	33	35	1.54e-11	1.06e-11	7.68e-12	5.90e-12	3.88e-12	2.81e-12
25	35	8.37e-13	6.48e-13	4.94e-13	3.90e-13	2.67e-13	1.99e-13	33	36	2.65e-12	1.64e-12	1.14e-12	8.48e-13	5.37e-13	3.79e-13
25	36	3.22e-11	2.52e-11	1.93e-11	1.53e-11	1.05e-11	7.90e-12	33	37	3.04e-10	2.12e-10	1.56e-10	1.20e-10	7.99e-11	5.83e-11
26	27	1.92e-12	1.09e-12	7.35e-13	5.37e-13	3.32e-13	2.31e-13								
26	28	1.15e-14	6.87e-15	4.71e-15	3.48e-15	2.18e-15	1.53e-15	34	35	1.22e-11	7.29e-12	5.01e-12	3.71e-12	2.32e-12	1.63e-12
26	29	6.31e-16	3.96e-16	2.77e-16	2.08e-16	1.33e-16	9.43e-17	34	36	4.92e-12	2.83e-12	1.91e-12	1.40e-12	8.67e-13	6.04e-13
26	30	5.52e-16	3.37e-16	2.31e-16	1.71e-16	1.07e-16	7.51e-17	34	37	7.63e-12	4.39e-12	2.98e-12	2.17e-12	1.34e-12	9.36e-13
26	31	1.02e-14	6.20e-15	4.25e-15	3.15e-15	1.98e-15	1.39e-15								
26	32	1.78e-14	1.17e-14	8.33e-15	6.28e-15	4.04e-15	2.88e-15	35	36	1.10e-11	6.47e-12	4.41e-12	3.25e-12	2.03e-12	1.42e-12
26	33														