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DIELECTRONIC SATELLITE SPECTRA FOR HYDROGEN-LIKE IONS

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SUBJECT

THIS PAPER WAS PREPARED FOR SUBMITTAL TO
ATOMIC DATA AND NUCLEAR DATA TABLES

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Dielectronic satellite spectra for hydrogen-like ions†

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ABSTRACT

The wavelengths, radiative transition rates, Auger rates, satellite intensity factors and fluorescent yields are presented for dielectronic satellites of nine hydrogen-like ions ranging from Ne^{+9} to Xe^{+53}. Dipole transitions from 2ln'l' → 1sn"l", where n', n" = 2, 3, 4, are all included. In this work, relativistic multi-configuration wavefunctions are used to calculate energy levels as well as the Auger and radiative matrix elements.

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1. Introduction

As a diagnostic tool, the intensities of the dielectronic satellites of resonance lines of hydrogen-like ions have been used to measure plasma densities in high density plasmas[1] and to measure electron temperatures in solar flares.[2] The sum over all the satellite lines leads to a precise value of the dielectronic recombination rate coefficient, which is important for understanding ionization balance in a plasma. Dielectronic recombination(inverse resonant photoionization) is the process by which an ion captures a continuum electron to form a doubly-excited state, followed by a stabilizing radiative transition to a non-autoionizing state. These stabilizing radiative transitions give rise to the satellite lines.

Charge expansion perturbation theory on a basis of Coulomb functions using expansion in powers of 1/Z has been used for calculating satellites to resonance lines of hydrogen and helium-like ions.[3-5] Recently, calculations for the satellites of He-like ions[6] were performed in intermediate-coupling with configuration interaction using the multi-configuration Dirac-Fock method.

This paper presents the wavelengths, radiative transition rates, Auger rates, satellite intensity factors and fluorescent yields for dielectronic satellites of nine hydrogen-like ions ranging from Ne^{+9} to Xe^{+53}. Dipole transitions from 2ln'l' → 1sn"l", where n', n" = 2, 3, 4, are all included. In this work, relativistic multi-configuration wavefunctions are used to calculate energy levels as well as the Auger and radiative matrix elements.

2. Method

The calculations described in this work are based on multi-configuration relativistic bound states and distorted wave Dirac continuum states for the electrons. The wavefunctions for each of these states were calculated using the code YODA, which is an atomic physics package of Hagelstein and Jung[7]. The code YODA was used to calculate energy levels, oscillator strengths, and Auger rates. These calculations were done on a CDC7600 computer.

YODA is a relativistic multi-configuration Hartree-Fock atomic physics code which uses as its orbital basis a set of single configuration Dirac orbitals obtained in a averaged configuration Hartree-Fock calculation. Racah algebra is used in calculating the angular momentum part of the matrix elements[8,9]. Using these orthonormal single-electron orbitals to construct the single configuration wavefunctions, the Hamiltonian matrix is calculated including Breit corrections(in the $\omega = 0$ limit) to the Coulomb interactions between the electrons. The quantum electrodynamic effects of self energy, using the hydrogenic results of Mohr[10] and vacuum polarization, using the expectation values of the Uehling potential[11], are also included. The nuclear potential is assumed to have a Fermi distribution. The Hamiltonian is diagonalized to give the full multi-configuration wavefunctions in intermediate coupling. These wavefunctions are then used to calculate the oscillator strengths for all the dipole allowed transitions with absorption oscillator strengths greater than 1.0×10^{-5}.

The radiative transition rate is given by

$$Radiative\ Rate = \frac{4\omega^3}{3\hbar c^3} \mid < \psi_f \mid \sum_\alpha e \vec{r}_\alpha \mid \psi_i > \mid^2 \qquad (1)$$

where ψ_i and ψ_f are the antisymmetrized many-electron wave functions for the initial and final state of the ion.

The continuum orbitals used in computing the Auger matrix elements were calculated in a distorted wave approximation neglecting exchange with bound state orbitals.

The potential was a spherically averaged final state potential. For this work, an ion in a hydrogen-like ground state would be used to calculate the potential. For the high Z systems being used, the neglect of the exchange term should be a small effect. The continuum wavefunctions are used with the multi-configuration wavefunctions for the bound electrons to calculate the Auger matrix elements. The Auger rate is calculated from perturbation theory by

$$\textit{Auger Rate} = \frac{2\pi}{\hbar} \mid < \psi_f \mid \sum_{\alpha<\beta} V_{\alpha\beta} \mid \psi_i > \mid^2 \rho(\varepsilon) \tag{2}$$

where the two electron operator $V_{\alpha\beta}$ for the Coulomb and Breit interaction is

$$V_{12} = \frac{(1 - \vec{\alpha}_1 . \vec{\alpha}_2)}{r_{12}} - \frac{1}{2} (\vec{\alpha}_1 . \vec{\nabla}_1)(\vec{\alpha}_2 . \vec{\nabla}_2) r_{12} \tag{3}$$

with

$$r_{12} = \mid \vec{r}_2 - \vec{r}_1 \mid \tag{4}$$

and $\rho(\varepsilon)$ is the energy density of the outgoing continuum electron states.

3. Dielectronic Satellites

In general there are two possible processes for generating the dielectronic satellites; dielectronic recombination and inner shell excitation. For low density astrophysical plasmas, dielectronic recombination is the primary process[12].

The components of the dielectronic recombination process are,

$$X^{+z} + e \rightarrow X^{+(z-1)} (2l_1\, nl_2) \quad (\textit{for dielectronic capture});$$

$$X^{+(z-1)} (2l_1\, nl_2) \rightarrow X^{+(z-1)} (1s\, n'l') + h\nu \quad (\textit{for stabilization}).$$

The hydrogen-like ground state X^{+z} captures an electron to form a doubly-excited helium-like state $X^{+(z-1)}(2lnl')$. The notation $2lnl'$ represents the two excited electrons. The doubly-excited state can Auger decay or undergo a radiative decay ($np \rightarrow 1s$) to a

helium-like non-autoionizing state which stabilizes the capture process.

In addition to the direct dielectronic recombination, there are radiative processes and (for finite density plasmas) collisional processes which cause cascading ($\Delta n \geq 1$) and angular momentum redistribution ($\Delta n = 0$) within the doubly-excited states. Collisional excitation and deexcitation between the doubly excited states and the non-autoionizing states are also possible. Only the direct radiative transitions from doubly-excited states to helium-like non-autoionizing states will be considered in this work. A discussion of the other processes can be found in several previous publications[13,14].

In j-j coupling, the $2lnl'$ manifolds (n=2,3,4) consist of 98 doubly-excited states which are connected to the hydrogen-like ground state 1s by the Auger process and to 30 helium-like non-autoionizing states $[1s]2s_{1/2}, 2p_{1/2}, \ldots, 4f_{7/2}$ by radiative decay.

To calculate the population kinetics, set

N_I = population of the hydrogen-like ground state,

N_i = population of the doubly-excited states i = 1 to 98,

N_f = population of the helium-like non-autoionizing states f = 1 to 30,

R_{ab} = rate coefficient for transitions from level a to level b;

then

$$dN_I / dt = \sum_i N_i R_{iI} - N_I \sum_i R_{Ii} , \tag{5}$$

$$dN_i / dt = N_I R_{Ii} - N_i [R_{iI} + \sum_f R_{if}] , \tag{6}$$

$$dN_f / dt = \sum_i N_i R_{if} . \tag{7}$$

The population of the hydrogen-like ground state N_I is assumed to be constant and the populations of the helium-like non-autoionizing states N_f are assumed to be zero. Equation(6) is solved for N_i by setting $dN_i/dt = 0$,

$$N_i = [N_I \gamma_i^{DI}] / [\gamma_i^A + \gamma_i^R] . \tag{8}$$

The dielectronic capture rate $\gamma_i^{DI} = R_{Ii}$ is calculated by detailed balance from the Auger rate $\gamma_i^A = R_{iI}$ by

$$\gamma_i^{DI}(\theta) = g_i \gamma_i^A f(\theta) \tag{9}$$

$$f(\theta) = [h^3 n_e \, exp(-\Delta E_i / \theta)] / [2g_I (2\pi m\theta)^{3/2}] , \tag{10}$$

where

g_i = degeneracy of the doubly-excited state i,

g_I = degeneracy of the hydrogen-like ground state,

E_i = energy of the doubly-excited state i,

E_I = energy of the hydrogen-like ground state,

$\Delta E_i = E_i - E_I$.

A maxwellian distribution of electron velocities, defined by a temperature θ, is assumed. The electron density is given by n_e, h is Planck's constant, and m is the electron mass. The radiative decay rate γ_i^R to the non-autoionizing states stabilizes the dielectronic capture, where $\gamma_{if}^R = R_{if}$ and

$$\gamma_i^R = \sum_{f=1}^{30} \gamma_{if}^R . \tag{11}$$

The dielectronic recombination rate through a particular radiative transition becomes

$$\gamma_{if}^{DR} = \frac{\gamma_{if}^R N_i}{N_I} = \frac{g_i \gamma_{if}^R \gamma_i^A}{[\gamma_i^A + \gamma_i^R]} f(\theta). \tag{12}$$

The satellite intensity factor can be defined as

$$Q_d = \frac{g_i \gamma_{if}^R \gamma_i^A}{[\gamma_i^A + \gamma_i^R]} = \frac{g_i \, A(if) \, AUGER}{AUGER + A(tot)} . \tag{13}$$

This gives the approximate relative intensity of the satellite lines formed by dielectronic recombination.

When the direct inner shell excitation is the principal excitation mechanism, a more appropriate quantity is the statistically weighted line fluorescence yield associated with the satellite intensity, which is defined by

$$gW = \frac{g_i \gamma_{if}^R}{[\gamma_i^A + \gamma_i^R]} = \frac{g_i\, A(if)}{AUGER + A(tot)}. \tag{14}$$

4. Results

In Table II, the wavelengths, radiative transition rates, Auger rates, satellite intensity factors and fluorescent yields are presented for dielectronic satellites of nine hydrogen-like ions; Ne, Si, Ar, Ti, Fe, Zn, Kr, Mo, and Xe. The resonance lines of the H-like ions are also included. The main difference between the present work and that of Vainshtein and Safronova[5] is that the present work includes data for all dipole transitions between two electron states with 2ln'l' → 1sn"l" for n', n" = 2, 3, 4 while reference 5 presents data for selected transitions for n = 2 and 3. The range of Z's is also different, with the present work covering nine Z's from Z = 10 to 54 while reference 5 covers all Z's from 6 to 33.

In Table I, the wavelengths, radiative transition rates, and Auger rates for dielectronic satellites of H-like Fe are compared between this work and that of reference 5. Also included are the principle resonance lines of H-like Fe. The wavelengths generally agree within 5 - 9 x 10^{-4} Angstroms with the current work generally having the longer wavelength. In general, the present work has longer wavelengths by $\Delta\lambda / \lambda = 3 - 6 \times 10^{-4}$ for all the ions compared. For the larger Auger and radiative rates, agreement is usually within 10%. There are some transitions where the disagreement is as large as an order of magnitude and quite a few transitions with factor of two differences. However, it should be pointed out that the present work uses j-j coupling while that of reference 5 presents an incomplete list of transitions in LS coupling, so some of the identifications between the two results are uncertain. More information is required to confirm several of the

identifications. Overall, the agreement with reference 5 is quite good.

Finally, the detailed calculations presented in this work are necessary to understand satellite spectra which are observed in laboratory and astrophysical plasmas. Using these spectra, plasma quantities such as electron temperature and densities may be determined.

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EXPLANATION OF TABLES

TABLE I: Comparison of the wavelengths, radiative transition rates, and Auger rates from the present work with the values of reference 5(in parentheses) for satellites of H-like Fe

TRANSITION	Transition from initial level *i* - final level *f*
LAMBDA	Wavelength in Angstroms
A(*if*)	Radiative rate from initial level *i* to final level *f* (sec^{-1})
AUGER	Auger rate for level *i* (sec^{-1})

Transitions are represented by $n_{i1}l_{i1}x_{i1}\ n_{i2}l_{i2}x_{i2}(J_i)$- $n_{j1}l_{j1}x_{j1}\ n_{j2}l_{j2}x_{j2}(J_j)$ where

J_i = total angular momentum of level *i*

nlx represents a one electron state with

n = principal quantum number

l = orbital angular momentum

x = * if j = l + 0.5

_ if j = l - 0.5

As an example, 2p*4d_(0)-1s*2s*(1) is a transition from state 2p*4d_(0) to 1s*2s*(1)

2p*4d_(0) is a two electron state with total J = 0

the two electrons are

$2p^* = 2p_{3/2}$; n = 2, l = 1, j = 3/2

$4d_ = 4d_{3/2}$; n = 4, l = 2, j = 3/2

TABLE II: Wavelengths, radiative and Auger rates, satellite intensity factors and line fluorescence yields for satellites of H-like ions

TRANSITION	Transition from initial level i - final level f
LAMBDA	Wavelength in Angstroms
$A(if)$	Radiative rate from initial level i to final level f (sec^{-1})
A(tot)	Total radiative rate = $\sum_{f=1}^{30} A(if)$ for level i (sec^{-1})
AUGER	Auger rate for level i (sec^{-1})
Q_d	Satellite intensity factor (sec^{-1}); see Eq. (13)
gW	Statistically weighted line fluorescence yield; see Eq. (14)

Table I

Z = 26

TRANSITION	LAMBDA	A(TR)	AUGER
2p• (3/2)-1s• (1/2)	1.50241(1.5019)	7.71e+13(7.87e+13)	0.(0.)
2p_ (1/2)-1s• (1/2)	1.50356(1.5030)	7.51e+13(7.86e+13)	0.(0.)
2s•3p•(1)-1s•2s•(1)	1.51558(1.5160)	1.60e+13(3.25e+13)	1.26e+13(7.65e+12)
2s•3p•(2)-1s•2s•(1)	1.51614(1.5157)	6.49e+13(6.77e+13)	6.48e+12(5.95e+12)
2s•3p_(1)-1s•2s•(1)	1.51701(1.5163)	5.20e+13(3.62e+13)	1.33e+13(9.30e+12)
2p•3s•(1)-1s•2s•(0)	1.51765(1.5177)	1.62e+13(2.66e+13)	7.80e+13(8.83e+13)
2p•3p•(2)-1s•2p•(2)	1.51831(1.5178)	8.99e+12(1.03e+13)	1.01e+14(1.10e+14)
2p•3p•(0)-1s•2p•(1)	1.51963(1.5191)	6.44e+13(6.85e+13)	1.88e+13(2.29e+13)
2s•3d_(2)-1s•2p_(1)	1.51996(1.5196)	1.38e+13(1.57e+13)	2.04e+13(1.92e+13)
2p•3p_(2)-1s•2p•(2)	1.52012(1.5196)	5.43e+13(5.79e+13)	1.27e+13(1.57e+13)
2p•3p•(3)-1s•2p•(2)	1.52035(1.5199)	6.77e+13(6.67e+13)	1.34e+12(1.35e+12)
2p_3p•(2)-1s•2p_(1)	1.52172(1.5212)	5.52e+13(5.25e+13)	1.18e+13(1.16e+13)
2s•3p•(1)-1s•2s•(0)	1.52177(1.5219)	2.21e+13(1.86e+13)	1.26e+13(7.65e+12)
2p•3p•(2)-1s•2p•(1)	1.52182(1.5212)	4.60e+13(5.52e+13)	1.01e+14(1.10e+14)
2s•3d•(3)-1s•2p•(2)	1.52309(1.5226)	1.10e+13(9.28e-12)	1.18e+12(1.20e+12)
2s•3s•(0)-1s•2p_(1)	1.52347(1.5231)	9.20e+12(8.64e+12)	1.59e+14(1.58e+14)
2s•3d•(2)-1s•2p•(1)	1.52501(1.5243)	1.35e+13(1.25e+13)	1.45e+13(1.31e+13)
2s•3s•(0)-1s•2p•(1)	1.52977(1.5292)	6.63e+12(7.25e+12)	1.59e+14(1.58e+14)
2p•3d•(1)-1s•3d•(2)	1.77648(1.7760)	2.63e+14(2.72e+14)	3.44e+10(3.63e+11)
2p•3p•(0)-1s•3p•(1)	1.77656(1.7760)	2.68e+14(2.68e+14)	1.88e+13(2.29e+13)
2p•3d•(3)-1s•3d_(2)	1.77660(1.7760)	9.48e+13(9.75e+13)	1.91e+13(2.23e+13)
2p•3d•(3)-1s•3d•(3)	1.77702(1.7764)	4.24e+13(4.39e+13)	1.91e+13(2.23e+13)
2p•3d•(3)-1s•3d•(2)	1.77710(1.7765)	1.48e+14(1.55e+14)	1.91e+13(2.23e+13)
2p•3s•(1)-1s•3s•(1)	1.77725(1.7778)	2.88e+13(2.20e+13)	7.80e+13(8.83e+13)
2p• (3/2)-1s• (1/2)	1.77813(1.7774)	2.90e+14(2.96e+14)	0.(0.)
2p•3p•(2)-1s•3p•(2)	1.77824(1.7776)	6.34e+13(6.52e+13)	1.01e+14(1.10e+14)
2p•3d_(0)-1s•3d_(1)	1.77836(1.7779)	2.73e+14(2.83e+14)	1.06e+11(1.56e+11)
2p•3d_(1)-1s•3d_(1)	1.77852(1.7780)	1.97e+14(2.03e+14)	2.90e+11(2.49e+11)
2p•3d•(2)-1s•3d•(2)	1.77900(1.7784)	1.13e+14(1.21e+14)	9.47e+10(1.10e+11)
2p•3s•(1)-1s•3s•(0)	1.77937(1.7799)	1.76e+14(1.62e+14)	7.80e+13(8.83e+13)
2p•3d_(3)-1s•3d_(2)	1.77946(1.7789)	1.51e+14(1.57e+14)	2.37e+12(2.64e+12)
2p•3p•(2)-1s•3p•(1)	1.77956(1.7789)	1.84e+14(1.89e+14)	1.01e+14(1.10e+14)
2p•3p_(2)-1s•3p_(1)	1.77961(1.7790)	1.60e+14(1.67e+14)	1.27e+13(1.57e+13)
2p•3d_(3)-1s•3d•(3)	1.77988(1.7793)	1.18e+14(1.22e+14)	2.37e+12(2.64e+12)
2p•3d_(2)-1s•3d_(2)	1.78031(1.7797)	9.55e+13(1.05e+14)	8.14e+11(8.78e+11)
2p•3d_(2)-1s•3d_(1)	1.78033(1.7797)	9.58e+13(1.01e+14)	8.14e+11(8.78e+11)
2p•3s•(2)-1s•3s•(1)	1.78048(1.7810)	1.74e+14(2.15e+14)	1.09e+12(1.50e+12)
2p•3p_(1)-1s•3p_(0)	1.78058(1.7799)	1.32e+14(1.31e+14)	3.14e+11(2.25e+11)
2p•3p_(2)-1s•3p•(2)	1.78072(1.7801)	8.45e+13(8.51e+13)	1.27e+13(1.57e+13)
2p•3d•(4)-1s•3d•(3)	1.78102(1.7804)	2.84e+14(2.95e+14)	4.69e+12(5.34e+12)
2p•3p•(3)-1s•3p•(2)	1.78104(1.7804)	2.42e+14(2.59e+14)	1.34e+12(1.35e+12)
2s•3d•(2)-1s•3p_(1)	1.78148(1.7808)	6.00e+13(6.26e+13)	1.45e+13(1.31e+13)
2p_3d_(2)-1s•3s•(1)	1.78190(1.7813)	1.17e+12(4.42e+13)	3.79e+12(3.61e+12)
2p•3s•(1)-1s•3d•(2)	1.78218(1.7827)	6.27e+11(5.24e+12)	7.80e+13(8.83e+13)
2s•3d•(2)-1s•3p•(2)	1.78260(1.7819)	8.19e+12(9.32e+12)	1.45e+13(1.31e+13)

Z = 26

TRANSITION	LAMBDA	A(TT)	AUGER
2s•3p• (1)-1s•3s•(1)	1.78290(1.7835)	1.28e+14(6.62e+13)	1.26e+13(7.65e+12)
2p_ (1/2)-1s• (1/2)	1.78356(1.7827)	2.87e+14(2.94e+14)	0.(0.)
2p_3d_(1)-1s•3d_(2)	1.78358(1.7828)	1.88e+14(1.87e+14)	2.07e+12(3.12e+11)
2p_3p_(0)-1s•3p_(1)	1.78370(1.7830)	2.50e+14(2.58e+14)	3.73e+12(2.13e+12)
2s•3d•(2)-1s•3p•(1)	1.78393(1.7832)	1.14e+13(1.06e+13)	1.45e+13(1.31e+13)
2p_3d•(2)-1s•3d•(2)	1.78402(1.7835)	1.01e+14(1.28e+14)	2.90e+11(2.23e+11)
2s•3d_(2)-1s•3p•(2)	1.78425(1.7837)	3.29e+13(3.61e+13)	2.04e+13(1.92e+13)
2s•3d_(1)-1s•3p•(2)	1.78432(1.7838)	4.08e+13(4.97e+13)	2.18e+12(2.11e+12)
2p_3d•(3)-1s•3d_(2)	1.78465(1.7839)	3.88e+13(4.09e+13)	5.66e+12(6.44e+12)
2s•3d•(3)-1s•3p•(2)	1.78480(1.7842)	3.87e+13(3.59e+13)	1.18e+12(1.20e+12)
2s•3p_(1)-1s•3s•(1)	1.78487(1.7839)	5.55e+13(9.01e+13)	1.33e+13(9.30e+12)
2s•3p•(1)-1s•3s•(0)	1.78503(1.7857)	2.50e+12(2.52e+13)	1.26e+13(7.65e+12)
2p_3d•(3)-1s•3d•(3)	1.78508(1.7843)	1.25e+14(1.29e+14)	5.66e+12(6.44e+12)
2p_3d•(3)-1s•3d•(2)	1.78515(1.7844)	1.19e+14(1.23e+14)	5.66e+12(6.44e+12)
2p_3p•(2)-1s•3p_(1)	1.78556(1.7848)	6.09e+13(6.27e+13)	1.18e+13(1.16e+13)
2s•3d_(2)-1s•3p•(1)	1.78558(1.7849)	3.94e+13(3.97e+13)	2.04e+13(1.92e+13)
2p_3p•(1)-1s•3p•(2)	1.78562(1.7849)	1.16e+14(1.14e+14)	1.54e+11(1.95e+11)
2p_3d_(2)-1s•3d_(2)	1.78636(1.7857)	1.24e+14(1.13e+14)	3.79e+12(3.61e+12)
2p_3d_(2)-1s•3d_(1)	1.78638(1.7857)	1.53e+14(1.32e+14)	3.79e+12(3.61e+12)
2p_3s•(1)-1s•3s•(1)	1.78653(1.7870)	6.86e+13(1.07e+14)	9.76e+11(1.67e+12)
2p_3p•(2)-1s•3p•(2)	1.78668(1.7859)	9.90e+13(9.83e+13)	1.18e+13(1.16e+13)
2p_3p•(1)-1s•3p•(1)	1.78695(1.7861)	1.08e+14(1.11e+14)	1.54e+11(1.95e+11)
2p_3p_(1)-1s•3p_(1)	1.78775(1.7869)	1.34e+14(1.44e+14)	4.00e+10(4.03e+10)
2s•3p•(1)-1s•3d•(2)	1.78786(1.7883)	8.85e+12(2.08e+13)	1.26e+13(9.30e+12)
2s•3s•(0)-1s•3p_(1)	1.78797(1.7875)	3.99e+13(3.42e+13)	1.59e+14(1.56e+14)
2p_3p•(2)-1s•3p•(1)	1.78801(1.7872)	5.37e+13(5.38e+13)	1.18e+13(1.16e+13)
2p_3s•(1)-1s•3s•(0)	1.78867(1.7892)	9.56e+13(1.02e+14)	9.76e+11(1.67e+12)
2s•3p_(0)-1s•3d_(1)	1.78907(1.7886)	1.43e+13(1.26e+13)	2.28e+12(3.70e+12)
2s•3s•(0)-1s•3p•(1)	1.79043(1.7899)	2.74e+13(2.73e+13)	1.59e+14(1.58e+14)
2s•3s•(1)-1s•3p•(2)	1.79108(1.7906)	3.18e+13(2.86e+13)	1.04e+12(6.78e+11)

Table II

Z = 10

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gW
4p* (3/2)-1s* (1/2)	9.70883	6.38e+11	6.38e+11	0.	0.	4.00e+00
4p_ (1/2)-1s* (1/2)	9.70917	6.38e+11	6.38e+11	0.	0.	2.00e+00
2p+4d_(0)-1s+2s+(1)	9.96830	9.09e+10	5.89e+12	2.21e+10	3.92e+08	1.78e-02
2p+4d_(1)-1s+2s+(1)	9.96859	9.34e+10	5.84e+12	2.07e+11	1.10e+10	5.34e-02
2s+4d+(2)-1s+2s+(1)	9.96905	1.02e+11	4.97e+12	2.91e+10	2.96e+09	1.02e-01
2p+4d_(2)-1s+2s+(1)	9.97686	4.72e+09	6.05e+12	1.54e+10	5.99e+07	3.89e-03
2p_4d_(1)-1s+2s+(1)	9.97768	3.38e+09	6.11e+12	1.19e+12	1.68e+09	1.38e-03
2s+4d+(2)-1s+2s+(1)	9.98183	4.91e+09	5.96e+12	1.23e+11	4.93e+08	4.02e-03
2p+4s+(2)-1s+2s+(1)	9.98891	1.21e+11	5.18e+12	1.44e+11	1.63e+10	1.13e-01
2p_4s+(1)-1s+2s+(1)	9.99102	2.01e+11	5.34e+12	4.75e+11	5.93e+10	1.25e-01
2s+4p_(0)-1s+2s+(1)	9.99159	2.46e+11	3.97e+12	5.50e+11	2.99e+10	5.44e-02
2s+4p+(2)-1s+2s+(1)	9.99886	3.30e+11	2.95e+12	2.31e+12	7.22e+11	3.13e-01
2s+4p_(1)-1s+2s+(1)	9.99920	2.64e+11	3.51e+12	2.25e+12	3.09e+11	1.37e-01
2p_4s+(0)-1s+2s+(1)	9.99987	2.27e+11	3.94e+12	2.05e+12	7.76e+10	3.78e-02
2p+4f_(2)-1s+2p_(1)	10.0500	7.44e+08	4.69e+12	4.95e+12	1.91e+09	3.68e-04
2s+4f+(3)-1s+2p+(2)	10.0515	1.04e+09	5.68e+12	4.35e+10	5.50e+07	1.27e-03
2p+4d+(1)-1s+2s+(0)	10.0561	5.05e+10	5.13e+12	1.41e+12	3.18e+10	2.25e-02
2p+4p+(1)-1s+2p_(0)	10.0575	2.32e+10	4.87e+12	1.11e+09	1.68e+07	1.49e-02
2p_4f_(2)-1s+2p_(1)	10.0577	6.99e+08	6.00e+12	4.38e+10	2.50e+07	5.71e-04
2p+4p+(1)-1s+2p_(1)	10.0578	9.37e+10	4.87e+12	1.11e+09	6.70e+07	6.02e-02
2p_4f+(3)-1s+2p+(2)	10.0591	4.25e+09	5.97e+12	4.90e+10	2.42e+08	4.94e-03
2p+4p+(1)-1s+2p+(2)	10.0592	2.56e+11	4.67e+12	1.11e+09	1.63e+08	1.64e-01
2p_4f_(3)-1s+2p+(2)	10.0604	2.01e+09	6.07e+12	4.65e+10	1.07e+08	2.30e-03
2s+4d+(2)-1s+2p_(1)	10.0615	9.40e+10	2.50e+12	1.11e+12	1.44e+11	1.30e-01
2s+4d_(1)-1s+2p_(0)	10.0616	6.09e+10	2.12e+12	9.98e+11	5.84e+10	5.85e-02
2s+4d_(1)-1s+2p_(1)	10.0619	7.81e+10	2.12e+12	9.98e+11	7.31e+10	7.31e-02
2s+4d+(3)-1s+2p+(2)	10.0624	1.87e+11	3.06e+12	8.94e+11	3.12e+11	3.49e-01
2s+4d+(2)-1s+2p+(2)	10.0629	7.71e+10	2.50e+12	1.11e+12	1.19e+11	1.07e-01
2s+4d_(1)-1s+2p+(2)	10.0633	1.02e+10	2.12e+12	9.99e+11	9.80e+09	9.81e-03
2p+4d_(1)-1s+2s+(0)	10.0647	1.60e+09	5.04e+12	2.07e+11	1.99e+08	9.60e-04
2p+4p+(2)-1s+2p_(1)	10.0660	1.33e+11	6.42e+12	2.58e+12	1.91e+11	7.40e-02
2p+4p+(2)-1s+2p+(2)	10.0660	4.08e+11	6.42e+12	2.58e+12	5.85e+11	2.27e-01
2p+4p_(1)-1s+2p_(0)	10.0665	2.06e+11	6.78e+12	7.76e+09	7.04e+08	9.07e-02
2p+4p_(1)-1s+2p_(1)	10.0667	1.79e+11	6.78e+12	7.76e+09	6.16e+08	7.93e-02
2p_4p_(0)-1s+2p_(1)	10.0675	6.19e+11	8.86e+12	1.22e+11	1.08e+10	8.89e-02
2p+4p_(2)-1s+2p_(1)	10.0676	1.42e+10	4.35e+12	2.44e+13	6.01e+10	2.46e-03
2p+4p_(1)-1s+2p+(2)	10.0682	2.17e+11	6.78e+12	7.76e+09	7.46e+08	9.61e-02
2p+4p_(2)-1s+2p+(2)	10.0686	5.61e+10	4.35e+12	2.44e+13	2.38e+11	9.76e-03
2p+4s+(1)-1s+2s+(0)	10.0712	2.06e+11	4.21e+12	3.08e+13	5.44e+11	1.76e-02
2p+4p+(1)-1s+2p_(0)	10.0732	3.83e+10	6.46e+12	6.22e+09	1.11e+08	1.79e-02
2p+4p+(1)-1s+2p_(1)	10.0738	9.57e+08	6.46e+12	6.22e+09	2.79e+08	4.48e-04
2p_4d_(1)-1s+2s+(0)	10.0740	5.07e+09	6.11e+12	1.19e+12	2.49e+09	2.08e-03
2p+4p+(3)-1s+2p+(2)	10.0761	4.23e+11	4.58e+12	2.71e+10	1.77e+10	6.54e-01
2p_4p+(2)-1s+2p_(1)	10.0764	3.86e+11	4.97e+12	3.77e+11	1.35e+11	3.59e-01
2p_4p_(1)-1s+2p_(0)	10.0775	2.67e+11	5.33e+12	1.78e+09	2.68e+08	1.51e-01
2p_4p_(1)-1s+2p_(1)	10.0777	1.84e+11	5.33e+12	1.78e+09	1.84e+08	1.03e-01
2p_4p+(2)-1s+2p+(2)	10.0779	8.27e+10	4.97e+12	3.77e+11	2.92e+10	7.74e-02
2p_4p_(1)-1s+2p+(2)	10.0782	9.03e+09	5.33e+12	1.78e+09	9.06e+06	5.09e-03
2s+4s+(0)-1s+2s_(1)	10.0836	3.72e+09	1.90e+12	4.90e+13	3.58e+09	7.30e-05
2p_4s+(1)-1s+2s+(0)	10.0876	5.21e+09	4.36e+12	4.75e+11	1.54e+09	3.24e-03
2s+4s+(1)-1s+2p_(0)	10.0889	2.59e+10	2.09e+12	6.24e+11	1.78e+10	2.86e-02
2s+4s+(1)-1s+2p_(1)	10.0901	7.40e+10	2.09e+12	6.24e+11	5.10e+10	8.17e-02
2s+4s+(1)-1s+2p+(2)	10.0916	1.01e+11	2.09e+12	6.24e+11	6.97e+10	1.12e-01
2s+4p_(1)-1s+2s+(0)	10.0949	8.50e+09	3.51e+12	2.25e+12	9.96e+08	4.43e-03
2s+4p+(1)-1s+2s+(0)	10.1001	3.14e+11	3.61e+12	5.11e+11	1.17e+11	2.29e-01
2p+4p+(0)-1s+2p+(1)	10.1031	6.67e+11	5.55e+12	2.03e+12	1.79e+11	8.80e-02
2p+4f+(2)-1s+2p+(1)	10.1136	2.53e+10	5.98e+12	3.39e+12	4.21e+10	1.24e-02
2s+4d+(2)-1s+2p+(1)	10.1150	1.09e+11	3.97e+12	1.48e+13	4.31e+11	2.91e-02
2p+4f_(2)-1s+2p+(1)	10.1155	3.84e+10	4.68e+12	4.95e+12	9.86e+10	1.99e-02
2p+4p+(1)-1s+2p+(1)	10.1234	2.86e+09	4.67e+12	1.11e+09	1.86e+06	1.67e-03
2s+4d+(2)-1s+2p+(1)	10.1271	2.74e+09	2.50e+12	1.11e+12	4.21e+09	3.80e-03
2s+4d_(1)-1s+2p+(1)	10.1275	2.81e+09	2.12e+12	9.99e+11	2.70e+09	2.70e-03
2p+4p+(2)-1s+2p+(1)	10.1308	3.93e+10	6.42e+12	2.58e+12	5.63e+10	2.18e-02
2p+4p_(1)-1s+2p+(1)	10.1325	9.77e+09	6.78e+12	7.76e+09	3.35e+07	4.32e-03
2p+4p_(2)-1s+2p+(1)	10.1333	3.15e+11	4.35e+12	2.44e+13	1.33e+12	5.47e-02
2p+4p+(1)-1s+2p+(1)	10.1393	5.04e+11	6.40e+12	6.22e+09	1.47e+09	2.36e-01
2p_4p+(2)-1s+2p+(1)	10.1423	2.79e+09	4.97e+12	3.77e+11	9.83e+08	2.61e-03
2p_4p_(1)-1s+2p+(1)	10.1436	4.04e+10	5.33e+12	1.78e+09	4.05e+07	2.27e-02
2s+4s+(0)-1s+2p+(1)	10.1496	1.67e+11	1.90e+12	4.90e+13	1.61e+11	3.29e-03
2s+4s+(1)-1s+2p+(1)	10.1562	7.17e+08	2.09e+12	6.24e+11	4.94e+08	7.92e-04
3p* (3/2)-1s* (1/2)	10.2416	1.65e+12	1.65e+12	0.	0.	4.00e+00
3p_ (1/2)-1s* (1/2)	10.2428	1.65e+12	1.65e+12	0.	0.	2.00e+00
2p+3d_(0)-1s+2s+(1)	10.4140	2.15e+11	5.27e+12	4.40e+10	1.78e+09	4.05e-02
2p+3d_(1)-1s+2s+(1)	10.4143	2.19e+11	5.25e+12	1.56e+11	1.90e+10	1.22e-01
2p+3d+(2)-1s+2s+(1)	10.4149	2.30e+11	5.21e+12	5.16e+10	1.13e+10	2.19e-01
2p+3d_(2)-1s+2s+(1)	10.4343	2.14e+09	6.17e+12	1.06e+10	1.83e+07	1.73e-03
2p_3d_(1)-1s+2s+(1)	10.4349	1.23e+09	6.17e+12	1.51e+11	8.81e+07	5.82e-04
2p+3d+(2)-1s+2s+(1)	10.4559	1.22e+09	6.11e+12	8.87e+11	7.58e+06	8.73e-04
2p+3s+(2)-1s+2s+(1)	10.4797	3.79e+11	5.42e+12	2.81e+11	8.72e+10	3.34e-01
2p_3s+(1)-1s+2s+(1)	10.4812	5.58e+11	4.96e+12	8.18e+11	2.39e+11	2.93e-01
2p_3s+(0)-1s+2s+(1)	10.4819	6.34e+11	4.62e+12	1.14e+12	1.29e+11	1.14e-01
2s+3p+(2)-1s+2s+(1)	10.4872	8.79e+11	3.24e+12	7.42e+12	3.06e+12	4.12e-01
2s+3p_(1)-1s+2s+(1)	10.4886	7.14e+11	3.71e+12	7.07e+12	1.41e+12	1.99e-01
2p_3s+(0)-1s+2s+(1)	10.4894	6.26e+11	3.98e+12	6.93e+12	3.98e+11	5.74e-02
2p+3d+(1)-1s+2s+(0)	10.4897	6.80e+10	5.57e+12	2.49e+12	6.29e+10	2.53e-02
2p+3d_(1)-1s+2s+(0)	10.5193	6.60e+08	5.25e+12	1.56e+11	5.77e+07	3.71e-04
2s+3s+(1)-1s+2p_(0)	10.5295	9.71e+10	5.00e+12	1.40e+10	8.43e+08	5.70e-02
2s+3s+(1)-1s+2p_(1)	10.5298	3.31e+11	5.09e+12	1.40e+10	2.87e+09	1.94e-01
2p+3s+(1)-1s+2s+(0)	10.5308	4.60e+11	4.28e+12	8.33e+13	1.31e+12	1.57e-02
2s+3s+(1)-1s+2p+(2)	10.5314	7.10e+11	5.09e+12	1.40e+10	6.18e+09	4.17e-01
2s+3d_(2)-1s+2p_(1)	10.5345	2.30e+11	1.50e+12	3.02e+12	7.82e+11	2.59e-01
2s+3d_(1)-1s+2p_(0)	10.5347	1.85e+11	1.47e+12	2.49e+12	3.11e+11	1.25e-01
2s+3d_(1)-1s+2p_(1)	10.5350	1.53e+11	1.47e+12	2.49e+12	2.89e+11	1.16e-01
2s+3d+(3)-1s+2p+(2)	10.5354	3.87e+11	1.71e+12	2.44e+12	1.59e+12	6.54e-01
2s+3d_(2)-1s+2p+(2)	10.5361	1.14e+11	1.59e+12	3.02e+12	3.72e+11	1.23e-01
2p+3p+(0)-1s+2p+(1)	10.5361	1.01e+12	6.21e+12	4.88e+12	4.46e+11	9.14e-02
2s+3d_(1)-1s+2p+(2)	10.5366	1.39e+10	1.47e+12	2.49e+12	2.63e+10	1.05e-02
2p+3p+(2)-1s+2p_(1)	10.5394	3.40e+10	5.34e+12	7.51e+13	1.59e+11	2.12e-03
2p_3d_(1)-1s+2s+(0)	10.5403	4.08e+08	6.17e+12	1.51e+11	2.93e+07	1.94e-04
2p+3p+(2)-1s+2p+(2)	10.5411	1.55e+11	5.34e+12	7.51e+13	7.24e+11	9.65e-03
2p+3p+(2)-1s+2p_(1)	10.5423	2.88e+11	7.35e+12	1.41e+13	9.47e+11	6.70e-02
2p_3p+(1)-1s+2p_(0)	10.5433	4.58e+11	7.75e+12	2.88e+09	5.08e+08	1.76e-01
2p_3p+(1)-1s+2p_(1)	10.5436	3.64e+11	7.75e+12	2.88e+09	4.07e+08	1.41e-01
2p+3p+(2)-1s+2p+(2)	10.5439	8.18e+11	7.35e+12	1.41e+13	2.68e+12	1.90e-01
2p_3p_(0)-1s+2p_(1)	10.5444	1.29e+12	7.76e+12	6.08e+10	1.08e+10	1.65e-01
2p_3p+(1)-1s+2p+(2)	10.5452	4.80e+11	7.75e+12	2.88e+09	5.23e+08	1.82e-01
2s+3d+(2)-1s+2p+(1)	10.5666	2.40e+11	2.55e+12	5.07e+13	1.14e+12	2.26e-02
2p+3p+(1)-1s+2p_(0)	10.5742	1.11e+11	7.38e+12	3.08e+09	1.35e+08	4.51e-02
2p+3p+(1)-1s+2p_(1)	10.5744	4.78e+10	7.38e+12	3.08e+09	5.82e+07	1.94e-02
2p+3p+(1)-1s+2p+(2)	10.5761	3.56e+09	7.38e+12	3.08e+09	4.35e+06	1.45e-03
2p+3p+(3)-1s+2p+(2)	10.5783	1.38e+12	5.96e+12	1.38e+10	2.20e+10	1.64e+00
2p_3p+(2)-1s+2p_(1)	10.5789	1.09e+12	6.06e+12	7.25e+10	6.45e+10	8.91e-01
2p_3p+(2)-1s+2p+(2)	10.5795	3.38e+11	6.06e+12	7.25e+10	1.95e+10	2.68e-01
2p_3p_(1)-1s+2p_(0)	10.5797	7.14e+11	6.38e+12	2.00e+09	6.74e+08	3.36e-01
2p_3p_(1)-1s+2p_(1)	10.5799	5.41e+11	6.38e+12	2.00e+09	5.11e+08	2.55e-01
2p_3p_(1)-1s+2p+(2)	10.5806	3.23e+10	6.36e+12	2.00e+09	3.05e+07	1.52e-02
2s+3s+(0)-1s+2p_(1)	10.5873	1.89e+08	1.81e+12	1.52e+14	1.87e+09	1.23e-05
2p_3s+(1)-1s+2s+(0)	10.5875	2.51e+09	4.98e+12	8.18e+11	1.07e+09	1.32e-03
2s+3p_(1)-1s+2s+(0)	10.5951	1.23e+08	3.71e+12	7.07e+12	2.42e+09	3.41e-04
2s+3s+(1)-1s+2p+(1)	10.6017	2.32e+09	5.09e+12	1.40e+10	2.02e+07	1.36e-03
2s+3d_(2)-1s+2p+(1)	10.6065	6.79e+09	1.50e+12	3.02e+12	2.22e+10	7.35e-03
2s+3d_(1)-1s+2p+(1)	10.6070	1.16e+09	1.47e+12	2.49e+12	2.23e+09	8.93e-04
2p+3p+(2)-1s+2p+(1)	10.6115	7.28e+11	5.34e+12	7.51e+13	3.36e+12	4.46e-02
2s+3s+(1)-1s+2p_(0)	10.6141	6.75e+10	2.56e+12	1.62e+12	7.86e+10	4.85e-02
2s+3s+(1)-1s+2p_(1)	10.6143	2.00e+11	2.56e+12	1.62e+12	2.33e+11	1.44e-01
2p+3p+(2)-1s+2p+(1)	10.6144	1.22e+11	7.35e+12	1.41e+13	4.02e+11	2.85e-02
2p_3p+(1)-1s+2p+(1)	10.6157	2.13e+09	7.75e+12	2.88e+09	2.38e+08	8.25e-04
2s+3s+(1)-1s+2p+(2)	10.6160	3.17e+11	2.56e+12	1.62e+12	3.69e+11	2.28e-01
2s+3p_(1)-1s+2s+(0)	10.6196	9.51e+11	4.08e+12	1.79e+12	8.73e+11	4.88e-01
2p+3p+(1)-1s+2p+(1)	10.6470	1.68e+12	7.38e+12	3.08e+09	2.05e+09	6.84e-01
2p_3p_(1)-1s+2p+(1)	10.6515	2.28e+11	6.36e+12	2.00e+09	2.13e+08	1.06e-01
2s+3s+(0)-1s+2p+(1)	10.6601	2.97e+11	1.91e+12	1.52e+14	2.94e+11	1.93e-03
2p+4d+(1)-1s+3s+(0)	11.5014	3.42e+08	5.33e+12	1.41e+12	2.14e+08	1.52e-04
2p+4f+(2)-1s+3p_(1)	11.5086	3.69e+08	5.96e+12	3.39e+12	6.68e+08	1.97e-04
2p+4f_(1)-1s+3p_(0)	11.5095	7.37e+08	5.79e+12	2.87e+10	1.09e+07	3.80e-04
2p+4f_(1)-1s+3p_(1)	11.5096	5.48e+08	5.79e+12	2.87e+10	8.10e+06	2.83e-04
2p+4s+(2)-1s+3s+(1)	11.5104	4.95e+09	5.18e+12	1.44e+11	6.70e+08	4.65e-03
2p+4f_(2)-1s+3p_(1)	11.5114	4.97e+08	4.68e+12	4.95e+12	1.28e+08	2.57e-04
2p_4s+(1)-1s+3s+(1)	11.5119	4.70e+09	4.38e+12	4.75e+11	1.40e+09	2.95e-03
2p+4f+(3)-1s+3p+(2)	11.5120	1.58e+09	5.68e+12	4.35e+10	8.43e+07	1.94e-03
2s+4p_(0)-1s+3s+(1)	11.5126	4.63e+09	3.97e+12	5.50e+11	5.63e+08	1.02e-03
2p+4d+(1)-1s+3d+(2)	11.5168	1.58e+10	5.33e+12	1.41e+12	9.91e+09	7.04e-03
2p+4p+(0)-1s+3p+(1)	11.5200	3.94e+10	5.55e+12	2.03e+12	1.05e+10	5.20e-03
2p+4s+(1)-1s+3s+(0)	11.5211	4.23e+08	4.21e+12	3.08e+13	1.12e+09	3.62e-05
2p+4p+(1)-1s+3p_(0)	11.5215	8.02e+08	4.67e+12	1.11e+09	5.73e+05	5.15e-04
2p+4p+(1)-1s+3p_(1)	11.5216	2.34e+08	4.67e+12	1.11e+09	1.67e+06	1.50e-03
2p_4f+(3)-1s+3p+(2)	11.5219	4.38e+08	5.97e+12	4.90e+10	2.50e+07	5.10e-04
2p+4p+(1)-1s+3p+(2)	11.5222	3.86e+09	4.67e+12	1.11e+09	2.76e+06	2.48e-03
2p+4d_(3)-1s+3d+(2)	11.5232	5.38e+09	6.06e+12	9.04e+12	2.24e+10	2.48e-03
2s+4d+(3)-1s+3p+(2)	11.5263	8.65e+09	3.06e+12	8.94e+11	1.37e+10	1.53e-02

Z = 10

TRANSITION	LAMBDA	A(fif)	A(tot)	AUGER	Qd	gf
2s*4d*(2)-1s*3p_(1)	11.5264	5.82e+09	2.50e+12	1.11e+12	8.95e+09	8.07e-03
2s*4d_(1)-1s*3p_(0)	11.5269	3.98e+09	2.12e+12	9.99e+11	3.82e+09	3.82e-03
2s*4d_(1)-1s*3p_(1)	11.5270	2.94e+09	2.12e+12	9.99e+11	2.82e+09	2.83e-03
2s*4d*(2)-1s*3p*(2)	11.5270	1.92e+09	2.50e+12	1.11e+12	2.95e+08	2.66e-03
2s*4f*(4)-1s*3d*(3)	11.5313	1.45e+10	1.16e+12	3.47e+11	3.00e+10	8.84e-02
2s*4f_(3)-1s*3d_(2)	11.5316	1.20e+10	1.00e+12	3.08e+11	1.97e+10	6.39e-02
2s*4f_(3)-1s*3d*(3)	11.5317	1.32e+09	1.00e+12	3.08e+11	2.17e+09	7.05e-03
2s*4f_(2)-1s*3d_(1)	11.5319	1.09e+10	8.22e+11	2.48e+11	1.27e+10	5.11e-02
2s*4f_(2)-1s*3d_(2)	11.5319	1.79e+09	8.22e+11	2.48e+11	2.08e+09	8.38e-03
2s*4f*(3)-1s*3d*(2)	11.5321	1.68e+10	3.69e+10	1.37e+08	4.32e+08	3.16e+00
2p*4f*(2)-1s*3p*(1)	11.5336	3.96e+08	5.98e+12	3.39e+12	7.16e+06	2.11e-04
2p*4f_(2)-1s*3p*(1)	11.5362	1.18e+09	4.69e+12	4.95e+12	3.03e+09	6.11e-04
2p*4s*(1)-1s*3d*(2)	11.5366	1.54e+09	4.21e+12	3.08e+13	4.08e+09	1.32e-04
2p*4p*(1)-1s*3p_(0)	11.5421	6.99e+08	6.48e+12	6.22e+09	2.03e+06	3.27e-04
2p_4s*(1)-1s*3s*(0)	11.5425	2.70e+08	4.38e+12	4.75e+11	7.95e+07	1.67e-04
2p*4p*(3)-1s*3p*(2)	11.5443	1.65e+10	4.58e+12	2.71e+10	6.90e+08	2.55e-02
2p*4d*(2)-1s*3d_(1)	11.5450	3.39e+08	5.98e+12	1.23e+11	3.41e+07	2.78e-04
2p*4d*(4)-1s*3d*(3)	11.5455	4.43e+09	4.92e+12	1.12e+12	7.41e+09	6.60e-03
2p*4d*(2)-1s*3d*(2)	11.5459	6.38e+09	5.98e+12	1.23e+11	6.33e+08	5.16e-03
2p_4p*(2)-1s*3p_(1)	11.5460	1.39e+10	4.97e+12	3.77e+11	4.90e+09	1.30e-02
2p_4p*(2)-1s*3p*(2)	11.5466	4.47e+09	4.97e+12	3.77e+11	1.57e+09	4.18e-03
2p_4p_(1)-1s*3p_(0)	11.5477	1.04e+10	5.33e+12	1.78e+09	1.04e+07	5.85e-03
2p_4d*(3)-1s*3d_(2)	11.5478	4.78e+09	5.25e+12	1.22e+12	6.33e+09	5.17e-03
2p_4p_(1)-1s*3p_(1)	11.5478	7.85e+09	5.33e+12	1.78e+09	7.87e+08	4.42e-03
2p_4d*(3)-1s*3d*(3)	11.5479	7.06e+08	5.25e+12	1.22e+12	9.36e+08	7.64e-04
2p_4d_(2)-1s*3d_(1)	11.5497	4.70e+09	5.48e+12	1.12e+12	3.99e+09	3.56e-03
2p_4d_(2)-1s*3d_(2)	11.5497	1.18e+09	5.48e+12	1.12e+12	9.99e+08	8.90e-04
2p_4d_(2)-1s*3d*(2)	11.5506	5.66e+08	5.48e+12	1.12e+12	4.88e+08	4.28e-04
2s*4p_(1)-1s*3s*(0)	11.5521	5.27e+08	3.91e+12	2.25e+12	6.18e+08	2.75e-04
2p*4p_(1)-1s*3p*(1)	11.5583	8.26e+08	6.78e+12	7.78e+09	2.83e+08	3.65e-04
2s*4p*(1)-1s*3s*(0)	11.5589	3.05e+10	3.61e+12	5.11e+11	1.14e+10	2.22e-02
2p*4p_(2)-1s*3p*(1)	11.5863	5.14e+08	4.35e+12	2.44e+13	2.18e+09	8.94e-05
2s*4s*(1)-1s*3p_(0)	11.5839	1.20e+09	2.09e+12	6.24e+11	8.24e+08	1.32e-03
2s*4s*(1)-1s*3p_(1)	11.5840	3.64e+09	2.09e+12	6.24e+11	2.51e+09	4.02e-03
2s*4s*(1)-1s*3p*(2)	11.5848	5.79e+09	2.09e+12	6.24e+11	3.96e+09	6.34e-03
2s*4p*(2)-1s*3d_(2)	11.5851	7.14e+08	2.93e+12	2.31e+12	1.57e+08	6.78e-04
2s*4p*(2)-1s*3d*(3)	11.5852	4.01e+09	2.93e+12	2.31e+12	8.88e+08	3.81e-03
2s*4p_(1)-1s*3d_(1)	11.5867	1.21e+09	3.51e+12	2.25e+12	1.41e+08	6.28e-04
2s*4p_(1)-1s*3d_(2)	11.5868	3.54e+09	3.51e+12	2.25e+12	4.15e+08	1.85e-03
2p*4p*(1)-1s*3p*(1)	11.5871	5.10e+10	6.40e+12	6.22e+09	1.40e+08	2.39e-02
2p_4s*(0)-1s*3d_(1)	11.5878	4.88e+09	3.94e+12	2.05e+12	1.67e+09	8.16e-04
2p_4p_(1)-1s*3p*(1)	11.5728	4.38e+09	5.33e+12	1.78e+09	4.32e+08	2.42e-03
2s*4s*(0)-1s*3s*(1)	11.5888	7.88e+09	1.98e+12	4.98e+13	7.58e+09	1.53e-04
2p*3d*(1)-1s*3s*(0)	12.0721	4.18e+10	5.57e+12	2.49e+12	3.88e+10	1.55e-02
2p*3d_(0)-1s*3s*(1)	12.0770	2.58e+11	5.27e+12	4.40e+10	2.07e+09	4.70e-02
2p*3d_(1)-1s*3s*(1)	12.0775	2.63e+11	5.25e+12	1.58e+11	2.27e+10	1.46e-01
2p*3d*(2)-1s*3s*(1)	12.0783	2.98e+11	5.21e+12	5.16e+10	1.42e+10	2.75e-01
2p*3s*(0)-1s*3p*(1)	12.0865	5.20e+12	6.21e+12	4.88e+12	2.29e+12	4.69e-01
2p*3s*(1)-1s*3d_(1)	12.0881	1.15e+08	5.57e+12	2.49e+12	1.07e+09	4.30e-04
2p*3s*(1)-1s*3d_(2)	12.0881	5.48e+10	5.57e+12	2.49e+12	5.00e+10	2.01e-02
2p*3d*(1)-1s*3d*(2)	12.0892	5.41e+12	5.57e+12	2.49e+12	5.01e+12	2.01e+00
2p*3s*(1)-1s*3s*(1)	12.0927	1.53e+09	4.28e+12	8.33e+13	4.38e+09	5.23e-05
2s*3d*(2)-1s*3p_(1)	12.0992	1.28e+09	2.58e+12	5.07e+13	5.71e+09	1.13e-04
2s*3d*(2)-1s*3p*(2)	12.0996	2.11e+09	2.58e+12	5.07e+13	1.00e+10	1.98e-04
2p*3d_(3)-1s*3d_(2)	12.1042	1.43e+11	8.08e+12	1.83e+13	7.53e+11	4.11e-02
2p*3d_(3)-1s*3d*(3)	12.1043	8.40e+08	8.08e+12	1.83e+13	4.41e+10	2.41e-03
2p*3d_(2)-1s*3s*(1)	12.1044	2.78e+09	6.17e+12	1.04e+10	2.38e+07	2.25e-03
2p*3d_(3)-1s*3d*(2)	12.1052	5.92e+12	8.08e+12	1.83e+13	3.11e+13	1.70e+00
2p_3d_(1)-1s*3s*(1)	12.1052	1.27e+09	6.17e+12	1.51e+11	9.16e+07	6.05e-04
2p*4p*(0)-1s*4p_(1)	12.1057	5.60e+09	5.55e+12	2.03e+12	1.50e+09	7.39e-04
2p*4d_(0)-1s*4s*(1)	12.1110	2.18e+11	5.08e+12	2.21e+10	9.42e+08	4.27e-02
2p*3d_(1)-1s*3s*(0)	12.1112	4.50e+09	5.25e+12	1.56e+11	3.88e+08	2.50e-03
2p*4d_(1)-1s*4s*(1)	12.1114	2.52e+11	5.04e+12	2.07e+11	2.97e+10	1.44e-01
2p*4d*(1)-1s*4s*(0)	12.1116	5.42e+10	5.33e+12	1.41e+12	3.40e+10	2.41e-02
2p*4d*(2)-1s*4s*(1)	12.1121	3.17e+11	4.97e+12	2.91e+10	9.22e+09	3.17e-01
2p*4p*(0)-1s*4p*(1)	12.1163	4.84e+12	5.55e+12	2.03e+12	1.29e+12	6.38e-01
2p*4d*(1)-1s*4d_(1)	12.1193	5.48e+09	5.33e+12	1.41e+12	3.43e+09	2.44e-03
2p*4d*(1)-1s*4d_(2)	12.1193	9.28e+10	5.33e+12	1.41e+12	5.80e+10	4.12e-02
2p*4d*(1)-1s*4d*(2)	12.1199	5.11e+12	5.33e+12	1.41e+12	3.20e+12	2.28e+00
2p*4f*(2)-1s*4p_(1)	12.1207	8.82e+09	5.98e+12	3.39e+12	1.58e+10	4.71e-03
2p*4s*(1)-1s*4s*(1)	12.1208	1.76e+10	4.21e+12	3.08e+13	4.64e+10	1.51e-03
2p*4f*(2)-1s*4p*(2)	12.1212	5.98e+09	5.98e+12	3.39e+12	1.08e+10	3.19e-03
2p*4f_(1)-1s*4p_(0)	12.1214	8.78e+09	5.79e+12	2.87e+10	1.30e+08	4.52e-03
2p*4f_(1)-1s*4p_(1)	12.1215	5.78e+09	5.79e+12	2.87e+10	8.50e+07	2.97e-03
2s*4d*(2)-1s*4p*(2)	12.1232	4.60e+09	3.97e+12	1.48e+13	1.81e+10	1.23e-03

Z = 10

TRANSITION	LAMBDA	A(fif)	A(tot)	AUGER	Qd	gf
2p*4f_(2)-1s*4p_(1)	12.1236	1.48e+10	4.69e+12	4.95e+12	3.81e+10	7.68e-03
2p*4d_(2)-1s*4s*(1)	12.1236	1.88e+10	6.05e+12	1.54e+10	2.39e+08	1.55e-02
2p*4f_(2)-1s*4p*(2)	12.1240	1.08e+10	4.69e+12	4.95e+12	2.78e+10	5.61e-03
2p*4d_(1)-1s*4s*(0)	12.1241	1.88e+10	5.04e+12	2.07e+11	2.12e+09	1.03e-02
2p*4f*(3)-1s*4p*(2)	12.1241	3.28e+10	5.88e+12	4.35e+10	1.75e+09	4.02e-02
2p_4d_(1)-1s*4s*(1)	12.1248	4.34e+09	6.11e+12	1.19e+12	2.13e+09	1.78e-03
2p*4d_(3)-1s*4d_(2)	12.1264	5.15e+11	8.08e+12	9.04e+12	2.18e+12	2.39e-01
2p*3s*(1)-1s*3s*(0)	12.1265	3.32e+12	4.26e+12	8.33e+13	9.48e+12	1.14e-01
2s*3d*(2)-1s*3p*(1)	12.1266	2.29e+12	2.55e+12	5.07e+13	1.09e+13	2.15e-01
2p*4d_(3)-1s*4d*(3)	12.1266	7.06e+10	6.08e+12	9.04e+12	2.98e+11	3.28e-02
2p*3d_(0)-1s*3d_(1)	12.1268	4.80e+12	5.27e+12	4.40e+10	3.98e+10	9.04e-01
2p*4d_(3)-1s*4d*(2)	12.1270	5.47e+12	6.06e+12	9.04e+12	2.29e+13	2.54e+00
2p*3d_(1)-1s*3d_(1)	12.1274	1.43e+12	5.25e+12	1.56e+11	1.23e+11	7.93e-01
2p*3d_(1)-1s*3d_(2)	12.1274	3.28e+12	5.25e+12	1.56e+11	2.84e+11	1.82e+00
2p*3d*(2)-1s*3d_(1)	12.1282	7.93e+10	5.21e+12	5.16e+10	3.89e+09	7.54e-02
2p*3d*(2)-1s*3d_(2)	12.1282	9.10e+11	5.21e+12	5.16e+10	4.48e+10	8.65e-01
2p*3d*(2)-1s*3d*(3)	12.1283	3.84e+12	5.21e+12	5.16e+10	1.79e+11	3.48e+00
2p*3d_(1)-1s*3d*(2)	12.1284	4.56e+10	5.25e+12	1.56e+11	3.94e+09	2.53e-02
2p*4f*(2)-1s*4f_(3)	12.1288	5.34e+10	5.98e+12	3.39e+12	9.65e+10	2.85e-02
2p*4f*(2)-1s*4f_(2)	12.1289	1.05e+11	5.98e+12	3.39e+12	1.89e+11	5.59e-02
2p*4f*(2)-1s*4f*(3)	12.1290	5.43e+12	5.98e+12	3.39e+12	9.82e+12	2.90e+00
2p*3d*(2)-1s*3d*(2)	12.1292	4.23e+10	5.21e+12	5.16e+10	2.08e+09	4.02e-02
2p*4f_(1)-1s*4f_(2)	12.1297	5.78e+12	5.79e+12	2.87e+10	8.53e+10	2.98e+00
2s*4d*(2)-1s*4f_(3)	12.1309	1.41e+12	3.97e+12	1.48e+13	5.58e+12	3.75e-01
2s*4d*(2)-1s*4f_(2)	12.1309	5.49e+11	3.97e+12	1.48e+13	2.18e+12	1.46e-01
2s*4d*(2)-1s*4f*(3)	12.1310	2.05e+11	3.97e+12	1.48e+13	1.04e+12	7.08e-02
2p*4d*(2)-1s*4s*(1)	12.1311	2.77e+10	5.98e+12	1.23e+11	2.78e+09	2.27e-02
2p*4d_(0)-1s*4d_(1)	12.1313	4.78e+12	5.09e+12	2.21e+10	2.08e+10	9.35e-01
2p*4f*(2)-1s*4p*(1)	12.1314	3.34e+11	5.98e+12	3.39e+12	6.48e+11	1.89e-01
2p*4f_(2)-1s*4f_(3)	12.1317	3.05e+12	4.69e+12	4.95e+12	7.84e+12	1.58e+00
2p*4f_(2)-1s*4f_(2)	12.1317	8.48e+11	4.69e+12	4.95e+12	2.18e+12	4.39e-01
2p*4d_(1)-1s*4d_(1)	12.1318	1.71e+12	5.04e+12	2.07e+11	2.02e+11	9.79e-01
2s*2p*(1)-1s*2s*(1)	12.1318	1.09e+09	9.85e+12	2.29e+14	3.28e+09	1.40e-05
2p*4f*(3)-1s*4f_(3)	12.1318	3.28e+11	5.88e+12	4.35e+10	1.75e+10	4.02e-01
2p*4f*(3)-1s*4f_(2)	12.1318	5.81e+10	5.88e+12	4.35e+10	3.09e+09	7.11e-02
2p*4d_(1)-1s*4d_(2)	12.1318	2.87e+12	5.04e+12	2.07e+11	3.39e+11	1.64e+00
2p*4f_(2)-1s*4f*(3)	12.1318	1.08e+11	4.69e+12	4.95e+12	4.32e+11	8.73e-02
2p*4f*(3)-1s*4f*(4)	12.1319	4.31e+12	5.88e+12	4.35e+10	2.29e+11	5.27e+00
2p*4f*(3)-1s*4f*(3)	12.1319	9.53e+11	5.88e+12	4.35e+10	5.07e+10	1.17e+00
2p*4d_(1)-1s*4d*(2)	12.1324	9.81e+10	5.04e+12	2.07e+11	1.13e+10	5.49e-02
2p*4d*(2)-1s*4d_(1)	12.1324	1.58e+11	4.97e+12	2.91e+10	3.77e+09	1.30e-01
2p*4d*(2)-1s*4d_(2)	12.1325	1.08e+12	4.97e+12	2.91e+10	3.09e+10	1.06e+00
2p*4d*(2)-1s*4d*(3)	12.1327	3.15e+12	4.97e+12	2.91e+10	9.18e+10	3.16e+00
2p*4d*(2)-1s*4d*(2)	12.1330	2.04e+11	4.97e+12	2.91e+10	5.93e+09	2.04e-01
2p*4f_(4)-1s*4f_(3)	12.1334	4.48e+12	6.08e+12	2.65e+11	1.66e+12	6.33e+00
2s*4d*(2)-1s*4p*(1)	12.1334	1.63e+12	3.97e+12	1.48e+13	8.43e+12	4.34e-01
2p*3d*(2)-1s*3s*(1)	12.1335	1.98e+09	6.11e+12	8.67e+11	1.23e+09	1.42e-03
2p*4f_(4)-1s*4f*(4)	12.1335	2.37e+11	6.08e+12	2.65e+11	8.88e+10	3.36e-01
2p*4s*(1)-1s*4s*(0)	12.1335	3.09e+12	4.21e+12	3.08e+13	8.15e+12	2.65e-01
2p*4f_(4)-1s*4f*(3)	12.1335	1.38e+12	6.08e+12	2.65e+11	5.19e+11	1.96e+00
2p*4f_(2)-1s*4p*(1)	12.1342	5.53e+11	4.69e+12	4.95e+12	1.42e+12	2.87e-01
2p*4p*(1)-1s*4p_(0)	12.1347	6.98e+11	4.67e+12	1.11e+09	4.99e+08	4.49e-01
2p_4f_(2)-1s*4p_(1)	12.1347	1.36e+10	6.08e+12	4.38e+10	4.87e+06	1.11e-02
2p*4p*(1)-1s*4p_(1)	12.1349	1.72e+12	4.67e+12	1.11e+09	1.23e+09	1.11e+00
2p_4f*(3)-1s*4p*(2)	12.1351	5.08e+10	5.97e+12	4.98e+10	2.89e+09	5.91e-02
2p_4f_(2)-1s*4p*(2)	12.1352	1.76e+09	6.08e+12	4.38e+10	6.28e+07	1.43e-03
2p*4p*(1)-1s*4p*(2)	12.1353	1.83e+12	4.67e+12	1.11e+09	1.31e+09	1.18e+00
2p*4f*(5)-1s*4f*(4)	12.1354	6.08e+12	6.08e+12	1.39e+11	1.56e+12	1.08e+01
2p_4f_(3)-1s*4p*(2)	12.1356	2.36e+10	6.07e+12	4.85e+10	1.26e+09	2.70e-02
2s*4f*(3)-1s*4d_(2)	12.1363	5.38e+08	3.69e+10	1.37e+08	1.37e+07	1.00e-01
2p_4d_(2)-1s*4s*(1)	12.1363	3.36e+09	5.48e+12	1.12e+12	2.85e+09	2.54e-03
2s*4f*(3)-1s*4d*(3)	12.1364	9.12e+08	3.69e+10	1.37e+08	2.35e+07	1.72e-01
2s*4f*(4)-1s*4d*(3)	12.1365	1.15e+12	1.18e+12	3.47e+11	2.37e+12	6.85e+00
2s*4f_(3)-1s*4d_(2)	12.1366	8.45e+11	1.08e+12	3.08e+11	1.39e+12	4.51e+00
2s*4f*(3)-1s*4d*(2)	12.1366	1.87e+10	3.69e+10	1.37e+08	4.83e+08	3.54e+00
2s*4f_(3)-1s*4d*(3)	12.1369	1.38e+09	1.00e+12	3.08e+11	2.27e+09	7.35e-03
2s*4f_(2)-1s*4d_(1)	12.1370	7.52e+11	8.22e+11	2.48e+11	8.72e+11	3.51e+00
2s*4f_(2)-1s*4d_(2)	12.1370	2.82e+10	8.22e+11	2.48e+11	3.28e+10	1.32e-01
2s*4f_(2)-1s*4d*(3)	12.1372	1.25e+09	8.22e+11	2.48e+11	1.45e+09	5.84e-03
2p*4f*(4)-1s*4f_(3)	12.1373	1.62e+12	6.10e+12	1.17e+11	2.73e+11	2.34e+00
2s*4f_(3)-1s*4d*(2)	12.1373	1.43e+11	1.00e+12	3.08e+11	2.36e+11	7.65e-01
2p*4f*(4)-1s*4f*(4)	12.1374	5.11e+11	6.10e+12	1.17e+11	8.63e+10	7.39e-01
2p*4f*(4)-1s*4f*(3)	12.1374	3.98e+12	6.10e+12	1.17e+11	6.72e+11	5.75e+00
2p_4d_(1)-1s*4s*(0)	12.1375	1.46e+11	6.11e+12	1.19e+12	7.15e+10	5.99e-02
2s*4f_(2)-1s*4d*(2)	12.1376	2.78e+10	8.22e+11	2.48e+11	3.22e+10	1.30e-01

Z = 10

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p* (3/2)-1s* (1/2)	12.1378	6.35e+12	6.35e+12	0.	0.	4.00e+00
2p_3d_(2)-1s*3s*(1)	12.1378	5.05e+08	6.06e+12	3.08e+12	6.52e+08	2.77e-04
2p*4f_(3)-1s*4f_(3)	12.1380	7.69e+11	6.11e+12	9.64e+10	6.38e+10	8.68e-01
2p*4f_(3)-1s*4f_(2)	12.1380	4.95e+12	6.11e+12	9.64e+10	5.38e+11	5.58e+00
2p*4f_(3)-1s*4f*(4)	12.1380	4.92e+10	6.11e+12	9.64e+10	5.35e+09	5.55e-02
2p*4f_(3)-1s*4f*(3)	12.1381	3.40e+11	6.11e+12	9.64e+10	3.70e+10	3.84e-01
2p_3d_(1)-1s*3s*(0)	12.1391	7.91e+09	6.17e+12	1.51e+11	5.69e+08	3.76e-03
2s*4d*(3)-1s*4p*(2)	12.1399	2.00e+12	3.06e+12	8.94e+11	3.16e+12	3.53e+00
2s*4d*(2)-1s*4p_(1)	12.1402	1.60e+12	2.50e+12	1.11e+12	2.46e+12	2.22e+00
2s*4d_(1)-1s*4p_(0)	12.1407	1.04e+12	2.12e+12	9.99e+11	9.98e+11	9.99e-01
2s*4d*(2)-1s*4p*(2)	12.1407	1.69e+11	2.50e+12	1.11e+12	2.59e+11	2.34e-01
2s*4d_(1)-1s*4p_(1)	12.1408	4.77e+11	2.12e+12	9.99e+11	4.58e+11	4.58e-01
2p*4s*(1)-1s*4d_(1)	12.1412	2.69e+11	4.21e+12	3.08e+13	7.10e+11	2.31e-02
2s*4d_(1)-1s*4p*(2)	12.1413	5.19e+09	2.12e+12	9.99e+11	4.98e+09	4.98e-03
2p*4s*(1)-1s*4d*(2)	12.1418	6.27e+11	4.21e+12	3.08e+13	1.85e+12	5.57e-02
2p_4f*(4)-1s*4f_(3)	12.1425	3.52e+09	6.15e+12	4.89e+10	2.50e+08	5.10e-03
2p*3s*(1)-1s*3d_(1)	12.1426	2.02e+10	4.26e+12	8.33e+13	5.77e+10	6.93e-04
2p*3s*(1)-1s*3d_(2)	12.1426	8.61e+09	4.26e+12	8.33e+13	2.46e+10	2.95e-04
2p_4f*(4)-1s*4f*(4)	12.1426	5.42e+12	6.15e+12	4.89e+10	3.85e+11	7.87e+00
2p_4f*(4)-1s*4f*(3)	12.1426	7.24e+11	6.15e+12	4.89e+10	5.14e+10	1.05e+00
2p_4f*(3)-1s*4f_(3)	12.1428	1.68e+12	5.97e+12	4.90e+10	9.57e+10	1.95e+00
2p_4f*(3)-1s*4f_(2)	12.1428	1.78e+10	5.97e+12	4.90e+10	1.01e+09	2.07e-02
2p_4f*(3)-1s*4f*(4)	12.1429	1.01e+12	5.97e+12	4.90e+10	5.78e+10	1.18e+00
2p*4s*(2)-1s*4s*(1)	12.1429	3.82e+12	5.18e+12	1.44e+11	4.90e+11	3.40e+00
2p_4f_(2)-1s*4f_(3)	12.1429	1.28e+12	6.08e+12	4.38e+10	4.49e+10	1.03e+00
2p_4f*(3)-1s*4f*(3)	12.1429	3.20e+12	5.97e+12	4.90e+10	1.82e+11	3.72e+00
2p_4f_(2)-1s*4f_(2)	12.1429	4.66e+12	6.08e+12	4.38e+10	1.67e+11	3.82e+00
2p*4d*(3)-1s*4d_(2)	12.1430	1.09e+12	6.03e+12	7.79e+10	9.78e+10	1.25e+00
2p_4f_(2)-1s*4f*(3)	12.1430	1.28e+11	6.08e+12	4.38e+10	4.59e+09	1.05e-01
2p*4d*(3)-1s*4d*(3)	12.1431	4.93e+12	6.03e+12	7.79e+10	4.41e+11	5.65e+00
2p_ (1/2)-1s* (1/2)	12.1432	6.34e+12	6.34e+12	0.	0.	2.00e+00
2p_4f_(3)-1s*4f_(3)	12.1433	3.37e+12	6.07e+12	4.65e+10	1.79e+11	3.85e+00
2p_4f_(3)-1s*4f_(2)	12.1433	1.06e+12	6.07e+12	4.65e+10	5.63e+10	1.21e+00
2p_4f_(3)-1s*4f*(4)	12.1434	8.62e+09	6.07e+12	4.65e+10	4.59e+08	9.87e-03
2p_4f_(3)-1s*4f*(3)	12.1434	1.61e+12	6.07e+12	4.65e+10	8.58e+10	1.84e+00
2p*4d*(3)-1s*4d*(2)	12.1435	3.06e+09	6.03e+12	7.79e+10	2.74e+08	3.51e-03
2p*3s*(1)-1s*3d*(2)	12.1437	4.35e+11	4.26e+12	8.33e+13	1.24e+12	1.49e-02
2p*4d_(2)-1s*4d_(1)	12.1440	1.24e+12	6.05e+12	1.54e+10	1.57e+10	1.02e+00
2p*4d_(2)-1s*4d_(2)	12.1441	3.44e+12	6.05e+12	1.54e+10	4.36e+10	2.83e+00
2p*4d_(2)-1s*4d*(3)	12.1443	1.32e+12	6.05e+12	1.54e+10	1.67e+10	1.09e+00
2p_4s*(1)-1s*4s*(1)	12.1445	2.79e+12	4.36e+12	4.75e+11	8.23e+11	1.73e+00
2p*4d_(2)-1s*4d*(2)	12.1448	3.17e+10	6.05e+12	1.54e+10	4.03e+08	2.62e-02
2s*3s*(1)-1s*3p_(0)	12.1451	5.76e+11	5.09e+12	1.48e+10	5.00e+09	3.38e-01
2s*3s*(1)-1s*3p_(1)	12.1452	1.50e+12	5.09e+12	1.48e+10	1.30e+10	8.82e-01
2p_4d_(1)-1s*4d_(1)	12.1452	3.91e+12	6.11e+12	1.19e+12	1.92e+12	1.61e+00
2p_4d_(1)-1s*4d_(2)	12.1453	2.04e+12	6.11e+12	1.19e+12	1.00e+12	8.37e-01
2s*4p_(0)-1s*4s*(1)	12.1454	2.40e+12	3.97e+12	5.58e+11	2.92e+11	5.31e-01
2p_4f_(2)-1s*4p*(1)	12.1454	3.62e+09	6.08e+12	4.38e+10	1.30e+08	2.96e-03
2p*4p*(2)-1s*4p_(1)	12.1454	1.31e+12	6.42e+12	2.58e+12	1.88e+12	7.28e-01
2p*4p*(1)-1s*4p*(1)	12.1455	3.62e+10	4.67e+12	1.11e+09	2.58e+07	2.32e-02
2s*3s*(1)-1s*3p*(2)	12.1459	1.87e+12	5.09e+12	1.48e+10	1.62e+10	1.10e+00
2p*4p*(2)-1s*4p*(2)	12.1459	4.12e+12	6.42e+12	2.58e+12	5.90e+12	2.29e+00
2s*4d*(3)-1s*4f_(3)	12.1477	2.41e+10	3.06e+12	8.94e+11	3.82e+10	4.27e-02
2s*4d*(3)-1s*4f_(2)	12.1477	3.08e+09	3.06e+12	8.94e+11	4.87e+09	5.45e-03
2s*4d*(3)-1s*4f*(4)	12.1478	7.67e+11	3.06e+12	8.94e+11	1.21e+12	1.36e+00
2s*4d*(3)-1s*4f*(3)	12.1478	6.82e+10	3.06e+12	8.94e+11	1.08e+11	1.21e-01
2p*4p_(1)-1s*4p_(0)	12.1478	1.94e+12	6.78e+12	7.76e+09	6.65e+09	8.57e-01
2p*4p_(1)-1s*4p_(1)	12.1479	1.24e+12	6.78e+12	7.76e+09	4.26e+09	5.49e-01
2p*4p_(1)-1s*4p*(2)	12.1484	2.92e+12	6.78e+12	7.76e+09	1.00e+10	1.29e+00
2s*4d*(2)-1s*4f_(3)	12.1484	3.48e+11	2.50e+12	1.11e+12	5.35e+11	4.83e-01
2s*4d*(2)-1s*4f_(2)	12.1484	1.20e+09	2.50e+12	1.11e+12	1.84e+09	1.66e-03
2s*4d*(2)-1s*4f*(3)	12.1485	1.89e+11	2.50e+12	1.11e+12	2.90e+11	2.62e-01
2p*4d_(1)-1s*4f_(2)	12.1490	4.14e+11	2.12e+12	9.99e+11	3.97e+11	3.97e-01
2p_4p_(0)-1s*4p_(1)	12.1491	6.22e+12	6.84e+12	1.22e+11	1.09e+11	8.93e-01
2p*4p_(2)-1s*4p_(1)	12.1491	2.82e+11	4.35e+12	2.44e+13	1.20e+12	4.90e-02
2p*4p_(2)-1s*4p*(2)	12.1496	4.55e+11	4.35e+12	2.44e+13	1.93e+12	7.92e-02
2s*4d*(2)-1s*4p*(1)	12.1509	9.49e+09	2.50e+12	1.11e+12	1.46e+10	1.32e-02
2s*3d*(3)-1s*3p*(2)	12.1512	1.31e+12	1.71e+12	2.44e+12	5.39e+12	2.21e+00
2s*4d_(1)-1s*4p*(1)	12.1515	3.17e+10	2.12e+12	9.99e+11	3.05e+10	3.05e-02
2s*3d_(2)-1s*3p_(1)	12.1515	1.00e+12	1.59e+12	3.02e+12	3.27e+12	1.08e+00
2p*4d*(2)-1s*4d_(1)	12.1515	2.82e+11	5.98e+12	1.23e+11	2.83e+10	2.31e-01
2p*4d*(2)-1s*4d_(2)	12.1516	2.61e+09	5.98e+12	1.23e+11	2.62e+08	2.14e-03
2p*4d*(2)-1s*4d*(3)	12.1517	6.71e+10	5.98e+12	1.23e+11	6.74e+09	5.50e-02
2s*3d_(1)-1s*3p_(0)	12.1521	6.98e+11	1.47e+12	2.49e+12	1.32e+12	5.28e-01
2p*4d*(2)-1s*4d*(2)	12.1521	5.59e+12	5.98e+12	1.23e+11	5.62e+11	4.58e+00

Z = 10

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*3d_(1)-1s*3p_(1)	12.1522	4.13e+11	1.47e+12	2.49e+12	7.79e+11	3.12e-01
2s*3d_(2)-1s*3p*(2)	12.1522	2.06e+11	1.59e+12	3.02e+12	6.76e+11	2.24e-01
2p*4d*(4)-1s*4d*(3)	12.1522	4.92e+12	4.92e+12	1.12e+12	8.22e+12	7.32e+00
2s*3d_(1)-1s*3p*(2)	12.1528	1.37e+10	1.47e+12	2.49e+12	2.58e+10	1.03e-02
2s*4p*(2)-1s*4s*(1)	12.1533	2.20e+12	2.95e+12	2.31e+12	4.82e+12	2.09e+00
2p*3d*(3)-1s*3d_(2)	12.1533	9.03e+11	6.17e+12	3.12e+10	3.17e+10	1.02e+00
2p*3d*(3)-1s*3d*(3)	12.1535	5.27e+12	6.17e+12	3.12e+10	1.85e+11	5.94e+00
2p*4p*(2)-1s*4f_(3)	12.1538	1.72e+09	6.42e+12	2.58e+12	2.46e+09	9.54e-04
2p*4p*(2)-1s*4f_(2)	12.1538	8.37e+08	6.42e+12	2.58e+12	1.20e+09	4.65e-04
2p*4p*(2)-1s*4f*(3)	12.1537	1.28e+10	6.42e+12	2.58e+12	1.84e+10	7.13e-03
2p*3d*(3)-1s*3d*(2)	12.1544	3.63e+09	6.17e+12	3.12e+10	1.38e+08	4.44e-03
2p*3d_(2)-1s*3d_(2)	12.1545	3.83e+12	6.17e+12	1.06e+10	3.30e+10	3.11e+00
2p*3d_(2)-1s*3d_(1)	12.1545	1.09e+12	6.17e+12	1.06e+10	9.38e+09	8.83e-01
2p*3d_(2)-1s*3d*(3)	12.1546	1.17e+12	6.17e+12	1.06e+10	1.01e+10	9.50e-01
2p_4d*(3)-1s*4d_(2)	12.1547	3.62e+12	5.25e+12	1.22e+12	4.80e+12	3.92e+00
2p_4d*(3)-1s*4d*(3)	12.1548	1.17e+12	5.25e+12	1.22e+12	1.55e+12	1.27e+00
2s*4p_(1)-1s*4s*(1)	12.1551	2.88e+12	3.51e+12	2.25e+12	3.49e+12	1.55e+00
2p_4d*(3)-1s*4d*(2)	12.1552	4.48e+11	5.25e+12	1.22e+12	5.94e+11	4.85e-01
2p_3d_(1)-1s*3d_(1)	12.1553	4.40e+12	6.17e+12	1.51e+11	3.16e+11	2.09e+00
2p_3d_(1)-1s*3d_(2)	12.1553	1.75e+12	6.17e+12	1.51e+11	1.26e+11	8.31e-01
2p*3d_(2)-1s*3d*(2)	12.1555	4.87e+10	6.17e+12	1.06e+10	4.27e+08	4.03e-02
2p*4p*(2)-1s*4p*(1)	12.1561	3.97e+11	6.42e+12	2.58e+12	5.69e+11	2.21e-01
2p*4p_(1)-1s*4f_(2)	12.1562	4.17e+09	6.78e+12	7.76e+09	1.43e+07	1.84e-03
2p_4s*(0)-1s*4s*(1)	12.1563	3.57e+12	3.94e+12	2.05e+12	1.22e+12	5.96e-01
2p_3d_(1)-1s*3d*(2)	12.1564	6.56e+09	6.17e+12	1.51e+11	4.72e+08	3.12e-03
2p_4d_(2)-1s*4d_(1)	12.1567	3.68e+12	5.48e+12	1.12e+12	3.12e+12	2.78e+00
2p_4d_(2)-1s*4d_(2)	12.1568	1.44e+12	5.48e+12	1.12e+12	1.22e+12	1.09e+00
2p_4d_(2)-1s*4d*(3)	12.1570	5.45e+10	5.48e+12	1.12e+12	4.61e+10	4.11e-02
2p_4s*(1)-1s*4s*(0)	12.1573	8.31e+09	4.36e+12	4.75e+11	1.86e+09	3.92e-03
2p*4p_(2)-1s*4f_(3)	12.1573	8.14e+10	4.35e+12	2.44e+13	3.45e+11	1.42e-02
2p_4d_(2)-1s*4d*(2)	12.1573	3.02e+11	5.48e+12	1.12e+12	2.57e+11	2.29e-01
2p*4p_(2)-1s*4f*(3)	12.1574	1.92e+10	4.35e+12	2.44e+13	8.13e+10	3.34e-03
2p*4p*(1)-1s*4p_(0)	12.1578	5.39e+10	6.48e+12	6.22e+09	1.57e+08	2.52e-02
2p*4p*(1)-1s*4p_(1)	12.1577	1.46e+11	6.48e+12	6.22e+09	4.09e+08	6.57e-02
2p*3p*(2)-1s*3p_(1)	12.1581	2.42e+11	5.34e+12	7.51e+13	1.13e+12	1.50e-02
2p*4p*(1)-1s*4p*(2)	12.1582	1.31e+11	6.48e+12	6.22e+09	3.82e+08	6.14e-02
2p*4p_(1)-1s*4p*(1)	12.1586	6.55e+10	6.78e+12	7.76e+09	2.25e+08	2.90e-02
2p*3p*(2)-1s*3p*(2)	12.1588	7.06e+11	5.34e+12	7.51e+13	3.27e+12	4.35e-02
2p_4p_(0)-1s*4p*(1)	12.1589	1.46e+08	6.84e+12	1.22e+11	2.00e+07	2.13e-04
2p*4p_(2)-1s*4p*(1)	12.1589	3.12e+12	4.35e+12	2.44e+13	1.33e+13	5.44e-01
2p*4p*(3)-1s*4p*(2)	12.1589	3.86e+12	4.50e+12	2.71e+10	1.86e+11	6.12e+00
2p*3p*(2)-1s*3p_(1)	12.1619	1.38e+12	7.35e+12	1.41e+13	4.53e+12	3.21e-01
2p_4p*(2)-1s*4p_(1)	12.1620	2.89e+12	4.97e+12	3.77e+11	1.02e+12	2.70e+00
2p_4p*(2)-1s*4p*(2)	12.1625	1.45e+12	4.97e+12	3.77e+11	5.12e+11	1.36e+00
2p*3p*(2)-1s*3p*(2)	12.1626	4.14e+12	7.35e+12	1.41e+13	1.36e+13	9.63e-01
2s*4p*(1)-1s*4s*(1)	12.1627	1.36e+11	3.61e+12	5.11e+11	5.06e+10	9.89e-02
2p*4s*(2)-1s*4d_(1)	12.1634	2.33e+09	5.18e+12	1.44e+11	3.15e+08	2.19e-03
2p*4s*(2)-1s*4d_(2)	12.1634	1.56e+11	5.18e+12	1.44e+11	2.12e+10	1.47e-01
2p_3p*(1)-1s*3p_(0)	12.1636	2.03e+12	7.75e+12	2.88e+09	2.27e+09	7.86e-01
2p*4s*(2)-1s*4d*(3)	12.1636	1.27e+12	5.18e+12	1.44e+11	1.72e+11	1.19e+00
2p_3p*(1)-1s*3p_(1)	12.1636	1.44e+12	7.75e+12	2.88e+09	1.61e+09	5.57e-01
2p_4p_(1)-1s*4p_(0)	12.1638	2.23e+12	5.33e+12	1.78e+09	2.24e+09	1.26e+00
2p_4p_(1)-1s*4p_(1)	12.1640	1.96e+12	5.33e+12	1.78e+09	1.97e+09	1.11e+00
2p*4s*(2)-1s*4d*(2)	12.1640	1.01e+10	5.18e+12	1.44e+11	1.36e+09	9.45e-03
2p_3p*(1)-1s*3p*(2)	12.1643	2.98e+12	7.75e+12	2.88e+09	3.32e+09	1.15e+00
2p_4p_(1)-1s*4p*(2)	12.1644	1.52e+11	5.33e+12	1.78e+09	1.53e+08	8.58e-02
2p_3p_(0)-1s*3p_(1)	12.1648	6.47e+12	7.76e+12	6.08e+10	5.03e+10	8.28e-01
2p_4s*(1)-1s*4d_(1)	12.1650	2.56e+11	4.36e+12	4.75e+11	7.59e+10	1.60e-01
2p_4s*(1)-1s*4d_(2)	12.1650	9.97e+11	4.36e+12	4.75e+11	2.94e+11	6.19e-01
2p*3s*(2)-1s*3s*(1)	12.1655	3.77e+12	5.42e+12	2.81e+11	8.87e+11	3.32e+00
2p_4s*(1)-1s*4d*(2)	12.1656	9.18e+10	4.36e+12	4.75e+11	2.71e+10	5.70e-02
2s*4p_(0)-1s*4d_(1)	12.1658	1.32e+12	3.97e+12	5.50e+11	1.61e+11	2.92e-01
2p*4p*(1)-1s*4f_(2)	12.1660	8.31e+09	6.48e+12	6.22e+09	2.42e+07	3.88e-03
2p_3s*(1)-1s*3s*(1)	12.1675	3.81e+12	4.98e+12	8.18e+11	1.29e+12	1.58e+00
2p*4p*(3)-1s*4f_(3)	12.1676	4.28e+09	4.50e+12	2.71e+10	1.79e+08	6.59e-03
2p*4p*(3)-1s*4f*(4)	12.1677	9.67e+10	4.50e+12	2.71e+10	4.05e+09	1.48e-01
2p*4p*(3)-1s*4f*(3)	12.1677	6.22e+08	4.50e+12	2.71e+10	2.61e+07	9.61e-04
2s*4p_(1)-1s*4s*(0)	12.1679	1.46e+10	3.51e+12	2.25e+12	1.71e+10	7.60e-03
2p*4p*(1)-1s*4p*(1)	12.1684	5.48e+12	6.48e+12	6.22e+09	1.59e+10	2.56e+00
2p_3s*(0)-1s*3s*(1)	12.1685	2.62e+12	4.62e+12	1.14e+12	5.18e+11	4.55e-01
2p_4p*(2)-1s*4f_(3)	12.1702	3.36e+10	4.97e+12	3.77e+11	1.18e+10	3.13e-02
2p_4p*(2)-1s*4f_(2)	12.1702	5.02e+09	4.97e+12	3.77e+11	1.77e+09	4.70e-03
2p_4p*(2)-1s*4f*(3)	12.1703	2.68e+10	4.97e+12	3.77e+11	9.46e+09	2.51e-02
2p_4p_(1)-1s*4f_(2)	12.1722	4.58e+10	5.33e+12	1.78e+09	4.59e+07	2.58e-02
2p_4p*(2)-1s*4p*(1)	12.1727	7.55e+10	4.97e+12	3.77e+11	2.68e+10	7.06e-02

Z = 10

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4s*(0)-1s*4p_(1)	12.1728	4.32e+10	1.90e+12	4.90e+13	4.16e+10	8.48e-04
2s*3s*(1)-1s*3p*(1)	12.1728	7.69e+09	5.09e+12	1.48e+10	6.67e+07	4.51e-03
2s*4p*(2)-1s*4d_(1)	12.1736	2.00e+09	2.95e+12	2.31e+12	4.39e+09	1.90e-03
2s*4p*(2)-1s*4d_(2)	12.1739	4.83e+10	2.95e+12	2.31e+12	1.06e+11	4.59e-02
2s*4s*(2)-1s*4d*(3)	12.1740	3.72e+11	2.95e+12	2.31e+12	8.16e+11	3.54e-01
2p*2p*(0)-1s*2p*(1)	12.1746	8.98e+12	9.01e+12	6.20e+12	3.86e+12	5.90e-01
2p_4p_(1)-1s*4p*(1)	12.1747	4.12e+11	5.33e+12	1.78e+09	4.13e+08	2.32e-01
2s*4p*(1)-1s*4s*(0)	12.1755	2.76e+12	3.61e+12	5.11e+11	1.03e+12	2.01e+00
2s*3p*(2)-1s*3s*(1)	12.1756	2.06e+12	3.24e+12	7.42e+12	7.18e+12	9.65e-01
2s*4p_(1)-1s*4d_(1)	12.1756	4.36e+10	3.51e+12	2.25e+12	5.11e+10	2.27e-02
2s*4p_(1)-1s*4d_(2)	12.1757	1.94e+11	3.51e+12	2.25e+12	2.27e+11	1.01e-01
2p_4s*(0)-1s*4d_(1)	12.1768	1.39e+11	3.94e+12	2.05e+12	4.78e+10	2.33e-02
2s*3p_(1)-1s*3s*(1)	12.1778	2.84e+12	3.71e+12	7.07e+12	5.59e+12	7.90e-01
2p_3s*(0)-1s*3s*(1)	12.1786	3.26e+12	3.98e+12	6.93e+12	2.07e+12	2.99e-01
2s*3d_(2)-1s*3p*(1)	12.1792	1.88e+10	1.59e+12	3.02e+12	6.07e+10	2.01e-02
2s*3d_(1)-1s*3p*(1)	12.1798	3.40e+09	1.47e+12	2.49e+12	6.41e+09	2.57e-03
2s*4s*(1)-1s*4p_(0)	12.1818	1.66e+11	2.09e+12	6.24e+11	1.15e+11	1.84e-01
2s*4s*(1)-1s*4p_(1)	12.1820	5.77e+11	2.09e+12	6.24e+11	3.97e+11	6.37e-01
2s*4s*(1)-1s*4p*(2)	12.1824	1.13e+12	2.09e+12	6.24e+11	7.79e+11	1.25e+00
2p*3d*(4)-1s*3d*(3)	12.1827	6.03e+12	6.03e+12	3.90e+12	2.13e+13	5.46e+00
2s*4p*(1)-1s*4d_(2)	12.1833	3.87e+10	3.61e+12	5.11e+11	1.44e+10	2.82e-02
2s*4s*(0)-1s*4p*(1)	12.1835	1.68e+12	1.98e+12	4.90e+13	1.82e+12	3.38e-02
2p*3d*(2)-1s*3d_(1)	12.1838	1.05e+12	6.11e+12	8.67e+11	6.50e+11	7.49e-01
2p*3d*(2)-1s*3d_(2)	12.1838	4.40e+10	6.11e+12	8.67e+11	2.73e+10	3.15e-02
2s*4p*(1)-1s*4d*(2)	12.1838	3.22e+11	3.61e+12	5.11e+11	1.20e+11	2.35e-01
2p*3d*(2)-1s*3d*(3)	12.1839	1.98e+10	6.11e+12	8.67e+11	1.23e+10	1.42e-02
2p*3d*(2)-1s*3d*(2)	12.1849	4.99e+12	6.11e+12	8.67e+11	3.10e+12	3.58e+00
2p_3d*(3)-1s*3d_(2)	12.1853	5.00e+12	6.03e+12	3.91e+12	1.38e+13	3.52e+00
2p_3d*(3)-1s*3d*(3)	12.1864	6.03e+11	6.03e+12	3.91e+12	2.43e+12	6.21e-01
2p*3p*(2)-1s*3p*(1)	12.1868	3.46e+12	5.34e+12	7.51e+13	1.63e+13	2.17e-01
2p_3d*(3)-1s*3d*(2)	12.1884	1.47e+11	6.03e+12	3.91e+12	4.05e+11	1.03e-01
2p_3d_(2)-1s*3d_(1)	12.1882	3.83e+12	6.06e+12	3.08e+12	6.45e+12	2.09e+00
2p_3d_(2)-1s*3d_(2)	12.1882	1.75e+12	6.06e+12	3.08e+12	1.94e+12	6.30e-01
2p_3d_(2)-1s*3d*(3)	12.1883	2.87e+10	6.06e+12	3.08e+12	4.51e+10	1.46e-02
2p_3d_(2)-1s*3d*(2)	12.1893	1.05e+12	6.06e+12	3.08e+12	1.77e+12	5.73e-01
2p*3p*(2)-1s*3p*(1)	12.1896	6.04e+11	7.35e+12	1.41e+13	1.99e+12	1.41e-01
2p_3p*(1)-1s*3p_(1)	12.1913	1.02e+09	7.75e+12	2.88e+09	1.14e+06	3.96e-04
2s*4s*(1)-1s*4p*(1)	12.1927	8.57e+09	2.09e+12	6.24e+11	4.53e+09	7.25e-03
2p_3s*(1)-1s*3s*(0)	12.2018	2.18e+09	4.90e+12	8.16e+11	9.36e+08	1.15e-03
2p*3p*(1)-1s*3p_(0)	12.2046	2.79e+11	7.35e+12	3.00e+09	3.41e+08	1.14e-01
2p*3p*(1)-1s*3p_(1)	12.2047	2.11e+11	7.36e+12	3.00e+09	2.59e+08	8.62e-02
2p*3p*(1)-1s*3p*(2)	12.2053	3.52e+10	7.36e+12	3.00e+09	4.31e+07	1.44e-02
2p*3p*(3)-1s*3p*(2)	12.2057	4.61e+12	5.90e+12	1.38e+10	7.39e+10	5.33e+00
2p_3p*(2)-1s*3p_(1)	12.2080	3.36e+12	6.06e+12	7.25e+10	1.98e+11	2.74e+00
2p_3p*(2)-1s*3p*(2)	12.2086	1.26e+12	6.06e+12	7.25e+10	7.45e+10	1.03e+00
2s*3p*(1)-1s*3s*(1)	12.2100	1.22e+10	4.05e+12	1.79e+12	1.12e+10	6.26e-03
2p_3p_(1)-1s*3p_(0)	12.2105	2.25e+12	6.36e+12	2.00e+09	2.13e+09	1.06e+00
2p_3p_(1)-1s*3p_(1)	12.2107	1.80e+12	6.36e+12	2.00e+09	1.70e+09	8.48e-01
2p_3p_(1)-1s*3p*(2)	12.2113	1.21e+11	6.36e+12	2.00e+09	1.14e+08	5.68e-02
2p*3s*(2)-1s*3d_(2)	12.2161	1.68e+11	5.42e+12	2.61e+11	3.89e+10	1.49e-01
2p*3s*(2)-1s*3d_(1)	12.2161	9.51e+09	5.42e+12	2.61e+11	2.19e+09	8.37e-03
2p*3s*(2)-1s*3d*(3)	12.2162	1.09e+12	5.42e+12	2.61e+11	2.50e+11	9.57e-01
2p_3s*(1)-1s*3d_(2)	12.2181	9.91e+11	4.90e+12	8.16e+11	4.25e+11	5.20e-01
2p_3s*(1)-1s*3d_(1)	12.2181	3.06e+11	4.90e+12	8.16e+11	1.31e+11	1.60e-01
2p_3s*(0)-1s*3d_(1)	12.2191	1.34e+12	4.62e+12	1.14e+12	2.85e+11	2.33e-01
2p_3s*(1)-1s*3d*(2)	12.2192	2.70e+10	4.90e+12	8.16e+11	1.16e+10	1.42e-02
2s*3s*(0)-1s*3p_(1)	12.2219	8.28e+09	1.91e+12	1.52e+14	9.17e+09	6.02e-05
2s*3p*(2)-1s*3d_(1)	12.2262	2.27e+09	3.24e+12	7.42e+12	7.91e+09	1.07e-03
2s*3p*(2)-1s*3d_(2)	12.2262	3.96e+10	3.24e+12	7.42e+12	1.38e+11	1.87e-02
2s*3p*(2)-1s*3d*(3)	12.2264	2.57e+11	3.24e+12	7.42e+12	8.94e+11	1.20e-01
2s*3p_(1)-1s*3d_(2)	12.2282	1.16e+11	3.71e+12	7.07e+12	2.27e+11	3.21e-02
2s*3p_(1)-1s*3d_(1)	12.2282	3.44e+10	3.71e+12	7.07e+12	6.77e+10	9.57e-03
2p_3s*(0)-1s*3d_(1)	12.2293	9.38e+10	3.98e+12	6.93e+12	5.90e+10	8.52e-03
2p*3p*(1)-1s*3p*(1)	12.2326	4.97e+12	7.36e+12	3.00e+09	6.08e+09	2.03e+00
2p_3p*(2)-1s*3p*(1)	12.2359	9.02e+09	6.06e+12	7.25e+10	5.33e+08	7.35e-03
2p_3p_(1)-1s*3p*(1)	12.2386	6.64e+11	6.36e+12	2.00e+09	6.29e+08	3.14e-01
2s*3p*(1)-1s*3s*(0)	12.2444	2.72e+12	4.05e+12	1.79e+12	2.50e+12	1.40e+00
2p*3s*(0)-1s*3p*(1)	12.2498	1.84e+12	1.91e+12	1.52e+14	1.58e+12	1.03e-02
2p*3s*(1)-1s*3p_(0)	12.2577	2.04e+11	2.56e+12	1.62e+12	2.38e+11	1.47e-01
2s*3s*(1)-1s*3p_(1)	12.2579	6.38e+11	2.56e+12	1.62e+12	7.43e+11	4.59e-01
2s*3s*(1)-1s*3p*(2)	12.2585	1.12e+12	2.56e+12	1.62e+12	1.30e+12	8.03e-01
2s*3p*(1)-1s*3d_(2)	12.2609	1.43e+10	4.05e+12	1.79e+12	1.31e+10	7.34e-03
2s*3p*(1)-1s*3d*(2)	12.2620	3.38e+11	4.05e+12	1.79e+12	3.10e+11	1.74e-01
2p_2p*(2)-1s*2p*(2)	12.2718	1.40e+10	1.14e+13	3.41e+14	6.76e+10	1.98e-04
2s*2p*(1)-1s*2s*(0)	12.2745	5.82e+12	5.85e+12	2.29e+14	1.70e+13	7.44e-02

Z = 10

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*3s*(1)-1s*3p*(1)	12.2860	1.16e+09	2.56e+12	1.62e+12	1.35e+09	8.36e-04
2s*2p*(2)-1s*2s*(1)	12.3113	5.95e+12	5.96e+12	2.11e+13	2.32e+13	1.10e+00
2s*2p_(1)-1s*2s*(1)	12.3147	5.95e+12	5.96e+12	2.14e+13	1.40e+13	6.53e-01
2s*2p_(0)-1s*2s*(1)	12.3183	5.95e+12	5.96e+12	2.18e+13	4.67e+12	2.14e-01
2p*2p*(2)-1s*2p_(1)	12.3309	2.95e+12	1.18e+13	5.47e+11	6.53e+11	1.19e+00
2s*2p*(2)-1s*2p*(2)	12.3331	8.83e+12	1.18e+13	5.47e+11	1.95e+12	3.57e+00
2p_2p*(1)-1s*2p_(0)	12.3336	3.93e+12	1.18e+13	2.53e+08	2.52e+08	9.99e-01
2p_2p*(1)-1s*2p_(1)	12.3340	2.94e+12	1.18e+13	2.53e+08	1.88e+08	7.49e-01
2p_2p_(0)-1s*2p_(1)	12.3357	1.18e+13	1.18e+13	6.42e+10	6.37e+10	9.93e-01
2p_2p*(1)-1s*2p*(2)	12.3362	4.91e+12	1.18e+13	2.53e+08	3.15e+08	1.25e+00
2p_2p*(2)-1s*2p*(1)	12.3874	1.13e+13	1.14e+13	3.41e+14	5.48e+13	1.61e-01
2p*2p*(2)-1s*2p*(1)	12.4297	9.29e+09	1.18e+13	5.47e+11	2.06e+09	3.76e-03
2p_2p*(1)-1s*2p*(1)	12.4320	1.33e+09	1.18e+13	2.53e+08	8.56e+08	3.38e-04
2p_2p_(0)-1s*2p*(1)	12.4346	2.65e+09	1.18e+13	6.42e+10	1.43e+07	2.23e-04
2s*2p_(1)-1s*2s*(0)	12.4618	1.03e+09	5.96e+12	2.14e+13	2.43e+09	1.14e-04
2s*2s*(0)-1s*2p_(1)	12.4735	8.08e+09	2.68e+12	4.15e+14	8.03e+09	1.94e-05
2s*2s*(0)-1s*2p*(1)	12.5748	2.67e+12	2.68e+12	4.15e+14	2.65e+12	6.38e-03
2p*3p*(0)-1s*4p*(1)	12.7445	1.23e+09	6.21e+12	4.88e+12	5.42e+08	1.11e-04
2p*3d*(1)-1s*4f_(3)	12.7554	1.51e+09	5.57e+12	2.49e+12	1.40e+09	5.61e-04
2p*3d_(3)-1s*4d_(2)	12.7728	5.33e+08	6.08e+12	1.83e+13	2.80e+09	1.53e-04
2p*3d_(3)-1s*4d*(2)	12.7733	9.43e+08	6.08e+12	1.83e+13	4.96e+10	2.71e-03
2p*3d*(2)-1s*4s*(1)	12.7787	2.67e+08	5.21e+12	5.18e+10	1.31e+07	2.54e-04
2s*3d*(2)-1s*4f_(3)	12.7863	7.02e+09	2.55e+12	5.07e+13	3.34e+10	6.58e-04
2s*3d*(2)-1s*4f*(3)	12.7865	9.74e+09	2.55e+12	5.07e+13	4.64e+10	9.14e-04
2p*3d_(1)-1s*4d_(2)	12.7905	7.28e+08	5.25e+12	1.58e+11	6.29e+07	4.04e-04
2p*3d*(2)-1s*4d*(3)	12.7906	7.83e+08	5.21e+12	5.18e+10	3.84e+07	7.44e-04
2p*3s*(1)-1s*4s*(0)	12.8000	2.11e+08	4.26e+12	8.33e+13	8.01e+08	7.21e-08
2p*3s*(1)-1s*4d*(2)	12.8161	7.84e+09	4.28e+12	8.33e+13	2.18e+10	2.62e-04
2p*3d*(3)-1s*4d*(3)	12.8276	8.88e+08	6.17e+12	3.12e+10	3.05e+07	9.79e-04
2s*3s*(1)-1s*4p_(0)	12.8285	1.98e+08	5.09e+12	1.48e+10	1.72e+06	1.16e-04
2p*3d_(2)-1s*4d_(2)	12.8287	8.45e+08	6.17e+12	1.06e+10	5.53e+06	5.22e-04
2s*3s*(1)-1s*4p_(1)	12.8287	4.43e+08	5.09e+12	1.48e+10	3.85e+06	2.60e-04
2p_3d_(1)-1s*4d_(1)	12.8298	7.84e+08	6.17e+12	1.51e+11	5.64e+07	3.72e-04
2s*3d*(3)-1s*4p*(2)	12.8352	3.85e+08	1.71e+12	2.44e+12	1.58e+09	6.58e-04
2s*3d_(2)-1s*4p_(1)	12.8357	2.94e+08	1.59e+12	3.02e+12	9.63e+08	3.19e-04
2s*3d_(1)-1s*4p_(0)	12.8362	1.85e+08	1.47e+12	2.49e+12	3.48e+08	1.48e-04
2p*3p*(2)-1s*4p*(2)	12.8436	7.23e+08	5.34e+12	7.51e+13	3.37e+09	4.56e-05
2s*3d*(3)-1s*4f_(3)	12.8438	4.83e+08	1.71e+12	2.44e+12	1.99e+09	8.17e-04
2s*3d*(3)-1s*4f*(4)	12.8439	9.57e+09	1.71e+12	2.44e+12	3.94e+10	1.62e-02
2s*3d_(2)-1s*4f_(3)	12.8448	4.96e+09	1.59e+12	3.02e+12	1.62e+10	5.37e-03
2s*3d_(2)-1s*4f_(2)	12.8448	1.14e+09	1.59e+12	3.02e+12	3.72e+08	1.23e-03
2s*3d_(2)-1s*4f*(3)	12.8449	4.38e+09	1.59e+12	3.02e+12	1.41e+10	4.66e-03
2s*3d_(1)-1s*4f_(2)	12.8486	1.85e+10	1.47e+12	2.49e+12	1.88e+10	7.93e-03
2p*3p*(2)-1s*4p_(1)	12.8473	1.68e+09	7.35e+12	1.41e+13	5.26e+08	3.72e-04
2p*3p*(2)-1s*4p*(2)	12.8478	3.86e+09	7.35e+12	1.41e+13	1.27e+10	8.98e-04
2p_3p*(1)-1s*4p_(0)	12.8498	2.26e+08	7.75e+12	2.88e+09	2.52e+06	8.74e-04
2p_3p*(1)-1s*4p_(1)	12.8492	1.51e+08	7.75e+12	2.88e+09	1.68e+06	5.83e-04
2p_3p*(1)-1s*4p*(2)	12.8497	2.62e+09	7.75e+12	2.88e+09	2.92e+06	1.01e-03
2p_3p_(0)-1s*4p_(1)	12.8505	6.41e+09	7.78e+12	6.08e+10	4.99e+07	8.18e-04
2p*3p*(2)-1s*4f_(3)	12.8522	1.48e+09	5.34e+12	7.51e+13	8.98e+09	9.29e-05
2p*3p*(2)-1s*4f*(3)	12.8523	1.34e+09	5.34e+12	7.51e+13	6.28e+09	8.34e-05
2p*3p*(2)-1s*4p*(1)	12.8580	5.15e+09	5.34e+12	7.51e+13	2.41e+10	3.20e-04
2p*3p*(2)-1s*4p*(1)	12.8592	8.28e+08	7.38e+12	1.41e+13	2.72e+09	1.83e-04
2p*3d*(4)-1s*4d*(3)	12.8601	4.15e+09	6.03e+12	3.98e+12	1.47e+10	3.76e-03
2p*3d*(2)-1s*4d_(1)	12.8613	7.81e+08	6.11e+12	8.67e+11	4.73e+08	5.45e-04
2p*3d*(2)-1s*4d*(2)	12.8620	6.55e+09	6.11e+12	8.67e+11	4.07e+09	4.69e-03
2p_3d*(3)-1s*4d_(2)	12.8630	3.48e+09	6.03e+12	3.91e+12	9.81e+09	2.46e-03
2p_3d*(3)-1s*4d*(3)	12.8632	5.33e+08	6.03e+12	3.91e+12	1.47e+09	3.75e-04
2p_3d_(2)-1s*4d_(1)	12.8662	2.72e+09	6.06e+12	3.08e+12	4.59e+09	1.49e-03
2p_3d_(2)-1s*4d_(2)	12.8662	1.11e+09	6.06e+12	3.08e+12	1.88e+09	6.06e-04
2p_3d_(2)-1s*4d*(2)	12.8669	1.28e+09	6.06e+12	3.08e+12	2.17e+09	7.05e-04
2p*3s*(2)-1s*4s*(1)	12.8742	2.39e+09	5.42e+12	2.61e+11	5.50e+08	2.10e-03
2p_3s*(1)-1s*4s*(1)	12.8765	1.68e+09	4.90e+12	8.16e+11	6.86e+08	8.40e-04
2p_3s*(0)-1s*4s*(1)	12.8777	1.25e+09	4.82e+12	1.14e+12	2.48e+08	2.16e-04
2s*3p*(2)-1s*4s*(1)	12.8855	3.46e+09	3.24e+12	7.42e+12	1.21e+10	1.63e-03
2s*3p_(1)-1s*4s*(1)	12.8870	4.24e+09	3.71e+12	7.07e+12	8.35e+09	1.18e-03
2p_3s*(0)-1s*4s*(1)	12.8890	4.62e+09	3.98e+12	6.93e+12	2.93e+09	4.23e-04
2p*3p*(1)-1s*4p_(0)	12.8948	5.91e+08	7.36e+12	3.00e+09	7.23e+05	2.41e-04
2p*3p*(3)-1s*4p*(2)	12.8959	9.43e+09	5.90e+12	1.38e+10	1.54e+08	1.12e-02
2p*3s*(2)-1s*4d_(2)	12.8973	4.43e+08	5.42e+12	2.61e+11	1.02e+08	3.90e-04
2p*3s*(2)-1s*4d*(3)	12.8975	2.59e+09	5.42e+12	2.61e+11	5.96e+08	2.28e-03
2p_3p*(2)-1s*4p_(1)	12.8987	7.06e+09	6.06e+12	7.25e+10	4.17e+08	5.76e-03
2p_3p*(2)-1s*4p*(2)	12.8992	2.53e+09	6.06e+12	7.25e+10	1.50e+08	2.06e-03
2p_3s*(1)-1s*4d_(1)	12.8996	6.59e+08	4.90e+12	8.16e+11	2.83e+08	3.46e-04
2p_3s*(1)-1s*4d_(2)	12.8996	1.89e+09	4.90e+12	8.16e+11	8.12e+08	9.95e-04

Z = 10

TRANSITION	LAMBDA	A(ij)	A(tot)	AUGER	Qd	qW
2p_3s*(0)-1s*4d_(1)	12.9007	2.49e+09	4.62e+12	1.14e+12	4.93e+08	4.33e-04
2p_3p_(1)-1s*4p_(0)	12.9015	4.76e+09	6.36e+12	2.00e+09	4.49e+06	2.24e-03
2p_3p_(1)-1s*4p_(1)	12.9017	3.79e+09	6.36e+12	2.00e+09	3.58e+06	1.79e-03
2p*3p*(3)-1s*4f*(4)	12.9047	6.17e+08	5.90e+12	1.38e+10	1.00e+07	7.29e-04
2p*3p*(1)-1s*4p*(1)	12.9071	2.08e+10	7.36e+12	3.00e+09	2.55e+07	8.48e-03
2p_3p_(1)-1s*4p*(1)	12.9137	2.78e+09	6.36e+12	2.00e+09	2.62e+06	1.31e-03
2s*3s*(0)-1s*4p*(1)	12.9263	1.03e+10	1.91e+12	1.52e+14	1.01e+10	5.66e-05
2s*3p*(1)-1s*4s*(0)	12.9385	1.24e+10	4.05e+12	1.79e+12	1.14e+10	6.38e-03
2s*3p*(1)-1s*4d*(2)	12.9480	1.77e+09	4.05e+12	1.79e+12	1.63e+09	9.11e-04
2s*3s*(1)-1s*4p_(0)	12.9542	1.07e+09	2.56e+12	1.62e+12	1.25e+09	7.72e-04
2s*3s*(1)-1s*4p_(1)	12.9544	3.28e+09	2.56e+12	1.62e+12	3.81e+09	2.35e-03
2s*3s*(1)-1s*4p*(2)	12.9549	5.53e+09	2.56e+12	1.62e+12	6.44e+09	3.97e-03
2p*2p*(0)-1s*3p*(1)	14.2931	2.08e+10	9.01e+12	6.20e+12	8.49e+09	1.37e-03
2s*2p*(1)-1s*3s*(0)	14.4981	7.22e+09	5.85e+12	2.29e+14	2.11e+10	9.22e-05
2s*2p*(1)-1s*3d*(2)	14.5227	1.51e+10	5.85e+12	2.29e+14	4.42e+10	1.93e-04
2p_2p*(2)-1s*3p*(1)	14.5595	1.76e+10	1.14e+13	3.41e+14	8.51e+10	2.50e-04
2p*2p*(2)-1s*3p_(1)	14.6060	3.81e+09	1.18e+13	5.47e+11	8.44e+08	1.54e-03
2p*2p*(2)-1s*3p*(2)	14.6069	1.12e+10	1.18e+13	5.47e+11	2.48e+09	4.54e-03
2p_2p*(1)-1s*3p_(0)	14.6101	5.14e+09	1.18e+13	2.53e+08	3.30e+05	1.31e-03
2p_2p*(1)-1s*3p_(1)	14.6103	3.80e+09	1.18e+13	2.53e+08	2.44e+05	9.66e-04
2p_2p*(1)-1s*3p*(2)	14.6112	6.18e+09	1.18e+13	2.53e+08	3.97e+05	1.57e-03
2p_2p_(0)-1s*3p_(1)	14.6128	1.51e+10	1.18e+13	6.42e+10	8.18e+07	1.27e-03
2s*2p*(2)-1s*3s*(1)	14.7051	6.29e+09	5.96e+12	2.11e+13	2.65e+10	1.16e-03
2s*2p_(1)-1s*3s*(1)	14.7101	6.30e+09	5.96e+12	2.14e+13	1.48e+10	6.92e-04
2s*2p_(0)-1s*3s*(1)	14.7123	6.31e+09	5.96e+12	2.18e+13	4.98e+09	2.27e-04
2s*2p*(2)-1s*3d*(3)	14.7793	1.31e+09	5.96e+12	2.11e+13	5.09e+09	2.41e-04
2s*2p_(1)-1s*3d_(1)	14.7841	3.81e+08	5.96e+12	2.14e+13	8.94e+08	4.19e-05
2s*2p_(1)-1s*3d_(2)	14.7841	1.15e+09	5.96e+12	2.14e+13	2.70e+09	1.26e-04
2s*2p_(0)-1s*3d_(1)	14.7864	1.54e+09	5.96e+12	2.18e+13	1.21e+09	5.56e-05
2s*2s*(0)-1s*3s*(1)	14.8475	1.14e+10	2.69e+12	4.15e+14	1.14e+10	2.74e-05
2p*2p*(0)-1s*4p*(1)	15.2226	8.81e+09	9.01e+12	6.20e+12	3.59e+09	5.79e-04
2s*2p*(1)-1s*4s*(0)	15.4814	6.59e+08	5.85e+12	2.29e+14	1.93e+09	8.42e-06
2s*2p*(1)-1s*4d*(2)	15.4950	1.98e+09	5.85e+12	2.29e+14	5.80e+09	2.53e-05
2p*2p*(2)-1s*4p_(1)	15.6058	6.57e+08	1.18e+13	5.47e+11	1.45e+08	2.66e-04
2p*2p*(2)-1s*4p*(2)	15.6064	1.94e+09	1.18e+13	5.47e+11	4.29e+08	7.84e-04
2p_2p*(1)-1s*4p_(0)	15.6105	8.95e+08	1.18e+13	2.53e+08	5.75e+04	2.27e-04
2p_2p*(1)-1s*4p_(1)	15.6107	6.67e+08	1.18e+13	2.53e+08	4.28e+04	1.70e-04
2p_2p*(1)-1s*4p*(2)	15.6115	1.06e+09	1.18e+13	2.53e+08	6.82e+04	2.70e-04
2p_2p_(0)-1s*4p_(1)	15.6135	2.62e+09	1.18e+13	6.42e+10	1.42e+07	2.21e-04
2s*2p*(2)-1s*4s*(1)	15.7534	2.38e+09	5.96e+12	2.11e+13	9.19e+09	4.35e-04
2s*2p_(1)-1s*4s*(1)	15.7581	2.37e+09	5.96e+12	2.14e+13	5.57e+09	2.61e-04
2s*2p_(0)-1s*4s*(1)	15.7617	2.40e+09	5.96e+12	2.18e+13	1.86e+09	8.62e-05
2s*2s*(0)-1s*4p*(1)	15.8530	7.01e+09	2.69e+12	4.15e+14	6.97e+09	1.68e-05

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
4p+ (3/2)-1s+ (1/2)	4.94692	2.52e+12	2.52e+12	0	0.	4.00e+00
4p_ (1/2)-1s+ (1/2)	4.94739	2.50e+12	2.50e+12	0	0	2.00e+00
2p+4d+(1)-1s+2s+(1)	5.03649	5.38e+09	2.18e+13	6.56e+11	4.72e+08	7.19e-04
2p+4d_(0)-1s+2s+(1)	5.03935	2.38e+11	2.12e+13	2.77e+07	3.12e+05	1.13e-02
2p+4d_(1)-1s+2s+(1)	5.03959	2.35e+11	2.11e+13	3.89e+11	1.28e+10	3.28e-02
2p+4d+(2)-1s+2s+(1)	5.03990	2.59e+11	2.10e+13	2.45e+09	1.51e+08	6.17e-02
2s+4f_(2)-1s+2s+(1)	5.04213	1.34e+10	1.33e+13	4.22e+11	2.06e+09	4.89e-03
2s+4f_(2)-1s+2s+(1)	5.04308	3.25e+10	1.31e+13	1.05e+10	1.30e+08	1.24e-02
2p_4d_(1)-1s+2s+(1)	5.04404	5.12e+10	2.31e+13	2.81e+12	1.66e+10	5.93e-03
2p_4d+(2)-1s+2s+(1)	5.04492	1.24e+11	2.17e+13	1.01e+11	2.85e+09	2.83e-02
2p_4d_(2)-1s+2s+(1)	5.04747	3.05e+10	2.15e+13	1.12e+12	7.53e+09	6.73e-03
2p+4s+(2)-1s+2s+(1)	5.04775	8.44e+10	2.31e+13	1.75e+11	3.18e+09	1.81e-02
2p_4s+(1)-1s+2s+(1)	5.04904	6.90e+11	1.86e+13	1.17e+12	1.36e+11	1.17e-01
2s+4p_(0)-1s+2s+(1)	5.04968	1.15e+12	1.35e+13	6.16e+11	5.02e+10	8.16e-02
2s+4p+(2)-1s+2s+(1)	5.05131	1.73e+12	7.84e+12	2.59e+12	2.14e+12	8.28e-01
2s+4p_(1)-1s+2s+(1)	5.05200	1.27e+12	1.06e+13	3.10e+12	8.57e+11	2.77e-01
2p_4s+(0)-1s+2s+(1)	5.05271	8.78e+11	1.56e+13	2.23e+12	1.10e+11	4.93e-02
2p_4s+(1)-1s+2s+(1)	5.05403	1.78e+10	1.42e+13	6.94e+11	2.48e+09	3.58e-03
2p+4p+(0)-1s+2p_(1)	5.06571	1.85e+10	2.21e+13	3.24e+12	2.37e+09	7.32e-04
2p+4p+(2)-1s+2p_(1)	5.07039	3.27e+10	1.43e+13	2.88e+13	1.09e+11	3.79e-03
2p+4d+(1)-1s+2s+(0)	5.07128	1.37e+11	2.18e+13	6.56e+11	1.20e+10	1.84e-02
2p+4p+(2)-1s+2p+(2)	5.07218	5.59e+09	1.43e+13	2.88e+13	1.87e+10	6.48e-04
2p+4p+(1)-1s+2p_(0)	5.07252	3.29e+10	2.03e+13	9.11e+09	4.43e+07	4.86e-03
2p+4p+(1)-1s+2p_(1)	5.07294	2.44e+11	2.03e+13	9.11e+09	3.28e+08	3.60e-02
2p_4f_(2)-1s+2p_(1)	5.07369	3.13e+09	2.29e+13	8.45e+10	5.77e+07	6.82e-04
2p+4d_(1)-1s+2s+(0)	5.07442	1.37e+10	2.11e+13	3.89e+11	7.47e+08	1.92e-03
2p+4p+(1)-1s+2p+(2)	5.07474	1.41e+12	2.03e+13	9.11e+09	1.89e+09	2.07e-01
2s+4d_(1)-1s+2p_(0)	5.07493	3.19e+10	1.37e+13	8.42e+11	5.58e+09	6.60e-03
2s+4d_(1)-1s+2p_(1)	5.07535	7.04e+11	1.37e+13	8.42e+11	1.23e+11	1.46e-01
2p_4f+(3)-1s+2p+(2)	5.07538	1.90e+11	2.03e+13	2.31e+11	1.49e+10	6.45e-02
2s+4d+(2)-1s+2p_(1)	5.07543	7.79e+11	1.30e+13	2.94e+12	7.21e+11	2.45e-01
2p_4f_(2)-1s+2p+(2)	5.07549	2.80e+10	2.29e+13	8.45e+10	5.15e+08	6.09e-03
2p_4f_(3)-1s+2p+(2)	5.07585	8.94e+09	2.36e+13	1.17e+11	3.08e+08	2.84e-03
2p_4p+(1)-1s+2p_(0)	5.07618	7.97e+11	1.94e+13	2.76e+11	3.34e+10	1.21e-01
2p+4p+(3)-1s+2p+(2)	5.07635	1.11e+12	1.82e+13	7.28e+11	2.98e+11	4.10e-01
2p+4p_(2)-1s+2p+(2)	5.07648	1.91e+12	2.19e+13	4.00e+11	1.72e+11	4.30e-01
2p_4p+(1)-1s+2p_(1)	5.07661	3.74e+11	1.94e+13	2.76e+11	1.57e+10	5.69e-02
2s+4d_(1)-1s+2p+(2)	5.07715	2.18e+11	1.37e+13	8.42e+11	3.80e+10	4.52e-02
2s+4d+(2)-1s+2p+(2)	5.07723	1.83e+11	1.30e+13	2.94e+12	1.69e+11	5.76e-02
2s+4d_(2)-1s+2p_(1)	5.07727	7.68e+10	1.26e+13	1.82e+13	2.27e+11	1.25e-02
2p+4s+(1)-1s+2s+(0)	5.07733	7.27e+11	1.69e+13	2.97e+13	1.39e+12	4.68e-02
2p_4p_(0)-1s+2p_(1)	5.07737	2.37e+12	2.56e+13	5.58e+11	5.05e+10	9.06e-02
2p_4p+(1)-1s+2p+(2)	5.07842	3.89e+11	1.94e+13	2.76e+11	1.63e+10	5.92e-02
2p_4p+(1)-1s+2p_(0)	5.07865	4.12e+11	2.34e+13	2.56e+10	1.35e+09	5.27e-02
2p_4d_(1)-1s+2s+(0)	5.07894	3.05e+10	2.31e+13	2.81e+12	9.91e+09	3.53e-03
2s+4d_(2)-1s+2p+(2)	5.07907	1.59e+11	1.26e+13	1.82e+13	4.71e+11	2.58e-02
2p_4p+(1)-1s+2p_(1)	5.07908	7.28e+10	2.34e+13	2.56e+10	2.38e+08	9.30e-03
2p_4p+(2)-1s+2p_(1)	5.08079	1.56e+12	1.88e+13	2.25e+12	8.32e+11	3.70e-01
2p_4p+(1)-1s+2p+(2)	5.08088	3.26e+10	2.34e+13	2.56e+10	1.07e+08	4.17e-03
2s+4d+(3)-1s+2p+(2)	5.08107	1.15e+12	1.24e+13	1.38e+11	8.80e+10	6.40e-01
2p_4p_(1)-1s+2p_(0)	5.08144	1.08e+12	2.13e+13	8.66e+08	9.96e+07	1.50e-01
2p_4p_(1)-1s+2p_(1)	5.08186	7.04e+11	2.13e+13	8.66e+08	6.62e+07	9.93e-02
2p_4p+(2)-1s+2p+(2)	5.08260	1.65e+11	1.89e+13	2.25e+12	8.79e+10	3.90e-02
2p_4p_(1)-1s+2p+(2)	5.08367	2.34e+10	2.13e+13	8.66e+08	2.20e+06	3.30e-03
2s+4s+(0)-1s+2p_(1)	5.08382	7.02e+10	6.81e+12	5.33e+13	6.23e+10	1.17e-03
2p_4s+(1)-1s+2s+(0)	5.08401	1.41e+11	1.66e+13	1.17e+12	2.78e+10	2.38e-02
2s+4s+(1)-1s+2p_(0)	5.08583	1.04e+11	7.15e+12	6.04e+11	2.44e+10	4.04e-02
2s+4s+(1)-1s+2p_(1)	5.08625	2.96e+11	7.15e+12	6.04e+11	6.93e+10	1.15e-01
2s+4p_(1)-1s+2s+(0)	5.08701	1.57e+11	1.06e+13	3.10e+12	1.06e+11	3.43e-02
2s+4s+(1)-1s+2p+(2)	5.08806	2.84e+11	7.15e+12	6.04e+11	6.84e+10	1.10e-01
2p_4s+(1)-1s+2s+(0)	5.08907	1.15e+12	1.42e+13	6.94e+11	1.60e+11	2.31e-01
2p+4p+(0)-1s+2p+(1)	5.09072	2.50e+12	2.21e+13	3.24e+12	3.20e+11	9.88e-02
2p+4f+(2)-1s+2p+(1)	5.09344	3.53e+10	2.37e+13	1.18e+12	8.39e+09	7.08e-03
2p+4f_(2)-1s+2p+(1)	5.09451	4.81e+10	2.35e+13	1.53e+12	1.48e+10	9.62e-03
2p+4p+(2)-1s+2p+(1)	5.09544	9.62e+11	1.43e+13	2.88e+13	3.21e+12	1.12e-01
2p+4p+(1)-1s+2p+(1)	5.09802	4.78e+10	2.03e+13	9.11e+09	6.43e+07	7.06e-03
2s+4d_(1)-1s+2p+(1)	5.10046	2.33e+11	1.37e+13	8.42e+11	4.07e+10	4.83e-02
2s+4d+(2)-1s+2p+(1)	5.10054	1.97e+11	1.30e+13	2.94e+12	1.82e+11	6.20e-02
2p_4p+(1)-1s+2p+(1)	5.10173	2.00e+11	1.94e+13	2.76e+11	8.41e+09	3.05e-02
2s+4d_(2)-1s+2p+(1)	5.10240	8.90e+11	1.26e+13	1.82e+13	2.63e+12	1.44e-01
2p_4p+(1)-1s+2p+(1)	5.10422	1.55e+12	2.34e+13	2.56e+10	5.08e+09	1.99e-01
2p_4p+(2)-1s+2p+(1)	5.10595	5.94e+10	1.89e+13	2.25e+12	3.16e+10	1.41e-02
2p_4p_(1)-1s+2p+(1)	5.10703	2.13e+11	2.13e+13	8.66e+08	2.00e+07	3.00e-02
2s+4s+(0)-1s+2p+(1)	5.10901	5.53e+11	6.81e+12	5.33e+13	4.91e+11	9.21e-03
2s+4s+(1)-1s+2p+(1)	5.11147	9.61e+09	7.15e+12	6.04e+11	2.25e+09	3.72e-03

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
3p+ (3/2)-1s+ (1/2)	5.21764	6.40e+12	6.40e+12	0.	0.	4.00e+00
3p_ (1/2)-1s+ (1/2)	5.21881	6.35e+12	6.35e+12	0.	0.	2.00e+00
2p+3d+(1)-1s+2s+(1)	5.26806	2.80e+09	2.19e+13	2.29e+12	7.94e+08	3.47e-04
2p+3d_(0)-1s+2s+(1)	5.27853	7.09e+11	2.11e+13	4.52e+09	1.52e+08	3.36e-02
2p+3d_(1)-1s+2s+(1)	5.27886	7.26e+11	2.10e+13	5.17e+11	5.25e+10	1.01e-01
2p+3d+(2)-1s+2s+(1)	5.27935	8.01e+11	2.08e+13	9.48e+09	1.83e+09	1.93e-01
2p+3s+(1)-1s+2s+(1)	5.28375	4.97e+09	1.67e+13	8.51e+13	1.25e+10	1.47e-04
2p+3d_(2)-1s+2s+(1)	5.28814	5.06e+10	2.37e+13	5.97e+10	6.36e+08	1.07e-02
2p_3d_(1)-1s+2s+(1)	5.28905	3.18e+10	2.37e+13	1.52e+12	5.62e+09	3.70e-03
2p+3d+(2)-1s+2s+(1)	5.29379	3.25e+10	2.36e+13	8.45e+11	5.62e+09	6.65e-03
2p_3d_(2)-1s+2s+(1)	5.29806	5.93e+09	2.35e+13	3.48e+12	3.80e+09	1.10e-03
2p+3s+(2)-1s+2s+(1)	5.30312	5.75e+11	2.38e+13	2.71e+10	3.38e+09	1.25e-01
2p_3s+(1)-1s+2s+(1)	5.30481	1.93e+12	1.81e+13	6.85e+11	2.06e+11	2.93e-01
2s+3p_(0)-1s+2s+(1)	5.30580	2.92e+12	1.63e+13	1.28e+12	2.13e+11	1.66e-01
2p+3d+(1)-1s+2s+(0)	5.30614	3.03e+11	2.19e+13	2.29e+12	8.58e+10	3.75e-02
2s+3p+(2)-1s+2s+(1)	5.30672	4.47e+12	1.02e+13	7.52e+12	9.50e+12	1.26e+00
2s+3p_(1)-1s+2s+(1)	5.30785	3.23e+12	1.34e+13	7.63e+12	3.51e+12	4.61e-01
2p_3s+(0)-1s+2s+(1)	5.30860	2.30e+12	1.62e+13	6.94e+12	6.88e+11	9.91e-02
2s+3d+(2)-1s+2p_(1)	5.30960	1.91e+09	1.15e+13	6.30e+13	8.06e+09	1.28e-04
2s+3d+(2)-1s+2p+(2)	5.31157	2.77e+09	1.15e+13	6.30e+13	1.17e+10	1.86e-04
2s+3p+(1)-1s+2s+(1)	5.31846	3.13e+09	1.55e+13	1.63e+12	8.96e+08	5.50e-04
2p+3d_(1)-1s+2s+(0)	5.31710	1.38e+10	2.10e+13	5.17e+11	9.81e+06	1.90e-03
2p+3p_(1)-1s+2p_(0)	5.32197	2.13e+11	2.13e+13	1.38e+09	4.09e+07	3.00e-02
2p+3s+(1)-1s+2s+(0)	5.32206	1.83e+12	1.87e+13	8.51e+13	4.84e+12	5.69e-02
2p+3p_(1)-1s+2p_(1)	5.32243	9.75e+11	2.13e+13	1.38e+09	1.88e+08	1.37e-01
2p+3p_(1)-1s+2p+(2)	5.32442	3.41e+12	2.13e+13	1.38e+09	6.55e+08	4.80e-01
2s+3d+(2)-1s+2p_(1)	5.32472	6.23e+11	8.14e+12	7.02e+12	1.44e+12	2.05e-01
2s+3d_(1)-1s+2p_(0)	5.32480	3.70e+11	8.19e+12	2.51e+12	3.27e+11	1.31e-01
2p+3p+(2)-1s+2p_(1)	5.32498	6.43e+11	2.46e+13	3.05e+13	1.78e+12	5.84e-02
2s+3d_(1)-1s+2p_(1)	5.32527	7.99e+11	8.19e+12	2.51e+12	6.91e+11	2.76e-01
2p_3d_(1)-1s+2s+(0)	5.32538	1.82e+10	2.37e+13	1.52e+12	3.48e+09	2.29e-03
2p+3p+(0)-1s+2p+(1)	5.32544	4.32e+12	2.43e+13	6.72e+12	9.35e+11	1.39e-01
2s+3d+(3)-1s+2p+(2)	5.32813	1.81e+12	8.14e+12	2.46e+12	2.96e+12	1.20e+00
2s+3d+(2)-1s+2p+(2)	5.32871	8.85e+11	8.14e+12	7.02e+12	2.05e+12	2.92e-01
2p+3p+(2)-1s+2p+(2)	5.32894	2.51e+12	2.46e+13	3.05e+13	6.93e+12	2.28e-01
2p_3p+(2)-1s+2p_(1)	5.32898	8.58e+11	2.13e+13	5.01e+13	3.01e+12	6.01e-02
2p_3p+(1)-1s+2p_(0)	5.32909	2.11e+12	2.98e+13	4.79e+10	1.85e+10	2.18e-01
2s+3d_(1)-1s+2p+(2)	5.32725	1.24e+11	6.19e+12	2.51e+12	1.07e+11	4.27e-02
2p_3p+(1)-1s+2p_(1)	5.32745	1.64e+12	2.98e+13	4.79e+10	8.14e+09	1.70e-01
2p_3p_(0)-1s+2p_(1)	5.32824	5.34e+12	2.98e+13	4.19e+11	7.40e+10	1.77e-01
2p_3p+(2)-1s+2p+(2)	5.32887	1.26e+12	2.13e+13	5.01e+13	4.41e+12	8.81e-02
2p_3p+(1)-1s+2p+(2)	5.32944	1.40e+12	2.98e+13	4.79e+10	8.91e+09	1.44e-01
2s+3d+(2)-1s+2p+(1)	5.33708	1.40e+12	1.15e+13	6.30e+13	8.24e+12	9.91e-02
2p+3p+(1)-1s+2p_(0)	5.33767	6.48e+11	2.81e+13	9.67e+09	6.70e+08	6.92e-02
2p+3p+(1)-1s+2p_(1)	5.33814	7.82e+10	2.81e+13	9.67e+09	8.08e+07	8.35e-03
2p+3p+(3)-1s+2p+(2)	5.33984	4.88e+12	2.15e+13	3.91e+10	6.20e+10	1.59e+00
2p_3p+(2)-1s+2p_(1)	5.33995	4.24e+12	2.34e+13	5.49e+11	4.88e+11	8.85e-01
2p+3p+(1)-1s+2p+(2)	5.34013	9.50e+09	2.81e+13	9.67e+09	9.81e+06	1.01e-03
2p_3p_(1)-1s+2p_(0)	5.34141	2.85e+12	2.54e+13	6.43e+08	2.02e+08	3.14e-01
2p_3p_(1)-1s+2p_(1)	5.34188	2.10e+12	2.54e+13	6.43e+08	1.59e+08	2.48e-01
2p_3p+(2)-1s+2p+(2)	5.34195	1.08e+12	2.34e+13	5.49e+11	1.22e+11	2.22e-01
2p_3s+(1)-1s+2s+(0)	5.34342	6.98e+10	1.91e+13	6.85e+11	7.25e+09	1.06e-02
2p_3p_(1)-1s+2p+(2)	5.34387	1.04e+11	2.54e+13	6.43e+08	7.87e+06	1.22e-02
2s+3s+(0)-1s+2p_(1)	5.34443	5.02e+10	7.03e+12	1.58e+14	4.81e+10	3.03e-04
2s+3p_(1)-1s+2s+(0)	5.34651	2.85e+10	1.34e+13	7.63e+12	3.10e+10	4.06e-03
2p+3p_(1)-1s+2s+(1)	5.35005	5.31e+10	2.13e+13	1.36e+09	1.02e+07	7.48e-03
2s+3d+(2)-1s+2s+(1)	5.35237	2.23e+11	8.14e+12	7.02e+12	5.15e+11	7.35e-02
2p+3p+(2)-1s+2s+(1)	5.35280	1.33e+12	2.46e+13	3.05e+13	3.68e+12	1.21e-01
2s+3d_(1)-1s+2s+(1)	5.35292	4.56e+10	6.19e+12	2.51e+12	3.94e+10	1.57e-02
2s+3s+(1)-1s+2p_(0)	5.35393	2.42e+11	9.00e+12	1.38e+12	9.86e+10	7.00e-02
2s+3s+(1)-1s+2p_(1)	5.35440	7.27e+11	9.00e+12	1.38e+12	2.90e+11	2.10e-01
2p_3p+(2)-1s+2p+(1)	5.35485	1.78e+12	2.13e+13	5.01e+13	6.17e+12	1.23e-01
2p_3p+(1)-1s+2p+(1)	5.35512	7.41e+10	2.90e+13	4.79e+10	3.67e+08	7.66e-03
2s+3p+(1)-1s+2s+(0)	5.35524	3.49e+12	1.55e+13	1.63e+12	9.99e+11	6.13e-01
2s+3s+(1)-1s+2p+(2)	5.35841	1.02e+12	9.00e+12	1.38e+12	4.08e+11	2.95e-01
2p+3p+(1)-1s+2p+(1)	5.36592	5.91e+12	2.81e+13	9.67e+09	6.11e+09	6.32e-01
2p_3p_(1)-1s+2p+(1)	5.36870	9.60e+11	2.54e+13	6.43e+08	7.30e+07	1.13e-01
2s+3s+(0)-1s+2p+(1)	5.37228	1.17e+12	7.03e+12	1.58e+14	1.12e+12	7.06e-03
2s+3s+(1)-1s+2p+(1)	5.38235	6.07e+09	9.00e+12	1.38e+12	2.42e+09	1.76e-03
2p+4d+(1)-1s+3s+(0)	5.84387	1.15e+09	2.18e+13	6.56e+11	1.01e+08	1.54e-04
2p+4f_(1)-1s+3p_(0)	5.84616	1.10e+09	2.33e+13	8.89e+09	1.26e+06	1.42e-04
2p_4d_(2)-1s+3s+(1)	5.84732	1.52e+09	2.15e+13	1.12e+12	3.77e+08	3.37e-04
2p+4s+(2)-1s+3s+(1)	5.84768	7.88e+09	2.31e+13	1.75e+11	2.97e+08	1.69e-03
2p+4f+(3)-1s+3p+(2)	5.84822	1.97e+09	2.32e+13	1.38e+10	8.21e+06	5.94e-04
2p_4s+(1)-1s+3s+(1)	5.84942	9.82e+09	1.86e+13	1.17e+12	1.94e+09	1.66e-03

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4p_(0)-1s*3s*(1)	5.85028	9.62e+09	1.35e+13	6.16e+11	4.20e+08	6.82e-04
2p*4d*(1)-1s*3d_(2)	5.85034	3.28e+09	2.18e+13	6.56e+11	2.88e+08	4.39e-04
2p*4d*(1)-1s*3d*(2)	5.85091	2.35e+10	2.18e+13	6.56e+11	2.07e+09	3.15e-03
2p*4p*(0)-1s*3p*(1)	5.85171	6.98e+10	2.21e+13	3.24e+12	8.92e+09	2.76e-03
2p*4p*(1)-1s*3p_(0)	5.85182	1.79e+09	2.03e+13	9.11e+09	2.41e+06	2.65e-04
2p*4p*(1)-1s*3p_(1)	5.85199	4.61e+09	2.03e+13	9.11e+09	6.20e+06	6.80e-04
2p*4p*(1)-1s*3p*(2)	5.85266	8.45e+09	2.03e+13	9.11e+09	1.14e+07	1.25e-03
2p*4d_(3)-1s*3d*(2)	5.85280	9.29e+09	2.35e+13	9.57e+12	1.88e+10	1.96e-03
2p_4f*(3)-1s*3p*(2)	5.85352	7.84e+09	2.03e+13	2.31e+11	6.17e+08	2.67e-03
2p*4p_(2)-1s*3p_(1)	5.85431	7.80e+09	2.19e+13	4.08e+11	7.01e+08	1.75e-03
2p*4p*(3)-1s*3p*(2)	5.85481	2.31e+10	1.82e+13	7.28e+11	6.21e+09	8.53e-03
2p*4p_(2)-1s*3p*(2)	5.85499	3.06e+09	2.19e+13	4.08e+11	2.75e+08	6.88e-04
2s*4d_(1)-1s*3p_(0)	5.85503	8.17e+09	1.37e+13	8.42e+11	1.42e+09	1.69e-03
2s*4d_(1)-1s*3p_(1)	5.85520	6.53e+09	1.37e+13	8.42e+11	1.14e+09	1.35e-03
2s*4d*(2)-1s*3p_(1)	5.85531	6.77e+09	1.38e+13	2.94e+12	8.28e+09	2.13e-03
2p_4s*(1)-1s*3p_(0)	5.85671	9.87e+08	1.94e+13	2.76e+11	4.15e+07	1.50e-04
2p*4d*(3)-1s*3d_(2)	5.85723	1.31e+10	1.87e+13	4.61e+11	2.20e+09	4.78e-03
2s*4f*(4)-1s*3d*(3)	5.85763	3.77e+10	1.06e+13	9.20e+11	2.70e+10	2.93e-02
2p*4d*(3)-1s*3d*(2)	5.85781	2.81e+09	1.87e+13	4.61e+11	4.72e+08	1.02e-03
2s*4f_(2)-1s*3d_(1)	5.85793	1.92e+10	1.33e+13	4.22e+11	2.97e+09	7.03e-03
2p*4p*(2)-1s*3p*(1)	5.85796	2.04e+09	1.43e+13	2.88e+13	6.81e+09	2.36e-04
2s*4f*(3)-1s*3d_(2)	5.85820	5.32e+09	8.25e+10	2.05e+09	9.01e+08	4.40e-01
2s*4f_(2)-1s*3d*(2)	5.85852	2.91e+09	1.33e+13	4.22e+11	4.49e+08	1.06e-03
2s*4f*(3)-1s*3d*(2)	5.85877	3.00e+10	8.25e+10	2.05e+09	5.00e+08	2.46e+00
2s*4f_(3)-1s*3d_(2)	5.85888	1.07e+10	8.80e+12	3.77e+11	3.04e+09	8.07e-03
2p*4s*(1)-1s*3d*(2)	5.85897	6.49e+09	1.68e+13	2.97e+13	1.24e+10	4.18e-04
2s*4f_(3)-1s*3d*(3)	5.85913	2.48e+09	8.88e+12	3.77e+11	7.00e+08	1.88e-03
2s*4f_(2)-1s*3d_(1)	5.85921	4.32e+09	1.31e+13	1.05e+10	1.73e+07	1.84e-03
2s*4f_(2)-1s*3d_(2)	5.85923	2.68e+09	1.31e+13	1.05e+10	1.07e+07	1.02e-03
2p_4p*(1)-1s*3p_(0)	5.85999	1.51e+09	2.34e+13	2.58e+10	4.92e+06	1.93e-04
2p_4s*(1)-1s*3s*(0)	5.86076	2.87e+09	1.66e+13	1.17e+12	5.67e+08	4.85e-04
2s*4d*(3)-1s*3p*(2)	5.86110	2.09e+10	1.24e+13	1.38e+11	1.68e+09	1.18e-02
2p*4p*(1)-1s*3p*(1)	5.86137	1.99e+09	2.03e+13	9.11e+09	2.68e+06	2.94e-04
2p*4d*(4)-1s*3d*(3)	5.86172	1.90e+09	1.38e+13	8.53e+11	1.06e+09	1.24e-03
2p_4d*(2)-1s*3d*(2)	5.86229	9.12e+09	2.17e+13	1.01e+11	2.11e+08	2.09e-03
2p_4p*(2)-1s*3p_(1)	5.86244	2.39e+10	1.80e+13	2.25e+12	1.27e+10	5.66e-03
2p_4p*(2)-1s*3p*(2)	5.86313	7.51e+09	1.80e+13	2.25e+12	4.08e+09	1.78e-03
2p_4d*(3)-1s*3d_(2)	5.86388	7.61e+09	1.99e+13	1.53e+12	3.81e+09	2.49e-03
2p_4p_(1)-1s*3p_(0)	5.86370	2.00e+10	2.13e+13	6.66e+08	1.88e+08	2.82e-03
2p_4p_(1)-1s*3p_(1)	5.86387	1.59e+10	2.13e+13	6.66e+08	1.50e+08	2.25e-03
2s*4d_(1)-1s*3p*(1)	5.86459	9.94e+09	1.37e+13	8.42e+11	1.73e+09	2.08e-03
2s*4p_(1)-1s*3s*(0)	5.86477	4.60e+09	1.08e+13	3.10e+12	3.11e+09	1.00e-03
2p_4d_(2)-1s*3d_(1)	5.86515	7.97e+09	2.15e+13	1.12e+12	1.97e+09	1.76e-03
2p_4d_(2)-1s*3d_(2)	5.86516	3.39e+09	2.15e+13	1.12e+12	8.37e+08	7.49e-04
2p*4s*(2)-1s*3d_(1)	5.86552	1.60e+09	2.31e+13	1.75e+11	6.02e+07	3.44e-04
2p_4p*(1)-1s*3p*(1)	5.86627	8.02e+09	1.94e+13	2.76e+11	3.37e+08	1.22e-03
2p_4s*(1)-1s*3s*(0)	5.86750	5.43e+10	1.42e+13	6.94e+11	7.59e+09	1.09e-02
2s*4s*(1)-1s*3p_(0)	5.86955	1.98e+09	7.15e+12	8.04e+11	4.57e+08	7.57e-04
2p_4p*(1)-1s*3p*(1)	5.86996	7.68e+10	2.34e+13	2.56e+10	2.51e+08	9.82e-03
2s*4s*(1)-1s*3p_(1)	5.86971	6.84e+09	7.15e+12	6.04e+11	1.55e+09	2.57e-03
2s*4s*(1)-1s*3p*(2)	5.87041	9.51e+09	7.15e+12	6.04e+11	2.22e+09	3.68e-03
2s*4p*(2)-1s*3d*(3)	5.87060	7.44e+08	7.84e+12	2.58e+12	9.23e+09	3.57e-03
2s*4p_(1)-1s*3d_(1)	5.87127	2.41e+09	1.06e+13	3.10e+12	1.63e+09	5.27e-04
2s*4p_(1)-1s*3d_(2)	5.87128	6.40e+09	1.06e+13	3.10e+12	4.33e+09	1.40e-03
2p_4s*(0)-1s*3d_(1)	5.87223	1.10e+10	1.56e+13	2.23e+12	1.38e+09	6.19e-04
2p_4p_(1)-1s*3p*(1)	5.87328	1.11e+10	2.13e+13	6.66e+08	1.05e+06	1.57e-03
2s*4s*(0)-1s*3p_(1)	5.87590	1.71e+10	6.81e+12	5.33e+13	1.52e+10	2.84e-04
2p*3p*(0)-1s*3p_(1)	6.15384	5.80e+08	2.43e+13	6.72e+12	1.28e+09	1.90e-04
2p*3d*(1)-1s*3s*(0)	6.15790	9.82e+10	2.19e+13	2.29e+12	2.76e+10	1.22e-02
2p*3d_(0)-1s*3s*(1)	6.15968	7.86e+11	2.11e+13	4.52e+09	1.66e+08	3.72e-02
2p*3d_(1)-1s*3s*(1)	6.16012	8.93e+11	2.10e+13	5.17e+11	6.45e+10	1.25e-01
2p*3d*(2)-1s*3s*(1)	6.16079	1.10e+12	2.06e+13	9.48e+09	2.51e+09	2.65e-01
2p*3p*(0)-1s*3p*(1)	6.16401	2.00e+13	2.43e+13	6.72e+12	4.33e+12	6.44e-01
2p*3d*(1)-1s*3d_(1)	6.16512	2.75e+10	2.19e+13	2.29e+12	7.80e+09	3.41e-03
2p*3d*(1)-1s*3d_(2)	6.16514	1.33e+12	2.19e+13	2.29e+12	3.77e+11	1.65e-01
2p*3d*(1)-1s*3d*(2)	6.16578	2.02e+13	2.19e+13	2.29e+12	5.72e+12	2.50e+00
2p*3s*(1)-1s*3s*(1)	6.16678	5.72e+10	1.67e+13	8.51e+13	1.43e+11	1.69e-03
2p*4d*(1)-1s*4s*(1)	6.16830	6.16e+09	2.18e+13	6.56e+11	5.40e+08	8.23e-04
2s*3d*(2)-1s*3p_(1)	6.16919	3.91e+10	1.15e+13	6.30e+13	1.85e+11	2.62e-03
2s*3d*(2)-1s*3p*(2)	6.16985	6.78e+10	1.15e+13	6.30e+13	2.87e+11	4.55e-03
2p*3d_(3)-1s*3d_(2)	6.16997	3.35e+12	2.36e+13	2.01e+13	1.08e+13	5.37e-01
2p*3d_(2)-1s*3s*(1)	6.17004	7.58e+10	2.37e+13	5.97e+10	9.54e+08	1.80e-02
2p*3d_(3)-1s*3d*(3)	6.17025	2.01e+11	2.38e+13	2.01e+13	6.46e+11	3.22e-02
2p*3d_(3)-1s*3d*(2)	6.17060	2.00e+13	2.36e+13	2.01e+13	6.45e+13	3.21e+00
2p_3d_(1)-1s*3s*(1)	6.17114	2.07e+10	2.37e+13	1.52e+12	3.74e+09	2.46e-03

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p*4p*(0)-1s*4p_(1)	6.17162	1.70e+11	2.21e+13	3.24e+12	2.17e+10	6.70e-03
2p*4d_(0)-1s*4s*(1)	6.17258	5.15e+11	2.12e+13	2.77e+07	6.74e+05	2.43e-02
2p*3d_(1)-1s*3s*(0)	6.17272	7.87e+10	2.10e+13	5.17e+11	5.88e+09	1.10e-02
2p*4d_(1)-1s*4s*(1)	6.17295	7.09e+11	2.11e+13	3.88e+11	3.88e+10	9.91e-02
2p*4d*(1)-1s*4s*(0)	6.17312	5.74e+10	2.18e+13	6.56e+11	5.04e+09	7.68e-03
2p*4d*(2)-1s*4s*(1)	6.17342	1.08e+12	2.18e+13	2.45e+09	6.31e+08	2.57e-01
2p*4f*(2)-1s*4p_(1)	6.17562	1.92e+10	2.37e+13	1.18e+12	4.58e+09	3.85e-03
2p*4p*(0)-1s*4p*(1)	6.17580	1.93e+13	2.21e+13	3.24e+12	2.47e+12	7.63e-01
2p*4f_(1)-1s*4p_(0)	6.17594	5.74e+09	2.33e+13	8.89e+09	6.58e+08	7.40e-04
2p*4f*(2)-1s*4p*(2)	6.17599	1.93e+10	2.37e+13	1.18e+12	4.59e+09	3.88e-03
2p*4f_(1)-1s*4p_(1)	6.17604	3.06e+09	2.33e+13	8.89e+09	3.51e+08	3.94e-04
2p*4d*(1)-1s*4d_(1)	6.17640	1.03e+11	2.18e+13	6.56e+11	9.01e+09	1.37e-02
2p*4d*(1)-1s*4d_(2)	6.17641	3.07e+11	2.18e+13	6.56e+11	2.69e+10	4.10e-02
2p*4d*(1)-1s*4d*(2)	6.17673	2.11e+13	2.18e+13	6.56e+11	1.88e+12	2.83e+00
2s*4f_(2)-1s*4s*(1)	6.17676	7.18e+10	1.33e+13	4.22e+11	1.11e+10	2.63e-02
2p*4s*(1)-1s*4s*(1)	6.17726	5.99e+11	1.69e+13	2.97e+13	1.14e+12	3.86e-02
2p*4f_(2)-1s*4p*(2)	6.17756	1.37e+10	2.35e+13	1.53e+12	4.21e+09	2.74e-03
2p*4f*(3)-1s*4p*(2)	6.17776	3.25e+10	2.32e+13	1.38e+10	1.36e+08	9.80e-03
2p*4d_(1)-1s*4s*(0)	6.17778	1.61e+11	2.11e+13	3.89e+11	8.78e+09	2.25e-02
2s*4f_(2)-1s*4s*(1)	6.17819	2.07e+11	1.31e+13	1.05e+10	8.29e+08	7.88e-02
2p*4d_(3)-1s*4d_(2)	6.17852	4.49e+12	2.35e+13	9.57e+12	9.09e+12	9.49e-01
2p*4p*(2)-1s*4p_(1)	6.17887	1.68e+11	1.43e+13	2.88e+13	5.61e+11	1.95e-02
2p*4d_(3)-1s*4d*(3)	6.17887	1.24e+12	2.35e+13	9.57e+12	2.51e+12	2.62e-01
2p*4d_(3)-1s*4d*(2)	6.17884	1.78e+13	2.35e+13	9.57e+12	3.80e+13	3.76e+00
2p*4p*(2)-1s*4p*(2)	6.17894	5.86e+11	1.43e+13	2.88e+13	1.96e+12	6.80e-02
2p*4f*(2)-1s*4f_(3)	6.17907	1.04e+10	2.37e+13	1.18e+12	2.48e+09	2.09e-03
2p*4f*(2)-1s*4f_(2)	6.17908	4.26e+11	2.37e+13	1.18e+12	1.01e+11	8.54e-02
2p*4f*(2)-1s*4f*(3)	6.17917	2.28e+13	2.37e+13	1.18e+12	5.41e+12	4.57e+00
2p*3s*(1)-1s*3s*(0)	6.17940	1.28e+13	1.67e+13	8.51e+13	3.20e+13	3.77e-01
2p*3d_(0)-1s*3d_(1)	6.17947	1.96e+13	2.11e+13	4.52e+09	4.28e+09	9.29e-01
2p*4f_(1)-1s*4f_(2)	6.17951	2.33e+13	2.33e+13	8.89e+09	2.67e+10	3.00e+00
2s*3d*(2)-1s*3p*(1)	6.17961	9.87e+12	1.15e+13	6.30e+13	4.17e+13	6.83e-01
2p_4d_(1)-1s*4s*(1)	6.17964	9.96e+09	2.31e+13	2.81e+12	3.24e+09	1.15e-03
2p*4f*(2)-1s*4p*(1)	6.17970	4.51e+11	2.37e+13	1.18e+12	1.07e+11	8.85e-02
2p*3d_(1)-1s*3d_(1)	6.17992	7.49e+12	2.10e+13	5.17e+11	5.41e+11	1.05e+00
2p*3d_(1)-1s*3d_(2)	6.17994	1.08e+13	2.10e+13	5.17e+11	7.78e+11	1.50e+00
2p*3d*(2)-1s*3s*(1)	6.18046	6.48e+10	2.36e+13	8.45e+11	1.11e+10	1.31e-02
2p*3d_(1)-1s*3d*(2)	6.18058	9.91e+11	2.10e+13	5.17e+11	7.18e+10	1.38e-01
2p*3d*(2)-1s*3d_(1)	6.18060	6.35e+11	2.08e+13	9.48e+09	1.45e+09	1.53e-01
2p*4f_(4)-1s*4f_(3)	6.18060	1.88e+13	2.36e+13	3.18e+11	2.24e+12	7.08e+00
2p*3d*(2)-1s*3d_(2)	6.18061	4.44e+12	2.08e+13	9.48e+09	1.01e+10	1.07e+00
2s*2p*(1)-1s*2s*(1)	6.18061	3.08e+10	2.29e+13	2.22e+14	8.41e+10	3.88e-04
2p*4f_(2)-1s*4f_(3)	6.18064	1.21e+13	2.35e+13	1.53e+12	3.72e+12	2.42e+00
2p*4f_(2)-1s*4f_(2)	6.18065	1.08e+13	2.35e+13	1.53e+12	3.28e+12	2.12e+00
2p*4f_(4)-1s*4f*(4)	6.18068	1.55e+12	2.36e+13	3.18e+11	1.88e+11	5.84e-01
2p*4d_(0)-1s*4d_(1)	6.18068	2.04e+13	2.12e+13	2.77e+07	2.67e+07	9.64e-01
2p*4f_(4)-1s*4f*(3)	6.18069	3.38e+12	2.36e+13	3.18e+11	3.94e+11	1.24e+00
2p*4f_(2)-1s*4f*(3)	6.18074	1.03e+11	2.35e+13	1.53e+12	3.15e+10	2.05e-02
2p*4f*(3)-1s*4f_(3)	6.18084	1.41e+12	2.32e+13	1.38e+10	5.88e+09	4.25e-01
2p*4f*(3)-1s*4f_(2)	6.18085	5.55e+11	2.32e+13	1.38e+10	2.32e+09	1.67e-01
2p*3d*(2)-1s*3d*(3)	6.18089	1.24e+13	2.08e+13	9.48e+09	2.84e+10	2.99e+00
2p*4f*(3)-1s*4f*(4)	6.18093	1.21e+13	2.32e+13	1.38e+10	5.05e+10	3.65e+00
2p*4f*(3)-1s*4f*(3)	6.18094	9.08e+12	2.32e+13	1.38e+10	3.80e+10	2.74e+00
2p_4d*(2)-1s*4s*(1)	6.18095	1.31e+12	2.17e+13	1.01e+11	3.02e+10	3.00e-01
2p*4d_(1)-1s*4d_(1)	6.18106	1.08e+13	2.11e+13	3.89e+11	5.86e+11	1.51e+00
2p*4d_(1)-1s*4d_(2)	6.18107	8.79e+12	2.11e+13	3.89e+11	4.78e+11	1.23e+00
2p*3d*(2)-1s*3d*(2)	6.18125	1.37e+12	2.08e+13	9.48e+09	3.12e+09	3.29e-01
2p*4f_(2)-1s*4p*(1)	6.18137	6.10e+11	2.35e+13	1.53e+12	1.87e+11	1.22e-01
2p*4d_(1)-1s*4d*(2)	6.18139	4.00e+11	2.11e+13	3.89e+11	2.18e+10	5.59e-02
2p*4f*(5)-1s*4f*(4)	6.18141	2.38e+13	2.36e+13	1.83e+11	2.00e+12	1.09e+01
2p*4d*(2)-1s*4d_(1)	6.18153	1.42e+12	2.10e+13	2.45e+09	8.30e+08	3.38e-01
2p*4d*(2)-1s*4d_(2)	6.18154	6.13e+12	2.10e+13	2.45e+09	3.58e+09	1.46e+00
2p*4d*(2)-1s*4d*(3)	6.18170	8.87e+12	2.10e+13	2.45e+09	5.19e+09	2.11e+00
2p*4d*(2)-1s*4d*(2)	6.18186	3.24e+12	2.10e+13	2.45e+09	1.89e+09	7.71e-01
2p* (3/2)-1s* (1/2)	6.18195	2.43e+13	2.43e+13	0.	0.	4.00e+00
2p*4p*(2)-1s*4f_(3)	6.18202	2.57e+11	1.43e+13	2.88e+13	8.59e+11	2.98e-02
2p*4p*(2)-1s*4f_(2)	6.18203	3.48e+11	1.43e+13	2.88e+13	1.16e+12	4.04e-02
2p*4s*(1)-1s*4s*(0)	6.18209	1.23e+13	1.69e+13	2.97e+13	2.34e+13	7.91e-01
2p*4p*(2)-1s*4f*(3)	6.18212	5.32e+11	1.43e+13	2.88e+13	1.78e+12	6.18e-02
2p*4p*(1)-1s*4p_(0)	6.18226	4.46e+12	2.03e+13	9.11e+09	5.99e+09	6.58e-01
2p*4p*(1)-1s*4p_(1)	6.18236	8.57e+12	2.03e+13	9.11e+09	1.15e+10	1.26e+00
2p*4f*(4)-1s*4f_(3)	6.18236	4.83e+12	2.37e+13	9.55e+10	1.74e+11	1.82e+00
2p*4f*(4)-1s*4f*(4)	6.18245	7.38e+12	2.37e+13	9.55e+10	2.83e+11	2.76e+00
2p*4f*(4)-1s*4f*(3)	6.18246	1.16e+13	2.37e+13	9.55e+10	4.19e+11	4.38e+00
2p*4f_(3)-1s*4f_(3)	6.18265	8.26e+12	2.38e+13	7.58e+10	1.84e+11	2.42e+00

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*4p*(2)-1s*4p*(1)	6.18265	1.14e+13	1.43e+13	2.88e+13	3.81e+13	1.32e+00
2p*4f_(3)-1s*4f_(2)	6.18266	1.35e+13	2.38e+13	7.58e+10	3.00e+11	3.96e+00
2p*4p*(1)-1s*4p*(2)	6.18273	4.88e+12	2.03e+13	9.11e+09	6.56e+09	7.21e-01
2p*4f_(3)-1s*4f*(4)	6.18274	4.73e+11	2.38e+13	7.58e+10	1.05e+10	1.39e-01
2p*4f_(3)-1s*4f*(3)	6.18275	1.53e+12	2.38e+13	7.58e+10	3.41e+10	4.50e-01
2p_4f_(2)-1s*4p_(1)	6.18346	3.18e+11	2.29e+13	8.45e+10	5.86e+09	6.93e-02
2p_4f*(3)-1s*4p*(2)	6.18367	2.03e+12	2.03e+13	2.31e+11	1.60e+11	6.91e-01
2p_3d_(1)-1s*3s*(0)	6.18378	2.98e+11	2.37e+13	1.52e+12	5.26e+10	3.46e-02
2p_4f_(2)-1s*4p*(2)	6.18385	9.01e+09	2.29e+13	8.45e+10	1.66e+08	1.96e-03
2p*4d*(3)-1s*4d_(2)	6.18410	1.02e+13	1.87e+13	4.61e+11	1.71e+12	3.70e+00
2p*4d*(3)-1s*4d*(3)	6.18425	7.54e+12	1.87e+13	4.61e+11	1.27e+12	2.75e+00
2p_4f_(3)-1s*4p*(2)	6.18438	9.10e+10	2.36e+13	1.17e+11	3.13e+09	2.69e-02
2s*4f*(4)-1s*4d*(3)	6.18441	1.06e+13	1.06e+13	9.28e+11	7.60e+12	8.25e+00
2p*4d*(3)-1s*4d*(2)	6.18442	1.03e+12	1.87e+13	4.61e+11	1.73e+11	3.74e-01
2p_4d_(1)-1s*4s*(0)	6.18448	1.57e+12	2.31e+13	2.81e+12	5.10e+11	1.82e-01
2p_4d_(2)-1s*4s*(1)	6.18478	2.74e+12	2.15e+13	1.12e+12	6.76e+11	6.05e-01
2p_3d_(2)-1s*3s*(1)	6.18478	1.48e+10	2.35e+13	3.46e+12	9.49e+09	2.74e-03
2s*4f_(2)-1s*4d_(1)	6.18488	7.92e+12	1.33e+13	4.22e+11	1.22e+12	2.90e+00
2s*4f_(2)-1s*4d_(2)	6.18490	2.07e+12	1.33e+13	4.22e+11	3.19e+11	7.57e-01
2p*4p_(2)-1s*4p_(1)	6.18494	1.39e+13	2.19e+13	4.00e+11	1.25e+12	3.13e+00
2s*4f_(2)-1s*4d*(3)	6.18505	1.88e+12	1.33e+13	4.22e+11	2.90e+11	6.88e-01
2p*4p*(3)-1s*4p*(2)	6.18511	1.08e+13	1.82e+13	7.28e+11	2.91e+12	4.00e+00
2s*4f*(3)-1s*4d_(2)	6.18517	3.79e+10	8.25e+10	2.05e+09	6.42e+09	3.14e+00
2p*4s*(2)-1s*4s*(1)	6.18520	1.51e+13	2.31e+13	1.75e+11	5.67e+11	3.23e+00
2s*4f_(2)-1s*4d*(2)	6.18521	1.28e+12	1.33e+13	4.22e+11	1.97e+11	4.68e-01
2p*4p_(2)-1s*4p*(2)	6.18531	4.83e+12	2.19e+13	4.00e+11	4.34e+11	1.09e+00
2p*4s*(1)-1s*4d_(1)	6.18537	2.21e+12	1.69e+13	2.97e+13	4.21e+12	1.42e-01
2p*4s*(1)-1s*4d_(2)	6.18539	9.00e+10	1.69e+13	2.97e+13	1.72e+11	5.80e-03
2s*4f*(3)-1s*4d*(2)	6.18549	9.30e+09	8.25e+10	2.05e+09	1.58e+09	7.70e-01
2p*4s*(1)-1s*4d*(2)	6.18571	1.01e+12	1.69e+13	2.97e+13	1.93e+12	6.52e-02
2s*4d_(1)-1s*4p_(0)	6.18584	8.23e+12	1.37e+13	8.42e+11	1.43e+12	1.70e+00
2s*4f_(3)-1s*4d_(2)	6.18603	2.65e+11	8.88e+12	3.77e+11	7.50e+10	2.01e-01
2s*4d_(1)-1s*4p_(1)	6.18604	4.44e+11	1.37e+13	8.42e+11	7.75e+10	9.20e-02
2s*4d*(2)-1s*4p_(1)	6.18606	1.34e+11	1.30e+13	2.94e+12	1.24e+11	4.22e-02
2s*4f_(3)-1s*4d*(3)	6.18608	8.12e+12	8.88e+12	3.77e+11	2.31e+12	6.14e+00
2s*4f_(3)-1s*4d*(2)	6.18625	4.78e+11	8.88e+12	3.77e+11	1.36e+11	3.62e-01
2s*4d_(1)-1s*4p*(2)	6.18631	1.20e+12	1.37e+13	8.42e+11	2.10e+11	2.49e-01
2s*4f_(2)-1s*4d_(1)	6.18631	1.21e+12	1.31e+13	1.05e+10	4.85e+09	4.61e-01
2s*4f_(2)-1s*4d_(2)	6.18632	7.60e+12	1.31e+13	1.05e+10	3.04e+10	2.89e+00
2p*3p_(1)-1s*3p_(0)	6.18633	3.45e+12	2.13e+13	1.36e+09	8.63e+08	4.88e-01
2s*4d*(2)-1s*4p*(2)	6.18643	9.89e+12	1.30e+13	2.94e+12	9.15e+12	3.11e+00
2p*4p*(1)-1s*4p*(1)	6.18644	6.63e+11	2.03e+13	9.11e+09	8.92e+08	9.79e-02
2s*4f_(2)-1s*4d*(3)	6.18648	4.03e+12	1.31e+13	1.05e+10	1.61e+10	1.53e+00
2p*3p_(1)-1s*3p_(1)	6.18652	7.37e+12	2.13e+13	1.36e+09	1.42e+09	1.04e+00
2p*3s*(1)-1s*3d_(1)	6.18662	6.00e+11	1.67e+13	8.51e+13	1.51e+12	1.77e-02
2p*3s*(1)-1s*3d_(2)	6.18664	5.79e+10	1.67e+13	8.51e+13	1.45e+11	1.71e-03
2s*4f_(2)-1s*4d*(2)	6.18664	4.87e+10	1.31e+13	1.05e+10	1.95e+08	1.85e-02
2p_4f*(3)-1s*4f_(3)	6.18676	1.24e+11	2.03e+13	2.31e+11	9.78e+09	4.23e-02
2p_4f*(3)-1s*4f_(2)	6.18677	1.36e+11	2.03e+13	2.31e+11	1.07e+10	4.64e-02
2p_4f*(3)-1s*4f*(4)	6.18685	6.50e+12	2.03e+13	2.31e+11	5.11e+11	2.21e+00
2p_4f*(3)-1s*4f*(3)	6.18686	1.13e+13	2.03e+13	2.31e+11	8.92e+11	3.86e+00
2p_4f_(2)-1s*4f_(3)	6.18693	9.91e+12	2.29e+13	8.45e+10	1.83e+11	2.16e+00
2p_4f_(2)-1s*4f_(2)	6.18695	1.24e+13	2.29e+13	8.45e+10	2.28e+11	2.70e+00
2p_4f*(4)-1s*4f_(3)	6.18703	1.62e+10	2.37e+13	1.39e+11	8.49e+08	6.13e-03
2p_4f_(2)-1s*4f*(3)	6.18704	1.81e+11	2.29e+13	8.45e+10	3.34e+09	3.95e-02
2p_4f*(4)-1s*4f*(4)	6.18712	1.50e+13	2.37e+13	1.39e+11	7.85e+11	5.66e+00
2p_4f*(4)-1s*4f*(3)	6.18713	8.68e+12	2.37e+13	1.39e+11	4.54e+11	3.28e+00
2p_4s*(1)-1s*4s*(1)	6.18714	1.23e+13	1.66e+13	1.17e+12	2.43e+12	2.08e+00
2p*3s*(1)-1s*3d*(2)	6.18728	1.24e+12	1.67e+13	8.51e+13	3.11e+12	3.66e-02
2p*3p_(1)-1s*3p*(2)	6.18729	5.60e+12	2.13e+13	1.36e+09	1.08e+09	7.89e-01
2p_ (1/2)-1s* (1/2)	6.18737	2.43e+13	2.43e+13	0.	0.	2.00e+00
2p_4f_(3)-1s*4f_(3)	6.18747	1.39e+13	2.38e+13	1.17e+11	4.78e+11	4.10e+00
2p_4f_(3)-1s*4f_(2)	6.18748	9.23e+12	2.38e+13	1.17e+11	3.18e+11	2.73e+00
2p_4f_(3)-1s*4f*(4)	6.18756	3.21e+11	2.38e+13	1.17e+11	1.10e+10	9.47e-02
2p_4f_(2)-1s*4p*(1)	6.18756	3.05e+10	2.29e+13	8.45e+10	5.62e+08	6.65e-03
2p_4f_(3)-1s*4f*(3)	6.18757	3.18e+10	2.38e+13	1.17e+11	1.09e+09	9.39e-03
2p_4p*(1)-1s*4p_(0)	6.18771	2.68e+12	1.94e+13	2.76e+11	1.12e+11	4.07e-01
2p_4d_(1)-1s*4d_(1)	6.18778	1.03e+13	2.31e+13	2.81e+12	3.34e+12	1.19e+00
2p_4d_(1)-1s*4d_(2)	6.18778	1.12e+13	2.31e+13	2.81e+12	3.63e+12	1.29e+00
2p_4p*(1)-1s*4p_(1)	6.18781	3.89e+12	1.94e+13	2.76e+11	1.63e+11	5.92e-01
2s*4p_(0)-1s*4s*(1)	6.18810	8.98e+12	1.35e+13	6.16e+11	3.92e+11	6.37e-01
2p_4d_(1)-1s*4d*(2)	6.18810	8.95e+09	2.31e+13	2.81e+12	2.91e+09	1.04e-03
2p_4p*(1)-1s*4p*(2)	6.18818	9.48e+12	1.94e+13	2.76e+11	3.98e+11	1.44e+00
2p*4p*(3)-1s*4f_(3)	6.18820	1.54e+11	1.82e+13	7.28e+11	4.15e+10	5.70e-02
2p*4p*(3)-1s*4f_(2)	6.18822	1.73e+11	1.82e+13	7.28e+11	4.85e+10	6.39e-02

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*4p*(3)-1s*4f*(4)	6.18829	4.06e+12	1.82e+13	7.28e+11	1.09e+12	1.50e+00
2p*4p*(3)-1s*4f*(3)	6.18830	1.87e+12	1.82e+13	7.28e+11	5.03e+11	6.91e-01
2p*4p_(2)-1s*4f_(3)	6.18840	8.26e+11	2.19e+13	4.00e+11	7.42e+10	1.85e-01
2p*4p_(2)-1s*4f_(2)	6.18841	1.54e+11	2.19e+13	4.00e+11	1.38e+10	3.45e-02
2p*4p_(2)-1s*4f*(3)	6.18850	1.12e+11	2.19e+13	4.00e+11	1.01e+10	2.52e-02
2p*3d*(3)-1s*3d_(2)	6.18882	4.78e+12	2.38e+13	1.88e+11	2.62e+11	1.39e+00
2s*4d_(2)-1s*4p_(1)	6.18879	8.35e+11	1.26e+13	1.82e+13	2.47e+12	1.35e-01
2p*3d*(3)-1s*3d*(3)	6.18890	1.88e+13	2.38e+13	1.88e+11	1.03e+12	5.49e+00
2p_4p_(0)-1s*4p_(1)	6.18894	2.32e+13	2.56e+13	5.58e+11	4.95e+11	8.88e-01
2p*4d*(4)-1s*4d*(3)	6.18898	1.38e+13	1.30e+13	8.55e+11	7.22e+12	8.44e+00
2p*4p_(2)-1s*4p*(1)	6.18903	6.28e+10	2.19e+13	4.00e+11	5.57e+09	1.39e-02
2p_4d*(2)-1s*4d_(1)	6.18907	1.57e+11	2.17e+13	1.01e+11	3.63e+09	3.60e-02
2p_4d*(2)-1s*4d_(2)	6.18909	1.53e+10	2.17e+13	1.01e+11	3.53e+08	3.51e-03
2s*4d_(2)-1s*4p*(2)	6.18916	1.54e+12	1.28e+13	1.82e+13	4.56e+12	2.50e-01
2p_4d*(2)-1s*4d*(3)	6.18925	2.03e+12	2.17e+13	1.01e+11	4.68e+10	4.65e-01
2p*3d*(3)-1s*3d*(2)	6.18926	2.17e+11	2.38e+13	1.88e+11	1.19e+10	6.33e-02
2p_4d*(2)-1s*4d*(2)	6.18941	1.81e+13	2.17e+13	1.01e+11	4.17e+11	4.14e+00
2s*4d_(1)-1s*4f_(2)	6.18941	4.69e+11	1.37e+13	8.42e+11	8.17e+10	9.71e-02
2s*4d*(2)-1s*4f_(3)	6.18952	2.22e+11	1.30e+13	2.94e+12	2.05e+11	6.97e-02
2p*3d*(3)-1s*3p*(2)	6.18961	6.31e+12	8.14e+12	2.46e+12	1.02e+13	4.17e+00
2s*3d*(2)-1s*3p_(1)	6.18962	5.71e+12	8.14e+12	7.02e+12	1.32e+13	1.88e+00
2s*4d*(2)-1s*4f*(3)	6.18962	2.75e+11	1.30e+13	2.94e+12	2.54e+11	8.65e-02
2p*3d_(2)-1s*3d_(1)	6.18989	5.07e+12	2.37e+13	5.97e+10	6.37e+10	1.07e+00
2p*3d_(2)-1s*3d_(2)	6.18991	1.18e+13	2.37e+13	5.97e+10	1.46e+11	2.45e+00
2p*3p*(2)-1s*3p_(1)	6.18993	3.43e+12	2.46e+13	3.05e+13	9.48e+12	3.11e-01
2s*4d_(1)-1s*4p*(1)	6.19003	2.09e+12	1.37e+13	8.42e+11	3.64e+11	4.32e-01
2s*4d*(2)-1s*4p_(1)	6.19015	1.27e+12	1.30e+13	2.94e+12	1.17e+12	3.99e-01
2s*3d_(1)-1s*3p_(0)	6.19017	3.82e+12	6.19e+12	2.51e+12	3.13e+12	1.25e+00
2p*3d_(2)-1s*3d*(3)	6.19020	6.11e+12	2.37e+13	5.97e+10	7.89e+10	1.28e+00
2s*3d_(1)-1s*3p_(1)	6.19035	1.05e+12	6.19e+12	2.51e+12	9.04e+11	3.61e-01
2s*3d*(2)-1s*3p*(2)	6.19039	1.19e+11	8.14e+12	7.02e+12	2.75e+11	3.92e-02
2p*3d_(2)-1s*3d*(2)	6.19055	7.10e+11	2.37e+13	5.97e+10	8.93e+09	1.50e-01
2s*4p*(2)-1s*4s*(1)	6.19055	3.44e+12	7.84e+12	2.59e+12	4.27e+12	1.65e+00
2p*3p*(2)-1s*3p*(2)	6.19078	1.09e+13	2.46e+13	3.05e+13	3.02e+13	9.91e-01
2p_3d_(1)-1s*3d_(1)	6.19100	1.48e+13	2.37e+13	1.52e+12	2.68e+12	1.76e+00
2p_3d_(1)-1s*3d_(2)	6.19102	8.28e+12	2.37e+13	1.52e+12	1.50e+12	9.86e-01
2s*3d_(1)-1s*3p*(2)	6.19112	3.37e+10	6.19e+12	2.51e+12	2.91e+10	1.16e-02
2p_4d*(3)-1s*4d_(2)	6.19128	8.64e+12	1.90e+13	1.53e+12	4.32e+12	2.83e+00
2p_4p*(1)-1s*4f_(2)	6.19129	2.07e+11	1.94e+13	2.76e+11	8.80e+09	3.15e-02
2p_4p*(1)-1s*4p_(0)	6.19137	1.25e+10	2.34e+13	2.56e+10	4.08e+07	1.60e-03
2p_4d*(3)-1s*4d*(3)	6.19144	6.98e+12	1.99e+13	1.53e+12	3.48e+12	2.27e+00
2p_4p*(1)-1s*4p_(1)	6.19147	7.74e+11	2.34e+13	2.56e+10	2.53e+09	9.90e-02
2s*4p_(1)-1s*4s*(1)	6.19159	7.74e+12	1.08e+13	3.10e+12	5.24e+12	1.69e+00
2p_4d*(3)-1s*4d*(2)	6.19161	4.27e+12	1.98e+13	1.53e+12	2.14e+12	1.40e+00
2p_3d_(1)-1s*3d*(2)	6.19186	2.19e+11	2.37e+13	1.52e+12	3.98e+10	2.61e-02
2p_4p*(1)-1s*4p*(2)	6.19185	3.35e+12	2.34e+13	2.56e+10	1.09e+10	4.28e-01
2p_4p*(1)-1s*4p*(1)	6.19190	1.42e+12	1.94e+13	2.76e+11	5.95e+10	2.16e-01
2p_4s*(1)-1s*4s*(0)	6.19200	3.74e+10	1.66e+13	1.17e+12	7.40e+09	6.33e-03
2s*4d*(3)-1s*4p*(2)	6.19213	1.06e+13	1.24e+13	1.38e+11	8.15e+11	5.92e+00
2s*4d_(2)-1s*4f_(3)	6.19225	6.19e+11	1.26e+13	1.82e+13	1.83e+12	1.00e-01
2s*4d_(2)-1s*4f_(2)	6.19227	1.05e+10	1.26e+13	1.82e+13	3.10e+10	1.70e-03
2p_4s*(0)-1s*4s*(1)	6.19266	1.44e+13	1.56e+13	2.23e+12	1.80e+12	8.08e-01
2p_3p*(2)-1s*3p_(1)	6.19267	1.91e+12	2.13e+13	5.01e+13	6.71e+12	1.34e-01
2s*4d_(2)-1s*4p*(1)	6.19288	8.46e+12	1.26e+13	1.82e+13	2.50e+13	1.37e+00
2p_4d_(2)-1s*4d_(1)	6.19292	1.12e+13	2.15e+13	1.12e+12	2.77e+12	2.47e+00
2p_4d_(2)-1s*4d_(2)	6.19294	5.66e+12	2.15e+13	1.12e+12	1.40e+12	1.25e+00
2p_4d_(2)-1s*4d*(3)	6.19308	1.59e+12	2.15e+13	1.12e+12	3.93e+11	3.52e-01
2p_3p*(1)-1s*3p_(0)	6.19312	6.19e+12	2.90e+13	4.79e+10	3.07e+10	6.40e-01
2p*3s*(2)-1s*3s*(1)	6.19318	1.88e+13	2.30e+13	2.71e+10	1.11e+11	4.09e+00
2p_4d_(2)-1s*4d*(2)	6.19326	2.81e+11	2.15e+13	1.12e+12	8.94e+10	6.20e-02
2p_3p*(1)-1s*3p_(1)	6.19331	4.43e+12	2.90e+13	4.79e+10	2.19e+10	4.58e-01
2p*4s*(2)-1s*4d_(1)	6.19334	1.88e+12	2.31e+13	1.75e+11	8.32e+10	3.81e-01
2p*4s*(2)-1s*4d_(2)	6.19335	2.15e+12	2.31e+13	1.75e+11	8.09e+10	4.61e-01
2p_3p*(2)-1s*3p*(2)	6.19344	7.53e+12	2.13e+13	5.01e+13	2.64e+13	5.27e-01
2p*4s*(2)-1s*4d*(3)	6.19351	3.21e+12	2.31e+13	1.75e+11	1.21e+11	6.89e-01
2p*4s*(2)-1s*4d*(2)	6.19367	9.11e+11	2.31e+13	1.75e+11	3.43e+10	1.96e-01
2p_4p*(2)-1s*4p_(1)	6.19402	8.30e+12	1.89e+13	2.25e+12	4.42e+12	1.97e+00
2p_3p*(1)-1s*3p*(2)	6.19406	1.31e+13	2.90e+13	4.79e+10	6.46e+10	1.35e+00
2p_3p_(0)-1s*3p_(1)	6.19436	2.44e+13	2.90e+13	4.19e+11	3.39e+11	8.08e-01
2p_4p*(2)-1s*4p*(2)	6.19439	7.09e+12	1.89e+13	2.25e+12	3.78e+12	1.68e+00
2p_4s*(1)-1s*4s*(1)	6.19464	2.53e+12	1.42e+13	6.94e+11	3.53e+11	5.09e-01
2p_4p*(1)-1s*4f_(2)	6.19495	3.94e+10	2.34e+13	2.56e+10	1.29e+08	5.04e-03
2s*4d*(3)-1s*4f_(3)	6.19522	2.15e+10	1.24e+13	1.38e+11	1.65e+09	1.20e-02
2p_4s*(1)-1s*4d_(1)	6.19529	4.64e+11	1.66e+13	1.17e+12	9.17e+10	7.84e-02
2p_4s*(1)-1s*4d_(2)	6.19531	2.24e+12	1.66e+13	1.17e+12	4.42e+11	3.78e-01

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2s*4d*(3)-1s*4f*(4)	6.19531	6.02e+11	1.24e+13	1.38e+11	4.62e+10	3.36e-01
2s*4d*(3)-1s*4f*(3)	6.19532	3.67e+09	1.24e+13	1.38e+11	2.82e+08	2.05e-03
2p_3s*(1)-1s*3s*(1)	6.19549	1.29e+13	1.91e+13	6.85e+11	1.35e+12	1.97e+00
2p_4p_(1)-1s*4p_(0)	6.19551	8.04e+12	2.13e+13	6.66e+08	7.55e+08	1.13e+00
2p_4p*(1)-1s*4p*(1)	6.19557	1.71e+13	2.34e+13	2.56e+10	5.59e+10	2.19e+00
2p_4p_(1)-1s*4p_(1)	6.19562	8.31e+12	2.13e+13	6.66e+08	7.81e+08	1.17e+00
2p_4s*(1)-1s*4d*(2)	6.19567	7.00e+11	1.66e+13	1.17e+12	1.38e+11	1.18e-01
2p_4p_(1)-1s*4p*(2)	6.19599	6.76e+11	2.13e+13	6.66e+08	6.35e+07	9.53e-02
2s*4p_(0)-1s*4d_(1)	6.19625	3.34e+12	1.35e+13	6.16e+11	1.46e+11	2.37e-01
2s*4p_(1)-1s*4s*(0)	6.19645	2.13e+11	1.06e+13	3.10e+12	1.44e+11	4.66e-02
2s*3s_(0)-1s*3s*(1)	6.19657	9.17e+12	1.63e+13	1.28e+12	6.69e+11	5.21e-01
2p*3p_(1)-1s*3p*(1)	6.19701	2.19e+11	2.13e+13	1.36e+09	4.21e+07	3.09e-02
2p_4p*(2)-1s*4f_(3)	6.19749	8.83e+10	1.89e+13	2.25e+12	4.71e+10	2.09e-02
2p_4p*(2)-1s*4f_(2)	6.19750	8.24e+09	1.89e+13	2.25e+12	4.39e+09	1.95e-03
2p_4p*(2)-1s*4f*(3)	6.19759	8.82e+10	1.89e+13	2.25e+12	4.70e+10	2.09e-02
2s*3p*(2)-1s*3s*(1)	6.19809	3.64e+12	1.02e+13	7.52e+12	7.73e+12	1.03e+00
2p_4p*(2)-1s*4p*(1)	6.19812	1.48e+12	1.89e+13	2.25e+12	7.88e+11	3.50e-01
2s*4s*(0)-1s*4p_(1)	6.19852	7.33e+11	6.81e+12	5.33e+13	6.50e+11	1.22e-02
2s*4p*(2)-1s*4d_(2)	6.19872	2.36e+11	7.84e+12	2.59e+12	2.92e+11	1.13e-01
2p*2p*(0)-1s*2p*(1)	6.19885	3.59e+13	3.60e+13	1.03e+13	7.98e+12	7.77e-01
2s*4p*(2)-1s*4d*(3)	6.19887	2.41e+12	7.84e+12	2.59e+12	2.99e+12	1.15e+00
2s*4p*(2)-1s*4d*(2)	6.19904	2.00e+10	7.84e+12	2.59e+12	2.49e+10	9.61e-03
2p_4p_(1)-1s*4f_(2)	6.19910	9.77e+10	2.13e+13	6.66e+08	9.13e+06	1.37e-02
2p*3d*(4)-1s*3d*(3)	6.19946	2.35e+13	2.35e+13	4.29e+12	3.27e+13	7.61e+00
2p_4s*(1)-1s*4s*(0)	6.19950	9.33e+12	1.42e+13	6.94e+11	1.30e+12	1.88e+00
2s*3p_(1)-1s*3s*(1)	6.19963	9.47e+12	1.34e+13	7.63e+12	1.03e+13	1.35e+00
2p_4p_(1)-1s*4p*(1)	6.19972	2.10e+12	2.13e+13	6.66e+08	1.98e+08	2.97e-01
2s*4p_(1)-1s*4d_(1)	6.19975	1.08e+11	1.06e+13	3.10e+12	7.33e+10	2.37e-02
2s*4p_(1)-1s*4d_(2)	6.19978	1.13e+12	1.06e+13	3.10e+12	7.66e+11	2.47e-01
2s*4p_(1)-1s*4d*(2)	6.20008	6.51e+09	1.06e+13	3.10e+12	4.40e+09	1.42e-03
2s*3d*(2)-1s*3p*(1)	6.20011	5.59e+11	8.14e+12	7.02e+12	1.29e+12	1.84e-01
2p*3d*(2)-1s*3d_(1)	6.20039	3.14e+12	2.36e+13	8.45e+11	5.42e+11	6.41e-01
2p*3d*(2)-1s*3d_(2)	6.20041	1.62e+11	2.36e+13	8.45e+11	2.80e+10	3.31e-02
2p*3p*(2)-1s*3p*(1)	6.20043	5.79e+12	2.46e+13	3.05e+13	1.60e+13	5.26e-01
2p_3s*(0)-1s*3s*(1)	6.20066	1.37e+13	1.62e+13	5.94e+12	4.11e+12	5.93e-01
2p*3d*(2)-1s*3d*(3)	6.20069	3.07e+11	2.36e+13	8.45e+11	5.31e+10	6.29e-02
2p_4s*(0)-1s*4d_(1)	6.20081	2.97e+11	1.56e+13	2.23e+12	3.73e+10	1.67e-02
2s*3d_(1)-1s*3p*(1)	6.20085	1.21e+11	6.19e+12	2.51e+12	1.04e+11	4.17e-02
2s*3d*(2)-1s*3d*(2)	6.20105	1.99e+13	2.36e+13	8.45e+11	3.43e+12	4.07e+00
2s*4s*(1)-1s*4p_(0)	6.20204	3.45e+11	7.15e+12	6.04e+11	8.08e+10	1.33e-01
2p_3d*(3)-1s*3d_(2)	6.20212	1.54e+13	2.35e+13	4.29e+12	1.67e+13	3.88e+00
2s*4s*(1)-1s*4p_(1)	6.20214	1.74e+12	7.15e+12	6.04e+11	4.07e+11	6.74e-01
2p_3d*(3)-1s*3d*(3)	6.20240	4.76e+12	2.35e+13	4.29e+12	5.15e+12	1.20e+00
2s*4s*(1)-1s*4p*(2)	6.20252	4.24e+12	7.15e+12	6.04e+11	9.91e+11	1.64e+00
2s*4s*(0)-1s*4p*(1)	6.20263	5.44e+12	6.81e+12	5.33e+13	4.82e+12	9.04e-02
2p_3d*(3)-1s*3d*(2)	6.20277	3.31e+12	2.35e+13	4.29e+12	3.59e+12	8.36e-01
2p_4s*(1)-1s*4d_(1)	6.20280	5.53e+09	1.42e+13	6.94e+11	7.73e+08	1.11e-03
2p_4s*(1)-1s*4d_(2)	6.20282	3.01e+11	1.42e+13	6.94e+11	4.20e+10	6.05e-02
2p_4s*(1)-1s*4d*(2)	6.20314	8.22e+11	1.42e+13	6.94e+11	1.15e+11	1.66e-01
2p_3p*(2)-1s*3p*(1)	6.20318	8.01e+12	2.13e+13	5.01e+13	2.81e+13	5.60e-01
2p_3p*(1)-1s*3p*(1)	6.20381	5.12e+10	2.90e+13	4.79e+10	2.53e+08	5.29e-03
2p_3d_(2)-1s*3d_(1)	6.20474	1.47e+13	2.35e+13	3.46e+12	9.41e+12	2.72e+00
2p_3d_(2)-1s*3d_(2)	6.20476	6.87e+12	2.35e+13	3.46e+12	4.40e+12	1.27e+00
2p_3p_(0)-1s*3p*(1)	6.20487	2.33e+10	2.98e+13	4.19e+11	3.24e+08	7.72e-04
2p_3d_(2)-1s*3d*(3)	6.20504	1.44e+11	2.35e+13	3.46e+12	9.25e+10	2.67e-02
2p_3d_(2)-1s*3d*(2)	6.20540	1.79e+12	2.35e+13	3.46e+12	1.15e+12	3.31e-01
2s*4s*(1)-1s*4p*(1)	6.20625	1.08e+11	7.15e+12	6.04e+11	2.52e+10	4.17e-02
2p*3p*(1)-1s*3p_(0)	6.20756	1.10e+12	2.81e+13	9.67e+09	1.14e+09	1.18e-01
2p*3p*(1)-1s*3p_(1)	6.20775	8.00e+11	2.81e+13	9.67e+09	8.27e+08	8.54e-02
2p*3p*(3)-1s*3p*(2)	6.20813	1.66e+13	2.15e+13	3.91e+10	2.11e+11	5.40e+00
2p_3s*(1)-1s*3s*(0)	6.20822	5.04e+10	1.91e+13	6.85e+11	5.25e+09	7.66e-03
2p*3p*(1)-1s*3p*(2)	6.20853	4.48e+11	2.81e+13	9.67e+09	4.63e+08	4.79e-02
2p_3p*(2)-1s*3p_(1)	6.21020	1.23e+13	2.34e+13	5.49e+11	1.40e+12	2.56e+00
2p_3p*(2)-1s*3p*(2)	6.21098	5.58e+12	2.34e+13	5.49e+11	6.39e+11	1.16e+00
2s*3p*(1)-1s*3s*(1)	6.21138	3.23e+11	1.55e+13	1.63e+12	9.23e+10	5.66e-02
2p_3p_(1)-1s*3p_(0)	6.21262	8.50e+12	2.54e+13	6.43e+08	6.47e+08	1.01e+00
2p_3p_(1)-1s*3p_(1)	6.21281	7.54e+12	2.54e+13	6.43e+08	5.73e+08	8.91e-01
2p*3s*(2)-1s*3d_(1)	6.21319	1.06e+10	2.30e+13	2.71e+10	6.25e+07	2.30e-03
2p*3s*(2)-1s*3d_(2)	6.21321	4.42e+11	2.30e+13	2.71e+10	2.61e+09	9.61e-02
2p*3s*(2)-1s*3d*(3)	6.21350	3.13e+12	2.30e+13	2.71e+10	1.85e+10	6.80e-01
2p_3p_(1)-1s*3p*(2)	6.21358	4.78e+11	2.54e+13	6.43e+08	3.63e+07	5.65e-02
2p_3s*(1)-1s*3d_(1)	6.21551	8.35e+11	1.91e+13	6.85e+11	8.70e+10	1.27e-01
2p_3s*(1)-1s*3d_(2)	6.21553	2.70e+12	1.91e+13	6.85e+11	2.81e+11	4.10e-01
2p_3s*(1)-1s*3d*(2)	6.21617	5.40e+11	1.91e+13	6.85e+11	5.62e+10	8.20e-02
2s*3s*(0)-1s*3p_(1)	6.21626	2.34e+11	7.03e+12	1.58e+14	2.24e+11	1.42e-03

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2s*3p_(0)-1s*3d_(1)	6.21660	4.22e+12	1.63e+13	1.28e+12	3.08e+11	2.40e-01
2s*3p*(2)-1s*3d_(1)	6.21813	8.88e+09	1.02e+13	7.52e+12	1.88e+10	2.51e-03
2s*3p*(2)-1s*3d_(2)	6.21815	2.47e+11	1.02e+13	7.52e+12	5.24e+11	6.96e-02
2p*3p*(1)-1s*3p*(1)	6.21831	1.90e+13	2.81e+13	9.67e+09	1.97e+10	2.03e+00
2s*3p*(2)-1s*3d*(3)	6.21844	1.82e+12	1.02e+13	7.52e+12	3.87e+12	5.14e-01
2s*3p_(1)-1s*3d_(1)	6.21968	1.33e+11	1.34e+13	7.63e+12	1.44e+11	1.89e-02
2s*3p_(1)-1s*3d_(2)	6.21970	5.34e+11	1.34e+13	7.63e+12	5.88e+11	7.61e-02
2s*3p_(1)-1s*3d*(2)	6.22035	2.18e+10	1.34e+13	7.63e+12	2.35e+10	3.08e-03
2p_3s*(0)-1s*3d_(1)	6.22072	1.93e+11	1.62e+13	6.94e+12	5.78e+10	8.32e-03
2p_3p*(2)-1s*3p*(1)	6.22077	2.68e+11	2.34e+13	5.49e+11	2.98e+10	5.43e-02
2p_3p_(1)-1s*3p*(1)	6.22338	3.02e+12	2.54e+13	6.43e+08	2.30e+08	3.57e-01
2s*3p*(1)-1s*3s*(0)	6.22418	1.04e+13	1.55e+13	1.63e+12	2.98e+12	1.83e+00
2s*3s*(0)-1s*3p*(1)	6.22685	5.58e+12	7.03e+12	1.58e+14	3.32e+12	3.36e-02
2s*3s*(1)-1s*3p_(0)	6.22957	8.33e+11	9.00e+12	1.38e+12	2.53e+11	1.83e-01
2s*3s*(1)-1s*3p_(1)	6.22976	2.21e+12	9.00e+12	1.38e+12	8.81e+11	6.39e-01
2s*3s*(1)-1s*3p*(2)	6.23053	4.12e+12	9.00e+12	1.38e+12	1.84e+12	1.19e+00
2s*3p_(1)-1s*3d_(2)	6.23193	2.92e+11	1.55e+13	1.63e+12	8.34e+10	5.12e-02
2s*3p*(1)-1s*3d*(2)	6.23218	9.23e+11	1.55e+13	1.63e+12	2.84e+11	1.82e-01
2p_2p*(1)-1s*2p*(2)	6.23276	4.35e+11	4.50e+13	3.45e+14	1.92e+12	5.58e-03
2s*2p*(1)-1s*2s*(0)	6.23308	2.29e+13	2.29e+13	2.22e+14	6.22e+13	2.81e-01
2s*3s*(1)-1s*3p*(1)	6.24039	1.98e+10	9.00e+12	1.38e+12	7.92e+09	5.74e-03
2s*2p*(2)-1s*2s*(1)	6.24575	2.32e+13	2.32e+13	1.89e+13	5.21e+13	2.75e+00
2s*2p_(1)-1s*2s*(1)	6.24932	2.32e+13	2.32e+13	1.98e+13	3.19e+13	1.61e+00
2s*2p_(0)-1s*2s*(1)	6.25080	2.32e+13	2.32e+13	2.02e+13	1.08e+13	5.34e-01
2p*2p*(2)-1s*2p_(1)	6.25226	1.17e+13	4.61e+13	4.45e+12	5.12e+12	1.15e+00
2p_2p*(1)-1s*2p_(0)	6.25462	1.54e+13	4.61e+13	1.54e+09	1.54e+09	1.00e+00
2p*2p*(2)-1s*2p*(2)	6.25499	3.42e+13	4.61e+13	4.45e+12	1.58e+13	3.38e+00
2p_2p*(1)-1s*2p_(1)	6.25627	1.15e+13	4.61e+13	1.54e+09	1.15e+09	7.47e-01
2p_2p_(0)-1s*2p_(1)	6.25711	4.58e+15	4.59e+13	4.35e+11	4.30e+11	9.88e-01
2p_2p*(1)-1s*2p*(2)	6.25801	1.92e+13	4.61e+13	1.54e+09	1.93e+09	1.25e+00
2p_2p*(2)-1s*2p*(1)	6.26792	4.46e+13	4.50e+13	3.45e+14	1.97e+14	5.71e-01
2p*2p*(2)-1s*2p*(1)	6.28040	2.99e+11	4.61e+13	4.45e+12	1.31e+11	2.96e-02
2p_2p*(1)-1s*2p*(1)	6.29345	3.98e+10	4.61e+13	1.54e+09	3.99e+08	2.59e-03
2p_2p_(0)-1s*2p*(1)	6.29531	7.28e+10	4.59e+13	4.35e+11	6.84e+08	1.57e-03
2s*2p_(1)-1s*2s*(0)	6.30298	2.93e+10	2.32e+13	1.96e+13	4.03e+10	2.05e-03
2s*2s*(0)-1s*2p_(1)	6.30823	2.38e+11	1.01e+13	3.94e+14	2.25e+11	5.71e-04
2s*2s*(0)-1s*2p*(1)	6.34786	9.79e+12	1.01e+13	3.94e+14	9.54e+12	2.42e-02
2p*3d_(3)-1s*4d_(2)	6.53375	2.16e+09	2.36e+13	2.01e+13	6.93e+09	3.45e-04
2p*3d_(3)-1s*4d*(2)	6.53411	1.72e+10	2.36e+13	2.01e+13	5.53e+10	2.76e-03
2s*3d*(2)-1s*4f_(3)	6.54133	1.38e+10	1.15e+13	6.30e+13	5.74e+10	9.11e-04
2s*3d*(2)-1s*4f*(3)	6.54145	1.75e+10	1.15e+13	6.30e+13	7.39e+10	1.17e-03
2p*3s*(1)-1s*4d*(2)	6.56281	1.39e+10	1.67e+13	8.51e+13	3.49e+10	4.11e-04
2p*3p_(1)-1s*4p_(0)	6.56682	6.85e+08	2.13e+13	1.36e+09	1.86e+05	1.22e-04
2s*3d*(3)-1s*4p*(2)	6.56096	1.38e+09	8.14e+12	2.46e+12	2.23e+09	9.08e-04
2s*3d*(2)-1s*4p_(1)	6.56041	1.38e+09	8.14e+12	7.02e+12	3.19e+09	4.54e-04
2p*3p*(2)-1s*4p_(1)	6.56077	1.54e+09	2.46e+13	3.05e+13	4.25e+09	1.40e-04
2s*3d_(1)-1s*4p_(0)	6.56113	6.94e+08	6.19e+12	2.51e+12	8.00e+08	2.40e-04
2p*3p*(2)-1s*4p*(2)	6.56119	5.19e+09	2.46e+13	3.05e+13	1.43e+10	4.71e-04
2s*3d*(3)-1s*4f*(4)	6.56353	1.86e+10	8.14e+12	2.46e+12	3.03e+10	1.23e-02
2p_3p*(2)-1s*4p_(1)	6.56385	1.78e+09	2.13e+13	5.01e+13	6.24e+09	1.25e-04
2p_3p*(2)-1s*4p*(2)	6.56426	2.95e+09	2.13e+13	5.01e+13	1.03e+10	2.06e-04
2s*3d*(2)-1s*4f_(3)	6.56431	7.04e+09	8.14e+12	7.02e+12	1.63e+10	2.32e-03
2s*3d*(2)-1s*4f_(2)	6.56432	2.05e+09	8.14e+12	7.02e+12	4.75e+09	6.78e-04
2s*3d*(2)-1s*4f*(3)	6.56442	1.02e+10	8.14e+12	7.02e+12	2.36e+10	3.36e-03
2p_3p*(1)-1s*4p_(0)	6.56444	4.08e+09	2.90e+13	4.79e+10	2.02e+07	4.21e-04
2p_3p*(1)-1s*4p_(1)	6.56456	2.40e+09	2.90e+13	4.79e+10	1.19e+07	2.48e-04
2p_3p*(1)-1s*4p*(2)	6.56498	4.93e+09	2.90e+13	4.79e+10	2.44e+07	5.10e-04
2s*3d_(1)-1s*4f_(2)	6.56815	2.05e+10	6.19e+12	2.51e+12	1.77e+10	7.08e-03
2p*3p*(2)-1s*4p*(1)	6.56537	4.45e+09	2.46e+13	3.05e+13	1.23e+10	4.04e-04
2p_3p_(0)-1s*4p_(1)	6.56575	1.18e+10	2.98e+13	4.19e+11	1.84e+08	3.91e-04
2p*3d*(4)-1s*4d*(3)	6.56669	8.64e+09	2.35e+13	4.29e+12	1.20e+10	2.80e-03
2p_3p*(2)-1s*4f_(3)	6.56774	5.24e+09	2.13e+13	5.01e+13	1.84e+10	3.66e-04
2p*3d*(2)-1s*4d_(1)	6.56788	1.29e+09	2.36e+13	8.45e+11	2.24e+08	2.85e-04
2p*3d*(2)-1s*4d*(2)	6.56825	1.31e+10	2.36e+13	8.45e+11	2.27e+09	2.68e-03
2p_3p*(2)-1s*4p*(1)	6.56845	5.23e+09	2.13e+13	5.01e+13	1.84e+10	3.66e-04
2p_3d*(3)-1s*4d_(2)	6.56882	6.70e+09	2.35e+13	4.29e+12	7.25e+09	1.69e-03
2p_3d_(2)-1s*4d_(1)	6.57276	5.62e+09	2.35e+13	3.46e+12	3.61e+09	1.04e-03
2p_3d_(2)-1s*4d_(2)	6.57278	2.91e+09	2.35e+13	3.46e+12	1.87e+09	5.40e-04
2p*3s*(2)-1s*4s*(1)	6.57306	7.37e+09	2.30e+13	2.71e+10	4.34e+07	1.60e-03
2p_3d_(2)-1s*4d*(2)	6.57314	1.71e+09	2.35e+13	3.46e+12	1.10e+09	3.17e-04
2p_3s*(1)-1s*4s*(1)	6.57565	3.70e+09	1.91e+13	6.85e+11	3.85e+08	5.62e-04
2s*3p*(2)-1s*4s*(1)	6.57858	4.45e+09	1.02e+13	7.52e+12	9.44e+09	1.25e-03
2s*3p_(1)-1s*4s*(1)	6.58032	7.90e+09	1.34e+13	7.63e+12	8.59e+09	1.13e-03
2p*3p*(1)-1s*4p_(0)	6.58068	1.24e+09	2.81e+13	9.67e+09	1.28e+06	1.32e-04
2p*3p*(3)-1s*4p*(2)	6.58077	1.84e+10	2.15e+13	3.91e+10	2.34e+08	5.98e-03

Z = 14

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p_3s*(0)-1s*4s*(1)	6.58147	9.86e+09	1.82e+13	6.94e+12	2.95e+09	4.28e-04
2p*3s*(2)-1s*4d*(3)	6.58244	5.78e+09	2.38e+13	2.71e+10	3.41e+07	1.28e-03
2p_3p*(2)-1s*4p_(1)	6.58354	1.35e+10	2.34e+13	5.49e+11	1.54e+09	2.81e-03
2p_3p*(2)-1s*4p*(2)	6.58397	5.51e+09	2.34e+13	5.49e+11	6.32e+08	1.15e-03
2p_3s*(1)-1s*4d_(2)	6.58467	3.32e+09	1.91e+13	6.85e+11	3.45e+08	5.04e-04
2p*3p*(1)-1s*4p*(1)	6.58542	3.91e+10	2.81e+13	9.67e+09	4.04e+07	4.18e-03
2p_3p_(1)-1s*4p_(0)	6.58635	9.30e+09	2.54e+13	6.43e+08	7.07e+05	1.10e-03
2p_3p_(1)-1s*4p_(1)	6.58647	7.90e+09	2.54e+13	6.43e+08	6.01e+05	9.34e-04
2p_3p_(1)-1s*4p*(1)	6.59111	6.46e+09	2.54e+13	6.43e+08	4.92e+05	7.64e-04
2s*3s*(0)-1s*4p*(1)	6.59500	1.74e+10	7.03e+12	1.58e+14	1.68e+10	1.05e-04
2s*3p*(1)-1s*4s*(0)	6.59907	2.52e+10	1.55e+13	1.63e+12	7.22e+09	4.43e-03
2s*3p*(1)-1s*4d*(2)	6.60319	2.79e+09	1.55e+13	1.63e+12	7.97e+08	4.89e-04
2s*3s*(1)-1s*4p_(0)	6.60541	2.00e+09	9.00e+12	1.38e+12	7.99e+08	5.79e-04
2s*3s*(1)-1s*4p_(1)	6.60552	6.48e+09	9.00e+12	1.38e+12	2.58e+09	1.87e-03
2s*3s*(1)-1s*4p*(2)	6.60595	1.11e+10	9.00e+12	1.38e+12	4.43e+09	3.21e-03
2p*2p*(0)-1s*3p*(1)	7.36515	3.95e+10	3.60e+13	1.03e+13	8.77e+09	8.53e-04
2s*2p*(1)-1s*3s*(0)	7.44242	1.28e+10	2.29e+13	2.22e+14	3.48e+10	1.57e-04
2s*2p*(1)-1s*3d_(2)	7.45292	3.64e+09	2.29e+13	2.22e+14	9.90e+08	4.47e-05
2s*2p*(1)-1s*3d*(2)	7.45385	2.68e+10	2.29e+13	2.22e+14	7.24e+10	3.27e-04
2p_2p*(2)-1s*3p*(1)	7.46286	3.19e+10	4.50e+13	3.45e+14	1.41e+11	4.09e-04
2s*2p*(2)-1s*3p_(1)	7.47944	7.18e+09	4.81e+13	4.45e+12	3.15e+09	7.08e-04
2p*2p*(2)-1s*3p*(2)	7.48056	2.04e+10	4.81e+13	4.45e+12	8.95e+09	2.01e-03
2p_2p*(1)-1s*3p_(0)	7.48347	9.65e+09	4.81e+13	1.54e+09	9.69e+05	6.28e-04
2p_2p*(1)-1s*3p_(1)	7.48374	7.04e+09	4.81e+13	1.54e+09	7.08e+05	4.58e-04
2p_2p*(1)-1s*3p*(2)	7.48487	1.13e+10	4.81e+13	1.54e+09	1.13e+06	7.32e-04
2p_2p_(0)-1s*3p_(1)	7.48638	2.78e+10	4.59e+13	4.35e+11	2.61e+08	5.99e-04
2s*2p*(2)-1s*3s*(1)	7.51831	1.19e+10	2.32e+13	1.89e+13	2.88e+10	1.41e-03
2s*2p_(1)-1s*3s*(1)	7.52349	1.19e+10	2.32e+13	1.96e+13	1.84e+10	8.38e-04
2s*2p_(0)-1s*3s*(1)	7.52578	1.20e+10	2.32e+13	2.02e+13	5.58e+09	2.76e-04
2s*2p*(2)-1s*3d*(3)	7.54826	2.60e+08	2.32e+13	1.89e+13	5.84e+09	3.08e-04
2s*2p_(1)-1s*3d_(2)	7.55306	2.19e+09	2.32e+13	1.96e+13	3.01e+09	1.53e-04
2s*2s*(0)-1s*3p*(1)	7.57533	2.01e+10	1.01e+13	3.94e+14	1.96e+10	4.98e-05
2p*2p*(0)-1s*4p*(1)	7.88583	1.63e+10	3.80e+13	1.03e+13	3.61e+09	3.52e-04
2s*2s*(1)-1s*4s*(0)	7.98480	1.02e+09	2.29e+13	2.22e+14	2.77e+09	1.25e-05
2s*2s*(1)-1s*4d*(2)	7.99084	3.58e+09	2.29e+13	2.22e+14	9.73e+09	4.39e-05
2p*2p*(2)-1s*4p_(1)	8.02772	1.19e+09	4.81e+13	4.45e+12	5.24e+08	1.18e-04
2p*2p*(2)-1s*4p*(2)	8.02834	3.50e+09	4.81e+13	4.45e+12	1.54e+09	3.46e-04
2p_2p*(1)-1s*4p_(0)	8.03251	1.66e+09	4.81e+13	1.54e+09	1.67e+05	1.08e-04
2p_2p*(1)-1s*4p_(1)	8.03268	1.24e+09	4.81e+13	1.54e+09	1.25e+05	8.08e-05
2p_2p*(1)-1s*4p*(2)	8.03330	1.91e+09	4.81e+13	1.54e+09	1.92e+05	1.24e-04
2p_2p_(0)-1s*4p_(1)	8.03571	4.79e+09	4.59e+13	4.35e+11	4.49e+07	1.03e-04
2s*2p*(2)-1s*4s*(1)	8.08557	4.58e+09	2.32e+13	1.89e+13	1.03e+10	5.43e-04
2s*2p_(1)-1s*4s*(1)	8.08156	4.65e+09	2.32e+13	1.96e+13	6.39e+08	3.25e-04
2s*2p_(0)-1s*4s*(1)	8.09421	4.73e+09	2.32e+13	2.02e+13	2.20e+08	1.09e-04
2s*2s*(0)-1s*4p*(1)	8.12727	1.25e+10	1.01e+13	3.94e+14	1.22e+10	3.10e-05

Z = 18

TRANSITION	LAMBDA	A(ij)	A(tot)	AUGER	Qd	q#
4p+ (3/2)-1s+ (1/2)	2.98739	6.98e+12	6.98e+12	0.	0.	4.00e+00
4p_ (1/2)-1s+ (1/2)	2.98784	6.88e+12	6.88e+12	0.	0.	2.00e+00
2p+4d+(1)-1s+2s+(1)	3.02782	2.20e+10	6.27e+13	8.09e+10	8.51e+07	1.05e-03
2p+4d_(0)-1s+2s+(1)	3.02915	3.49e+11	6.17e+13	1.74e+10	9.84e+07	5.66e-03
2p+4d_(1)-1s+2s+(1)	3.02930	3.07e+11	6.19e+13	2.43e+11	3.60e+09	1.48e-02
2p+4d+(2)-1s+2s+(1)	3.02943	3.19e+11	6.20e+13	2.19e+10	5.62e+08	2.57e-02
2p+4d_(2)-1s+2s+(1)	3.03059	4.04e+10	6.32e+13	4.11e+11	1.30e+09	3.17e-03
2s+4f_(2)-1s+2s+(1)	3.03233	9.47e+10	1.40e+13	1.83e+11	5.42e+09	3.34e-02
2p+4s+(2)-1s+2s+(1)	3.03260	5.46e+11	5.26e+13	4.93e+09	2.56e+08	5.19e-02
2p_4d_(1)-1s+2s+(1)	3.03279	2.09e+11	6.32e+13	1.07e+12	1.04e+10	9.75e-03
2p_4d+(2)-1s+2s+(1)	3.03368	6.15e+10	6.45e+13	1.61e+11	7.67e+08	4.76e-03
2p_4d_(2)-1s+2s+(1)	3.03467	1.81e+10	5.98e+13	1.38e+12	2.05e+09	1.48e-03
2s+4p+(1)-1s+2s+(1)	3.03583	1.58e+12	3.95e+13	4.73e+12	5.09e+11	1.08e-01
2s+4p_(0)-1s+2s+(1)	3.03573	3.76e+12	3.14e+13	7.14e+11	8.38e+10	1.17e-01
2s+4p+(2)-1s+2s+(1)	3.03628	5.34e+12	1.74e+13	2.55e+12	3.41e+12	1.34e+00
2s+4p_(1)-1s+2s+(1)	3.03672	4.13e+12	2.03e+13	4.37e+12	2.20e+12	5.03e-01
2p_4s+(0)-1s+2s+(1)	3.03733	2.25e+12	4.46e+13	2.37e+12	1.13e+11	4.79e-02
2p_4s+(1)-1s+2s+(1)	3.03779	1.15e+11	4.25e+13	6.98e+11	5.54e+09	7.96e-03
2p+4p+(0)-1s+2p_(1)	3.04237	1.52e+11	6.47e+13	5.42e+12	1.18e+10	2.17e-03
2p+4d+(1)-1s+2s+(0)	3.04423	1.78e+11	6.27e+13	8.09e+10	6.87e+08	8.49e-03
2p+4p+(2)-1s+2p_(1)	3.04470	3.45e+11	5.65e+13	3.86e+13	7.01e+11	1.81e-02
2p+4p+(1)-1s+2p_(0)	3.04521	1.45e+10	6.29e+13	4.34e+10	3.00e+07	6.90e-04
2p+4p+(1)-1s+2p_(1)	3.04588	3.96e+11	6.29e+13	4.34e+10	8.20e+08	1.89e-02
2s+4d_(1)-1s+2s+(0)	3.04574	1.99e+10	6.19e+13	2.43e+11	2.33e+08	9.61e-04
2p+4p_(2)-1s+2p_(1)	3.04628	3.51e+10	6.81e+13	1.19e+12	3.02e+09	2.53e-03
2p+4p_(1)-1s+2p_(0)	3.04646	3.40e+10	6.75e+13	2.18e+11	3.29e+08	1.51e-03
2p+4p+(2)-1s+2p+(2)	3.04674	1.99e+11	5.85e+13	3.88e+13	4.03e+11	1.04e-02
2p+4p_(1)-1s+2p_(1)	3.04693	2.15e+12	6.75e+13	2.18e+11	2.08e+10	9.50e-02
2p_4f_(2)-1s+2p_(1)	3.04726	2.87e+10	6.33e+13	6.70e+10	1.41e+08	2.11e-03
2p+4s+(1)-1s+2s+(0)	3.04766	1.53e+12	5.07e+13	2.86e+13	1.65e+12	5.78e-02
2p+4p+(1)-1s+2p+(2)	3.04771	4.80e+12	6.29e+13	4.34e+10	9.93e+09	2.29e-01
2s+4d+(2)-1s+2p_(1)	3.04775	1.49e+12	2.10e+13	1.41e+12	4.71e+11	3.33e-01
2s+4d_(1)-1s+2p_(0)	3.04809	1.54e+12	2.04e+13	9.54e+11	2.08e+11	2.16e-01
2p+4p_(2)-1s+2p+(2)	3.04832	6.23e+12	6.81e+13	1.19e+12	5.38e+11	4.50e-01
2p+4p+(3)-1s+2p+(2)	3.04842	5.25e+12	5.77e+13	7.40e+11	4.66e+11	6.29e-01
2s+4d_(1)-1s+2p_(1)	3.04856	1.39e+10	2.04e+13	9.54e+11	1.86e+09	1.95e-03
2s+4d_(2)-1s+2p_(1)	3.04886	4.36e+11	2.11e+13	9.91e+12	6.96e+11	7.02e-02
2p_4p_(0)-1s+2p_(1)	3.04891	6.12e+12	6.52e+13	1.20e+12	1.10e+11	9.22e-02
2p+4p_(1)-1s+2p+(2)	3.04897	1.01e+12	6.75e+13	2.18e+11	9.72e+09	4.45e-02
2p_4p+(1)-1s+2p_(0)	3.04913	1.89e+12	5.97e+13	4.37e+10	4.13e+09	9.47e-02
2p_4f_(2)-1s+2p+(2)	3.04929	2.66e+10	6.33e+13	6.70e+10	1.40e+08	2.10e-03
2p_4f+(3)-1s+2p+(2)	3.04931	3.02e+11	6.48e+13	3.52e+09	1.15e+08	3.26e-02
2p_4p+(1)-1s+2p_(1)	3.04980	1.18e+12	5.87e+13	4.37e+10	2.55e+09	5.83e-02
2s+4d_(1)-1s+2p+(2)	3.05050	1.06e+11	2.04e+13	9.54e+11	1.41e+10	1.48e-02
2p_4p+(2)-1s+2p_(1)	3.05062	4.47e+12	5.21e+13	5.53e+12	2.14e+12	3.87e-01
2s+4d_(2)-1s+2p+(2)	3.05089	1.57e+11	2.11e+13	9.91e+12	2.51e+11	2.54e-02
2p_4p_(1)-1s+2p_(0)	3.05100	3.02e+12	8.02e+13	3.16e+09	4.76e+08	1.51e-01
2p_4p_(1)-1s+2p_(1)	3.05147	2.06e+12	6.02e+13	3.16e+09	3.24e+08	1.03e-01
2s+4d+(3)-1s+2p+(2)	3.05148	1.25e+12	1.55e+13	4.30e+11	2.37e+11	5.50e-01
2s+4p+(1)-1s+2s+(0)	3.05152	1.37e+12	3.95e+13	4.73e+12	4.40e+11	9.30e-02
2p_4p+(1)-1s+2p+(2)	3.05164	1.29e+11	5.97e+13	4.37e+10	2.82e+08	6.46e-03
2s+4s+(0)-1s+2p_(1)	3.05226	5.37e+11	1.84e+13	5.45e+13	4.02e+11	7.37e-03
2p_4p+(2)-1s+2p+(2)	3.05266	1.79e+11	5.21e+13	5.53e+12	8.61e+10	1.56e-02
2s+4s+(1)-1s+2p_(0)	3.05293	2.80e+11	1.71e+13	5.74e+11	2.62e+10	4.57e-02
2s+4p_(1)-1s+2s+(0)	3.05323	8.60e+11	2.03e+13	4.37e+12	4.57e+11	1.05e-01
2s+4s+(1)-1s+2p_(1)	3.05341	8.75e+11	1.71e+13	5.74e+11	8.54e+10	1.49e-01
2p_4p_(1)-1s+2p+(2)	3.05351	4.15e+10	6.02e+13	3.16e+09	6.53e+06	2.07e-03
2p_4s+(1)-1s+2s+(0)	3.05431	2.62e+12	4.25e+13	6.96e+11	1.27e+11	1.82e-01
2p+4p+(0)-1s+2p+(1)	3.05490	6.94e+12	6.47e+13	5.42e+12	5.38e+11	9.89e-02
2s+4s+(1)-1s+2p+(2)	3.05545	4.77e+11	1.71e+13	5.74e+11	4.65e+10	8.11e-02
2p+4f+(2)-1s+2p+(1)	3.05560	5.38e+10	6.56e+13	6.07e+11	2.46e+09	4.05e-03
2p+4f_(2)-1s+2p+(1)	3.05624	4.95e+10	6.54e+13	5.09e+11	1.91e+09	3.75e-03
2p+4p+(2)-1s+2p+(1)	3.05734	4.13e+12	5.85e+13	3.86e+13	8.39e+12	2.17e-01
2p+4p+(1)-1s+2p+(1)	3.05833	3.62e+11	6.29e+13	4.34e+10	7.50e+08	1.73e-02
2p+4p_(2)-1s+2p+(1)	3.05883	6.56e+10	6.81e+13	1.19e+12	5.64e+09	4.74e-03
2p+4p_(1)-1s+2p+(1)	3.05958	2.99e+12	6.75e+13	2.18e+11	2.89e+10	1.32e-01
2s+4d+(2)-1s+2p+(1)	3.06041	4.39e+11	2.10e+13	1.41e+12	1.38e+11	9.79e-02
2s+4d_(1)-1s+2p+(1)	3.06123	1.41e+11	2.04e+13	9.54e+11	1.89e+10	1.98e-02
2s+4d_(2)-1s+2p+(1)	3.06153	1.18e+12	2.11e+13	9.91e+12	1.89e+12	1.90e-01
2p_4p_(0)-1s+2p+(1)	3.06158	2.29e+10	6.52e+13	1.20e+12	4.12e+08	3.44e-04
2p_4p+(1)-1s+2p+(1)	3.06228	2.26e+12	5.97e+13	4.37e+10	4.96e+09	1.14e-01
2p_4p+(2)-1s+2p+(1)	3.06330	3.23e+11	5.21e+13	5.53e+12	1.55e+11	2.80e-02
2p_4p_(1)-1s+2p+(1)	3.06416	5.61e+11	6.02e+13	3.16e+09	8.83e+07	2.80e-02
2s+4s+(0)-1s+2p+(1)	3.06496	1.16e+12	1.84e+13	5.45e+13	8.66e+11	1.59e-02
2s+4s+(1)-1s+2p+(1)	3.06612	4.99e+10	1.71e+13	5.74e+11	4.87e+09	8.48e-03

Z = 18

TRANSITION	LAMBDA	A(ij)	A(tot)	AUGER	Qd	q#
3p+ (3/2)-1s+ (1/2)	3.15053	1.76e+13	1.76e+13	0.	0.	4.00e+00
3p_ (1/2)-1s+ (1/2)	3.15168	1.74e+13	1.74e+13	0.	0.	2.00e+00
2p+3d+(1)-1s+2s+(1)	3.17268	2.35e+10	6.15e+13	1.32e+12	1.48e+09	1.05e-03
2p+3d_(0)-1s+2s+(1)	3.17754	1.42e+12	6.00e+13	4.92e+09	1.17e+08	2.37e-02
2p+3d_(1)-1s+2s+(1)	3.17780	1.41e+12	5.99e+13	6.80e+11	4.78e+10	7.00e-02
2p+3d+(2)-1s+2s+(1)	3.17811	1.59e+12	5.98e+13	5.43e+09	7.24e+08	1.33e-01
2p+3d_(2)-1s+2s+(1)	3.18148	3.28e+11	6.42e+13	2.25e+11	5.74e+09	2.55e-02
2p_3d_(1)-1s+2s+(1)	3.18263	2.58e+11	6.30e+13	5.15e+12	5.59e+10	1.09e-02
2p+3d+(2)-1s+2s+(1)	3.18494	3.87e+11	6.38e+13	7.23e+11	2.17e+10	3.00e-02
2p_3d_(2)-1s+2s+(1)	3.18787	5.02e+10	6.44e+13	3.62e+12	1.34e+10	3.69e-03
2s+3s+(2)-1s+2s+(1)	3.18951	3.76e+11	6.55e+13	4.26e+11	1.22e+10	2.88e-02
2p+3d+(1)-1s+2s+(0)	3.19069	6.83e+11	6.15e+13	1.32e+12	4.38e+10	3.26e-02
2p_3s+(1)-1s+2s+(1)	3.19131	4.61e+12	5.18e+13	1.51e+12	3.93e+11	2.60e-01
2s+3p_(0)-1s+2s+(1)	3.19223	9.59e+12	3.93e+13	1.67e+12	3.91e+11	2.34e-01
2s+3p+(2)-1s+2s+(1)	3.19225	1.38e+13	2.49e+13	7.12e+12	1.54e+13	2.16e+00
2s+3p_(1)-1s+2s+(1)	3.19319	1.01e+13	3.34e+13	8.74e+12	6.30e+12	7.21e-01
2s+3d+(2)-1s+2p_(1)	3.19357	2.20e+10	3.94e+13	7.84e+13	7.32e+10	9.34e-04
2p_3s+(0)-1s+2s+(1)	3.19392	5.41e+12	4.78e+13	6.95e+12	6.87e+11	9.88e-02
2s+3d+(2)-1s+2p+(2)	3.19581	6.78e+10	3.94e+13	7.84e+13	2.25e+11	2.87e-03
2p+3d_(1)-1s+2s+(0)	3.19589	5.06e+10	5.99e+13	6.60e+11	1.70e+09	2.51e-03
2p_3s+(1)-1s+2s+(1)	3.19706	3.25e+10	4.26e+13	1.61e+12	3.55e+09	2.20e-03
2p+3p_(1)-1s+2p_(0)	3.19882	1.83e+11	6.49e+13	2.71e+10	2.28e+08	8.44e-03
2p+3s+(1)-1s+2p_(1)	3.19908	5.21e+12	4.69e+13	8.32e+13	9.99e+12	1.20e-01
2p+3p_(1)-1s+2p_(1)	3.19934	1.83e+12	6.49e+13	2.71e+10	2.04e+09	7.55e-02
2p+3p+(2)-1s+2p_(1)	3.19986	1.50e+12	7.07e+13	8.32e+12	7.87e+11	9.48e-02
2p_3d_(1)-1s+2s+(0)	3.20078	1.70e+11	6.39e+13	5.15e+12	3.80e+10	7.38e-03
2s+3d+(2)-1s+2p_(1)	3.20090	1.21e+12	3.28e+13	2.53e+13	2.64e+12	1.04e-01
2s+3d_(1)-1s+2p_(0)	3.20094	1.42e+10	4.14e+13	1.72e+12	1.71e+09	9.90e-04
2s+3d_(1)-1s+2p_(1)	3.20145	5.41e+12	4.14e+13	1.72e+12	6.49e+11	3.77e-01
2p+3p_(1)-1s+2p+(2)	3.20158	1.18e+13	6.49e+13	2.71e+10	1.45e+10	5.35e-01
2p+3p+(0)-1s+2p+(1)	3.20181	1.28e+13	6.89e+13	9.48e+12	1.54e+12	1.63e-01
2p_3p+(1)-1s+2p_(0)	3.20174	8.39e+12	5.40e+13	8.43e+11	2.94e+11	3.49e-01
2p+3p+(2)-1s+2p+(2)	3.20210	1.04e+13	7.07e+13	8.32e+12	5.49e+12	6.59e-01
2s+3d_(2)-1s+2p_(1)	3.20224	2.82e+12	3.87e+13	4.14e+13	7.28e+12	1.76e-01
2p_3p+(1)-1s+2p_(1)	3.20228	2.11e+12	5.40e+13	8.43e+11	9.70e+10	1.15e-01
2s+3d+(3)-1s+2p+(2)	3.20266	7.32e+12	3.32e+13	2.35e+12	3.38e+12	1.44e+00
2p_3p_(0)-1s+2p_(1)	3.20291	1.48e+13	7.98e+13	1.34e+12	2.45e+11	1.82e-01
2s+3d+(2)-1s+2p+(2)	3.20315	2.41e+12	3.28e+13	2.53e+13	5.26e+12	2.08e-01
2s+3d_(1)-1s+2p+(2)	3.20370	1.42e+12	4.14e+13	1.72e+12	1.70e+11	9.89e-02
2s+3d_(2)-1s+2p+(2)	3.20449	9.73e+11	3.87e+13	4.14e+13	2.52e+12	6.08e-02
2p_3p+(1)-1s+2p+(2)	3.20450	1.35e+12	5.40e+13	8.43e+11	6.22e+10	7.38e-02
2p+3p+(1)-1s+2p_(0)	3.20613	2.71e+12	7.39e+13	3.45e+10	3.79e+09	1.10e-01
2p+3p+(1)-1s+2p_(1)	3.20665	5.43e+10	7.39e+13	3.45e+10	7.59e+07	2.20e-03
2s+3d+(2)-1s+2p+(1)	3.20748	5.89e+12	3.94e+13	7.84e+13	1.96e+13	2.50e-01
2p_3p+(2)-1s+2p_(1)	3.20822	1.19e+13	6.33e+13	2.26e+12	2.04e+12	9.05e-01
2p+3p+(3)-1s+2p+(2)	3.20846	1.08e+13	4.85e+13	1.66e+11	2.59e+11	1.56e+00
2p+3p+(1)-1s+2p+(2)	3.20898	1.09e+10	7.39e+13	3.45e+10	1.52e+07	4.42e-04
2p_3p_(1)-1s+2p_(0)	3.20962	7.31e+12	7.12e+13	4.81e+09	1.48e+09	3.08e-01
2p_3s+(1)-1s+2s+(0)	3.20958	8.51e+11	5.16e+13	1.51e+12	7.28e+10	4.80e-02
2p_3p_(1)-1s+2p_(1)	3.21008	6.19e+12	7.12e+13	4.81e+09	1.25e+09	2.61e-01
2p_3p+(2)-1s+2p+(2)	3.21048	2.17e+12	8.33e+13	2.26e+12	3.73e+11	1.65e-01
2s+3s+(0)-1s+2p_(1)	3.21101	5.06e+11	1.84e+13	1.61e+14	4.54e+11	2.82e-03
2s+3p_(1)-1s+2s+(0)	3.21145	2.55e+11	3.34e+13	8.74e+12	1.58e+11	1.81e-02
2p_3p_(1)-1s+2p+(2)	3.21230	2.26e+11	7.12e+13	4.81e+09	4.58e+07	9.53e-03
2p+3p_(1)-1s+2p+(1)	3.21330	4.79e+11	6.49e+13	2.71e+10	5.99e+08	2.21e-02
2p+3p+(2)-1s+2p+(1)	3.21382	1.41e+12	7.07e+13	8.32e+12	7.44e+11	8.95e-02
2s+3d+(2)-1s+2p+(1)	3.21487	3.13e+12	3.28e+13	2.53e+13	6.83e+12	2.70e-01
2s+3s+(1)-1s+2p_(0)	3.21513	5.85e+11	2.18e+13	1.24e+12	9.53e+10	7.68e-02
2p_3s+(1)-1s+2s+(0)	3.21537	9.07e+12	4.28e+13	1.61e+12	9.92e+11	6.15e-01
2s+3d_(1)-1s+2p+(1)	3.21543	1.50e+12	4.14e+13	1.72e+12	1.80e+11	1.04e-01
2s+3s+(1)-1s+2p+(1)	3.21566	1.94e+12	2.18e+13	1.24e+12	3.16e+11	2.55e-01
2s+3d_(2)-1s+2p+(1)	3.21622	3.63e+12	3.87e+13	4.14e+13	9.37e+12	2.26e-01
2p_3p+(1)-1s+2p+(1)	3.21624	4.60e+11	5.40e+13	8.43e+11	2.12e+10	2.51e-02
2p_3p_(0)-1s+2p+(1)	3.21690	4.18e+10	7.98e+13	1.34e+12	6.91e+08	5.15e-04
2s+3s+(1)-1s+2p+(2)	3.21792	2.18e+12	2.18e+13	1.24e+12	3.52e+11	2.84e-01
2p+3p+(1)-1s+2p+(1)	3.22067	1.42e+13	7.39e+13	3.45e+10	1.98e+10	5.74e-01
2p_3p_(1)-1s+2p+(1)	3.22410	2.24e+12	7.12e+13	4.81e+09	4.53e+08	9.42e-02
2s+3s+(0)-1s+2p+(1)	3.22507	2.85e+12	1.84e+13	1.61e+14	2.55e+12	1.59e-02
2s+3s+(1)-1s+2p+(1)	3.22976	3.69e+10	2.18e+13	1.24e+12	6.01e+09	4.85e-03
2p+4d+(1)-1s+3s+(0)	3.52268	2.74e+09	6.27e+13	8.09e+10	1.08e+07	1.31e-04
2p+4s+(2)-1s+3s+(1)	3.52369	8.42e+09	5.26e+13	4.93e+08	3.95e+06	8.01e-04
2p_4d+(2)-1s+3s+(1)	3.52514	7.14e+09	6.45e+13	1.61e+11	8.90e+07	5.53e-04
2p+4p+(1)-1s+3p_(0)	3.52583	3.21e+09	6.29e+13	4.34e+10	6.63e+06	1.53e-04
2p+4d+(1)-1s+3d+(2)	3.52689	2.71e+10	6.27e+13	8.09e+10	1.05e+08	1.29e-03
2s+4p+(1)-1s+3s+(1)	3.52697	1.46e+10	3.95e+13	4.73e+12	4.68e+09	9.89e-04

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*4p*(1)-1s*3p_(1)	3.52702	6.96e+09	6.29e+13	4.34e+10	1.44e+07	3.32e-04
2p*4p*(0)-1s*3p*(1)	3.52729	9.77e+10	6.47e+13	5.42e+12	7.55e+09	1.39e-03
2p*4d*(3)-1s*3d*(2)	3.52764	1.36e+10	6.46e+13	9.27e+12	1.19e+10	1.28e-03
2p*4p_(1)-1s*3p_(2)	3.52780	1.53e+10	6.29e+13	4.34e+10	3.18e+07	7.31e-04
2p*4p_(2)-1s*3p_(1)	3.52783	1.28e+10	6.81e+13	1.19e+12	1.10e+09	9.26e-04
2p*4p_(1)-1s*3p_(0)	3.52851	8.52e+09	6.75e+13	2.18e+11	8.24e+07	3.77e-04
2p*4p*(3)-1s*3p*(2)	3.52875	7.64e+10	5.77e+13	7.40e+11	6.78e+09	9.15e-03
2p*4d*(3)-1s*3d_(2)	3.52956	1.16e+10	6.38e+13	7.69e+11	9.67e+08	1.26e-03
2s*4d*(2)-1s*3p_(1)	3.52979	1.58e+10	2.10e+13	1.41e+12	4.99e+09	3.53e-03
2p*4d*(3)-1s*3d*(2)	3.53004	6.14e+09	6.38e+13	7.69e+11	5.12e+08	6.66e-04
2p*4d_(2)-1s*3d_(1)	3.53018	1.32e+10	6.32e+13	4.11e+11	4.25e+08	1.03e-03
2p*4d*(4)-1s*3d*(3)	3.53045	6.31e+10	5.70e+13	1.80e+12	1.74e+10	9.65e-03
2p*4d_(2)-1s*3d*(2)	3.53066	1.07e+10	6.32e+13	4.11e+11	3.47e+08	8.43e-04
2s*4d_(1)-1s*3p_(0)	3.53069	8.38e+09	2.04e+13	9.54e+11	1.12e+09	1.18e-03
2p*4s*(1)-1s*3d*(2)	3.53152	1.65e+10	5.07e+13	2.88e+13	1.79e+10	6.26e-04
2p*4p*(1)-1s*3p*(1)	3.53174	9.38e+09	6.29e+13	4.34e+10	1.94e+07	4.47e-04
2p_4p*(1)-1s*3p_(0)	3.53210	2.25e+09	5.97e+13	4.37e+10	4.92e+06	1.13e-04
2p*4f*(3)-1s*3d_(2)	3.53223	1.24e+10	1.24e+11	4.80e+07	3.34e+07	6.95e-01
2s*4p*(1)-1s*3s*(0)	3.53243	1.30e+10	3.95e+13	4.73e+12	4.18e+09	8.84e-04
2s*4f_(3)-1s*3d_(2)	3.53247	3.07e+10	1.26e+13	6.23e+11	1.01e+10	1.62e-02
2s*4f_(2)-1s*3d_(1)	3.53254	2.53e+10	1.40e+13	1.63e+11	1.45e+08	8.92e-03
2s*4f*(3)-1s*3d*(2)	3.53271	4.69e+10	1.24e+11	4.80e+07	1.27e+08	2.64e+00
2s*4d*(3)-1s*3p*(2)	3.53285	1.14e+10	1.55e+13	4.30e+11	2.16e+09	5.02e-03
2s*4f*(4)-1s*3d*(3)	3.53338	4.56e+09	7.82e+12	1.50e+11	7.73e+08	5.15e-03
2p*4p_(1)-1s*3p*(1)	3.53342	7.21e+10	6.75e+13	2.18e+11	6.97e+08	3.19e-03
2p_4p*(2)-1s*3p_(1)	3.53364	3.37e+10	5.21e+13	5.53e+12	1.62e+10	2.93e-03
2p_4p*(2)-1s*3p*(2)	3.53443	1.04e+10	5.21e+13	5.53e+12	5.00e+09	9.04e-04
2p_4d*(3)-1s*3d_(2)	3.53457	9.77e+09	5.38e+13	1.98e+12	2.43e+09	1.23e-03
2p_4p_(1)-1s*3p_(0)	3.53460	3.43e+10	6.07e+13	3.16e+09	5.40e+06	1.71e-03
2s*4p_(1)-1s*3s*(0)	3.53471	1.33e+10	2.03e+13	4.37e+12	7.08e+09	1.62e-03
2p_4p_(1)-1s*3p_(1)	3.53478	2.99e+10	6.02e+13	3.16e+09	4.70e+06	1.49e-03
2p_4d*(2)-1s*3d*(2)	3.53485	5.38e+09	6.45e+13	1.61e+11	6.68e+07	4.14e-04
2p_4d_(2)-1s*3d_(2)	3.53571	6.10e+09	5.96e+13	1.38e+12	6.92e+08	5.00e-04
2p_4d_(2)-1s*3d_(1)	3.53571	1.64e+10	5.96e+13	1.38e+12	1.87e+09	1.35e-03
2p_4p_(0)-1s*3p*(1)	3.53608	1.85e+10	6.52e+13	1.20e+12	3.32e+08	2.78e-04
2p_4s*(1)-1s*3s*(0)	3.53616	7.54e+10	4.25e+13	6.96e+11	3.64e+09	5.23e-03
2p_4p*(1)-1s*3p_(1)	3.53702	7.28e+10	5.97e+13	4.37e+10	1.59e+08	3.65e-03
2s*4p*(1)-1s*3p_(0)	3.53728	2.40e+08	1.71e+13	5.74e+11	2.34e+08	4.09e-04
2p*4p*(1)-1s*3p_(1)	3.53738	1.12e+10	1.71e+13	5.74e+11	1.09e+09	1.91e-03
2s*4p*(1)-1s*3p*(2)	3.53817	1.29e+10	1.71e+13	5.74e+11	1.25e+09	2.19e-03
2s*4p*(2)-1s*3d*(3)	3.53823	1.03e+10	1.74e+13	2.55e+12	6.56e+09	2.57e-03
2p_4s*(0)-1s*3d_(1)	3.53833	1.98e+10	4.46e+13	2.37e+12	9.87e+08	4.17e-04
2p_4p_(1)-1s*3p*(1)	3.53852	1.82e+10	6.02e+13	3.16e+09	2.80e+06	9.05e-04
2s*4s*(0)-1s*3p*(1)	3.54009	3.09e+10	1.84e+13	5.45e+13	2.31e+10	4.24e-04
2p*3d*(1)-1s*3s*(1)	3.71421	1.42e+10	6.15e+13	1.32e+12	8.93e+08	6.78e-04
2p*3p*(0)-1s*3p_(1)	3.71897	4.70e+10	6.89e+13	9.46e+12	5.67e+09	5.99e-04
2p*3d*(1)-1s*3s*(0)	3.72026	8.92e+10	6.15e+13	1.32e+12	5.61e+09	4.26e-03
2p*3d_(0)-1s*3s*(1)	3.72090	1.53e+12	6.00e+13	4.92e+09	1.25e+08	2.54e-02
2p*3d_(1)-1s*3s*(1)	3.72127	1.90e+12	5.99e+13	6.80e+11	6.38e+10	9.39e-02
2p*3d*(2)-1s*3s*(1)	3.72168	2.61e+12	5.96e+13	5.43e+09	1.19e+09	2.19e-01
2p*2p*(0)-1s*2p_(1)	3.72261	2.11e+10	1.02e+14	1.47e+13	2.66e+09	1.80e-04
2p*3p*(0)-1s*3p*(1)	3.72422	5.61e+13	6.89e+13	9.46e+12	6.77e+12	7.16e-01
2p*3d*(1)-1s*3d_(2)	3.72445	5.09e+12	6.15e+13	1.32e+12	3.20e+11	2.43e-01
2p*3d*(1)-1s*3d_(1)	3.72445	2.50e+11	6.15e+13	1.32e+12	1.57e+10	1.19e-02
2p*3d*(1)-1s*3d*(2)	3.72498	5.54e+13	6.15e+13	1.32e+12	3.48e+12	2.64e+00
2p*4d*(1)-1s*4s*(1)	3.72525	4.85e+10	6.27e+13	8.09e+10	1.88e+08	2.32e-03
2p*3s*(1)-1s*3s*(0)	3.72936	9.12e+11	4.69e+13	8.32e+13	1.75e+12	2.10e-02
2p*3d_(2)-1s*3s*(1)	3.72631	6.31e+11	6.42e+13	2.25e+11	1.10e+10	4.90e-02
2p*3d_(3)-1s*3d_(2)	3.72641	1.71e+13	6.49e+13	2.06e+13	2.88e+13	1.40e+00
2p*3d_(3)-1s*3d*(3)	3.72676	2.04e+12	6.49e+13	2.06e+13	3.45e+12	1.67e-01
2s*3d*(2)-1s*3p_(1)	3.72688	4.37e+11	3.94e+13	7.84e+13	1.45e+12	1.85e-02
2p*3d_(3)-1s*3d*(2)	3.72694	4.58e+13	6.49e+13	2.06e+13	7.73e+13	3.75e+00
2p*4d_(0)-1s*4s*(1)	3.72728	6.80e+11	6.17e+13	1.74e+10	1.92e+08	1.10e-02
2p*3d_(1)-1s*3s*(0)	3.72734	3.04e+11	5.99e+13	6.80e+11	1.02e+10	1.50e-02
2p*4d_(1)-1s*4s*(1)	3.72750	1.09e+12	6.19e+13	2.43e+11	1.28e+10	5.26e-02
2p*4p*(0)-1s*4p_(1)	3.72750	1.36e+12	6.47e+13	5.42e+12	1.05e+11	1.94e-02
2p*4d*(2)-1s*4s*(1)	3.72770	1.98e+12	6.20e+13	2.19e+10	3.49e+09	1.60e-01
2s*3d*(2)-1s*3p*(2)	3.72776	1.09e+12	3.94e+13	7.84e+13	3.62e+12	4.62e-02
2p_3d_(1)-1s*3s*(1)	3.72789	5.79e+10	6.39e+13	5.15e+12	1.30e+10	2.52e-03
2p*4f*(2)-1s*4p_(1)	3.72842	3.19e+10	6.56e+13	6.07e+11	1.46e+09	2.41e-03
2p*4f*(2)-1s*4p*(2)	3.72881	5.20e+10	6.56e+13	6.07e+11	2.38e+09	3.93e-03
2p*4f_(2)-1s*4p_(1)	3.72936	1.10e+10	6.54e+13	5.09e+11	4.24e+08	8.33e-04
2p*4d_(2)-1s*4s*(1)	3.72945	3.60e+11	6.32e+13	4.11e+11	1.18e+10	2.83e-02
2p*4d*(1)-1s*4d_(1)	3.72948	6.23e+11	6.27e+13	8.09e+10	2.41e+09	2.98e-02
2p*4d*(1)-1s*4d_(2)	3.72949	6.21e+11	6.27e+13	8.09e+10	2.40e+09	2.97e-02

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*4p*(0)-1s*4p*(1)	3.72960	5.62e+13	6.47e+13	5.42e+12	4.34e+12	8.01e-01
2p*4d*(1)-1s*4d*(2)	3.72974	6.12e+13	6.27e+13	8.09e+10	2.37e+11	2.92e+00
2p*4f_(2)-1s*4p*(2)	3.72976	5.46e+10	6.54e+13	5.09e+11	2.11e+09	4.14e-03
2p*4f*(3)-1s*4p*(2)	3.72981	5.71e+09	6.51e+13	1.63e+09	1.00e+08	6.14e-04
2p*4d_(1)-1s*4s*(0)	3.72986	3.40e+11	6.19e+13	2.43e+11	3.98e+09	1.64e-02
2p*4d*(3)-1s*4d_(2)	3.73033	1.86e+13	6.48e+13	9.27e+12	1.63e+13	1.76e+00
2p*4f*(2)-1s*4f_(3)	3.73039	8.74e+08	6.56e+13	6.07e+11	4.01e+08	6.60e-04
2p*4f*(2)-1s*4f_(2)	3.73040	1.02e+12	6.56e+13	6.07e+11	4.00e+10	7.68e-02
2p*4s*(1)-1s*4s*(1)	3.73042	8.23e+12	5.07e+13	2.88e+13	6.74e+12	2.36e-01
2p*4d*(3)-1s*4d*(3)	3.73049	8.29e+12	6.48e+13	9.27e+12	7.25e+12	7.83e-01
2p*4f*(2)-1s*4f*(3)	3.73049	6.38e+13	6.56e+13	8.07e+11	2.93e+12	4.82e+00
2p*4f*(2)-1s*4p*(1)	3.73051	6.17e+11	6.56e+13	6.07e+11	2.83e+10	4.66e-02
2p*4d*(3)-1s*4d*(2)	3.73057	3.88e+13	6.48e+13	9.27e+12	3.32e+13	3.59e+00
2p*4f_(1)-1s*4f_(2)	3.73064	6.51e+13	6.51e+13	1.16e+09	3.47e+09	3.00e+00
2p*4p*(2)-1s*4p_(1)	3.73100	9.73e+11	5.65e+13	3.88e+13	1.97e+12	5.11e-02
2p*3d*(2)-1s*3s*(1)	3.73105	1.07e+12	6.38e+13	7.23e+11	6.01e+10	8.32e-02
2p*4f_(4)-1s*4f_(3)	3.73108	5.21e+13	6.49e+13	3.49e+11	2.51e+12	7.18e+00
2p*3d_(0)-1s*3d_(1)	3.73118	5.71e+13	6.00e+13	4.92e+09	4.67e+08	9.51e-01
2p*4f_(4)-1s*4f*(4)	3.73118	5.63e+12	6.49e+13	3.49e+11	2.71e+11	7.76e-01
2p*4f_(4)-1s*4f*(3)	3.73118	7.21e+12	6.49e+13	3.49e+11	3.47e+11	9.94e-01
2p*4f_(2)-1s*4f_(3)	3.73133	2.40e+13	6.54e+13	5.09e+11	9.28e+11	1.82e+00
2p*4f_(2)-1s*4f_(2)	3.73134	4.01e+13	6.54e+13	5.09e+11	1.55e+12	3.04e+00
2p*4f*(3)-1s*4f_(3)	3.73138	3.60e+12	6.51e+13	1.63e+09	6.30e+08	3.87e-01
2p*4p*(2)-1s*4p*(2)	3.73140	8.54e+12	5.65e+13	3.86e+13	1.73e+13	4.49e-01
2p*4f*(3)-1s*4f_(2)	3.73140	2.04e+12	6.51e+13	1.63e+09	3.58e+08	2.20e-01
2p*4f_(2)-1s*4f*(3)	3.73143	6.72e+11	6.54e+13	5.09e+11	2.60e+10	5.10e-02
2p*4f_(2)-1s*4p*(1)	3.73146	5.35e+11	6.54e+13	5.09e+11	2.07e+10	4.08e-02
2p*4f*(3)-1s*4f*(4)	3.73148	2.38e+13	6.51e+13	1.63e+09	4.19e+09	2.58e+00
2p*4f*(3)-1s*4f*(3)	3.73149	3.55e+13	6.51e+13	1.63e+09	8.21e+09	3.82e+00
2p*4f*(5)-1s*4f*(4)	3.73150	6.49e+13	6.49e+13	2.09e+11	2.29e+12	1.10e+01
2p*4d_(0)-1s*4d_(1)	3.73151	8.07e+13	6.17e+13	1.74e+10	1.71e+10	9.83e-01
2p*3d_(1)-1s*3d_(2)	3.73154	2.33e+13	5.99e+13	6.80e+11	7.84e+11	1.15e+00
2p*3d_(1)-1s*3d_(1)	3.73154	2.95e+13	5.99e+13	6.80e+11	9.92e+11	1.46e+00
2s* (3/2)-1s* (1/2)	3.73166	6.64e+13	6.04e+13	0.	0.	4.00e+00
2p*3s*(1)-1s*3s*(0)	3.73167	3.46e+13	4.69e+13	8.32e+13	6.63e+13	7.97e-01
2p*4d_(1)-1s*4d_(1)	3.73174	4.14e+13	6.19e+13	2.43e+11	4.85e+11	2.00e+00
2p*4d_(1)-1s*4d_(2)	3.73174	1.77e+13	6.19e+13	2.43e+11	2.07e+11	8.55e-01
2s*2p*(1)-1s*2s*(1)	3.73181	3.59e+11	6.35e+13	2.18e+14	8.34e+11	3.83e-03
2p*4d*(2)-1s*4d_(1)	3.73194	7.18e+12	6.20e+13	2.19e+10	1.26e+10	5.78e-01
2p*4d*(2)-1s*4d_(2)	3.73194	1.81e+13	6.20e+13	2.19e+10	3.19e+10	1.46e+00
2p*3d*(2)-1s*3d_(2)	3.73196	1.47e+13	5.96e+13	5.43e+09	6.68e+09	1.23e+00
2p*3d*(2)-1s*3d_(1)	3.73196	3.75e+12	5.96e+13	5.43e+09	1.71e+09	3.15e-01
2p*4f*(4)-1s*4f_(3)	3.73198	1.28e+13	6.53e+13	8.54e+10	1.31e+11	1.78e+00
2p*4d_(1)-1s*4d*(2)	3.73199	1.05e+12	6.19e+13	2.43e+11	1.24e+10	5.09e-02
2p*4f*(4)-1s*4f*(4)	3.73205	2.59e+13	6.53e+13	8.54e+10	3.05e+11	3.57e+00
2p*4f*(4)-1s*4f*(3)	3.73206	2.85e+13	6.53e+13	8.54e+10	3.12e+11	3.65e+00
2p*3d_(1)-1s*3d*(2)	3.73208	3.45e+12	5.96e+13	6.80e+11	1.16e+11	1.71e-01
2s*4f_(2)-1s*4s*(1)	3.73209	3.20e+12	1.46e+13	1.63e+11	1.83e+11	1.13e+00
2p*4d*(2)-1s*4d*(3)	3.73211	1.61e+13	6.20e+13	2.19e+10	2.83e+10	1.29e+00
2p*4f_(3)-1s*4f_(3)	3.73213	2.83e+13	6.53e+13	6.82e+10	2.07e+11	3.04e+00
2p*4f_(3)-1s*4f_(2)	3.73214	3.13e+13	6.53e+13	6.82e+10	2.28e+11	3.35e+00
2s*3d*(2)-1s*3p*(1)	3.73215	3.19e+13	3.94e+13	7.84e+13	1.06e+14	1.35e+00
2p*4d*(2)-1s*4d*(2)	3.73219	1.84e+13	6.20e+13	2.19e+10	3.24e+10	1.48e+00
2p*4f_(3)-1s*4f*(4)	3.73222	1.39e+12	6.53e+13	6.82e+10	1.02e+10	1.49e-01
2p*4f_(3)-1s*4f*(3)	3.73223	4.27e+12	6.53e+13	6.82e+10	3.12e+10	4.57e-01
2p*3d*(2)-1s*3d*(3)	3.73231	2.59e+13	5.96e+13	5.43e+09	1.18e+10	2.17e+00
2p*4p*(1)-1s*4p_(0)	3.73237	1.84e+13	6.29e+13	4.34e+10	3.39e+10	7.80e-01
2p*4p*(1)-1s*4p_(1)	3.73247	2.84e+13	6.29e+13	4.34e+10	5.46e+10	1.26e+00
2p*3d*(2)-1s*3d*(2)	3.73249	1.11e+13	5.96e+13	5.43e+09	5.05e+09	9.30e-01
2p*4s*(2)-1s*4s*(1)	3.73249	2.88e+13	5.26e+13	4.83e+09	1.35e+10	2.74e+00
2p*4s*(1)-1s*4s*(0)	3.73278	3.94e+13	5.07e+13	2.88e+13	4.28e+13	1.49e+00
2p*4p*(1)-1s*4p*(2)	3.73287	8.93e+12	6.29e+13	4.34e+10	1.85e+10	4.25e-01
2p*4p*(2)-1s*4f_(3)	3.73298	3.66e+10	5.65e+13	3.86e+13	7.43e+10	1.93e-03
2p*4p*(2)-1s*4f_(2)	3.73299	4.46e+11	5.65e+13	3.86e+13	9.05e+11	2.34e-02
2p*4d*(3)-1s*4d_(2)	3.73300	3.53e+13	6.38e+13	7.69e+11	2.94e+12	3.83e+00
2p*4p*(2)-1s*4f*(3)	3.73308	7.99e+11	5.65e+13	3.86e+13	1.62e+12	4.20e-02
2p*4p*(2)-1s*4p*(1)	3.73310	4.11e+13	5.65e+13	3.86e+13	8.33e+13	2.16e+00
2p*4d*(3)-1s*4d*(3)	3.73317	2.47e+13	6.38e+13	7.69e+11	2.06e+12	2.68e+00
2p*4d*(3)-1s*4d*(2)	3.73325	3.72e+12	6.38e+13	7.69e+11	3.10e+11	4.03e-01
2p*4p_(2)-1s*4p_(1)	3.73337	4.32e+13	6.81e+13	1.19e+12	3.72e+12	3.12e+00
2p*4d_(2)-1s*4d_(1)	3.73369	2.38e+13	6.32e+13	4.11e+11	7.69e+11	1.87e+00
2p*4d_(2)-1s*4d_(2)	3.73370	1.61e+13	6.32e+13	4.11e+11	5.19e+11	1.26e+00
2p*4p_(2)-1s*4p*(2)	3.73377	1.84e+13	6.81e+13	1.19e+12	1.59e+12	1.33e+00
2p*4d*(4)-1s*4d*(3)	3.73380	5.70e+13	5.70e+13	1.80e+12	1.57e+13	8.71e+00
2p*4d_(2)-1s*4d*(3)	3.73386	9.36e+12	6.32e+13	4.11e+11	3.02e+11	7.36e-01

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p*4p*(3)-1s*4p*(2)	3.73392	5.10e+13	5.77e+13	7.40e+11	4.53e+12	6.12e+00
2p*4d_(2)-1s*4d*(2)	3.73394	1.38e+13	6.32e+13	4.11e+11	4.38e+11	1.07e+00
2p_3d_(1)-1s*3s*(0)	3.73398	2.74e+12	6.39e+13	5.15e+12	6.13e+11	1.19e-01
2p_4d*(2)-1s*4s*(1)	3.73413	2.80e+13	6.45e+13	1.61e+11	3.49e+11	2.17e+00
2p*4p_(1)-1s*4p_(0)	3.73425	2.64e+13	6.75e+13	2.18e+11	2.55e+11	1.17e+00
2p*4p_(1)-1s*4p_(1)	3.73435	1.79e+11	6.75e+13	2.18e+11	1.74e+09	7.95e-03
2p*3p_(1)-1s*3p_(0)	3.73453	1.41e+13	6.49e+13	2.71e+10	1.76e+10	6.50e-01
2p*4p*(1)-1s*4p*(1)	3.73457	5.66e+12	6.28e+13	4.34e+10	1.17e+10	2.70e-01
2p*4s*(1)-1s*4d_(1)	3.73466	2.94e+12	5.07e+13	2.86e+13	3.18e+12	1.11e-01
2p*4s*(1)-1s*4d_(2)	3.73466	1.18e+11	5.07e+13	2.88e+13	1.25e+11	4.38e-03
2p*3p_(1)-1s*3p_(1)	3.73474	2.45e+13	6.49e+13	2.71e+10	3.06e+10	1.13e+00
2p*4p_(1)-1s*4p*(2)	3.73475	1.07e+13	6.75e+13	2.18e+11	1.03e+11	4.73e-01
2p_4f_(2)-1s*4p_(1)	3.73484	2.72e+10	6.33e+13	6.70e+10	1.44e+08	2.15e-03
2p*4s*(1)-1s*4d*(2)	3.73491	4.18e+11	5.07e+13	2.88e+13	4.50e+11	1.57e-02
2p_3d_(2)-1s*3s*(1)	3.73508	3.70e+11	6.44e+13	3.62e+12	9.83e+10	2.72e-02
2p_4d_(1)-1s*4s*(0)	3.73515	2.96e+12	6.32e+13	1.07e+12	1.47e+11	1.38e-01
2p*3d*(3)-1s*3d_(2)	3.73520	1.92e+13	6.54e+13	6.38e+11	1.30e+12	2.04e+00
2p_4f_(2)-1s*4p*(2)	3.73524	5.05e+11	6.33e+13	6.70e+10	2.67e+09	3.99e-02
2p_4f*(3)-1s*4p*(2)	3.73528	2.00e+12	6.49e+13	3.52e+09	9.80e+08	2.80e-01
2p*4p_(2)-1s*4f_(2)	3.73536	4.92e+10	6.81e+13	1.19e+12	4.23e+09	3.55e-03
2p*3p*(2)-1s*3p_(1)	3.73544	1.65e+13	7.07e+13	8.32e+12	8.68e+12	1.04e+00
2p*4p_(2)-1s*4f*(3)	3.73545	2.09e+10	6.81e+13	1.19e+12	1.80e+09	1.51e-03
2p*4p_(2)-1s*4p*(1)	3.73548	5.84e+09	6.81e+13	1.19e+12	5.02e+08	4.22e-04
2p*4p*(3)-1s*4f_(2)	3.73551	3.45e+10	5.77e+13	7.40e+11	3.06e+09	4.13e-03
2p*3d*(3)-1s*3d*(3)	3.73556	4.45e+13	6.54e+13	6.38e+11	3.01e+12	4.72e+00
2s*4d*(2)-1s*4p_(1)	3.73557	5.89e+12	2.10e+13	1.41e+12	1.86e+12	1.31e+00
2p_4f_(3)-1s*4p*(2)	3.73560	2.97e+10	6.49e+13	1.44e+11	4.60e+08	3.20e-03
2p*4p*(3)-1s*4f*(4)	3.73560	2.95e+11	5.77e+13	7.40e+11	2.61e+10	3.53e-02
2p*4p*(3)-1s*4f*(3)	3.73560	9.58e+11	5.77e+13	7.40e+11	8.50e+10	1.15e-01
2p*3p_(1)-1s*3p*(2)	3.73562	9.97e+12	6.49e+13	2.71e+10	1.25e+10	4.61e-01
2p_4d_(2)-1s*4s*(1)	3.73563	1.81e+11	5.96e+13	1.38e+12	2.06e+10	1.49e-02
2p*3d*(3)-1s*3d*(2)	3.73574	1.86e+12	6.54e+13	6.38e+11	1.12e+11	1.76e-01
2p*3s*(1)-1s*3d_(2)	3.73580	6.22e+10	4.89e+13	8.32e+13	1.19e+11	1.43e-03
2p*3s*(1)-1s*3d_(1)	3.73586	3.96e+12	4.89e+13	8.32e+13	7.80e+12	9.14e-02
2s*4d*(2)-1s*4p*(2)	3.73587	1.13e+13	2.18e+13	1.41e+12	3.58e+12	2.53e+00
2s*4f*(3)-1s*4d_(2)	3.73588	3.08e+10	1.24e+11	4.80e+07	8.33e+07	1.73e+00
2s*4f*(3)-1s*4d*(3)	3.73615	9.00e+09	1.24e+11	4.80e+07	2.43e+07	5.07e-01
2s*4p*(1)-1s*4s*(1)	3.73618	3.19e+13	3.95e+13	4.73e+12	1.02e+13	2.16e+00
2s*4f*(3)-1s*4d*(2)	3.73624	2.53e+10	1.24e+11	4.80e+07	6.84e+07	1.42e+00
2s*4f_(3)-1s*4d_(2)	3.73626	1.02e+11	1.26e+13	8.23e+11	3.38e+10	5.40e-02
2p*3p*(2)-1s*3p*(2)	3.73632	3.44e+13	7.07e+13	8.32e+12	1.81e+13	2.18e+00
2s*4f_(2)-1s*4d_(1)	3.73634	4.50e+11	1.40e+13	1.63e+11	2.58e+10	1.59e-01
2s*4f_(2)-1s*4d_(2)	3.73634	5.34e+12	1.40e+13	1.63e+11	3.06e+11	1.88e+00
2p*4p_(1)-1s*4f_(2)	3.73634	6.30e+10	6.75e+13	2.18e+11	8.09e+08	2.79e-03
2p*3s*(1)-1s*3d*(2)	3.73642	2.21e+12	4.89e+13	8.32e+13	4.25e+12	5.11e-02
2s*4f_(3)-1s*4d*(3)	3.73643	8.75e+12	1.28e+13	6.23e+11	2.88e+12	4.62e+00
2p*4p_(1)-1s*4p*(1)	3.73645	2.40e+13	6.75e+13	2.18e+11	2.32e+11	1.08e+00
2s*4f_(2)-1s*4d*(3)	3.73651	3.62e+12	1.40e+13	1.63e+11	2.07e+11	1.28e+00
2s*4f_(3)-1s*4d*(2)	3.73651	3.78e+12	1.28e+13	6.23e+11	1.24e+12	1.99e+00
2s*4f_(2)-1s*4d*(2)	3.73659	1.30e+12	1.40e+13	1.63e+11	7.46e+10	4.58e-01
2p*3d_(2)-1s*3d_(2)	3.73661	2.44e+13	6.42e+13	2.25e+11	4.27e+11	1.89e+00
2p*3d_(2)-1s*3d_(1)	3.73662	1.74e+13	6.42e+13	2.25e+11	3.03e+11	1.35e+00
2s*4d_(1)-1s*4p_(0)	3.73669	1.04e+11	2.04e+13	9.54e+11	1.39e+10	1.46e-02
2p*4s*(2)-1s*4d_(1)	3.73674	3.32e+11	5.28e+13	4.93e+09	1.96e+08	3.16e-02
2p*4s*(2)-1s*4d_(2)	3.73674	3.82e+10	5.28e+13	4.93e+09	1.79e+07	3.63e-03
2s*4d_(1)-1s*4p_(1)	3.73679	7.86e+12	2.04e+13	9.54e+11	1.05e+12	1.10e+00
2p_4f_(2)-1s*4f_(3)	3.73682	3.87e+13	6.33e+13	6.70e+10	2.85e+11	3.06e+00
2p_4f_(2)-1s*4f_(2)	3.73683	2.37e+13	6.33e+13	6.70e+10	1.26e+11	1.87e+00
2p_4f*(3)-1s*4f_(3)	3.73684	3.34e+10	6.49e+13	3.52e+09	1.27e+07	3.61e-03
2p_4f*(3)-1s*4f_(2)	3.73685	1.38e+11	6.49e+13	3.52e+09	5.24e+07	1.49e-02
2s*3d*(2)-1s*3p_(1)	3.73687	1.79e+13	3.28e+13	2.53e+13	3.88e+13	1.54e+00
2p_4f*(4)-1s*4f_(3)	3.73689	2.87e+10	6.49e+13	1.93e+11	7.64e+08	3.97e-03
2p*4s*(2)-1s*4d*(3)	3.73691	3.46e+12	5.28e+13	4.93e+09	1.82e+09	3.29e-01
2p_4f_(2)-1s*4f*(3)	3.73692	1.77e+11	6.33e+13	6.70e+10	9.35e+08	1.40e-02
2p_4f*(3)-1s*4f*(4)	3.73694	3.73e+13	6.49e+13	3.52e+09	1.42e+10	4.02e+00
2p_4f*(3)-1s*4f*(3)	3.73694	2.45e+13	6.49e+13	3.52e+09	9.31e+09	2.64e+00
2p_4f_(2)-1s*4p*(1)	3.73694	4.02e+10	6.33e+13	6.70e+10	2.13e+08	3.17e-03
2p*3d_(2)-1s*3d*(3)	3.73697	2.13e+13	6.42e+13	2.25e+11	3.73e+11	1.66e+00
2p_4f*(4)-1s*4f*(4)	3.73698	3.38e+13	6.49e+13	1.93e+11	9.00e+11	4.68e+00
2p*4s*(2)-1s*4d*(2)	3.73699	1.94e+13	5.28e+13	4.93e+09	9.10e+09	1.85e+00
2p_4f*(4)-1s*4f*(3)	3.73699	3.10e+13	6.49e+13	1.93e+11	8.26e+11	4.29e+00
2p_4d_(1)-1s*4d_(1)	3.73703	2.00e+13	6.32e+13	1.07e+12	9.96e+11	9.34e-01
2p_4d_(1)-1s*4d_(2)	3.73704	4.00e+13	6.32e+13	1.07e+12	1.99e+12	1.87e+00
2p_ (1/2)-1s* (1/2)	3.73708	6.62e+13	6.62e+13	0.	0.	2.00e+00
2s*4f*(4)-1s*4d*(3)	3.73708	7.82e+12	7.82e+12	1.50e+11	1.32e+12	8.83e+00

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*3d*(3)-1s*3p*(2)	3.73708	2.58e+13	3.32e+13	2.35e+12	1.19e+13	5.09e+00
2p*3d_(2)-1s*3d*(2)	3.73715	1.16e+11	6.42e+13	2.25e+11	2.02e+09	8.98e-03
2p_4f_(3)-1s*4f_(3)	3.73718	3.33e+13	6.49e+13	1.44e+11	5.16e+11	3.59e+00
2s*4d_(1)-1s*4p*(2)	3.73719	9.42e+12	2.04e+13	9.54e+11	1.28e+12	1.32e+00
2p_4f_(3)-1s*4f_(2)	3.73719	3.13e+13	6.49e+13	1.44e+11	4.85e+11	3.37e+00
2s*4p_(0)-1s*4s*(1)	3.73724	2.27e+13	3.14e+13	7.14e+11	5.05e+11	7.07e-01
2s*4d_(2)-1s*4p_(1)	3.73724	4.66e+11	2.11e+13	9.91e+12	7.45e+11	7.51e-02
2p_4f_(3)-1s*4f*(4)	3.73728	1.46e+11	6.49e+13	1.44e+11	2.28e+09	1.57e-02
2p_4d_(1)-1s*4d*(2)	3.73729	1.51e+10	6.32e+13	1.07e+12	7.54e+08	7.07e-04
2p_4f_(3)-1s*4f*(3)	3.73729	3.84e+10	6.49e+13	1.44e+11	5.94e+08	4.13e-03
2p_4p_(0)-1s*4p_(1)	3.73732	5.91e+13	6.52e+13	1.20e+12	1.08e+12	8.89e-01
2p*3s*(2)-1s*3s*(1)	3.73733	5.66e+13	6.55e+13	4.28e+11	1.83e+12	4.30e+00
2s*3d_(1)-1s*3p_(0)	3.73741	2.05e+13	4.14e+13	1.72e+12	2.48e+12	1.43e+00
2s*4d*(2)-1s*4f_(3)	3.73755	4.20e+11	2.10e+13	1.41e+12	1.32e+11	9.38e-02
2s*4d*(2)-1s*4f_(2)	3.73756	3.61e+10	2.10e+13	1.41e+12	1.14e+10	8.06e-03
2s*3d_(1)-1s*3p_(1)	3.73762	9.18e+10	4.14e+13	1.72e+12	1.10e+10	6.39e-03
2s*4d_(2)-1s*4p*(2)	3.73764	4.25e+12	2.11e+13	9.91e+12	6.79e+12	6.85e-01
2s*4d*(2)-1s*4f*(3)	3.73765	2.70e+11	2.10e+13	1.41e+12	8.53e+10	6.03e-02
2s*4d*(2)-1s*4p*(1)	3.73768	1.10e+12	2.10e+13	1.41e+12	3.48e+11	2.46e-01
2s*3d*(2)-1s*3p*(2)	3.73775	2.90e+11	3.28e+13	2.53e+13	6.33e+11	2.50e-02
2s*4p*(2)-1s*4s*(1)	3.73808	3.04e+12	1.74e+13	2.55e+12	1.94e+12	7.62e-01
2p_3d_(1)-1s*3d_(2)	3.73820	2.96e+13	6.39e+13	5.15e+12	8.63e+12	1.29e+00
2p_3d_(1)-1s*3d_(1)	3.73820	3.81e+13	6.39e+13	5.15e+12	6.74e+12	1.31e+00
2p_4p*(1)-1s*4p_(0)	3.73827	9.86e+11	5.97e+13	4.37e+10	2.16e+09	4.95e-02
2p_4p*(1)-1s*4p_(1)	3.73836	9.42e+11	5.97e+13	4.37e+10	2.06e+09	4.73e-02
2p_4d*(2)-1s*4d_(1)	3.73836	4.92e+10	6.45e+13	1.61e+11	6.14e+08	3.81e-03
2s*3d_(1)-1s*3p*(2)	3.73850	9.34e+12	4.14e+13	1.72e+12	1.12e+12	6.51e-01
2p_3p*(1)-1s*3p_(0)	3.73851	4.20e+12	5.40e+13	8.43e+11	1.94e+11	2.30e-01
2s*4d*(3)-1s*4p*(2)	3.73852	1.12e+13	1.55e+13	4.30e+11	2.12e+12	4.94e+00
2p_4d*(2)-1s*4d*(3)	3.73855	2.48e+13	6.45e+13	1.61e+11	3.10e+11	1.92e+00
2p_4d*(3)-1s*4d_(2)	3.73861	1.08e+13	5.38e+13	1.98e+12	2.70e+12	1.38e+00
2p_4d*(2)-1s*4d*(2)	3.73863	1.15e+13	6.45e+13	1.61e+11	1.43e+11	8.88e-01
2s*3d_(2)-1s*3p_(1)	3.73869	9.06e+11	3.87e+13	4.14e+13	2.34e+12	5.66e-02
2p_3p*(1)-1s*3p_(1)	3.73871	9.80e+12	5.40e+13	8.43e+11	4.51e+11	5.35e-01
2s*4p_(1)-1s*4s*(1)	3.73873	1.03e+13	2.03e+13	4.37e+12	5.90e+12	1.28e+00
2p_3d_(1)-1s*3d*(2)	3.73874	9.24e+11	6.39e+13	5.15e+12	2.07e+11	4.01e-02
2p_4p*(1)-1s*4p*(2)	3.73876	2.35e+13	5.97e+13	4.37e+10	5.15e+10	1.18e+00
2p_4d*(3)-1s*4d*(3)	3.73877	2.36e+13	5.38e+13	1.98e+12	5.88e+12	2.88e+00
2s*4d_(1)-1s*4f_(2)	3.73878	6.63e+11	2.04e+13	9.54e+11	8.87e+10	9.30e-02
2p_4d*(3)-1s*4d*(2)	3.73886	1.93e+13	5.38e+13	1.98e+12	4.82e+12	2.43e+00
2s*4d_(1)-1s*4p*(1)	3.73890	5.95e+11	2.04e+13	9.54e+11	7.95e+10	8.34e-02
2s*4d_(2)-1s*4f_(3)	3.73922	2.41e+12	2.11e+13	9.91e+12	3.84e+12	3.88e-01
2s*4d_(2)-1s*4f_(2)	3.73923	1.55e+11	2.11e+13	9.91e+12	2.48e+11	2.50e-02
2s*4d_(2)-1s*4f*(3)	3.73932	4.49e+10	2.11e+13	9.91e+12	7.17e+10	7.23e-03
2s*4d_(2)-1s*4p*(1)	3.73935	1.20e+13	2.11e+13	9.91e+12	1.92e+13	1.94e+00
2p_4p_(0)-1s*4p*(1)	3.73943	1.78e+10	6.52e+13	1.20e+12	3.21e+08	2.68e-04
2s*3d_(2)-1s*3p*(2)	3.73958	1.26e+13	3.87e+13	4.14e+13	3.26e+13	7.87e-01
2p_3p*(1)-1s*3p*(2)	3.73959	2.94e+13	5.40e+13	8.43e+11	1.36e+12	1.61e+00
2p_3p_(0)-1s*3p_(1)	3.73961	6.48e+13	7.88e+13	1.34e+12	1.07e+12	7.98e-01
2p_4s*(0)-1s*4s*(1)	3.73967	4.20e+13	4.48e+13	2.37e+12	2.12e+12	8.94e-01
2p_3s*(1)-1s*3s*(1)	3.73980	3.77e+13	5.18e+13	1.51e+12	3.21e+12	2.12e+00
2p_4p*(2)-1s*4p_(1)	3.73980	1.46e+13	5.21e+13	5.53e+12	6.98e+12	1.26e+00
2p_4d_(2)-1s*4d_(1)	3.73980	3.30e+13	5.98e+13	1.38e+12	3.74e+12	2.78e+00
2p_4d_(2)-1s*4d_(2)	3.73980	2.52e+13	5.98e+13	1.38e+12	2.86e+12	2.06e+00
2p*3p_(1)-1s*3p*(1)	3.74003	2.52e+12	6.49e+13	2.71e+10	3.15e+09	1.16e-01
2p_4d_(2)-1s*4d*(3)	3.74008	3.28e+11	5.98e+13	1.38e+12	3.72e+10	2.69e-02
2s*4d*(3)-1s*4f_(3)	3.74010	7.53e+10	1.55e+13	4.30e+11	1.42e+10	3.31e-02
2s*4d*(3)-1s*4f_(2)	3.74011	9.13e+08	1.55e+13	4.30e+11	1.73e+08	4.02e-03
2p_4d_(2)-1s*4d*(2)	3.74014	9.13e+11	5.98e+13	1.38e+12	1.04e+11	7.49e-02
2p*3d*(4)-1s*3d*(3)	3.74018	6.46e+13	6.46e+13	4.50e+12	3.78e+13	8.41e+00
2s*4d*(3)-1s*4f*(4)	3.74020	2.71e+12	1.55e+13	4.30e+11	5.13e+11	1.19e+00
2s*4d*(3)-1s*4f*(3)	3.74021	1.94e+11	1.55e+13	4.30e+11	3.88e+10	8.38e-02
2p_4p*(2)-1s*4p*(2)	3.74029	2.25e+13	5.21e+13	5.53e+12	1.08e+13	1.95e+00
2p_4s*(1)-1s*4s*(1)	3.74036	1.58e+13	4.25e+13	6.98e+11	7.64e+11	1.10e+00
2p_4p*(1)-1s*4f_(2)	3.74036	6.18e+10	5.97e+13	4.37e+10	1.35e+08	3.10e-03
2s*4p*(1)-1s*4d_(1)	3.74043	5.44e+11	3.95e+13	4.73e+12	1.75e+11	3.69e-02
2s*4p*(1)-1s*4d_(2)	3.74044	1.88e+12	3.95e+13	4.73e+12	6.04e+11	1.28e-01
2p_4p*(1)-1s*4p*(1)	3.74047	2.87e+13	5.97e+13	4.37e+10	6.29e+10	1.44e+00
2s*4p*(1)-1s*4d*(2)	3.74069	2.23e+12	3.95e+13	4.73e+12	7.17e+11	1.51e-01
2p*3p*(2)-1s*3p*(1)	3.74074	6.43e+12	7.07e+13	8.32e+12	3.38e+12	4.07e-01
2s*3p_(0)-1s*3s*(1)	3.74106	2.12e+13	3.93e+13	1.67e+12	8.67e+11	5.18e-01
2p_4p_(1)-1s*4p_(0)	3.74107	2.12e+13	6.02e+13	3.16e+09	3.33e+09	1.06e+00
2s*3p*(2)-1s*3s*(1)	3.74109	3.80e+12	2.49e+13	7.12e+12	4.23e+12	5.94e-01
2s*4p_(1)-1s*4s*(0)	3.74111	5.76e+11	2.03e+13	4.37e+12	3.06e+11	7.01e-02
2p_4p_(1)-1s*4p_(1)	3.74116	2.61e+13	6.02e+13	3.16e+09	4.10e+09	1.30e+00

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p*3d*(2)-1s*3d_(1)	3.74138	4.90e+12	6.39e+13	7.23e+11	2.74e+11	3.79e-01
2p*3d*(2)-1s*3d_(2)	3.74138	1.08e+12	6.39e+13	7.23e+11	6.05e+10	8.36e-02
2s*4p_(0)-1s*4d_(1)	3.74149	4.93e+12	3.14e+13	7.14e+11	1.10e+11	1.53e-01
2p*2p*(0)-1s*2p*(1)	3.74152	1.02e+14	1.02e+14	1.47e+13	1.29e+13	8.73e-01
2p_4p_(1)-1s*4p*(2)	3.74156	2.01e+12	6.02e+13	3.16e+09	3.16e+08	1.00e-01
2p*3d*(2)-1s*3d*(3)	3.74174	4.30e+12	6.39e+13	7.23e+11	2.41e+11	3.33e-01
2p_4p*(2)-1s*4f_(3)	3.74187	1.41e+11	5.21e+13	5.53e+12	6.78e+10	1.23e-02
2p_4p*(2)-1s*4f_(2)	3.74188	5.57e+09	5.21e+13	5.53e+12	2.67e+09	4.83e-04
2p*3d*(2)-1s*3d*(2)	3.74192	5.21e+13	6.39e+13	7.23e+11	2.92e+12	4.03e+00
2p_4p*(2)-1s*4f*(3)	3.74197	1.55e+11	5.21e+13	5.53e+12	7.43e+10	1.34e-02
2p_4p*(2)-1s*4p*(1)	3.74200	9.79e+12	5.21e+13	5.53e+12	4.70e+12	8.49e-01
2s*3d*(2)-1s*3p*(1)	3.74217	7.84e+12	3.28e+13	2.53e+13	1.71e+13	8.75e-01
2s*4p*(2)-1s*4d_(1)	3.74234	2.23e+10	1.74e+13	2.55e+12	1.43e+10	5.59e-03
2s*4p*(2)-1s*4d_(2)	3.74234	6.78e+11	1.74e+13	2.55e+12	4.33e+11	1.70e-01
2s*4s*(0)-1s*4p_(1)	3.74238	5.49e+12	1.84e+13	5.45e+13	4.11e+12	7.54e-02
2s*3p_(1)-1s*3s*(1)	3.74238	2.09e+13	3.34e+13	8.74e+12	1.30e+13	1.49e+00
2s*4p*(2)-1s*4d*(3)	3.74251	8.02e+12	1.74e+13	2.55e+12	5.12e+12	2.01e+00
2s*4p*(2)-1s*4d*(2)	3.74258	3.21e+11	1.74e+13	2.55e+12	2.05e+11	8.02e-02
2p_4s*(1)-1s*4s*(0)	3.74273	2.17e+13	4.25e+13	6.96e+11	1.05e+12	1.50e+00
2s*3d_(1)-1s*3p*(1)	3.74292	3.07e+12	4.14e+13	1.72e+12	3.69e+11	2.14e-01
2s*4p_(1)-1s*4d_(1)	3.74299	8.00e+10	2.03e+13	4.37e+12	4.26e+10	9.74e-03
2s*4p_(1)-1s*4d_(2)	3.74300	4.27e+12	2.03e+13	4.37e+12	2.27e+12	5.20e-01
2p_3d*(3)-1s*3d_(2)	3.74307	2.85e+13	6.46e+13	4.55e+12	1.31e+13	2.88e+00
2p_4p_(1)-1s*4f_(2)	3.74316	1.24e+11	6.02e+13	3.16e+09	1.95e+07	6.17e-03
2p_4p_(1)-1s*4p*(1)	3.74328	5.08e+12	6.02e+13	3.16e+09	7.99e+08	2.53e-01
2p_3s*(0)-1s*3s*(1)	3.74338	4.22e+13	4.78e+13	6.95e+12	5.36e+12	7.71e-01
2p_3d*(3)-1s*3d*(3)	3.74343	1.88e+13	6.46e+13	4.55e+12	8.64e+12	1.90e+00
2p_3d*(3)-1s*3d*(2)	3.74361	1.73e+13	6.46e+13	4.55e+12	7.99e+12	1.76e+00
2p_4s*(0)-1s*4d_(1)	3.74363	3.41e+11	4.46e+13	2.37e+12	1.72e+10	7.27e-03
2s*4s*(1)-1s*4p_(0)	3.74398	2.41e+11	1.71e+13	5.74e+11	2.35e+10	4.10e-02
2s*3d_(2)-1s*3p*(1)	3.74400	1.78e+13	3.87e+13	4.14e+13	4.59e+13	1.11e+00
2p_3p*(1)-1s*3p*(1)	3.74402	2.78e+11	5.46e+13	8.43e+11	1.28e+10	1.52e-02
2s*4s*(1)-1s*4p_(1)	3.74406	3.73e+12	1.71e+13	5.74e+11	3.84e+11	6.35e-01
2s*4s*(0)-1s*4p*(1)	3.74447	1.11e+13	1.84e+13	5.45e+13	8.34e+12	1.53e-01
2s*4s*(1)-1s*4p*(2)	3.74448	1.07e+13	1.71e+13	5.74e+11	1.05e+12	1.83e+00
2p*3p*(1)-1s*3p_(0)	3.74450	1.74e+12	7.39e+13	3.45e+10	2.43e+09	7.05e-02
2p_4s*(1)-1s*4d_(1)	3.74462	3.72e+10	4.25e+13	6.96e+11	1.78e+09	2.58e-03
2p_4s*(1)-1s*4d_(2)	3.74463	1.10e+12	4.25e+13	6.96e+11	5.33e+10	7.66e-02
2p*3p*(1)-1s*3p_(1)	3.74470	1.11e+12	7.39e+13	3.45e+10	1.55e+09	4.50e-02
2p_4s*(1)-1s*4d*(2)	3.74488	1.08e+12	4.25e+13	6.96e+11	5.21e+10	7.48e-02
2p_3p_(0)-1s*3p*(1)	3.74492	2.01e+11	7.98e+13	1.34e+12	3.33e+09	2.48e-03
2p*3p*(3)-1s*3p*(2)	3.74502	3.76e+13	4.85e+13	1.86e+11	8.99e+11	5.41e+00
2p_3d_(2)-1s*3d_(3)	3.74543	2.30e+13	6.44e+13	3.82e+12	6.11e+12	1.89e+00
2p_3d_(2)-1s*3d_(1)	3.74543	3.86e+13	6.44e+13	3.82e+12	1.03e+13	2.84e+00
2p*3p*(1)-1s*3p*(2)	3.74558	4.68e+12	7.39e+13	3.45e+10	6.54e+09	1.90e-01
2p_3d_(2)-1s*3d*(3)	3.74579	6.75e+11	6.44e+13	3.82e+12	1.60e+11	4.96e-02
2p_3s*(1)-1s*3s*(0)	3.74594	4.56e+11	5.16e+13	1.51e+12	3.86e+10	2.57e-02
2p_3d_(2)-1s*3d*(2)	3.74607	1.73e+12	6.44e+13	3.82e+12	4.60e+11	1.27e-01
2s*4s*(1)-1s*4p*(1)	3.74619	6.59e+11	1.71e+13	5.74e+11	6.43e+10	1.12e-01
2p_3p*(2)-1s*3p_(1)	3.74685	2.87e+13	6.33e+13	2.26e+12	4.94e+12	2.19e+00
2p*3s*(2)-1s*3d_(1)	3.74770	3.39e+10	6.55e+13	4.26e+11	1.09e+09	2.57e-03
2p*3s*(2)-1s*3d_(2)	3.74770	1.26e+12	6.55e+13	4.26e+11	4.13e+10	9.72e-02
2p_3s*(1)-1s*3s*(1)	3.74770	3.54e+12	4.26e+13	1.81e+12	3.87e+11	2.40e-01
2p_3p*(2)-1s*3p*(2)	3.74774	1.78e+13	6.33e+13	2.26e+12	3.06e+12	1.35e+00
2p*3s*(2)-1s*3d*(3)	3.74804	6.96e+12	6.55e+13	4.26e+11	2.25e+11	5.28e-01
2p*3s*(2)-1s*3d*(2)	3.74824	1.67e+11	6.55e+13	4.26e+11	5.40e+09	1.27e-02
2s*3p_(1)-1s*3s*(0)	3.74852	2.54e+09	3.34e+13	8.74e+12	1.58e+08	1.81e-04
2p_3p_(1)-1s*3p_(0)	3.74913	2.31e+13	7.12e+13	4.81e+09	4.67e+08	9.72e-01
2p_3p_(1)-1s*3p_(1)	3.74934	2.36e+13	7.12e+13	4.81e+09	4.79e+09	9.96e-01
2p*3p*(1)-1s*3p*(1)	3.75003	4.94e+13	7.39e+13	3.45e+10	6.91e+10	2.00e+00
2p_3s*(1)-1s*3d_(2)	3.75018	4.28e+12	5.16e+13	1.51e+12	3.65e+11	2.42e-01
2p_3s*(1)-1s*3d_(1)	3.75018	1.41e+12	5.16e+13	1.51e+12	1.20e+11	7.94e-02
2p_3p_(1)-1s*3p*(2)	3.75022	1.35e+12	7.12e+13	4.81e+09	2.72e+08	5.67e-02
2s*3s*(0)-1s*3p_(1)	3.75065	2.28e+12	1.84e+13	1.81e+14	2.04e+12	1.27e-02
2p_3s*(1)-1s*3d*(2)	3.75072	2.39e+12	5.16e+13	1.51e+12	2.04e+11	1.35e-01
2s*3p_(0)-1s*3d_(1)	3.75144	8.52e+12	3.93e+13	1.67e+12	3.48e+11	2.08e-01
2s*3p*(2)-1s*3d_(2)	3.75148	8.10e+11	2.49e+13	7.12e+12	9.02e+11	1.27e-01
2s*3p*(2)-1s*3d_(1)	3.75148	4.50e+09	2.49e+13	7.12e+12	5.01e+09	7.04e-04
2s*3p*(2)-1s*3d*(3)	3.75184	6.42e+12	2.49e+13	7.12e+12	7.15e+12	1.00e+00
2s*3p*(2)-1s*3d*(2)	3.75202	8.94e+09	2.49e+13	7.12e+12	9.95e+09	1.40e-03
2p_3p*(2)-1s*3p*(1)	3.75218	2.79e+12	6.33e+13	2.26e+12	4.80e+11	2.12e-01
2s*3p_(1)-1s*3d_(1)	3.75277	2.87e+11	3.34e+13	8.74e+12	1.79e+11	2.04e-02
2s*3p_(1)-1s*3d_(2)	3.75277	1.70e+12	3.34e+13	8.74e+12	1.06e+12	1.21e-01
2s*3p_(1)-1s*3d*(2)	3.75331	1.04e+11	3.34e+13	8.74e+12	6.48e+10	7.41e-03
2p_3s*(0)-1s*3d_(1)	3.75377	1.63e+11	4.78e+13	6.95e+12	2.07e+10	2.98e-03

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p_3s*(1)-1s*3s*(0)	3.75386	2.70e+13	4.26e+13	1.61e+12	2.95e+12	1.83e+00
2p_3p_(1)-1s*3p*(1)	3.75467	7.13e+12	7.12e+13	4.81e+09	1.44e+09	3.01e-01
2s*3s*(0)-1s*3p*(1)	3.75589	1.28e+13	1.84e+13	1.61e+14	1.14e+13	7.12e-02
2s*2p*(1)-1s*2s*(0)	3.75678	6.30e+13	6.35e+13	2.18e+14	1.46e+14	6.73e-01
2s*3s*(1)-1s*3p_(0)	3.75678	7.11e+12	2.18e+13	1.24e+12	1.81e+11	1.46e-01
2p*2p*(2)-1s*2p*(2)	3.75683	5.60e+12	1.25e+14	3.33e+14	2.04e+13	6.12e-02
2s*3s*(1)-1s*3p_(1)	3.75689	5.27e+12	2.18e+13	1.24e+12	8.59e+11	6.93e-01
2s*3s*(1)-1s*3p*(2)	3.75788	1.03e+13	2.18e+13	1.24e+12	1.68e+12	1.35e+00
2p_3s*(1)-1s*3d_(2)	3.75812	1.53e+12	4.26e+13	1.61e+12	1.68e+11	1.04e-01
2p_3s*(1)-1s*3d*(2)	3.75867	1.46e+12	4.26e+13	1.61e+12	1.60e+11	9.92e-02
2s*2p*(2)-1s*2s*(1)	3.76185	6.40e+13	6.41e+13	1.86e+13	7.02e+13	3.90e+00
2s*3s*(1)-1s*3p*(1)	3.76235	1.48e+11	2.18e+13	1.24e+12	2.26e+10	1.84e-02
2p_2p*(2)-1s*2p_(1)	3.76445	3.33e+13	1.27e+14	2.10e+13	2.35e+13	1.12e+00
2s*2p_(1)-1s*2s*(1)	3.76555	6.36e+13	6.39e+13	2.00e+13	4.55e+13	2.27e+00
2p_2p*(1)-1s*2p_(0)	3.76646	4.25e+13	1.27e+14	4.68e+09	4.68e+09	1.00e+00
2s*2p_(0)-1s*2s*(1)	3.76707	6.39e+13	6.39e+13	2.00e+13	1.52e+13	7.61e-01
2p_2p*(1)-1s*2p_(1)	3.76718	3.14e+13	1.27e+14	4.68e+09	3.46e+09	7.39e-01
2p_2p*(2)-1s*2p*(2)	3.76755	8.99e+13	1.27e+14	2.10e+13	6.37e+13	3.03e+00
2p_2p_(0)-1s*2p_(1)	3.76917	1.25e+14	1.25e+14	1.53e+12	1.50e+12	9.82e-01
2p_2p*(1)-1s*2p*(2)	3.77029	5.29e+13	1.27e+14	4.68e+09	5.84e+09	1.25e+00
2p*2p*(2)-1s*2p*(1)	3.77307	1.19e+14	1.25e+14	3.33e+14	4.34e+14	1.31e+00
2p_2p*(2)-1s*2p*(1)	3.78378	4.05e+12	1.27e+14	2.10e+13	2.87e+12	1.37e-01
2p_2p*(1)-1s*2p*(1)	3.78655	4.68e+11	1.27e+14	4.68e+09	5.07e+07	1.08e-02
2p_2p_(0)-1s*2p*(1)	3.78854	7.12e+11	1.25e+14	1.53e+12	8.58e+08	5.61e-03
2s*2p_(1)-1s*2s*(0)	3.79896	3.43e+11	6.38e+13	2.00e+13	2.45e+11	1.23e-02
2s*2s*(0)-1s*2p_(1)	3.79416	2.48e+12	2.64e+13	3.83e+14	2.32e+12	6.06e-03
2s*2s*(0)-1s*2p*(1)	3.81380	2.39e+13	2.64e+13	3.83e+14	2.24e+13	5.83e-02
2p*3d_(3)-1s*4d_(2)	3.95381	5.45e+09	8.49e+13	2.06e+13	9.20e+09	4.46e-04
2p*3d_(3)-1s*4d*(2)	3.95419	2.56e+10	8.49e+13	2.06e+13	4.32e+10	2.10e-03
2s*3d*(2)-1s*4f_(3)	3.95926	2.05e+10	3.94e+13	7.84e+13	6.82e+10	8.70e-04
2s*3d*(2)-1s*4f*(3)	3.95937	2.48e+10	3.94e+13	7.84e+13	8.23e+10	1.05e-03
2p*3s*(1)-1s*4d*(2)	3.96486	1.90e+10	4.69e+13	8.32e+13	3.65e+10	4.39e-04
2p*3p_(1)-1s*4p_(0)	3.96878	2.89e+09	6.49e+13	2.71e+10	3.62e+06	1.34e-04
2p*3p*(2)-1s*4p_(1)	3.96888	4.50e+09	7.07e+13	8.32e+12	2.37e+09	2.85e-04
2p*3p*(2)-1s*4p*(2)	3.96714	9.66e+09	7.07e+13	8.32e+12	5.09e+09	6.11e-04
2s*3d*(3)-1s*4p*(2)	3.96880	5.38e+08	3.32e+13	2.35e+12	2.49e+09	1.06e-03
2s*3d*(2)-1s*4p_(1)	3.96830	4.18e+09	3.28e+13	2.53e+13	9.12e+09	3.60e-04
2s*3d_(1)-1s*4p_(0)	3.96904	4.73e+09	4.14e+13	1.72e+12	5.67e+08	3.29e-04
2p*3p*(2)-1s*4p*(1)	3.96906	4.16e+09	7.07e+13	8.32e+12	2.19e+09	2.84e-04
2p*3d*(4)-1s*4d*(3)	3.96919	1.46e+10	6.46e+13	4.50e+12	8.57e+09	1.91e-03
2s*3d*(3)-1s*4f*(4)	3.96969	2.78e+10	3.32e+13	2.35e+12	1.28e+10	5.47e-03
2p_3p*(1)-1s*4p_(0)	3.97027	3.44e+09	5.40e+13	8.43e+11	1.58e+08	1.88e-04
2s*3d*(2)-1s*4f*(3)	3.97065	2.16e+10	3.28e+13	2.53e+13	4.78e+10	1.88e-03
2s*3d*(2)-1s*4p*(1)	3.97067	4.22e+09	3.28e+13	2.53e+13	9.19e+09	3.63e-04
2p*3d*(2)-1s*4d*(2)	3.97105	1.95e+10	6.39e+13	7.23e+11	1.09e+09	1.51e-03
2p_3p_(0)-1s*4p_(1)	3.97139	1.83e+10	7.98e+13	1.34e+12	3.83e+08	2.26e-04
2s*3d_(1)-1s*4f_(2)	3.97139	2.17e+10	4.14e+13	1.72e+12	2.61e+09	1.51e-03
2s*3d_(2)-1s*4f_(3)	3.97250	1.83e+10	3.87e+13	4.14e+13	4.72e+10	1.14e-03
2p_3p*(1)-1s*4f_(2)	3.97263	1.27e+10	5.40e+13	8.43e+11	5.85e+08	6.94e-04
2p_3d*(3)-1s*4d_(2)	3.97267	1.05e+10	8.46e+13	4.55e+12	4.84e+09	1.06e-03
2s*3d_(2)-1s*4p*(1)	3.97273	6.67e+09	3.87e+13	4.14e+13	1.72e+10	4.16e-04
2p*3s*(2)-1s*4s*(1)	3.97307	1.53e+10	6.55e+13	4.26e+11	4.94e+08	1.16e-03
2p_3d_(2)-1s*4d_(1)	3.97533	9.31e+09	6.44e+13	3.82e+12	2.46e+09	6.84e-04
2p_3d_(2)-1s*4d_(2)	3.97533	5.59e+09	6.44e+13	3.82e+12	1.48e+09	4.11e-04
2p_3s*(1)-1s*4s*(1)	3.97586	6.67e+09	5.16e+13	1.51e+12	5.68e+08	3.77e-04
2p*3p*(3)-1s*4p*(2)	3.97804	2.81e+10	4.85e+13	1.86e+11	6.71e+08	4.04e-03
2s*3p*(2)-1s*4s*(1)	3.97732	4.67e+09	2.49e+13	7.12e+12	5.28e+09	7.50e-04
2p*3s*(2)-1s*4d*(3)	3.97867	1.01e+10	6.55e+13	4.26e+11	3.26e+08	7.66e-04
2p_3s*(1)-1s*4s*(0)	3.97854	1.88e+09	5.16e+13	1.51e+12	1.86e+08	1.06e-04
2s*3p_(1)-1s*4s*(1)	3.97877	1.26e+10	3.34e+13	8.74e+12	7.43e+09	8.50e-04
2p*3p*(3)-1s*4f*(4)	3.97884	6.61e+09	4.85e+13	1.86e+11	1.56e+08	9.51e-04
2p*3p*(1)-1s*4p*(1)	3.97952	6.07e+10	7.38e+13	3.45e+10	8.46e+07	2.46e-03
2p_3p*(2)-1s*4p_(1)	3.97956	2.03e+10	6.33e+13	2.26e+12	3.49e+09	1.55e-03
2p_3s*(0)-1s*4s*(1)	3.97990	1.79e+10	4.78e+13	6.95e+12	2.27e+09	3.27e-04
2p_3p*(2)-1s*4p*(2)	3.98001	1.02e+10	6.33e+13	2.26e+12	1.76e+09	7.79e-04
2p_3p_(1)-1s*4p_(0)	3.98225	1.58e+10	7.12e+13	4.81e+09	3.20e+06	6.66e-04
2p_3p_(1)-1s*4p_(1)	3.98236	1.49e+10	7.12e+13	4.81e+09	3.01e+06	6.27e-04
2p_3p_(1)-1s*4p*(1)	3.98475	9.72e+09	7.12e+13	4.81e+09	1.97e+06	4.10e-04
2s*3s*(0)-1s*4p*(1)	3.98624	2.54e+10	1.84e+13	1.61e+14	2.28e+10	1.42e-04
2p_3s*(1)-1s*4s*(0)	3.98749	4.12e+10	4.26e+13	1.61e+12	4.50e+09	2.79e-03
2s*3s*(1)-1s*4p_(0)	3.99089	2.89e+09	2.16e+13	1.24e+12	4.71e+08	3.80e-04
2s*3s*(1)-1s*4p_(1)	3.99100	1.08e+10	2.16e+13	1.24e+12	1.75e+09	1.41e-03
2s*3s*(1)-1s*4p*(2)	3.99145	1.84e+10	2.16e+13	1.24e+12	3.00e+09	2.42e-03
2p*2p*(0)-1s*3p*(1)	4.47544	6.49e+10	1.02e+14	1.47e+13	8.18e+09	5.55e-04
2s*2p*(1)-1s*3s*(0)	4.51321	2.05e+10	6.35e+13	2.18e+14	4.75e+10	2.18e-04

Z = 18

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qe	gf
2s*2p*(1)-1s*3d_(2)	4.51937	1.08e+10	6.35e+13	2.18e+14	2.52e+10	1.16e-04
2s*2p*(1)-1s*3d*(2)	4.52016	3.88e+10	6.35e+13	2.18e+14	9.01e+10	4.14e-04
2s*2p*(2)-1s*3p*(1)	4.52066	4.90e+10	1.25e+14	3.33e+14	1.78e+11	5.35e-04
2p_2p*(2)-1s*3p_(1)	4.52826	1.22e+10	1.27e+14	2.10e+13	8.62e+09	4.11e-04
2p_2p*(2)-1s*3p*(2)	4.52956	3.11e+10	1.27e+14	2.10e+13	2.20e+10	1.05e-03
2p_2p*(1)-1s*3p_(0)	4.53192	1.60e+10	1.27e+14	4.68e+09	1.76e+06	3.76e-04
2p_2p*(1)-1s*3p_(1)	4.53222	1.13e+10	1.27e+14	4.68e+09	1.25e+06	2.67e-04
2p_2p*(1)-1s*3p*(2)	4.53352	1.78e+10	1.27e+14	4.68e+09	1.97e+06	4.20e-04
2p_2p_(0)-1s*3p_(1)	4.53511	4.47e+10	1.25e+14	1.53e+12	5.33e+08	3.48e-04
2s*2p*(2)-1s*3s*(1)	4.54815	1.94e+10	6.41e+13	1.80e+13	2.13e+10	1.18e-03
2s*2p_(1)-1s*3s*(1)	4.55356	1.94e+10	6.39e+13	2.00e+13	1.39e+10	6.94e-04
2s*2p_(0)-1s*3s*(1)	4.55577	1.97e+10	6.39e+13	2.00e+13	4.69e+09	2.34e-04
2s*2s*(0)-1s*3p*(1)	4.57926	2.97e+10	2.64e+13	3.83e+14	2.78e+10	7.26e-05
2p*2p*(0)-1s*4p*(1)	4.80623	2.85e+10	1.02e+14	1.47e+13	3.34e+09	2.27e-04
2s*2p*(1)-1s*4s*(0)	4.85521	1.53e+09	6.35e+13	2.18e+14	3.58e+09	1.63e-05
2s*2p*(1)-1s*4d*(2)	4.85882	5.26e+09	6.35e+13	2.18e+14	1.22e+10	5.61e-05
2p_2p*(2)-1s*4p_(1)	4.87261	1.83e+09	1.27e+14	2.10e+13	1.29e+09	6.16e-05
2p_2p*(2)-1s*4p*(2)	4.87329	5.37e+09	1.27e+14	2.10e+13	3.80e+09	1.81e-04
2p_2p*(1)-1s*4p_(0)	4.87704	2.75e+09	1.27e+14	4.68e+09	3.03e+05	6.48e-05
2s*2p*(2)-1s*4s*(1)	4.90211	7.59e+09	6.41e+13	1.80e+13	8.32e+09	4.62e-04
2s*2p_(1)-1s*4s*(1)	4.90840	7.75e+09	6.39e+13	2.00e+13	5.54e+09	2.77e-04
2s*2s*(0)-1s*4p*(1)	4.92616	1.90e+10	2.64e+13	3.83e+14	1.78e+10	4.65e-05

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
4p+ (3/2)-1s+ (1/2)	1.99545	1.57e+13	1.57e+13	0.	0.	4.00e+00
4p_ (1/2)-1s+ (1/2)	1.99589	1.54e+13	1.54e+13	0.	0.	2.00e+00
2p+4d+(1)-1s+2s+(1)	2.01605	3.83e+10	1.44e+14	2.28e+10	1.82e+07	7.98e-04
2p+4d_(0)-1s+2s+(1)	2.01682	3.59e+11	1.43e+14	5.93e+10	1.49e+08	2.51e-03
2p+4d_(1)-1s+2s+(1)	2.01690	2.88e+11	1.43e+14	1.38e+11	8.34e+08	6.02e-03
2p+4d+(2)-1s+2s+(1)	2.01694	2.87e+11	1.44e+14	5.77e+10	5.78e+08	9.98e-03
2p+4d_(2)-1s+2s+(1)	2.01756	2.47e+10	1.45e+14	4.42e+11	3.74e+08	8.45e-04
2p+4s+(2)-1s+2s+(1)	2.01900	4.70e+11	1.43e+14	1.45e+11	2.39e+09	1.85e-02
2p_4d_(1)-1s+2s+(1)	2.02023	4.23e+11	1.39e+14	3.84e+10	3.50e+08	9.12e-03
2p_4d+(2)-1s+2s+(1)	2.02049	1.36e+12	1.31e+14	1.54e+11	7.99e+09	5.19e-02
2p_4d_(2)-1s+2s+(1)	2.02135	9.18e+10	1.35e+14	1.48e+12	4.99e+09	3.38e-03
2s+4p+(1)-1s+2s+(1)	2.02136	3.24e+12	6.81e+13	1.09e+13	1.34e+12	1.23e-01
2s+4p_(0)-1s+2s+(1)	2.02202	9.40e+12	6.11e+13	7.97e+11	1.21e+11	1.52e-01
2s+4p+(2)-1s+2s+(1)	2.02215	1.24e+13	3.68e+13	2.47e+12	3.91e+12	1.58e+00
2s+4p_(1)-1s+2s+(1)	2.02250	1.02e+13	3.38e+13	5.57e+12	4.34e+12	7.80e-01
2p_4s+(0)-1s+2s+(1)	2.02298	4.63e+12	1.04e+14	2.54e+12	1.10e+11	4.35e-02
2p_4s+(1)-1s+2s+(1)	2.02315	2.98e+11	1.05e+14	5.58e+11	4.60e+09	8.25e-03
2p+4p+(0)-1s+2p_(1)	2.02456	5.24e+11	1.54e+14	8.25e+12	2.66e+10	3.23e-03
2p+4d+(1)-1s+2s+(0)	2.02511	1.53e+11	1.44e+14	2.28e+10	7.29e+07	3.19e-03
2p+4p+(2)-1s+2p_(1)	2.02580	1.05e+12	1.52e+14	3.74e+13	1.04e+12	2.79e-02
2p+4d_(1)-1s+2s+(0)	2.02597	1.41e+10	1.43e+14	1.38e+11	4.09e+07	2.95e-04
2p+4p+(1)-1s+2p_(1)	2.02633	7.24e+11	1.51e+14	8.75e+10	1.26e+09	1.43e-02
2p+4p_(1)-1s+2p_(0)	2.02653	3.83e+10	1.59e+14	1.14e+11	8.22e+07	7.20e-04
2p+4p_(2)-1s+2p_(1)	2.02664	1.03e+10	1.56e+14	6.52e+12	2.07e+09	3.18e-04
2p+4p_(1)-1s+2p_(1)	2.02695	2.81e+12	1.59e+14	1.14e+11	6.04e+09	5.29e-02
2p+4s+(1)-1s+2s+(0)	2.02744	1.73e+12	1.29e+14	2.37e+13	8.04e+11	3.39e-02
2p+4p+(2)-1s+2p+(2)	2.02805	2.01e+12	1.52e+14	3.74e+13	1.98e+12	5.30e-02
2p_4f_(2)-1s+2p_(1)	2.02847	1.11e+11	1.40e+14	9.31e+10	3.70e+08	3.97e-03
2s+4d+(2)-1s+2p_(1)	2.02858	2.26e+12	2.93e+13	2.80e+11	1.07e+11	3.82e-01
2p+4p+(1)-1s+2p+(2)	2.02858	1.09e+13	1.51e+14	8.75e+10	1.90e+10	2.17e-01
2s+4d_(1)-1s+2p_(0)	2.02881	2.71e+12	3.18e+13	1.10e+12	2.71e+11	2.47e-01
2p+4p_(2)-1s+2p+(2)	2.02889	1.30e+13	1.56e+14	6.52e+12	2.60e+12	4.00e-01
2p+4p+(3)-1s+2p+(2)	2.02890	1.45e+13	1.52e+14	5.21e+11	3.45e+11	6.62e-01
2p+4p_(1)-1s+2p+(2)	2.02921	3.00e+12	1.59e+14	1.14e+11	6.44e+09	5.64e-02
2p_4d_(1)-1s+2s+(0)	2.02933	2.23e+11	1.39e+14	3.84e+10	1.84e+08	4.80e-03
2p_4p+(1)-1s+2p_(0)	2.02934	5.12e+12	1.29e+14	4.85e+10	5.78e+09	1.19e-01
2s+4d_(2)-1s+2p_(1)	2.02934	1.32e+12	3.34e+13	5.92e+12	9.94e+11	1.68e-01
2p_4p_(0)-1s+2p_(1)	2.02941	1.26e+13	1.33e+14	1.62e+12	1.51e+11	9.34e-02
2p_4p+(1)-1s+2p_(1)	2.02977	4.20e+12	1.29e+14	4.85e+10	4.74e+09	9.77e-02
2p_4p+(2)-1s+2p_(1)	2.03033	1.06e+13	1.20e+14	8.70e+12	3.58e+12	4.12e-01
2s+4p+(1)-1s+2s+(0)	2.03047	5.77e+12	6.81e+13	1.09e+13	2.38e+12	2.19e-01
2p_4p_(1)-1s+2p_(0)	2.03059	6.94e+12	1.38e+14	1.18e+10	1.78e+09	1.51e-01
2p_4f+(3)-1s+2p+(2)	2.03069	8.22e+10	1.39e+14	2.08e+10	8.65e+07	4.15e-03
2p_4p_(1)-1s+2p_(1)	2.03102	5.08e+12	1.38e+14	1.18e+10	1.31e+09	1.10e-01
2s+4s+(0)-1s+2p_(1)	2.03140	2.24e+12	4.32e+13	5.44e+13	1.25e+12	2.29e-02
2s+4d_(1)-1s+2p+(2)	2.03149	4.98e+10	3.18e+13	1.10e+12	4.99e+09	4.54e-03
2s+4s+(1)-1s+2p_(0)	2.03157	4.73e+11	3.41e+13	5.39e+11	2.21e+10	4.10e-02
2s+4d_(2)-1s+2p+(2)	2.03160	1.12e+11	3.34e+13	5.92e+12	8.42e+10	1.42e-02
2s+4p_(1)-1s+2s+(0)	2.03162	2.37e+12	3.38e+13	5.57e+12	1.01e+12	1.82e-01
2s+4d+(3)-1s+2p+(2)	2.03178	8.43e+11	1.68e+13	8.71e+11	2.26e+11	3.37e-01
2s+4s+(1)-1s+2p_(1)	2.03200	2.17e+12	3.41e+13	5.39e+11	1.01e+11	1.88e-01
2p_4p+(1)-1s+2p+(2)	2.03203	1.43e+11	1.29e+14	4.85e+10	1.61e+08	3.33e-03
2p_4s+(1)-1s+2s+(0)	2.03228	4.86e+12	1.05e+14	5.58e+11	7.40e+10	1.33e-01
2p+4f+(2)-1s+2p+(1)	2.03231	7.39e+10	1.47e+14	3.53e+11	8.85e+08	2.51e-03
2p+4p+(0)-1s+2p+(1)	2.03234	1.59e+13	1.54e+14	8.25e+12	8.07e+11	9.77e-02
2p_4p+(2)-1s+2p+(2)	2.03259	1.49e+11	1.20e+14	8.70e+12	5.04e+10	5.80e-03
2p+4f_(2)-1s+2p+(1)	2.03271	6.58e+10	1.47e+14	2.64e+11	5.92e+08	2.24e-03
2p_4p_(1)-1s+2p+(2)	2.03328	5.98e+10	1.38e+14	1.18e+10	1.54e+07	1.30e-03
2p+4p+(2)-1s+2p+(1)	2.03358	1.04e+13	1.52e+14	3.74e+13	1.03e+13	2.75e-01
2p+4p+(1)-1s+2p+(1)	2.03412	2.00e+12	1.51e+14	8.75e+10	3.48e+09	3.97e-02
2s+4s+(1)-1s+2p+(2)	2.03427	5.80e+11	3.41e+13	5.39e+11	2.71e+10	5.03e-02
2p+4p_(2)-1s+2p+(1)	2.03443	1.47e+12	1.56e+14	6.52e+12	2.94e+11	4.51e-02
2p+4p_(1)-1s+2p+(1)	2.03475	8.85e+12	1.59e+14	1.14e+11	1.90e+10	1.66e-01
2s+4d+(2)-1s+2p+(1)	2.03639	3.07e+11	2.93e+13	2.80e+11	1.45e+10	5.19e-02
2s+4d_(1)-1s+2p+(1)	2.03705	8.10e+10	3.18e+13	1.10e+12	8.12e+09	7.38e-03
2s+4d_(2)-1s+2p+(1)	2.03716	1.20e+12	3.34e+13	5.92e+12	9.00e+11	1.52e-01
2p_4p_(0)-1s+2p+(1)	2.03722	1.29e+11	1.33e+14	1.62e+12	1.55e+09	9.60e-04
2p_4p+(1)-1s+2p+(1)	2.03759	2.50e+12	1.29e+14	4.85e+10	2.83e+09	5.82e-02
2p_4p+(2)-1s+2p+(1)	2.03815	7.91e+11	1.20e+14	8.70e+12	2.67e+11	3.07e-02
2p_4p_(1)-1s+2p+(1)	2.03885	9.86e+11	1.38e+14	1.18e+10	2.53e+08	2.14e-02
2s+4s+(0)-1s+2p+(1)	2.03923	1.77e+12	4.32e+13	5.44e+13	9.86e+11	1.81e-02
2s+4s+(1)-1s+2p+(1)	2.03984	1.27e+11	3.41e+13	5.39e+11	5.93e+09	1.10e-02
3p+ (3/2)-1s+ (1/2)	2.10421	3.94e+13	3.94e+13	0.	0.	4.00e+00
3p_ (1/2)-1s+ (1/2)	2.10536	3.86e+13	3.86e+13	0.	0.	2.00e+00
2p+3d+(1)-1s+2s+(1)	2.11481	8.84e+10	1.41e+14	4.07e+11	7.63e+08	1.88e-03

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p+3d_(0)-1s+2s+(1)	2.11751	2.02e+12	1.39e+14	4.26e+10	6.19e+08	1.45e-02
2p+3d_(1)-1s+2s+(1)	2.11769	1.87e+12	1.39e+14	4.60e+11	1.85e+10	4.01e-02
2p+3d+(2)-1s+2s+(1)	2.11781	2.08e+12	1.39e+14	4.15e+10	3.08e+09	7.42e-02
2p+3d_(2)-1s+2s+(1)	2.11986	5.25e+11	1.44e+14	5.59e+11	1.01e+10	1.81e-02
2p_3d_(1)-1s+2s+(1)	2.12158	8.37e+11	1.42e+14	5.23e+12	8.91e+10	1.70e-02
2p_3d+(2)-1s+2s+(1)	2.12222	2.25e+12	1.38e+14	4.13e+11	3.35e+10	8.11e-02
2p+3p+(0)-1s+2p_(1)	2.12385	7.98e+10	1.62e+14	1.38e+13	6.17e+09	4.54e-04
2p+3s+(2)-1s+2s+(1)	2.12442	1.25e+11	1.47e+14	1.19e+12	5.02e+09	4.22e-03
2p_3d_(2)-1s+2s+(1)	2.12473	7.93e+10	1.45e+14	3.38e+12	9.09e+09	2.68e-03
2p+3d+(1)-1s+2s+(0)	2.12478	9.77e+11	1.41e+14	4.07e+11	8.43e+09	2.07e-02
2s+3p+(1)-1s+2s+(1)	2.12628	8.78e+12	1.08e+14	4.98e+12	1.15e+12	2.33e-01
2s+3p+(2)-1s+2s+(1)	2.12685	3.24e+13	5.31e+13	6.73e+12	1.82e+13	2.71e+00
2p+3p+(2)-1s+2p_(1)	2.12731	1.92e+11	1.28e+14	9.67e+13	4.27e+11	4.42e-03
2s+3p_(0)-1s+2s+(1)	2.12737	2.43e+13	7.82e+13	2.01e+12	6.09e+11	3.04e-01
2p+3d_(1)-1s+2s+(0)	2.12788	6.61e+10	1.39e+14	4.80e+11	6.54e+08	1.42e-03
2s+3p_(1)-1s+2s+(1)	2.12782	2.53e+13	6.68e+13	1.08e+13	1.04e+13	9.82e-01
2p_3s+(0)-1s+2s+(1)	2.12848	1.06e+13	1.12e+14	7.28e+12	6.36e+11	8.84e-02
2p+3p+(1)-1s+2p_(0)	2.12971	8.88e+10	1.59e+14	7.85e+10	1.28e+08	1.67e-03
2p+3p+(2)-1s+2p_(1)	2.12979	1.10e+12	1.20e+14	9.67e+13	2.46e+12	2.54e-02
2p_3s+(1)-1s+2s+(1)	2.12985	2.29e+11	9.92e+13	1.42e+12	9.67e+09	6.82e-03
2p+3s+(1)-1s+2p_(1)	2.13019	2.41e+12	1.59e+14	7.65e+10	3.48e+09	4.54e-02
2p+3p+(2)-1s+2p_(1)	2.13024	2.27e+12	1.54e+14	1.04e+11	7.70e+09	7.37e-02
2p+3s+(1)-1s+2s+(0)	2.13027	1.07e+13	1.09e+14	8.17e+13	1.37e+13	1.67e-01
2p+3p_(1)-1s+2p_(0)	2.13117	1.36e+12	1.63e+14	5.80e+11	1.45e+10	2.49e-02
2s+3d+(2)-1s+2p_(1)	2.13156	2.03e+12	7.59e+13	2.80e+13	2.74e+12	9.79e-02
2p_3d_(1)-1s+2s+(0)	2.13162	2.17e+11	1.42e+14	5.23e+12	2.31e+10	4.41e-03
2p+3p_(1)-1s+2p_(1)	2.13164	1.28e+13	1.63e+14	5.80e+11	1.36e+11	2.34e-01
2s+3d_(1)-1s+2p_(0)	2.13236	9.92e+12	5.43e+13	1.95e+12	1.03e+12	5.28e-01
2p+3p+(0)-1s+2p+(1)	2.13241	3.08e+13	1.62e+14	1.38e+13	2.38e+12	1.75e-01
2p+3p+(1)-1s+2p+(2)	2.13267	2.83e+13	1.59e+14	7.85e+10	4.08e+10	5.33e-01
2p+3p+(2)-1s+2p+(2)	2.13272	2.89e+13	1.54e+14	1.04e+11	9.14e+10	8.75e-01
2s+3d_(2)-1s+2p_(1)	2.13282	7.08e+12	5.98e+13	2.78e+13	1.12e+13	4.05e-01
2s+3d_(1)-1s+2p_(1)	2.13284	4.35e+11	5.43e+13	1.95e+12	4.53e+10	2.32e-02
2p_3p_(0)-1s+2p_(1)	2.13325	3.22e+13	1.70e+14	2.68e+12	4.95e+11	1.86e-01
2p+3p+(3)-1s+2p+(2)	2.13340	2.62e+13	1.19e+14	1.93e+12	2.92e+12	1.51e+00
2s+3d+(2)-1s+2p+(2)	2.13405	4.56e+12	7.59e+13	2.80e+13	6.15e+12	2.19e-01
2p+3p_(1)-1s+2p+(2)	2.13413	5.10e+12	1.63e+14	5.80e+11	5.44e+10	9.37e-02
2p_3p+(1)-1s+2p_(0)	2.13424	9.70e+12	1.53e+14	9.68e+10	1.84e+10	1.90e-01
2p_3p+(1)-1s+2p_(1)	2.13471	3.44e+12	1.53e+14	9.68e+10	6.53e+09	6.75e-02
2s+3d_(2)-1s+2p+(2)	2.13532	6.01e+11	5.98e+13	2.78e+13	9.50e+11	3.44e-02
2s+3d_(1)-1s+2p+(2)	2.13533	3.55e+11	5.43e+13	1.95e+12	3.69e+10	1.89e-02
2p+3p+(2)-1s+2p+(1)	2.13580	1.90e+13	1.20e+14	9.67e+13	4.24e+13	4.38e-01
2p_3p+(2)-1s+2p_(1)	2.13582	2.73e+13	1.40e+14	6.04e+12	5.66e+12	9.37e-01
2s+3p+(1)-1s+2s+(0)	2.13637	5.83e+12	1.08e+14	4.96e+12	7.40e+11	1.49e-01
2s+3d+(3)-1s+2p+(2)	2.13668	1.42e+13	6.40e+13	5.88e+11	9.04e+11	1.54e+00
2p_3p_(1)-1s+2p_(0)	2.13718	1.65e+13	1.62e+14	1.72e+10	5.22e+09	3.04e-01
2p_3p_(1)-1s+2p_(1)	2.13763	1.53e+13	1.62e+14	1.72e+10	4.85e+09	2.82e-01
2s+3p_(1)-1s+2s+(0)	2.13792	1.13e+12	6.66e+13	1.06e+13	4.64e+11	4.37e-02
2s+3s+(0)-1s+2p_(1)	2.13802	2.71e+12	4.09e+13	1.81e+14	2.18e+12	1.34e-02
2p_3p+(2)-1s+2p+(2)	2.13842	3.18e+12	1.40e+14	6.04e+12	6.56e+11	1.09e-01
2p+3p+(1)-1s+2p+(1)	2.13860	2.91e+12	1.59e+14	7.65e+10	4.20e+09	5.48e-02
2p+3p+(2)-1s+2p+(1)	2.13885	3.68e+11	1.54e+14	1.04e+11	1.25e+09	1.20e-02
2p_3s+(1)-1s+2s+(0)	2.13906	1.82e+13	9.92e+13	1.42e+12	7.69e+11	5.42e-01
2s+3s+(1)-1s+2p_(0)	2.14002	1.01e+12	4.11e+13	1.13e+12	8.11e+10	7.15e-02
2p_3p_(1)-1s+2p+(2)	2.14014	3.81e+11	1.62e+14	1.72e+10	1.21e+08	7.03e-03
2s+3d+(2)-1s+2p+(1)	2.14019	9.26e+12	7.59e+13	2.80e+13	1.25e+13	4.45e-01
2p+3p_(1)-1s+2p+(1)	2.14027	1.39e+13	1.63e+14	5.80e+11	1.48e+11	2.56e-01
2s+3s+(1)-1s+2p_(1)	2.14050	4.41e+12	4.11e+13	1.13e+12	3.56e+11	3.14e-01
2s+3d_(2)-1s+2p+(1)	2.14146	4.22e+12	5.98e+13	2.78e+13	6.67e+12	2.42e-01
2s+3d_(1)-1s+2p+(1)	2.14147	1.89e+11	5.43e+13	1.95e+12	1.97e+10	1.01e-02
2p_3p_(0)-1s+2p+(1)	2.14188	1.47e+11	1.70e+14	2.86e+12	2.28e+09	8.49e-04
2s+3s+(1)-1s+2p+(2)	2.14301	3.38e+12	4.11e+13	1.13e+12	2.72e+11	2.40e-01
2p_3p+(1)-1s+2p+(1)	2.14336	2.07e+13	1.53e+14	9.68e+10	3.92e+10	4.05e-01
2p_3p+(2)-1s+2p+(1)	2.14458	1.21e+10	1.40e+14	6.04e+12	2.52e+09	4.16e-04
2p_3p_(1)-1s+2p+(1)	2.14630	3.73e+12	1.62e+14	1.72e+10	1.18e+09	6.89e-02
2s+3s+(0)-1s+2p+(1)	2.14670	4.96e+12	4.09e+13	1.81e+14	3.95e+12	2.46e-02
2s+3s+(1)-1s+2p+(1)	2.14919	1.11e+11	4.11e+13	1.13e+12	8.92e+09	7.87e-03
2p+4d+(1)-1s+3s+(0)	2.34963	5.10e+09	1.44e+14	2.28e+10	2.42e+08	1.06e-04
2p+4s+(2)-1s+3s+(1)	2.35059	2.30e+10	1.43e+14	1.45e+11	1.17e+08	8.06e-04
2p+4d+(1)-1s+3d+(2)	2.35269	2.95e+10	1.44e+14	2.28e+10	1.40e+07	6.14e-04
2p+4s+(1)-1s+3s+(0)	2.35276	1.03e+10	1.29e+14	2.37e+13	4.81e+09	2.03e-04
2p+4p_(2)-1s+3p_(1)	2.35277	3.05e+10	1.56e+14	6.52e+12	6.10e+09	9.35e-04
2p+4p+(0)-1s+3p+(1)	2.35291	1.14e+11	1.54e+14	8.25e+12	5.81e+09	7.04e-04
2p+4p_(1)-1s+3p_(0)	2.35303	1.34e+10	1.59e+14	1.14e+11	2.88e+07	2.52e-04
2p+4d+(3)-1s+3d+(2)	2.35307	1.78e+10	1.46e+14	8.70e+12	7.02e+09	8.07e-04

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2p*4p*(1)-1s*3p*(2)	2.35326	2.40e+10	1.51e+14	8.75e+10	4.17e+07	4.77e-04
2p*4p*(3)-1s*3p*(2)	2.35369	1.31e+11	1.52e+14	5.21e+11	3.12e+09	5.98e-03
2s*4p*(1)-1s*3s*(1)	2.35379	1.71e+10	6.81e+13	1.09e+13	7.07e+09	6.51e-04
2p*4d_(3)-1s*3d_(2)	2.35391	1.55e+10	1.45e+14	1.14e+12	8.43e+08	7.41e-04
2p*4d_(2)-1s*3d_(1)	2.35429	1.60e+10	1.45e+14	4.42e+11	2.43e+08	5.49e-04
2p*4d_(3)-1s*3d*(2)	2.35437	1.24e+10	1.45e+14	1.14e+12	6.76e+08	5.94e-04
2p*4d*(4)-1s*3d*(3)	2.35462	8.25e+10	1.42e+14	2.06e+12	1.06e+10	5.15e-03
2p*4d_(2)-1s*3d*(2)	2.35474	1.83e+10	1.45e+14	4.42e+11	2.78e+08	6.28e-04
2p*4p*(1)-1s*3p*(1)	2.35530	3.46e+10	1.51e+14	8.75e+10	6.00e+07	8.85e-04
2s*4d*(2)-1s*3p_(1)	2.35539	1.47e+10	2.93e+13	2.80e+11	6.95e+08	2.48e-03
2p*4s*(1)-1s*3d*(2)	2.35583	2.74e+10	1.29e+14	2.37e+13	1.27e+10	5.37e-04
2s*4d_(1)-1s*3p_(0)	2.35610	1.41e+10	3.18e+13	1.10e+12	1.41e+09	1.28e-03
2p*4p_(1)-1s*3p*(1)	2.35614	1.32e+11	1.59e+14	1.14e+11	2.84e+08	2.49e-03
2p_4p*(1)-1s*3p_(0)	2.35682	4.06e+09	1.29e+14	4.85e+10	4.59e+08	9.45e-05
2s*4p*(1)-1s*3s*(0)	2.35685	2.95e+10	6.81e+13	1.09e+13	1.22e+10	1.12e-03
2s*4f*(3)-1s*3d_(2)	2.35738	1.77e+10	4.72e+11	4.67e+09	1.22e+08	2.60e-01
2s*4f_(3)-1s*3d_(2)	2.35754	5.45e+10	2.49e+13	7.25e+11	1.08e+10	1.49e-02
2s*4f_(2)-1s*3d_(1)	2.35761	4.33e+10	1.21e+13	1.71e+11	3.01e+09	1.76e-02
2p_4p*(2)-1s*3p_(1)	2.35775	4.39e+10	1.20e+14	8.70e+12	1.48e+10	1.71e-03
2s*4f*(3)-1s*3d*(2)	2.35784	6.93e+10	4.72e+11	4.67e+09	4.76e+08	1.02e+00
2s*4f*(4)-1s*3d*(3)	2.35808	2.12e+10	3.38e+12	1.18e+10	6.61e+08	5.62e-02
2s*4p_(1)-1s*3s*(0)	2.35839	2.12e+10	3.38e+13	5.57e+12	9.03e+09	1.62e-03
2p_4p_(1)-1s*3p_(0)	2.35851	5.42e+10	1.38e+14	1.18e+10	1.39e+07	1.18e-03
2p_4d*(3)-1s*3d_(2)	2.35861	1.27e+10	1.21e+14	2.54e+12	1.83e+09	7.20e-04
2p_4p*(2)-1s*3p*(2)	2.35865	1.37e+10	1.20e+14	8.70e+12	4.63e+09	5.33e-04
2p_4p_(1)-1s*3p_(1)	2.35868	5.24e+10	1.38e+14	1.18e+10	1.35e+07	1.14e-03
2p_4s*(1)-1s*3s*(0)	2.35928	9.50e+10	1.09e+14	5.58e+11	1.51e+09	2.70e-03
2s_4d_(2)-1s*3d_(1)	2.35945	2.58e+10	1.35e+14	1.48e+12	1.41e+09	9.54e-04
2p_4p_(0)-1s*3p*(1)	2.35946	5.28e+10	1.33e+14	1.52e+12	8.34e+08	3.92e-04
2p_4p*(1)-1s*3p*(1)	2.35995	6.54e+10	1.29e+14	4.85e+10	7.38e+07	1.52e-03
2s*4s*(1)-1s*3p_(1)	2.36080	1.89e+10	3.41e+13	5.39e+11	8.82e+08	1.64e-03
2p_4p_(1)-1s*3p*(1)	2.36164	2.28e+10	1.38e+14	1.18e+10	5.86e+06	4.95e-04
2s*4s*(0)-1s*3p*(1)	2.36215	4.74e+10	4.32e+13	5.44e+13	2.64e+10	4.85e-04
2p*3d*(1)-1s*3s*(1)	2.48147	7.68e+10	1.41e+14	4.07e+11	6.63e+08	1.83e-03
2p*3p*(0)-1s*3p_(1)	2.48461	1.92e+11	1.62e+14	1.36e+13	1.49e+10	1.09e-03
2p*3d*(1)-1s*3s*(0)	2.48487	6.73e+09	1.41e+14	4.07e+11	5.80e+07	1.43e-04
2p*3d_(0)-1s*3s*(1)	2.48518	2.15e+12	1.38e+14	4.26e+10	6.56e+08	1.55e-02
2p*3d_(1)-1s*3s*(1)	2.48543	2.81e+12	1.39e+14	4.60e+11	2.78e+10	6.04e-02
2p*3d*(2)-1s*3s*(1)	2.48560	4.30e+12	1.39e+14	4.15e+10	6.43e+09	1.55e-01
2p*2p*(0)-1s*2p_(1)	2.48636	9.46e+10	2.39e+14	2.07e+13	7.53e+09	3.84e-04
2p*4s*(1)-1s*4s*(1)	2.48774	1.73e+11	1.44e+14	2.28e+10	8.24e+07	3.61e-03
2p*3d*(1)-1s*3d_(2)	2.48778	8.39e+12	1.41e+14	4.07e+11	8.11e+10	1.99e-01
2p*3d*(1)-1s*3d_(1)	2.48779	1.14e+12	1.41e+14	4.07e+11	9.88e+08	2.43e-02
2p*3p*(0)-1s*3p*(1)	2.48809	1.31e+14	1.62e+14	1.36e+13	1.01e+13	7.46e-01
2p*3d*(1)-1s*3d*(2)	2.48829	1.29e+14	1.41e+14	4.07e+11	1.12e+12	2.74e+00
2p*3d_(2)-1s*3s*(1)	2.48842	1.39e+12	1.44e+14	5.59e+11	2.68e+10	4.80e-02
2p*3d*(3)-1s*3d_(2)	2.48878	4.74e+13	1.48e+14	2.02e+13	4.05e+13	2.00e+00
2p*3d_(1)-1s*3s*(0)	2.48884	5.20e+11	1.38e+14	4.60e+11	5.14e+08	1.12e-02
2p*4d_(0)-1s*4s*(1)	2.48891	6.65e+11	1.43e+14	5.93e+10	2.76e+08	4.65e-03
2p*3s*(1)-1s*3s*(1)	2.48895	6.58e+12	1.08e+14	8.17e+13	8.45e+12	1.03e-01
2p*4d_(1)-1s*4s*(1)	2.48904	1.23e+12	1.43e+14	1.36e+11	3.55e+09	2.57e-02
2p*4d*(1)-1s*4s*(0)	2.48907	1.66e+11	1.44e+14	2.28e+10	7.89e+07	3.46e-03
2p*4d*(2)-1s*4s*(1)	2.48909	2.79e+12	1.44e+14	5.77e+10	5.60e+09	9.72e-02
2p*3d*(3)-1s*3d*(3)	2.48918	1.16e+13	1.48e+14	2.02e+13	9.68e+12	4.88e-01
2p*3d*(3)-1s*3d*(2)	2.48929	8.65e+13	1.46e+14	2.02e+13	7.38e+13	3.65e+00
2p*4f*(2)-1s*4p_(1)	2.48935	5.23e+10	1.47e+14	3.53e+11	6.26e+08	1.77e-03
2p*4p*(0)-1s*4p_(1)	2.48939	4.46e+12	1.54e+14	8.25e+12	2.27e+11	2.75e-02
2p*3p*(2)-1s*3p_(1)	2.48954	2.01e+12	1.20e+14	9.67e+13	4.48e+12	4.63e-02
2p*4f*(2)-1s*4p*(2)	2.48979	1.19e+11	1.47e+14	3.53e+11	1.42e+09	4.02e-03
2p*4f_(2)-1s*4p_(1)	2.48995	5.59e+10	1.47e+14	2.64e+11	5.02e+08	1.90e-03
2p*4d_(2)-1s*4s*(1)	2.49003	3.48e+11	1.45e+14	4.42e+11	5.27e+09	1.19e-02
2p*4d*(1)-1s*4d_(2)	2.49036	1.03e+12	1.44e+14	2.28e+10	4.88e+08	2.14e-02
2p*4d*(1)-1s*4d_(1)	2.49036	1.98e+12	1.44e+14	2.28e+10	9.41e+08	4.13e-02
2p*4d_(1)-1s*4s*(0)	2.49037	4.58e+11	1.43e+14	1.38e+11	1.32e+09	9.54e-03
2p*4f_(2)-1s*4p*(2)	2.49039	1.29e+11	1.47e+14	2.64e+11	1.16e+09	4.38e-03
2p*3p*(2)-1s*3p*(2)	2.49055	1.13e+13	1.20e+14	9.67e+13	2.52e+13	2.61e-01
2p*4d*(1)-1s*4d*(2)	2.49058	1.40e+14	1.44e+14	2.28e+10	6.67e+10	2.93e+00
2p*4f*(2)-1s*4p*(1)	2.49068	7.89e+11	1.47e+14	3.53e+11	9.44e+09	2.67e-02
2p*4p*(0)-1s*4p*(1)	2.49072	1.33e+14	1.54e+14	8.25e+12	6.77e+12	8.20e-01
2p*4f*(2)-1s*4f_(3)	2.49074	9.43e+10	1.47e+14	3.53e+11	1.13e+09	3.20e-03
2p*4f*(2)-1s*4f_(2)	2.49075	1.88e+12	1.47e+14	3.53e+11	2.25e+10	6.38e-02
2p*4d*(3)-1s*4d_(2)	2.49078	4.60e+13	1.46e+14	8.70e+12	1.81e+13	2.09e+00
2p_3d_(1)-1s*3s*(1)	2.49080	2.35e+10	1.42e+14	5.23e+12	2.50e+09	4.77e-04
2p*4f*(2)-1s*4f*(3)	2.49084	1.44e+14	1.47e+14	3.53e+11	1.72e+12	4.89e+00
2p*4f_(1)-1s*4f_(2)	2.49094	1.47e+14	1.47e+14	1.77e+07	5.31e+07	3.00e+00

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2p*4d*(3)-1s*4d*(3)	2.49096	3.05e+13	1.46e+14	8.70e+12	1.20e+13	1.38e+00
2p*4d*(3)-1s*4d*(2)	2.49101	6.91e+13	1.46e+14	8.70e+12	2.73e+13	3.13e+00
2p*4f_(4)-1s*4f_(3)	2.49114	1.14e+14	1.46e+14	3.69e+11	2.59e+12	7.02e+00
2p*4f_(4)-1s*4f*(4)	2.49123	1.59e+13	1.46e+14	3.69e+11	3.62e+11	9.82e-01
2p*4f_(4)-1s*4f*(3)	2.49124	1.58e+13	1.46e+14	3.69e+11	3.58e+11	9.72e-01
2p*4s*(1)-1s*4s*(1)	2.49125	2.82e+13	1.29e+14	2.37e+13	1.31e+13	5.52e-01
2p*4p*(2)-1s*4p_(1)	2.49126	9.84e+11	1.52e+14	3.74e+13	9.54e+11	2.55e-02
2p*4f_(2)-1s*4p*(1)	2.49128	5.82e+11	1.47e+14	2.64e+11	5.26e+09	1.98e-02
2p*4f*(3)-1s*4f_(3)	2.49133	6.64e+12	1.47e+14	4.82e+06	1.53e+06	3.17e-01
2p*4f_(2)-1s*4f_(3)	2.49134	4.38e+13	1.47e+14	2.64e+11	3.94e+11	1.49e+00
2p*4f*(3)-1s*4f_(2)	2.49134	4.34e+12	1.47e+14	4.82e+06	9.99e+05	2.07e-01
2p*4f_(2)-1s*4f_(2)	2.49135	1.01e+14	1.47e+14	2.64e+11	9.04e+11	3.42e+00
2p*4f*(5)-1s*4f*(4)	2.49138	1.45e+14	1.45e+14	2.26e+11	2.40e+12	1.10e+01
2p*4f*(3)-1s*4f*(4)	2.49142	4.47e+13	1.47e+14	4.82e+06	1.03e+07	2.13e+00
2p* (3/2)-1s* (1/2)	2.49143	1.48e+14	1.48e+14	0.	0.	4.00e+00
2p*4f*(3)-1s*4f*(3)	2.49143	9.09e+13	1.47e+14	4.82e+06	2.09e+07	4.34e+00
2p*4f_(2)-1s*4f*(3)	2.49144	1.61e+12	1.47e+14	2.64e+11	1.44e+10	5.46e-02
2p*3d_(0)-1s*3d_(1)	2.49152	1.35e+14	1.39e+14	4.28e+10	4.13e+10	9.70e-01
2p*4d_(0)-1s*4d_(1)	2.49154	1.42e+14	1.43e+14	5.93e+10	5.89e+10	9.92e-01
2p*4f*(4)-1s*4f_(3)	2.49181	3.16e+13	1.46e+14	8.37e+10	1.63e+11	1.95e+00
2p*4d_(1)-1s*4d_(2)	2.49186	3.20e+13	1.43e+14	1.38e+11	9.26e+10	6.69e-01
2p*4d_(1)-1s*4d_(1)	2.49188	1.07e+14	1.43e+14	1.38e+11	3.09e+11	2.23e+00
2p_3d*(2)-1s*3s*(1)	2.49188	1.17e+13	1.39e+14	4.13e+11	1.74e+11	4.21e-01
2p*4p*(2)-1s*4p*(2)	2.49170	4.38e+13	1.52e+14	3.74e+13	4.33e+13	1.16e+00
2p*4f*(4)-1s*4f*(4)	2.49170	8.14e+13	1.46e+14	8.37e+10	3.16e+11	3.78e+00
2p*4d*(2)-1s*4d_(2)	2.49171	3.55e+13	1.44e+14	5.77e+10	7.13e+10	1.24e+00
2p*4d*(2)-1s*4d_(1)	2.49171	1.94e+13	1.44e+14	5.77e+10	3.90e+10	6.76e-01
2p*4f*(4)-1s*4f*(3)	2.49171	5.31e+13	1.46e+14	8.37e+10	2.74e+11	3.27e+00
2p*4f_(3)-1s*4f_(3)	2.49174	8.95e+13	1.46e+14	6.63e+10	2.20e+11	3.32e+00
2p*4f_(3)-1s*4f_(2)	2.49174	6.58e+13	1.46e+14	6.63e+10	2.09e+11	3.15e+00
2p*3d_(1)-1s*3d_(2)	2.49176	4.08e+13	1.39e+14	4.60e+11	4.04e+11	8.78e-01
2p*3d_(1)-1s*3d_(1)	2.49178	8.06e+13	1.39e+14	4.60e+11	8.57e+11	1.86e+00
2p*4f_(3)-1s*4f*(4)	2.49183	2.67e+12	1.46e+14	6.63e+10	8.68e+09	1.28e-01
2p*4f_(3)-1s*4f*(3)	2.49184	8.29e+12	1.46e+14	6.63e+10	2.63e+10	3.97e-01
2p*4d*(2)-1s*4d*(3)	2.49188	2.85e+13	1.44e+14	5.77e+10	5.72e+10	9.93e-01
2p*4d_(1)-1s*4d*(2)	2.49188	2.57e+12	1.43e+14	1.38e+11	7.44e+09	5.37e-02
2p*3d*(2)-1s*3d_(2)	2.49193	3.43e+13	1.39e+14	4.15e+10	5.12e+10	1.23e+00
2p*4d*(2)-1s*4d*(2)	2.49193	5.70e+13	1.44e+14	5.77e+10	1.15e+11	1.99e+00
2p*3d*(2)-1s*3d_(1)	2.49194	1.37e+13	1.39e+14	4.15e+10	2.05e+10	4.93e-01
2p*4p*(1)-1s*4p_(0)	2.49198	3.40e+13	1.51e+14	8.75e+10	5.89e+10	6.74e-01
2p*4p*(1)-1s*4p_(1)	2.49207	5.39e+13	1.51e+14	8.75e+10	9.36e+10	1.07e+00
2s*2s*(1)-1s*2s*(1)	2.49212	2.39e+12	1.43e+14	2.14e+14	4.30e+12	2.01e-02
2p*4s*(2)-1s*4s*(1)	2.49224	1.33e+14	1.43e+14	1.45e+11	6.75e+11	4.65e+00
2p*4d_(3)-1s*4d_(2)	2.49224	8.93e+13	1.45e+14	1.14e+12	4.88e+12	4.27e+00
2p*3d_(1)-1s*3d*(2)	2.49227	6.36e+12	1.39e+14	4.60e+11	6.28e+10	1.37e-01
2p*3d*(2)-1s*3d*(3)	2.49233	4.13e+13	1.38e+14	4.15e+10	6.18e+10	1.48e+00
2p*3s*(1)-1s*3s*(0)	2.49237	8.14e+13	1.09e+14	8.17e+13	1.05e+14	1.28e+00
2p*4d_(3)-1s*4d*(3)	2.49242	4.47e+13	1.45e+14	1.14e+12	2.43e+12	2.14e+00
2p*3d*(2)-1s*3d*(2)	2.49244	4.32e+13	1.39e+14	4.15e+10	6.46e+10	1.56e+00
2p*4d_(3)-1s*4d*(2)	2.49247	1.12e+13	1.45e+14	1.14e+12	6.12e+11	5.38e-01
2p*4p*(1)-1s*4p*(2)	2.49251	1.82e+13	1.51e+14	8.75e+10	3.16e+10	3.61e-01
2p*4p_(2)-1s*4p_(1)	2.49253	1.18e+14	1.56e+14	6.52e+12	2.38e+13	3.62e+00
2p*4s*(1)-1s*4s*(0)	2.49259	9.73e+13	1.29e+14	2.37e+13	4.52e+13	1.91e+00
2p*4p*(2)-1s*4p*(1)	2.49259	9.18e+13	1.52e+14	3.74e+13	9.07e+13	2.43e+00
2p*4p*(2)-1s*4f_(3)	2.49285	2.90e+10	1.52e+14	3.74e+13	2.87e+10	7.67e-04
2p*4d_(2)-1s*4d_(2)	2.49286	4.09e+13	1.45e+14	4.42e+11	6.20e+11	1.40e+00
2p*4d_(2)-1s*4d_(1)	2.49288	5.07e+13	1.45e+14	4.42e+11	7.88e+11	1.74e+00
2p*4p*(2)-1s*4f_(2)	2.49290	5.70e+11	1.52e+14	3.74e+13	5.84e+11	1.51e-02
2p*4p*(2)-1s*4f*(3)	2.49278	1.07e+12	1.52e+14	3.74e+13	1.06e+12	2.84e-02
2p*4d*(4)-1s*4d*(3)	2.49281	1.42e+14	1.42e+14	2.06e+12	1.83e+13	8.87e+00
2p*4d_(2)-1s*4d*(3)	2.49283	1.60e+13	1.45e+14	4.42e+11	2.42e+11	5.47e-01
2p*3p*(2)-1s*3p*(1)	2.49284	8.65e+13	1.20e+14	9.67e+13	1.93e+14	1.98e+00
2p*4d_(2)-1s*4d*(2)	2.49288	3.75e+13	1.45e+14	4.42e+11	5.88e+11	1.28e+00
2p*4p_(1)-1s*4p_(0)	2.49293	6.17e+13	1.59e+14	1.14e+11	1.32e+11	1.16e+00
2p*4p_(2)-1s*4p*(2)	2.49298	2.17e+13	1.56e+14	6.52e+12	4.34e+12	6.66e-01
2p*4p*(3)-1s*4p*(2)	2.49299	1.38e+14	1.52e+14	5.21e+11	3.28e+12	6.31e+00
2p*4p_(1)-1s*4p_(1)	2.49301	4.89e+12	1.59e+14	1.14e+11	1.05e+10	9.20e-02
2p*3p*(1)-1s*3p_(0)	2.49329	3.52e+13	1.59e+14	7.65e+10	5.08e+10	6.63e-01
2p*4p*(1)-1s*4p*(1)	2.49340	3.14e+13	1.51e+14	8.75e+10	5.45e+10	6.22e-01
2p*4p_(1)-1s*4p*(2)	2.49345	1.63e+13	1.59e+14	1.14e+11	3.49e+10	3.06e-01
2p*3p*(1)-1s*3p_(1)	2.49348	5.58e+13	1.59e+14	7.65e+10	8.05e+10	1.05e+00
2p*3d*(3)-1s*3d_(2)	2.49354	6.05e+13	1.46e+14	1.42e+12	4.06e+12	2.87e+00
2p*3p*(2)-1s*3p_(1)	2.49355	5.22e+13	1.54e+14	1.04e+11	1.77e+11	1.69e+00
2s*4f_(2)-1s*4s*(1)	2.49375	1.46e+11	1.21e+13	1.71e+11	1.02e+10	5.95e-02
2p*4p_(2)-1s*4p*(1)	2.49387	2.08e+12	1.56e+14	6.52e+12	4.17e+11	6.39e-02

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p*4s*(1)-1s*4d_(1)	2.49388	2.08e+12	1.29e+14	2.37e+13	9.66e+11	4.08e-02
2p*3d*(3)-1s*3d*(3)	2.49394	7.93e+13	1.46e+14	1.42e+12	5.32e+12	3.76e+00
2p*4p_(2)-1s*4f_(2)	2.49394	2.03e+10	1.56e+14	6.52e+12	4.06e+09	6.22e-04
2p*4p_(2)-1s*4f*(3)	2.49403	7.84e+10	1.56e+14	6.52e+12	1.57e+10	2.41e-03
2p*3d*(3)-1s*3d*(2)	2.49405	6.42e+12	1.46e+14	1.42e+12	4.31e+11	3.05e-01
2p*4p*(3)-1s*4f*(3)	2.49405	2.00e+10	1.52e+14	5.21e+11	4.78e+08	9.18e-04
2p*4s*(1)-1s*4d*(2)	2.49411	2.04e+10	1.29e+14	2.37e+13	9.49e+09	4.00e-04
2p_3d_(1)-1s*3s*(0)	2.49422	7.38e+12	1.42e+14	5.23e+12	7.85e+11	1.50e-01
2p*4p_(1)-1s*4p*(1)	2.49435	6.17e+13	1.59e+14	1.14e+11	1.32e+11	1.16e+00
2p*3p*(1)-1s*3p*(2)	2.49450	1.71e+13	1.59e+14	7.65e+10	2.47e+10	3.23e-01
2p_4d*(2)-1s*4s*(1)	2.49451	8.40e+12	1.31e+14	1.54e+11	4.94e+10	3.20e-01
2p*3p*(2)-1s*3p*(2)	2.49456	6.86e+13	1.54e+14	1.04e+11	2.33e+11	2.23e+00
2p*3s*(2)-1s*3s*(1)	2.49471	1.10e+14	1.47e+14	1.19e+12	4.43e+12	3.72e+00
2p*3d_(2)-1s*3d_(2)	2.49476	4.89e+13	1.44e+14	5.59e+11	9.42e+11	1.69e+00
2p*3d_(2)-1s*3d_(1)	2.49478	4.62e+13	1.44e+14	5.59e+11	8.92e+11	1.60e+00
2p*4s*(2)-1s*4d_(2)	2.49486	3.16e+11	1.43e+14	1.45e+11	1.61e+09	1.11e-02
2p*4s*(2)-1s*4d_(1)	2.49486	2.46e+11	1.43e+14	1.45e+11	1.25e+09	8.64e-03
2p*4s*(2)-1s*4d*(3)	2.49504	4.46e+11	1.43e+14	1.45e+11	2.27e+09	1.56e-02
2p*4s*(2)-1s*4d*(2)	2.49509	8.39e+12	1.43e+14	1.45e+11	4.27e+10	2.94e-01
2p_3d_(2)-1s*3s*(1)	2.49514	1.46e+13	1.45e+14	3.39e+12	1.69e+12	4.99e-01
2p*3d_(2)-1s*3d*(3)	2.49517	3.94e+13	1.44e+14	5.59e+11	7.60e+11	1.36e+00
2p*3d_(2)-1s*3d*(2)	2.49528	7.84e+12	1.44e+14	5.59e+11	1.51e+11	2.71e-01
2p*3p_(1)-1s*3p_(0)	2.49529	5.69e+13	1.63e+14	5.80e+11	6.05e+11	1.04e+00
2p*3s*(1)-1s*3d_(2)	2.49530	1.05e+12	1.09e+14	8.17e+13	1.35e+12	1.65e-02
2p*3s*(1)-1s*3d_(1)	2.49531	7.37e+12	1.09e+14	8.17e+13	9.46e+12	1.16e-01
2p_4f_(2)-1s*4p_(1)	2.49531	9.64e+10	1.40e+14	9.31e+10	3.21e+08	3.45e-03
2s*3d*(2)-1s*3p_(1)	2.49537	4.24e+13	7.59e+13	2.60e+13	5.72e+13	2.04e+00
2p_4d_(1)-1s*4s*(0)	2.49545	2.41e+12	1.39e+14	3.84e+10	1.99e+09	5.19e-02
2s*4d*(2)-1s*4p_(1)	2.49548	7.64e+12	2.93e+13	2.80e+11	3.61e+11	1.29e+00
2p*3p_(1)-1s*3p_(1)	2.49548	2.35e+12	1.63e+14	5.80e+11	2.50e+10	4.31e-02
2p*3s*(3)-1s*3p*(2)	2.49549	9.31e+13	1.19e+14	1.93e+12	1.04e+13	5.37e+00
2p_4f*(3)-1s*4p*(2)	2.49570	5.59e+11	1.39e+14	2.08e+10	5.88e+08	2.82e-02
2p_4f_(2)-1s*4p*(2)	2.49575	1.04e+12	1.40e+14	9.31e+10	3.48e+09	3.74e-02
2p*3s*(1)-1s*3d*(2)	2.49581	2.12e+12	1.09e+14	8.17e+13	2.72e+12	3.33e-02
2p_4d_(2)-1s*4s*(1)	2.49581	9.86e+10	1.35e+14	1.48e+12	5.36e+09	3.62e-03
2s*4p*(1)-1s*4s*(1)	2.49583	5.35e+13	6.81e+13	1.09e+13	2.21e+13	2.03e+00
2s*4d*(2)-1s*4p*(2)	2.49592	1.68e+13	2.93e+13	2.80e+11	7.93e+11	2.83e+00
2s*4f*(3)-1s*4d_(2)	2.49613	1.99e+10	4.72e+11	4.67e+09	1.37e+09	2.93e-01
2p*3d*(4)-1s*3d*(3)	2.49617	1.45e+14	1.45e+14	4.62e+12	4.03e+13	8.72e+00
2s*4f_(3)-1s*4d_(2)	2.49630	1.82e+11	2.49e+13	7.25e+11	3.60e+10	4.97e-02
2s*4f*(3)-1s*4d*(3)	2.49631	1.74e+11	4.72e+11	4.67e+09	1.20e+10	2.56e+00
2s*4f*(3)-1s*4d*(2)	2.49636	1.90e+11	4.72e+11	4.67e+09	1.31e+10	2.80e+00
2s*4d_(1)-1s*4p_(0)	2.49638	1.64e+12	3.16e+13	1.10e+12	1.64e+11	1.49e-01
2s*3d*(2)-1s*3p*(2)	2.49638	1.30e+12	7.99e+13	2.80e+13	1.75e+12	6.25e-02
2s*4f_(2)-1s*4d_(2)	2.49638	6.67e+12	1.21e+13	1.71e+11	4.63e+11	2.71e+00
2s*4f_(2)-1s*4d_(1)	2.49638	2.81e+12	1.21e+13	1.71e+11	1.95e+11	1.14e+00
2s*4d_(1)-1s*4p_(1)	2.49646	1.26e+13	3.16e+13	1.10e+12	1.27e+12	1.15e+00
2s*4f_(3)-1s*4d*(3)	2.49648	1.43e+13	2.49e+13	7.25e+11	2.84e+12	3.92e+00
2p*3p_(1)-1s*3p*(2)	2.49649	4.33e+13	1.63e+14	5.80e+11	4.61e+11	7.96e-01
2s*4f_(3)-1s*4d*(2)	2.49653	1.03e+13	2.49e+13	7.25e+11	2.05e+12	2.82e+00
2s*4f_(2)-1s*4d*(3)	2.49655	2.43e+12	1.21e+13	1.71e+11	1.69e+11	9.89e-01
2s*4f_(2)-1s*4d*(2)	2.49660	3.05e+10	1.21e+13	1.71e+11	2.12e+09	1.24e-02
2s*4d_(2)-1s*4p_(1)	2.49663	1.02e+11	3.34e+13	5.92e+12	7.65e+10	1.29e-02
2p_4f_(2)-1s*4p*(1)	2.49665	1.54e+11	1.40e+14	9.31e+10	5.13e+08	5.51e-03
2p_4f*(3)-1s*4f_(3)	2.49665	1.28e+10	1.39e+14	2.08e+10	1.35e+07	6.46e-04
2p_4f*(3)-1s*4f_(2)	2.49666	3.66e+11	1.38e+14	2.08e+10	3.85e+08	1.85e-02
2s*4f*(4)-1s*4d*(3)	2.49668	3.36e+12	3.38e+12	1.18e+10	1.05e+11	8.91e+00
2p_4f_(2)-1s*4f_(3)	2.49671	9.57e+13	1.40e+14	9.31e+10	3.19e+11	3.43e+00
2p_4f_(2)-1s*4f_(2)	2.49671	4.24e+13	1.40e+14	9.31e+10	1.41e+11	1.52e+00
2p_4p_(0)-1s*4p_(1)	2.49672	1.20e+14	1.33e+14	1.82e+12	1.44e+12	8.91e-01
2p_4f*(4)-1s*4f_(3)	2.49672	2.45e+10	1.45e+14	2.23e+11	3.38e+08	1.52e-03
2p_4d_(1)-1s*4d_(2)	2.49674	1.01e+14	1.39e+14	3.84e+10	8.35e+10	2.18e+00
2p_4d_(1)-1s*4d_(1)	2.49674	3.49e+13	1.39e+14	3.84e+10	2.89e+10	7.54e-01
2p_4f*(3)-1s*4f*(4)	2.49675	9.16e+13	1.39e+14	2.08e+10	9.64e+10	4.62e+00
2p_4f*(3)-1s*4f*(3)	2.49676	4.61e+13	1.39e+14	2.08e+10	4.84e+10	2.32e+00
2p*3p*(1)-1s*3p*(1)	2.49679	1.73e+13	1.59e+14	7.65e+10	2.49e+10	3.25e-01
2p_4f_(2)-1s*4f*(3)	2.49681	1.20e+11	1.40e+14	9.31e+10	4.01e+08	4.30e-03
2s*4d*(2)-1s*4p*(1)	2.49682	6.57e+10	2.93e+13	2.80e+11	3.11e+09	1.11e-02
2p_4f*(4)-1s*4f*(4)	2.49682	6.89e+13	1.45e+14	2.23e+11	9.51e+11	4.27e+00
2p_4f*(4)-1s*4f*(3)	2.49682	7.62e+13	1.45e+14	2.23e+11	1.05e+12	4.72e+00
2s*4p_(0)-1s*4s*(1)	2.49684	4.64e+13	6.11e+13	7.97e+11	5.97e+11	7.50e-01
2p_ (1/2)-1s* (1/2)	2.49686	1.47e+14	1.47e+14	0.	0.	2.00e+00
2p*3p*(2)-1s*3p*(1)	2.49686	3.45e+12	1.54e+14	1.04e+11	1.17e+10	1.12e-01
2s*4d*(2)-1s*4f_(3)	2.49687	1.67e+12	2.93e+13	2.80e+11	7.91e+10	2.82e-01
2s*4d*(2)-1s*4f_(2)	2.49688	4.59e+11	2.93e+13	2.80e+11	2.17e+10	7.75e-02

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4d_(1)-1s*4p*(2)	2.49690	1.40e+13	3.18e+13	1.10e+12	1.40e+12	1.28e+00
2s*3d_(1)-1s*3p_(0)	2.49692	1.22e+10	5.43e+13	1.95e+12	1.27e+09	6.52e-04
2p_4f_(3)-1s*4f_(3)	2.49694	6.99e+13	1.45e+14	1.65e+11	5.58e+11	3.37e+00
2p_4f_(3)-1s*4f_(2)	2.49695	7.45e+13	1.45e+14	1.65e+11	5.95e+11	3.60e+00
2p_4d_(1)-1s*4d*(2)	2.49697	1.13e+11	1.39e+14	3.84e+10	9.37e+07	2.44e-03
2s*4d*(2)-1s*4f*(3)	2.49698	1.47e+11	2.93e+13	2.80e+11	8.96e+09	2.49e-02
2p_4f_(3)-1s*4f*(4)	2.49703	4.54e+11	1.45e+14	1.65e+11	3.62e+09	2.19e-02
2s*4p*(2)-1s*4s*(1)	2.49704	2.30e+12	3.68e+13	2.47e+12	7.23e+11	2.92e-01
2s*4d_(2)-1s*4p*(2)	2.49707	8.93e+12	3.34e+13	5.92e+12	6.71e+12	1.13e+00
2s*3d_(2)-1s*3p_(1)	2.49710	2.09e+11	5.98e+13	2.78e+13	3.30e+11	1.20e-02
2s*3d_(1)-1s*3p_(1)	2.49712	1.39e+13	5.43e+13	1.95e+12	1.45e+12	7.44e-01
2p_4d*(2)-1s*4d_(2)	2.49714	1.91e+10	1.31e+14	1.54e+11	1.12e+08	7.28e-04
2p_4d*(2)-1s*4d_(1)	2.49714	2.03e+11	1.31e+14	1.54e+11	1.19e+09	7.74e-03
2p_3d_(1)-1s*3d_(2)	2.49716	8.24e+13	1.42e+14	5.23e+12	8.77e+12	1.67e+00
2s*4p*(1)-1s*4s*(0)	2.49717	1.02e+12	6.81e+13	1.09e+13	4.20e+11	3.87e-02
2p_3d_(1)-1s*3d_(1)	2.49717	4.92e+13	1.42e+14	5.23e+12	5.24e+12	1.00e+00
2p_4p*(1)-1s*4p_(0)	2.49719	2.36e+12	1.29e+14	4.85e+10	2.66e+09	5.48e-02
2p_4p*(1)-1s*4p_(1)	2.49727	3.23e+11	1.29e+14	4.85e+10	3.65e+08	7.52e-03
2s*3p*(1)-1s*3s*(1)	2.49728	8.06e+13	1.08e+14	4.96e+12	1.06e+13	2.13e+00
2p_4d*(2)-1s*4d*(3)	2.49731	7.97e+13	1.31e+14	1.54e+11	4.68e+11	3.04e+00
2s*4d*(3)-1s*4p*(2)	2.49734	7.21e+12	1.68e+13	6.71e+11	1.94e+12	2.88e+00
2p_4d*(2)-1s*4d*(2)	2.49737	4.13e+13	1.31e+14	1.54e+11	2.43e+11	1.58e+00
2p_4d*(3)-1s*4d_(2)	2.49751	9.98e+12	1.21e+14	2.54e+12	1.44e+12	5.67e-01
2s*4p_(1)-1s*4s*(1)	2.49757	1.06e+13	3.36e+13	5.57e+12	4.53e+12	8.13e-01
2p_3d_(1)-1s*3d*(2)	2.49767	2.28e+12	1.42e+14	5.23e+12	2.43e+11	4.64e-02
2p_3p_(0)-1s*3p_(1)	2.49768	1.37e+14	1.70e+14	2.66e+12	2.11e+12	7.93e-01
2p_4d*(3)-1s*4d*(3)	2.49769	5.65e+13	1.21e+14	2.54e+12	8.14e+12	3.21e+00
2p_4p*(1)-1s*4p*(2)	2.49771	7.20e+13	1.29e+14	4.85e+10	8.13e+10	1.67e+00
2p_4d*(3)-1s*4d*(2)	2.49774	5.43e+13	1.21e+14	2.54e+12	7.82e+12	3.08e+00
2s*4d_(1)-1s*4p*(1)	2.49780	1.58e+10	3.18e+13	1.10e+12	1.59e+09	1.44e-03
2s*4d_(1)-1s*4f_(2)	2.49787	6.62e+11	3.18e+13	1.10e+12	6.64e+10	6.03e-02
2s*4d_(2)-1s*4p*(1)	2.49787	1.57e+13	3.34e+13	5.92e+12	1.18e+13	1.98e+00
2s*4d_(2)-1s*4f_(3)	2.49803	5.39e+12	3.34e+13	5.92e+12	4.05e+12	6.85e-01
2p_3d*(2)-1s*3d_(2)	2.49804	7.47e+11	1.39e+14	4.13e+11	1.11e+10	2.69e-02
2s*4d_(2)-1s*4f_(2)	2.49804	6.38e+11	3.34e+13	5.92e+12	4.80e+11	8.10e-02
2p_3d*(2)-1s*3d_(1)	2.49805	2.30e+12	1.39e+14	4.13e+11	3.42e+10	8.27e-02
2p_4p_(0)-1s*4p*(1)	2.49806	2.14e+11	1.33e+14	1.62e+12	2.81e+09	1.74e-03
2s*3d_(2)-1s*3p*(2)	2.49811	2.09e+13	5.98e+13	2.78e+13	3.30e+13	1.20e+00
2p*2p*(0)-1s*2p*(1)	2.49811	2.39e+14	2.39e+14	2.07e+13	1.98e+13	9.19e-01
2p_4p*(2)-1s*4p_(1)	2.49812	1.81e+13	1.20e+14	8.70e+12	6.45e+12	7.42e-01
2s*3d_(1)-1s*3p*(2)	2.49813	2.93e+13	5.43e+13	1.95e+12	3.05e+12	1.56e+00
2s*4d_(2)-1s*4f*(3)	2.49813	1.03e+11	3.34e+13	5.92e+12	7.74e+10	1.31e-02
2s*3p*(2)-1s*3s*(1)	2.49820	3.34e+12	5.31e+13	6.73e+12	1.87e+12	2.79e-01
2s*4d*(3)-1s*4f_(3)	2.49830	1.78e+11	1.68e+13	6.71e+11	4.73e+10	7.05e-02
2p_4s*(0)-1s*4s*(1)	2.49831	9.90e+13	1.04e+14	2.54e+12	2.36e+12	9.30e-01
2s*4d*(3)-1s*4f_(2)	2.49831	8.48e+10	1.68e+13	6.71e+11	1.73e+10	2.58e-02
2s*4d*(3)-1s*4f*(4)	2.49839	7.39e+12	1.68e+13	6.71e+11	1.98e+12	2.96e+00
2s*4d*(3)-1s*4f*(3)	2.49840	1.15e+12	1.68e+13	6.71e+11	3.08e+11	4.60e-01
2p_4d_(2)-1s*4d_(2)	2.49844	6.12e+13	1.35e+14	1.48e+12	3.32e+12	2.25e+00
2p_3d*(2)-1s*3d*(3)	2.49844	3.01e+13	1.39e+14	4.13e+11	4.47e+11	1.08e+00
2p_4d_(2)-1s*4d_(1)	2.49844	7.15e+13	1.35e+14	1.48e+12	3.88e+12	2.63e+00
2s*4p*(1)-1s*4d_(2)	2.49847	2.72e+11	6.81e+13	1.09e+13	1.12e+11	1.03e-02
2s*4p*(1)-1s*4d_(1)	2.49847	8.24e+11	6.81e+13	1.09e+13	3.40e+11	3.13e-02
2p_3d*(2)-1s*3d*(2)	2.49855	9.15e+13	1.39e+14	4.13e+11	1.36e+12	3.29e+00
2p_4s*(1)-1s*4s*(1)	2.49856	5.25e+13	1.05e+14	5.58e+11	8.34e+11	1.49e+00
2p_4p*(2)-1s*4p*(2)	2.49856	5.43e+13	1.20e+14	8.70e+12	1.83e+13	2.11e+00
2p_4p*(1)-1s*4p*(1)	2.49861	4.22e+13	1.29e+14	4.85e+10	4.78e+10	9.80e-01
2p_4d_(2)-1s*4d*(3)	2.49862	1.13e+12	1.35e+14	1.48e+12	6.15e+10	4.17e-02
2p_4d_(2)-1s*4d*(2)	2.49867	4.69e+11	1.35e+14	1.48e+12	2.55e+10	1.72e-02
2s*3d*(2)-1s*3p*(1)	2.49868	1.63e+13	7.59e+13	2.80e+13	2.20e+13	7.84e-01
2p_4p*(1)-1s*4f_(2)	2.49868	6.27e+10	1.29e+14	4.85e+10	7.07e+07	1.46e-03
2s*4p*(1)-1s*4d*(2)	2.49870	3.38e+12	6.81e+13	1.09e+13	1.40e+12	1.29e-01
2p*3p_(1)-1s*3p*(1)	2.49879	2.71e+13	1.63e+14	5.80e+11	2.88e+11	4.97e-01
2s*3p_(0)-1s*3s*(1)	2.49879	4.15e+13	7.82e+13	2.01e+12	1.04e+12	5.18e-01
2s*4p_(1)-1s*4s*(0)	2.49891	4.58e+11	3.36e+13	5.57e+12	1.95e+11	3.51e-02
2p_4p_(1)-1s*4p_(0)	2.49908	4.63e+13	1.38e+14	1.18e+10	1.19e+10	1.01e+00
2p_4p_(1)-1s*4p_(1)	2.49917	6.83e+13	1.38e+14	1.18e+10	7.70e+10	1.44e+00
2s*3p_(1)-1s*3s*(1)	2.49940	3.53e+13	6.66e+13	1.06e+13	1.46e+13	1.37e+00
2p_3d*(3)-1s*3d_(2)	2.49943	3.74e+13	1.45e+14	4.96e+12	8.68e+12	1.75e+00
2p_4p*(2)-1s*4p*(1)	2.49946	3.47e+13	1.20e+14	8.70e+12	1.17e+13	1.35e+00
2s*4p_(0)-1s*4d_(1)	2.49948	5.31e+12	6.11e+13	7.97e+11	6.84e+10	8.56e-02
2p_3p*(1)-1s*3p_(0)	2.49949	8.30e+11	1.53e+14	9.68e+10	1.57e+09	1.63e-02
2p_4p*(2)-1s*4f_(3)	2.49952	1.73e+11	1.20e+14	8.70e+12	5.85e+10	6.73e-03
2p_4p_(1)-1s*4p*(2)	2.49961	4.50e+12	1.38e+14	1.18e+10	1.16e+09	9.77e-02
2p_4p*(2)-1s*4f*(3)	2.49962	1.81e+11	1.20e+14	8.70e+12	6.11e+10	7.03e-03

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4p*(2)-1s*4d_(2)	2.49967	1.63e+12	3.68e+13	2.47e+12	5.12e+11	2.07e-01
2s*4p*(2)-1s*4d_(1)	2.49968	3.05e+11	3.68e+13	2.47e+12	9.60e+10	3.88e-02
2p_3d*(1)-1s*3p_(1)	2.49968	3.71e+11	1.53e+14	9.88e+10	7.03e+08	7.27e-03
2s*4s*(0)-1s*4p_(1)	2.49974	2.27e+13	4.32e+13	5.44e+13	1.26e+13	2.32e-01
2p_3d*(3)-1s*3d*(3)	2.49983	5.51e+13	1.45e+14	4.96e+12	1.28e+13	2.58e+00
2s*4p*(2)-1s*4d*(3)	2.49985	1.85e+13	3.68e+13	2.47e+12	5.83e+12	2.36e+00
2p_4s*(1)-1s*4s*(0)	2.49990	4.37e+13	1.05e+14	5.58e+11	8.94e+11	1.24e+00
2s*4p*(2)-1s*4d*(2)	2.49990	1.61e+12	3.68e+13	2.47e+12	5.08e+11	2.05e-01
2p_3d*(3)-1s*3d*(2)	2.49994	5.21e+13	1.45e+14	4.96e+12	1.21e+13	2.44e+00
2s*3d*(3)-1s*3p*(2)	2.49997	4.98e+13	6.40e+13	5.88e+11	3.17e+12	5.39e+00
2s*4p_(1)-1s*4d_(2)	2.50021	9.95e+12	3.36e+13	5.57e+12	4.24e+12	7.62e-01
2p_3s*(0)-1s*3s*(1)	2.50031	1.02e+14	1.12e+14	7.20e+12	6.12e+12	8.50e-01
2s*3d_(2)-1s*3p*(1)	2.50042	2.67e+13	5.98e+13	2.76e+13	4.22e+13	1.53e+00
2s*3d_(1)-1s*3p*(1)	2.50044	5.94e+10	5.43e+13	1.95e+12	6.18e+09	3.17e-03
2p_4p_(1)-1s*4p*(1)	2.50051	7.73e+12	1.38e+14	1.18e+10	1.99e+09	1.68e-01
2p_4p_(1)-1s*4f_(2)	2.50058	1.18e+11	1.38e+14	1.18e+10	2.97e+07	2.51e-03
2s*4s*(1)-1s*4p_(1)	2.50065	7.58e+12	3.41e+13	5.39e+11	3.53e+11	6.56e-01
2p_3p*(1)-1s*3p*(2)	2.50070	3.29e+13	1.53e+14	9.68e+10	6.24e+10	6.45e-01
2s*3p*(1)-1s*3s*(0)	2.50072	1.72e+12	1.08e+14	4.96e+12	2.26e+11	4.55e-02
2p_4s*(0)-1s*4d_(1)	2.50095	2.85e+11	1.04e+14	2.54e+12	6.78e+09	2.67e-03
2p_3p_(0)-1s*3p*(1)	2.50100	8.03e+11	1.70e+14	2.66e+12	1.24e+10	4.65e-03
2s*4s*(0)-1s*4p*(1)	2.50108	1.65e+13	4.32e+13	5.44e+13	9.20e+12	1.69e-01
2p*3s*(2)-1s*3d_(2)	2.50108	3.16e+12	1.47e+14	1.19e+12	1.27e+11	1.07e-01
2s*4s*(1)-1s*4p*(2)	2.50110	2.10e+13	3.41e+13	5.39e+11	9.79e+11	1.82e+00
2p*3s*(2)-1s*3d_(1)	2.50110	1.24e+13	1.47e+14	1.19e+12	5.00e+11	4.20e-01
2p_4s*(1)-1s*4d_(2)	2.50120	2.52e+12	1.05e+14	5.58e+11	4.00e+10	7.18e-02
2p_4s*(1)-1s*4d_(1)	2.50120	1.18e+11	1.05e+14	5.58e+11	1.87e+09	3.36e-03
2p_3p*(2)-1s*3p_(1)	2.50134	4.79e+13	1.40e+14	6.04e+12	9.94e+12	1.65e+00
2p_4s*(1)-1s*4d*(2)	2.50143	9.70e+11	1.05e+14	5.58e+11	1.54e+10	2.76e-02
2p*3s*(2)-1s*3d*(3)	2.50149	2.01e+13	1.47e+14	1.19e+12	8.05e+11	6.76e-01
2p_3d_(2)-1s*3d_(2)	2.50152	5.69e+13	1.45e+14	3.39e+12	6.52e+12	1.92e+00
2p_3d_(2)-1s*3d_(1)	2.50153	7.02e+13	1.45e+14	3.39e+12	8.05e+12	2.37e+00
2p*3s*(2)-1s*3d*(2)	2.50160	9.31e+11	1.47e+14	1.19e+12	3.74e+10	3.14e-02
2p_3d_(2)-1s*3d*(3)	2.50192	3.17e+11	1.45e+14	3.39e+12	3.64e+10	1.07e-02
2s*4s*(1)-1s*4p*(1)	2.50200	2.16e+12	3.41e+13	5.39e+11	1.01e+11	1.87e-01
2p_3d_(2)-1s*3d*(2)	2.50203	2.35e+12	1.45e+14	3.39e+12	2.69e+11	7.93e-02
2p_3s*(1)-1s*3s*(1)	2.50220	2.01e+13	9.92e+13	1.42e+12	8.50e+11	5.99e-01
2p_3p*(2)-1s*3p*(2)	2.50236	4.55e+13	1.40e+14	6.04e+12	9.44e+12	1.56e+00
2p*2p*(2)-1s*2p_(1)	2.50263	1.18e+11	2.83e+14	2.94e+14	2.96e+11	1.01e-03
2s*3p_(1)-1s*3s*(0)	2.50265	1.42e+11	6.66e+13	1.06e+13	5.83e+10	5.50e-03
2p_3p*(1)-1s*3p*(1)	2.50301	8.50e+13	1.53e+14	9.68e+10	1.61e+11	1.67e+00
2p_3p_(1)-1s*3p_(0)	2.50350	5.10e+13	1.82e+14	1.72e+10	1.62e+10	9.42e-01
2s*3p*(1)-1s*3d_(2)	2.50367	4.23e+12	1.08e+14	4.96e+12	5.57e+11	1.12e-01
2p_3p_(1)-1s*3p_(1)	2.50369	6.11e+13	1.82e+14	1.72e+10	1.94e+10	1.13e+00
2s*3p*(1)-1s*3d_(1)	2.50369	1.77e+12	1.08e+14	4.96e+12	2.33e+11	4.69e-02
2s*3p*(1)-1s*3d*(2)	2.50419	5.59e+12	1.08e+14	4.96e+12	7.35e+11	1.48e-01
2s*3s*(0)-1s*3p_(1)	2.50423	1.20e+13	4.09e+13	1.61e+14	9.57e+12	5.96e-02
2s*3p*(2)-1s*3d_(2)	2.50460	1.96e+12	5.31e+13	6.73e+12	1.10e+12	1.63e-01
2s*3p*(2)-1s*3d_(1)	2.50461	1.81e+10	5.31e+13	6.73e+12	1.01e+10	1.51e-03
2p_3p*(2)-1s*3p*(1)	2.50468	1.56e+13	1.40e+14	6.04e+12	3.24e+12	5.36e-01
2p_3p_(1)-1s*3p*(2)	2.50471	2.94e+12	1.62e+14	1.72e+10	9.32e+08	5.42e-02
2s*3p*(2)-1s*3d*(3)	2.50500	1.52e+13	5.31e+13	6.73e+12	8.54e+12	1.27e+00
2s*3p*(2)-1s*3d*(2)	2.50511	2.10e+11	5.31e+13	6.73e+12	1.18e+11	1.75e-02
2s*3p_(0)-1s*3d_(1)	2.50520	1.23e+13	7.82e+13	2.01e+12	3.09e+11	1.54e-01
2p_3s*(1)-1s*3s*(0)	2.50565	5.46e+13	9.92e+13	1.42e+12	2.31e+12	1.63e+00
2s*3p_(1)-1s*3d_(2)	2.50580	4.11e+12	6.66e+13	1.06e+13	1.69e+12	1.60e-01
2s*3p_(1)-1s*3d_(1)	2.50581	3.77e+11	6.66e+13	1.06e+13	1.55e+11	1.46e-02
2s*2p*(1)-1s*2s*(0)	2.50586	1.40e+14	1.43e+14	2.14e+14	2.53e+14	1.18e+00
2p*2p*(2)-1s*2p*(2)	2.50606	3.69e+13	2.83e+14	2.94e+14	9.41e+13	3.20e-01
2s*3p_(1)-1s*3d*(2)	2.50632	2.55e+11	6.66e+13	1.06e+13	1.05e+11	9.89e-03
2p_3s*(0)-1s*3d_(1)	2.50673	8.07e+10	1.12e+14	7.20e+12	4.86e+09	6.75e-04
2p_3p_(1)-1s*3p*(1)	2.50703	1.14e+13	1.82e+14	1.72e+10	3.61e+09	2.10e-01
2s*3s*(1)-1s*3p_(0)	2.50743	1.07e+12	4.11e+13	1.13e+12	8.63e+10	7.61e-02
2s*3s*(0)-1s*3p*(1)	2.50756	2.12e+13	4.09e+13	1.61e+14	1.69e+13	1.05e-01
2s*3s*(1)-1s*3p_(1)	2.50762	1.06e+13	4.11e+13	1.13e+12	8.54e+11	7.53e-01
2s*2p*(2)-1s*2s*(1)	2.50804	1.44e+14	1.44e+14	1.76e+13	7.84e+13	4.45e+00
2p_3s*(1)-1s*3d_(2)	2.50861	4.47e+12	9.92e+13	1.42e+12	1.89e+11	1.33e-01
2s*3s*(1)-1s*3p*(2)	2.50885	1.99e+13	4.11e+13	1.13e+12	1.61e+12	1.42e+00
2p_3s*(1)-1s*3d*(2)	2.50913	1.52e+12	9.92e+13	1.42e+12	6.44e+10	4.54e-02
2p_2p*(2)-1s*2p_(1)	2.50926	8.02e+13	2.85e+14	6.19e+13	7.15e+13	1.15e+00
2p_2p*(1)-1s*2p_(0)	2.51087	9.55e+13	2.86e+14	1.08e+10	1.08e+10	1.00e+00
2s*3s*(1)-1s*3p*(1)	2.51097	5.11e+11	4.11e+13	1.13e+12	4.12e+10	3.63e-02
2p_2p*(1)-1s*2p_(1)	2.51152	6.86e+13	2.86e+14	1.08e+10	7.74e+09	7.20e-01
2s*2p_(1)-1s*2s*(1)	2.51190	1.41e+14	1.43e+14	2.26e+13	5.75e+13	2.55e+00
2p_2p*(2)-1s*2p*(2)	2.51271	1.78e+14	2.85e+14	6.19e+13	1.58e+14	2.56e+00

Z = 22

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*2p_(0)-1s*2s*(1)	2.51330	1.43e+14	1.43e+14	2.06e+13	1.80e+13	8.74e-01
2p_2p_(0)-1s*2p_(1)	2.51378	2.71e+14	2.74e+14	3.44e+12	3.35e+12	9.75e-01
2p*2p*(2)-1s*2p*(1)	2.51452	2.46e+14	2.83e+14	2.94e+14	6.26e+14	2.13e+00
2p_2p*(1)-1s*2p*(2)	2.51498	1.19e+14	2.86e+14	1.08e+10	1.34e+10	1.25e+00
2p_2p*(2)-1s*2p*(1)	2.52122	2.74e+13	2.85e+14	6.19e+13	2.44e+13	3.95e-01
2p_2p*(1)-1s*2p*(1)	2.52350	2.88e+12	2.86e+14	1.08e+10	3.25e+08	3.02e-02
2p_2p_(0)-1s*2p*(1)	2.52576	3.39e+12	2.74e+14	3.44e+12	4.19e+10	1.22e-02
2s*2p_(1)-1s*2s*(0)	2.52598	2.29e+12	1.43e+14	2.26e+13	9.36e+11	4.15e-02
2s*2s*(0)-1s*2p_(1)	2.52823	1.42e+13	5.75e+13	3.74e+14	1.23e+13	3.29e-02
2s*2s*(0)-1s*2p*(1)	2.54037	4.33e+13	5.75e+13	3.74e+14	3.75e+13	1.00e-01
2p*3d*(3)-1s*4d_(2)	2.64394	9.42e+09	1.46e+14	2.02e+13	8.04e+09	3.98e-04
2p*3d*(3)-1s*4d*(2)	2.64419	3.46e+10	1.46e+14	2.02e+13	2.95e+10	1.46e-03
2p*3p*(2)-1s*4f_(3)	2.64814	2.36e+10	1.20e+14	9.67e+13	5.26e+10	5.44e-04
2p*3p*(2)-1s*4f*(3)	2.64826	2.63e+10	1.20e+14	9.67e+13	5.86e+10	6.06e-04
2p*3s*(1)-1s*4s*(0)	2.64984	3.73e+09	1.09e+14	8.17e+13	4.79e+09	5.86e-05
2p*3p*(1)-1s*4p_(0)	2.65093	5.88e+09	1.59e+14	7.65e+10	8.48e+06	1.11e-04
2p*3p*(2)-1s*4p_(1)	2.65110	9.77e+09	1.54e+14	1.04e+11	3.31e+07	3.17e-04
2p*3s*(1)-1s*4d*(2)	2.65155	2.59e+10	1.09e+14	8.17e+13	3.33e+10	4.08e-04
2p*3p*(2)-1s*4p*(2)	2.65160	1.21e+10	1.54e+14	1.04e+11	4.11e+07	3.93e-04
2p*3d*(4)-1s*4d*(3)	2.65202	2.23e+10	1.45e+14	4.62e+12	6.18e+09	1.34e-03
2p*3p*(3)-1s*4p*(2)	2.65265	1.94e+10	1.19e+14	1.93e+12	2.17e+09	1.12e-03
2s*3d*(2)-1s*4p_(1)	2.65316	9.72e+09	7.59e+13	2.80e+13	1.31e+10	4.68e-04
2p*3p_(1)-1s*4p_(0)	2.65319	1.30e+10	1.63e+14	5.80e+11	1.39e+08	2.39e-04
2p*3p*(3)-1s*4f*(4)	2.65383	3.00e+10	1.19e+14	1.93e+12	3.35e+09	1.73e-03
2p_3d*(2)-1s*4d*(2)	2.65465	2.09e+10	1.39e+14	4.13e+11	3.11e+08	7.51e-04
2s*3d*(2)-1s*4p*(1)	2.65467	8.21e+09	7.59e+13	2.80e+13	1.11e+10	3.95e-04
2p*3p_(1)-1s*4p*(1)	2.65479	2.28e+10	1.63e+14	5.80e+11	2.40e+08	4.15e-04
2p*3s*(2)-1s*4s*(1)	2.65485	2.18e+10	1.47e+14	1.19e+12	8.78e+08	7.35e-04
2s*3d*(2)-1s*4f*(3)	2.65485	3.74e+10	7.59e+13	2.80e+13	5.05e+10	1.80e-03
2p_3d*(3)-1s*4d_(2)	2.65595	1.54e+10	1.45e+14	4.96e+12	3.58e+09	7.21e-04
2s*3d_(2)-1s*4p*(1)	2.65662	6.20e+09	5.98e+13	2.76e+13	9.79e+09	3.55e-04
2s*3d_(2)-1s*4f_(3)	2.65669	3.41e+10	5.98e+13	2.76e+13	5.38e+10	1.95e-03
2s*3d_(1)-1s*4f_(2)	2.65672	4.11e+10	5.43e+13	1.95e+12	4.27e+09	2.19e-03
2p*3d*(3)-1s*4p*(2)	2.65771	3.16e+10	6.40e+13	5.88e+11	2.02e+09	3.43e-03
2s*3p*(1)-1s*4s*(1)	2.65776	9.49e+09	1.08e+14	4.96e+12	1.25e+09	2.51e-04
2p*3s*(2)-1s*4d*(3)	2.65803	1.52e+10	1.47e+14	1.19e+12	6.12e+08	5.14e-04
2p_3d_(2)-1s*4d_(2)	2.65832	1.24e+10	1.45e+14	3.39e+12	1.43e+09	4.20e-04
2p_3d_(2)-1s*4d_(1)	2.65832	1.06e+10	1.45e+14	3.39e+12	1.21e+09	3.56e-04
2s*3d*(3)-1s*4f*(4)	2.65880	2.14e+10	6.40e+13	5.88e+11	1.36e+09	2.32e-03
2s*3p*(1)-1s*4s*(0)	2.65928	7.22e+09	1.08e+14	4.96e+12	9.49e+08	1.91e-04
2p_3p*(1)-1s*4p*(1)	2.65955	7.01e+10	1.53e+14	9.68e+10	1.33e+08	1.37e-03
2p_3p*(2)-1s*4p_(1)	2.65991	2.51e+10	1.40e+14	6.04e+12	5.28e+09	8.81e-04
2s*3p_(1)-1s*4s*(1)	2.66016	1.59e+10	6.66e+13	1.06e+13	6.53e+09	6.15e-04
2p_3p*(2)-1s*4p*(2)	2.66041	1.68e+10	1.40e+14	6.04e+12	3.50e+09	5.79e-04
2p_3s*(0)-1s*4s*(1)	2.66119	2.85e+10	1.12e+14	7.20e+12	1.72e+09	2.39e-04
2p_3p_(1)-1s*4p_(0)	2.66247	2.44e+10	1.62e+14	1.72e+10	7.74e+06	4.50e-04
2p_3p_(1)-1s*4p_(1)	2.66256	2.55e+10	1.62e+14	1.72e+10	8.18e+06	4.71e-04
2p_3p_(1)-1s*4p*(1)	2.66409	1.19e+10	1.62e+14	1.72e+10	3.78e+06	2.18e-04
2s*3s*(0)-1s*4p*(1)	2.66470	3.26e+10	4.09e+13	1.61e+14	2.68e+10	1.62e-04
2p_3s*(1)-1s*4s*(0)	2.66486	5.73e+10	9.92e+13	1.42e+12	2.42e+09	1.71e-03
2s*3s*(1)-1s*4p_(0)	2.66602	3.34e+09	4.11e+13	1.13e+12	2.69e+08	2.38e-04
2s*3s*(1)-1s*4p_(1)	2.66701	1.65e+10	4.11e+13	1.13e+12	1.33e+09	1.18e-03
2s*3s*(1)-1s*4p*(2)	2.66752	2.69e+10	4.11e+13	1.13e+12	2.17e+09	1.91e-03
2p*2p*(0)-1s*3p*(1)	3.00062	9.81e+10	2.39e+14	2.07e+13	7.82e+09	3.78e-04
2p*2p*(2)-1s*3p*(2)	3.02097	8.61e+09	2.83e+14	2.94e+14	2.19e+10	7.46e-05
2s*2p*(1)-1s*3s*(0)	3.02256	3.03e+10	1.43e+14	2.14e+14	5.46e+10	2.55e-04
2p*2p*(2)-1s*3p*(1)	3.02634	6.53e+10	2.83e+14	2.94e+14	1.86e+11	5.66e-04
2s*2p*(1)-1s*3d_(2)	3.02687	1.98e+10	1.43e+14	2.14e+14	3.57e+10	1.67e-04
2s*2p*(1)-1s*3d*(2)	3.02783	5.31e+10	1.43e+14	2.14e+14	9.56e+10	4.46e-04
2p_2p*(2)-1s*3p_(1)	3.02914	2.01e+10	2.85e+14	6.19e+13	1.79e+10	2.89e-04
2p_2p*(2)-1s*3p*(2)	3.03083	4.01e+10	2.85e+14	6.19e+13	3.57e+10	5.77e-04
2p_2p*(1)-1s*3p_(0)	3.03215	2.44e+10	2.86e+14	1.08e+10	2.75e+08	2.56e-04
2p_2p*(1)-1s*3p_(1)	3.03244	1.65e+10	2.86e+14	1.08e+10	1.86e+08	1.73e-04
2p_2p*(1)-1s*3p*(2)	3.03393	2.59e+10	2.86e+14	1.08e+10	2.92e+08	2.71e-04
2p_2p*(2)-1s*3p*(1)	3.03402	7.12e+09	2.85e+14	6.19e+13	6.35e+09	1.02e-04
2p_2p_(0)-1s*3p_(1)	3.03570	6.36e+10	2.74e+14	3.44e+12	7.86e+08	2.29e-04
2s*2p*(2)-1s*3s*(1)	3.04092	2.89e+10	1.44e+14	1.76e+13	1.57e+10	8.94e-04
2s*2p_(1)-1s*3s*(1)	3.04659	2.87e+10	1.43e+14	2.26e+13	1.17e+10	5.18e-04
2s*2p_(0)-1s*3s*(1)	3.04865	2.94e+10	1.43e+14	2.06e+13	3.70e+09	1.79e-04
2s*2s*(0)-1s*3p*(1)	3.06180	3.79e+10	5.75e+13	3.74e+14	3.28e+10	8.77e-05
2p*2p*(0)-1s*4p*(1)	3.22842	3.98e+10	2.39e+14	2.07e+13	3.17e+09	1.53e-04
2s*2p*(1)-1s*4s*(0)	3.25731	2.25e+09	1.43e+14	2.14e+14	4.05e+09	1.89e-05
2p_2p*(2)-1s*4p*(2)	3.26559	6.96e+09	2.85e+14	6.19e+13	6.21e+09	1.00e-04
2p_2p*(1)-1s*4p_(0)	3.26852	4.20e+09	2.86e+14	1.08e+10	4.74e+05	4.40e-05
2s*2p*(2)-1s*4s*(1)	3.28225	1.14e+10	1.44e+14	1.76e+13	6.23e+09	3.54e-04

Z = 22

TRANSITION	LAMBDA	A(rf)	A(tot)	AUGER	Qd	gf
2s*2p.(1)-1s*4s*(1)	3.28886	1.17e+10	1.43e+14	2.26e+13	4.78e+09	2.12e-04
2s*2s*(0)-1s*4p*(1)	3.29936	2.54e+10	5.75e+13	3.74e+14	2.21e+10	5.89e-05

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
4s* (3/2)-1s* (1/2)	1.42491	3.10e+13	3.10e+13	0.	0.	4.00e+00
4s_ (1/2)-1s* (1/2)	1.42535	3.00e+13	3.00e+13	0.	0.	2.00e+00
2p*4d*(1)-1s*2s*(1)	1.43602	4.36e+10	2.85e+14	1.42e+11	6.51e+07	4.59e-04
2p*4d_(0)-1s*2s*(1)	1.43653	3.09e+11	2.84e+14	1.04e+11	1.13e+08	1.09e-03
2p*4d*(2)-1s*2s*(1)	1.43656	2.30e+11	2.84e+14	8.35e+10	3.38e+08	4.05e-03
2p*4d_(1)-1s*2s*(1)	1.43657	2.34e+11	2.84e+14	1.14e+11	2.82e+08	2.47e-03
2p*4s*(2)-1s*2s*(1)	1.43801	3.18e+11	2.84e+14	2.63e+11	1.47e+09	5.59e-03
2p_4d_(1)-1s*2s*(1)	1.43802	5.88e+11	2.68e+14	1.13e+11	7.45e+08	6.58e-03
2p_4d*(2)-1s*2s*(1)	1.44001	3.54e+12	2.48e+14	1.31e+11	9.32e+09	7.12e-02
2s*4p*(1)-1s*2s*(1)	1.44057	6.56e+12	1.03e+14	1.55e+13	2.58e+12	1.86e-01
2p_4d_(2)-1s*2s*(1)	1.44062	3.04e+11	2.65e+14	1.55e+12	8.84e+09	5.69e-03
2s*4p*(2)-1s*2s*(1)	1.44108	2.47e+13	7.13e+13	2.43e+12	4.07e+12	1.68e+00
2s*4p_(0)-1s*2s*(1)	1.44115	1.97e+13	1.07e+14	8.85e+11	1.61e+11	1.82e-01
2s*4p_(1)-1s*2s*(1)	1.44140	2.07e+13	5.53e+13	6.71e+12	6.73e+12	1.00e+00
2p*4p*(0)-1s*2p_(1)	1.44148	9.36e+11	3.13e+14	1.09e+13	3.18e+10	2.89e-03
2p*4d*(1)-1s*2s*(0)	1.44157	1.11e+11	2.85e+14	1.42e+11	1.65e+08	1.17e-03
2p_4s*(0)-1s*2s*(1)	1.44176	8.29e+12	2.10e+14	2.77e+12	1.08e+11	3.89e-02
2p_4s*(1)-1s*2s*(1)	1.44182	4.07e+11	2.23e+14	4.46e+11	2.44e+09	5.47e-03
2p*4p*(2)-1s*2p_(1)	1.44218	1.52e+12	3.11e+14	3.20e+13	7.09e+11	2.21e-02
2p*4p*(1)-1s*2p_(1)	1.44255	1.46e+12	3.06e+14	1.22e+11	1.74e+09	1.43e-02
2p*4p_(1)-1s*2p_(0)	1.44260	3.17e+10	3.14e+14	9.93e+10	3.01e+07	3.03e-04
2p*4p_(2)-1s*2p_(1)	1.44281	1.73e+11	3.11e+14	1.19e+13	3.19e+10	2.89e-03
2p*4p_(1)-1s*2p_(1)	1.44294	2.60e+12	3.14e+14	9.93e+10	2.46e+08	2.48e-02
2p*4s*(1)-1s*2s*(0)	1.44327	1.39e+12	2.72e+14	1.89e+13	2.71e+11	1.43e-02
2p*4p*(2)-1s*2p*(2)	1.44464	7.51e+12	3.11e+14	3.20e+13	3.50e+12	1.09e-01
2s*4p*(1)-1s*2p*(2)	1.44501	1.78e+13	3.06e+14	1.22e+11	2.10e+10	1.72e-01
2p_4f_(2)-1s*2p_(1)	1.44506	1.31e+12	2.17e+14	4.95e+11	1.49e+10	3.00e-02
2s*4d*(2)-1s*2p_(1)	1.44509	2.24e+12	9.75e+13	5.63e+11	6.43e+10	1.14e-01
2p*4p*(3)-1s*2p*(2)	1.44514	2.87e+13	3.10e+14	4.15e+11	2.78e+11	6.69e-01
2s*4d_(1)-1s*2p_(0)	1.44523	4.38e+12	4.93e+13	1.16e+12	3.01e+11	2.61e-01
2p*4p_(2)-1s*2p*(2)	1.44527	2.23e+13	3.11e+14	1.19e+13	4.10e+12	3.45e-01
2p*4p_(1)-1s*2p*(2)	1.44541	1.05e+13	3.14e+14	9.93e+10	1.00e+10	1.01e-01
2p_4d_(1)-1s*2s*(0)	1.44550	1.03e+12	2.88e+14	1.13e+11	1.30e+09	1.15e-02
2p_4p*(1)-1s*2p_(0)	1.44557	1.15e+13	2.92e+14	4.89e+10	6.69e+09	1.37e-01
2s*4d_(2)-1s*2p_(1)	1.44561	2.70e+12	5.13e+13	4.19e+12	1.02e+12	2.43e-01
2p_4p_(0)-1s*2p_(1)	1.44575	2.28e+13	2.39e+14	1.84e+12	1.74e+11	9.44e-02
2p_4p*(1)-1s*2p_(1)	1.44581	9.67e+12	2.52e+14	4.89e+10	5.62e+09	1.15e-01
2s*4s*(1)-1s*2s*(0)	1.44615	1.47e+13	1.03e+14	1.55e+13	5.79e+12	3.73e-01
2p_4p*(2)-1s*2p_(1)	1.44622	2.23e+13	2.44e+14	1.12e+13	4.89e+12	4.37e-01
2p_4p_(1)-1s*2p_(0)	1.44647	1.38e+13	2.74e+14	2.83e+10	4.20e+09	1.49e-01
2p_4p_(1)-1s*2p_(1)	1.44681	1.09e+13	2.74e+14	2.83e+10	3.38e+09	1.19e-01
2p*4f*(2)-1s*2p*(1)	1.44691	9.32e+10	2.88e+14	2.17e+11	3.51e+08	1.82e-03
2s*4p_(1)-1s*2s*(0)	1.44700	5.05e+12	5.53e+13	6.71e+12	1.64e+12	2.44e-01
2s*4s*(1)-1s*2p_(0)	1.44702	5.46e+11	6.17e+13	5.06e+11	1.34e+10	2.84e-02
2s*4s*(0)-1s*2p_(1)	1.44702	6.34e+12	6.13e+13	5.43e+13	2.38e+12	4.38e-02
2p*4p*(0)-1s*2p*(1)	1.44712	3.17e+13	3.13e+14	1.09e+13	1.07e+12	9.80e-02
2p*4f_(2)-1s*2p*(1)	1.44718	8.62e+10	2.87e+14	1.57e+11	2.35e+08	1.50e-03
2s*4s*(1)-1s*2p_(1)	1.44736	4.73e+12	6.17e+13	5.06e+11	1.18e+11	2.28e-01
2p_4s*(1)-1s*2s*(0)	1.44742	7.15e+12	2.23e+14	4.46e+11	4.29e+10	9.61e-02
2p_4f*(3)-1s*2p*(2)	1.44749	4.68e+10	2.88e+14	3.42e+10	4.35e+07	1.27e-03
2p*4p*(2)-1s*2p*(1)	1.44782	1.96e+13	3.11e+14	3.20e+13	9.14e+12	2.85e-01
2s*4d_(2)-1s*2p*(2)	1.44809	8.56e+10	5.13e+13	4.19e+12	3.23e+10	7.71e-03
2s*4d*(3)-1s*2p*(2)	1.44812	5.73e+11	2.41e+13	7.92e+11	1.28e+11	1.61e-01
2p*4p*(1)-1s*2p*(1)	1.44819	9.04e+12	3.06e+14	1.22e+11	1.08e+10	8.85e-02
2p_4p*(1)-1s*2p*(2)	1.44838	1.11e+11	2.52e+14	4.89e+10	6.45e+07	1.32e-03
2p*4p_(2)-1s*2p*(1)	1.44845	6.20e+12	3.11e+14	1.19e+13	1.14e+12	9.61e-02
2p*4p_(1)-1s*2p*(1)	1.44859	1.58e+13	3.14e+14	9.93e+10	1.50e+10	1.51e-01
2p_4p*(2)-1s*2p*(2)	1.44880	1.15e+11	2.44e+14	1.12e+13	2.52e+10	2.25e-03
2p_4p_(1)-1s*2p*(2)	1.44929	7.83e+10	2.74e+14	2.83e+10	2.42e+07	8.57e-04
2s*4s*(1)-1s*2p*(2)	1.44984	5.89e+11	6.17e+13	5.06e+11	1.44e+10	2.84e-02
2s*4d*(2)-1s*2p*(1)	1.45075	1.38e+11	9.75e+13	5.63e+11	3.97e+09	7.06e-03
2s*4d_(1)-1s*2p*(1)	1.45124	4.78e+10	4.93e+13	1.16e+12	3.29e+09	2.84e-03
2s*4d_(2)-1s*2p*(1)	1.45128	1.12e+12	5.13e+13	4.19e+12	4.23e+11	1.01e-01
2p_4p_(0)-1s*2p*(1)	1.45142	3.03e+11	2.39e+14	1.84e+12	2.32e+09	1.26e-03
2p_4p*(1)-1s*2p*(1)	1.45158	2.46e+12	2.52e+14	4.89e+10	1.43e+09	2.93e-02
2p_4p*(2)-1s*2p*(1)	1.45189	1.20e+12	2.44e+14	1.12e+13	2.64e+11	2.36e-02
2p_4p_(1)-1s*2p*(1)	1.45249	1.30e+12	2.74e+14	2.83e+10	4.03e+08	1.43e-02
2s*4s*(0)-1s*2p*(1)	1.45270	2.14e+12	9.13e+13	5.43e+13	7.98e+11	1.47e-02
2s*4s*(1)-1s*2p*(1)	1.45304	2.06e+11	6.17e+13	5.06e+11	4.87e+09	9.63e-03
3p* (3/2)-1s* (1/2)	1.50241	7.71e+13	7.71e+13	0.	0.	4.00e+00
3p_ (1/2)-1s* (1/2)	1.50356	7.51e+13	7.51e+13	0.	0.	2.00e+00
2p*3d*(1)-1s*2s*(1)	1.50740	1.82e+11	2.80e+14	3.44e+10	6.71e+07	1.95e-03
2p*3d_(0)-1s*2s*(1)	1.50910	2.26e+12	2.78e+14	1.06e+11	8.63e+08	8.12e-03
2p*3d*(2)-1s*2s*(1)	1.50921	2.11e+12	2.79e+14	9.47e+10	3.59e+09	3.79e-02
2p*3d_(1)-1s*2s*(1)	1.50921	1.94e+12	2.79e+14	2.90e+11	8.06e+09	2.09e-02

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p*3d_(2)-1s*2s*(1)	1.51051	3.25e+11	2.85e+14	8.14e+11	4.63e+09	5.69e-03
2p*3s*(1)-1s*2s*(1)	1.51150	2.97e+10	2.30e+14	7.80e+13	2.26e+10	2.90e-04
2p_3s*(2)-1s*2s*(1)	1.51282	5.32e+12	2.68e+14	2.90e+11	2.87e+10	9.91e-02
2p_3d_(1)-1s*2s*(1)	1.51287	7.57e+12	2.79e+14	2.07e+12	3.48e+10	1.68e-02
2p*3p*(0)-1s*2p_(1)	1.51341	2.32e+11	3.33e+14	1.88e+13	1.24e+10	6.58e-04
2p*3d*(1)-1s*2s*(0)	1.51352	1.04e+12	2.80e+14	3.44e+10	3.82e+08	1.11e-02
2p*3s*(2)-1s*2s*(1)	1.51383	6.78e+11	2.85e+14	1.09e+12	1.28e+10	1.18e-02
2p_3d_(2)-1s*2s*(1)	1.51406	5.61e+11	2.81e+14	3.79e+12	3.73e+10	9.85e-03
2p*3d_(1)-1s*2s*(0)	1.51535	5.16e+10	2.79e+14	2.90e+11	1.81e+08	5.55e-04
2s*3p*(1)-1s*2s*(1)	1.51558	1.60e+13	1.82e+14	1.26e+13	3.13e+12	2.47e-01
2p*3p*(2)-1s*2p_(1)	1.51559	8.31e+11	3.06e+14	1.01e+14	1.03e+12	1.02e-02
2s*3p*(2)-1s*2s*(1)	1.51614	6.49e+13	1.02e+14	6.48e+12	1.94e+13	3.00e+00
2s*3p_(0)-1s*2s*(1)	1.51680	5.16e+13	1.39e+14	2.28e+12	8.31e+11	3.65e-01
2p*3p*(1)-1s*2p_(0)	1.51687	6.27e+10	3.31e+14	1.37e+11	7.79e+07	5.67e-04
2s*3p_(1)-1s*2s*(1)	1.51701	5.20e+13	1.20e+14	1.33e+13	1.55e+13	1.17e+00
2p*3p*(1)-1s*2p_(1)	1.51724	4.19e+12	3.31e+14	1.37e+11	5.21e+09	3.79e-02
2p*3p_(2)-1s*2p_(1)	1.51739	1.84e+12	3.04e+14	1.27e+13	3.69e+11	2.91e-02
2p_3s*(0)-1s*2s*(1)	1.51757	1.84e+13	2.27e+14	7.70e+12	6.06e+11	7.87e-02
2p*3s*(1)-1s*2s*(0)	1.51765	1.82e+13	2.30e+14	7.80e+13	1.23e+13	1.58e-01
2p*3p_(1)-1s*2p_(0)	1.51783	1.29e+12	3.50e+14	3.14e+11	3.48e+09	1.11e-02
2p_3s*(1)-1s*2s*(1)	1.51820	1.05e+12	2.05e+14	9.76e+11	1.49e+10	1.53e-02
2p*3p_(1)-1s*2p_(1)	1.51821	1.27e+13	3.50e+14	3.14e+11	3.43e+10	1.08e-01
2p*3p*(2)-1s*2p_(2)	1.51831	8.99e+12	3.08e+14	1.01e+14	1.11e+13	1.10e-01
2s*3d*(2)-1s*2p_(1)	1.51876	4.08e+12	1.02e+14	1.45e+13	2.55e+12	1.76e-01
2p*3p*(0)-1s*2p*(1)	1.51983	6.44e+13	3.33e+14	1.88e+13	3.45e+12	1.83e-01
2s*3d_(1)-1s*2p_(0)	1.51983	1.53e+13	7.70e+13	2.18e+12	1.26e+12	5.79e-01
2s*3d_(2)-1s*2p_(1)	1.51996	1.38e+13	9.11e+13	2.04e+13	1.27e+13	6.21e-01
2p*3p*(1)-1s*2p*(2)	1.51996	5.13e+13	3.31e+14	1.37e+11	8.37e+10	4.84e-01
2s*3d_(1)-1s*2p_(1)	1.52001	3.14e+11	7.70e+13	2.18e+12	2.59e+10	1.19e-02
2p*3p_(2)-1s*2p*(2)	1.52012	5.43e+13	3.84e+14	1.27e+13	1.09e+13	8.58e-01
2p*3p*(3)-1s*2p*(2)	1.52035	6.77e+13	3.10e+14	1.34e+12	2.05e+12	1.52e+00
2p_3p_(0)-1s*2p_(1)	1.52037	5.86e+13	3.12e+14	3.73e+12	7.05e+11	1.88e-01
2p_3p*(1)-1s*2p_(0)	1.52057	2.58e+13	2.86e+14	1.54e+11	4.14e+10	2.68e-01
2p*3p_(1)-1s*2p*(2)	1.52084	1.72e+13	3.98e+14	3.14e+11	4.02e+10	1.47e-01
2p_3p*(1)-1s*2p_(1)	1.52085	1.68e+13	2.86e+14	1.54e+11	2.69e+10	1.75e-01
2s*3d*(2)-1s*2p*(2)	1.52149	4.40e+12	1.02e+14	1.45e+13	2.74e+12	1.90e-01
2p_3p*(2)-1s*2p_(2)	1.52172	5.52e+13	2.73e+14	1.18e+13	1.15e+13	9.78e-01
2s*3p*(1)-1s*2s*(0)	1.52177	2.21e+13	1.82e+14	1.26e+13	4.31e+12	3.41e-01
2p*3p*(2)-1s*2p*(1)	1.52182	4.60e+13	3.06e+14	1.01e+14	5.70e+13	5.64e-01
2s*3d_(2)-1s*2p*(2)	1.52209	4.36e+11	9.11e+13	2.04e+13	4.08e+11	1.90e-02
2s*3d_(1)-1s*2p*(2)	1.52274	1.38e+11	7.70e+13	2.18e+12	1.14e+10	5.24e-03
2p_3p_(1)-1s*2p_(0)	1.52293	3.28e+13	3.21e+14	4.00e+10	1.19e+10	2.98e-01
2s*3d*(3)-1s*2p*(2)	1.52309	1.10e+13	4.98e+13	1.18e+12	1.78e+12	1.51e+00
2s*3p_(1)-1s*2s*(0)	1.52320	3.38e+12	1.20e+14	1.33e+13	1.00e+12	7.54e-02
2p_3p_(1)-1s*2p_(1)	1.52331	3.28e+13	3.21e+14	4.00e+10	1.22e+10	3.06e-01
2s*3s*(0)-1s*2p_(1)	1.52347	9.20e+12	8.31e+13	1.59e+14	6.05e+12	3.79e-02
2p*3p*(1)-1s*2p*(1)	1.52349	1.52e+13	3.31e+14	1.37e+11	1.89e+10	1.37e-01
2p*3p_(2)-1s*2p*(1)	1.52364	2.54e+12	3.04e+14	1.27e+13	5.08e+11	4.02e-02
2p_3s*(1)-1s*2s*(0)	1.52441	2.90e+13	2.05e+14	9.78e+11	4.23e+11	4.34e-01
2p_3p*(2)-1s*2p*(2)	1.52446	3.60e+12	2.73e+14	1.18e+13	7.50e+11	6.33e-02
2p*3p_(1)-1s*2p*(1)	1.52446	4.06e+13	3.50e+14	3.14e+11	1.10e+11	3.49e-01
2s*3s*(1)-1s*2p_(0)	1.52453	1.21e+12	6.81e+13	1.04e+12	5.50e+10	5.27e-02
2s*3s*(1)-1s*2p_(1)	1.52491	9.05e+12	6.81e+13	1.04e+12	4.10e+11	3.93e-01
2s*3d*(2)-1s*2p*(1)	1.52501	1.35e+13	1.02e+14	1.45e+13	8.42e+12	5.81e-01
2p_3p_(1)-1s*2p*(2)	1.52605	5.33e+11	3.21e+14	4.00e+10	1.99e+08	4.97e-03
2s*3d_(2)-1s*2p*(1)	1.52622	4.29e+12	9.11e+13	2.04e+13	3.93e+12	1.93e-01
2s*3d_(1)-1s*2p*(1)	1.52627	6.13e+10	7.70e+13	2.18e+12	5.06e+09	2.32e-03
2p_3p_(0)-1s*2p*(1)	1.52684	2.84e+11	3.12e+14	3.73e+12	3.38e+09	9.01e-04
2p_3p*(1)-1s*2p*(1)	1.52722	1.93e+13	2.86e+14	1.54e+11	3.12e+10	2.02e-01
2s*3s*(1)-1s*2p*(2)	1.52788	4.23e+12	6.81e+13	1.04e+12	1.92e+11	1.84e-01
2p_3p*(2)-1s*2p*(1)	1.52800	2.33e+10	2.73e+14	1.18e+13	4.86e+09	4.10e-04
2p_3p_(1)-1s*2p*(1)	1.52960	4.85e+12	3.21e+14	4.00e+10	1.81e+09	4.53e-02
2s*3s*(0)-1s*2p*(1)	1.52977	6.83e+12	8.31e+13	1.59e+14	4.36e+12	2.73e-02
2s*3s*(1)-1s*2p*(1)	1.53122	1.95e+11	6.81e+13	1.04e+12	8.82e+09	8.45e-03
2p*4d*(1)-1s*3s*(0)	1.67568	8.20e+09	2.85e+14	1.42e+11	1.22e+07	8.63e-05
2p*4s*(2)-1s*3s*(1)	1.67650	3.30e+10	2.84e+14	2.63e+11	1.53e+08	5.80e-04
2p*4p_(2)-1s*3p_(1)	1.67788	5.51e+10	3.11e+14	1.19e+13	1.01e+10	8.54e-04
2p*4p_(1)-1s*3p_(0)	1.67793	2.35e+10	3.14e+14	9.93e+10	2.22e+07	2.24e-04
2p*4s*(1)-1s*3s*(0)	1.67797	2.97e+10	2.72e+14	1.89e+13	5.79e+09	3.06e-04
2p*4p*(0)-1s*3p*(1)	1.67825	1.23e+11	3.13e+14	1.09e+13	4.15e+09	3.80e-04
2p*4d*(3)-1s*3d*(2)	1.67841	2.12e+10	2.85e+14	8.09e+12	4.09e+09	5.06e-04
2p*4p*(3)-1s*3p*(2)	1.67869	1.88e+11	3.10e+14	4.15e+11	1.76e+09	4.24e-03
2p*4d_(3)-1s*3d_(2)	1.67876	2.08e+10	2.85e+14	1.53e+12	7.76e+08	5.09e-04
2p*4d_(2)-1s*3d_(1)	1.67901	2.14e+10	2.85e+14	4.74e+11	1.77e+08	3.73e-04
2p*4d_(3)-1s*3d*(2)	1.67920	2.13e+10	2.85e+14	1.53e+12	7.92e+08	5.19e-04

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*4d*(4)-1s*3d*(3)	1.67932	1.08e+11	2.83e+14	2.15e+12	7.34e+09	3.41e-03
2p*4d_(2)-1s*3d*(2)	1.67943	2.54e+10	2.88e+14	4.74e+11	2.10e+08	4.44e-04
2p*4p*(1)-1s*3p*(1)	1.67970	1.05e+11	3.06e+14	1.22e+11	1.26e+08	1.03e-03
2p*4p_(1)-1s*3p*(1)	1.68023	1.54e+11	3.14e+14	9.93e+10	1.46e+08	1.47e-03
2s*4d_(1)-1s*3p_(0)	1.68149	1.85e+10	4.93e+13	1.16e+12	1.27e+09	1.10e-03
2s*4p*(1)-1s*3s*(0)	1.68188	4.93e+10	1.03e+14	1.55e+13	1.94e+10	1.25e-03
2p_4p*(1)-1s*3p_(0)	1.68194	8.03e+09	2.52e+14	4.89e+10	4.67e+06	9.55e-05
2p_4p*(2)-1s*3p_(1)	1.68250	5.60e+10	2.44e+14	1.12e+13	1.23e+10	1.10e-03
2s*4f*(3)-1s*3d_(2)	1.68263	2.00e+10	1.76e+12	1.97e+10	1.54e+09	7.85e-02
2s*4f_(3)-1s*3d_(2)	1.68275	8.67e+10	4.14e+13	7.08e+11	1.02e+10	1.44e-02
2s*4f_(2)-1s*3d_(1)	1.68281	6.11e+10	1.87e+13	1.68e+11	2.72e+09	1.62e-02
2s*4p_(1)-1s*3s*(0)	1.68302	2.79e+10	5.53e+13	6.71e+12	9.07e+09	1.35e-03
2s*4f*(3)-1s*3d*(2)	1.68306	9.78e+10	1.76e+12	1.97e+10	7.54e+09	3.84e-01
2p_4p_(1)-1s*3p_(0)	1.68317	8.03e+10	2.74e+14	2.83e+10	2.49e+07	8.79e-04
2s*4f*(4)-1s*3d*(3)	1.68318	4.00e+10	1.91e+12	7.50e+08	1.41e+08	1.88e-01
2p_4p_(1)-1s*3p_(1)	1.68350	6.41e+10	2.74e+14	2.83e+10	2.60e+07	9.21e-04
2p_4d*(3)-1s*3d_(2)	1.68370	1.75e+10	2.41e+14	3.05e+12	1.53e+09	5.02e-04
2p_4s*(1)-1s*3s*(0)	1.68359	1.16e+11	2.23e+14	4.46e+11	6.95e+08	1.56e-03
2p_4d_(2)-1s*3d_(1)	1.68403	3.86e+10	2.65e+14	1.55e+12	1.13e+09	7.24e-04
2s*4s*(1)-1s*3p_(1)	1.68404	3.16e+10	6.17e+13	5.06e+11	7.71e+08	1.52e-03
2p_4p_(0)-1s*3p*(1)	1.68404	1.02e+11	2.39e+14	1.84e+12	7.83e+08	4.24e-04
2p_4p*(1)-1s*3p*(1)	1.68425	6.29e+10	2.52e+14	4.89e+10	3.65e+07	7.47e-04
2p_4p_(1)-1s*3p*(1)	1.68548	2.47e+10	2.74e+14	2.83e+10	7.63e+06	2.70e-04
2p*3d*(1)-1s*3s*(1)	1.77158	2.36e+11	2.80e+14	3.44e+10	8.68e+07	2.52e-03
2p*3d*(1)-1s*3s*(0)	1.77369	7.77e+10	2.80e+14	3.44e+10	2.88e+07	8.31e-04
2p*3d_(0)-1s*3s*(1)	1.77393	2.43e+12	2.78e+14	1.06e+11	9.29e+08	8.74e-03
2p*3d*(2)-1s*3s*(1)	1.77408	5.76e+12	2.79e+14	9.47e+10	9.80e+09	1.03e-01
2p*3d_(1)-1s*3s*(1)	1.77409	3.30e+12	2.79e+14	2.90e+11	1.03e+10	3.55e-02
2p*3p*(0)-1s*3p_(1)	1.77413	5.35e+11	3.33e+14	1.88e+13	2.86e+10	1.52e-03
2p*2p*(0)-1s*2p_(1)	1.77447	2.02e+11	4.91e+14	2.84e+13	1.11e+10	3.90e-04
2p*4d*(1)-1s*4s*(1)	1.77565	3.89e+11	2.85e+14	1.42e+11	5.80e+08	4.09e-03
2p*3d_(2)-1s*3s*(1)	1.77588	1.18e+12	2.85e+14	8.14e+11	1.68e+10	2.06e-02
2p*3d*(1)-1s*3d_(2)	1.77599	1.23e+13	2.88e+14	3.44e+10	4.53e+09	1.32e-01
2p*3d*(1)-1s*3d_(1)	1.77601	3.23e+12	2.88e+14	3.44e+10	1.19e+09	3.45e-02
2p*3d_(1)-1s*3s*(0)	1.77620	6.61e+11	2.79e+14	2.90e+11	2.08e+09	7.11e-03
2p*4d_(0)-1s*4s*(1)	1.77643	5.80e+11	2.84e+14	1.04e+11	2.12e+08	2.04e-03
2p*3d*(1)-1s*3d*(2)	1.77648	2.83e+14	2.80e+14	3.44e+10	9.69e+10	2.82e+00
2p*4d*(2)-1s*4s*(1)	1.77648	3.49e+12	2.84e+14	8.35e+10	5.12e+08	6.13e-02
2p*4d*(1)-1s*4s*(0)	1.77648	6.39e+11	2.85e+14	1.42e+11	9.54e+08	6.73e-03
2p*4d_(1)-1s*4s*(1)	1.77650	1.23e+12	2.84e+14	1.14e+11	1.48e+09	1.29e-02
2p*3p*(0)-1s*3p*(1)	1.77656	2.68e+14	3.33e+14	1.88e+13	1.44e+13	7.61e-01
2p*4f*(2)-1s*4p_(1)	1.77656	8.06e+10	2.88e+14	2.17e+11	3.04e+08	1.40e-03
2p*3d*(3)-1s*3d_(2)	1.77680	9.48e+13	2.85e+14	1.91e+13	4.18e+13	2.18e+00
2p*4p*(0)-1s*4p_(1)	1.77688	7.83e+12	3.13e+14	1.08e+13	2.64e+11	2.42e-02
2p*4f_(2)-1s*4p_(1)	1.77697	1.24e+11	2.87e+14	1.57e+11	3.38e+08	2.16e-03
2p*3d*(3)-1s*3d*(3)	1.77702	4.24e+13	2.85e+14	1.91e+13	1.88e+13	9.78e-01
2p*4f*(2)-1s*4p*(2)	1.77704	2.21e+11	2.88e+14	2.17e+11	8.33e+08	3.84e-03
2p*4d_(2)-1s*4s*(1)	1.77705	2.14e+11	2.88e+14	4.74e+11	1.77e+09	3.74e-03
2p*3d*(3)-1s*3d*(2)	1.77710	1.48e+14	2.85e+14	1.91e+13	6.48e+13	3.40e+00
2p*3p*(2)-1s*3p_(1)	1.77713	2.81e+12	3.06e+14	1.01e+14	3.48e+12	3.45e-02
2p*3s*(1)-1s*3s*(1)	1.77725	2.86e+13	2.30e+14	7.80e+13	2.19e+13	2.80e-01
2p*4d_(1)-1s*4s*(0)	1.77733	5.45e+11	2.84e+14	1.14e+11	6.56e+08	5.75e-03
2p*4f*(3)-1s*4p*(2)	1.77740	3.54e+10	2.87e+14	5.90e+08	5.09e+05	8.62e-04
2p*4f_(2)-1s*4p*(2)	1.77745	2.19e+11	2.87e+14	1.57e+11	5.97e+08	3.80e-03
2p*4d*(1)-1s*4d_(2)	1.77748	1.56e+12	2.85e+14	1.42e+11	2.38e+09	1.66e-02
2p*4d*(1)-1s*4d_(1)	1.77749	4.28e+12	2.85e+14	1.42e+11	6.39e+09	4.51e-02
2p*4f*(2)-1s*4p*(1)	1.77755	9.39e+11	2.88e+14	2.17e+11	3.54e+09	1.63e-02
2p*4f*(2)-1s*4f_(3)	1.77759	2.84e+11	2.88e+14	2.17e+11	9.93e+08	4.57e-03
2p*4d*(1)-1s*4d*(2)	1.77770	2.78e+14	2.85e+14	1.42e+11	4.15e+11	2.92e+00
2p*4f*(2)-1s*4f_(2)	1.77770	2.97e+12	2.88e+14	2.17e+11	1.12e+10	5.15e-02
2p*4d*(3)-1s*4d_(2)	1.77774	8.46e+13	2.85e+14	8.09e+12	1.64e+13	2.02e+00
2p*4f*(2)-1s*4f*(3)	1.77780	2.83e+14	2.88e+14	2.17e+11	1.07e+12	4.92e+00
2p*4f_(1)-1s*4f_(2)	1.77786	2.88e+14	2.88e+14	7.07e+08	2.12e+09	3.00e+00
2p*4p*(0)-1s*4p*(1)	1.77787	2.72e+14	3.13e+14	1.09e+13	9.17e+12	8.41e-01
2p*4d*(3)-1s*4d*(3)	1.77792	8.04e+13	2.85e+14	8.09e+12	1.55e+13	1.92e+00
2p*4p*(2)-1s*4p_(1)	1.77793	3.13e+11	3.11e+14	3.20e+13	1.46e+11	4.56e-03
2p*4f_(4)-1s*4f_(3)	1.77795	2.10e+14	2.85e+14	3.79e+11	2.51e+12	6.62e+00
2p*4f_(2)-1s*4p*(1)	1.77796	6.21e+11	2.87e+14	1.57e+11	1.69e+09	1.08e-02
2p*4d*(3)-1s*4d*(2)	1.77796	1.20e+14	2.85e+14	8.09e+12	2.32e+13	2.87e+00
2p*4f_(4)-1s*4f*(4)	1.77805	4.04e+13	2.85e+14	3.79e+11	4.83e+11	1.27e+00
2p*4f*(3)-1s*4f_(3)	1.77806	9.73e+12	2.87e+14	5.90e+08	1.40e+08	2.37e-01
2p*4f_(4)-1s*4f*(3)	1.77806	3.49e+13	2.85e+14	3.79e+11	4.17e+11	1.10e+00
2p*4f*(3)-1s*4f_(2)	1.77807	6.77e+12	2.87e+14	5.90e+08	9.74e+07	1.65e-01
2p*4f_(2)-1s*4f_(3)	1.77810	7.65e+13	2.87e+14	1.57e+11	2.09e+11	1.33e+00
2p*4f_(2)-1s*4f_(2)	1.77811	2.07e+14	2.87e+14	1.57e+11	5.64e+11	3.60e+00

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*4f*(5)-1s*4f*(4)	1.77811	2.85e+14	2.85e+14	2.36e+11	2.59e+12	1.10e+01
2p* (3/2)-1s* (1/2)	1.77813	2.90e+14	2.90e+14	0.	0.	4.00e+00
2p*4f*(3)-1s*4f*(4)	1.77816	8.01e+13	2.87e+14	5.90e+08	1.15e+09	1.95e+00
2p*4f*(3)-1s*4f*(3)	1.77816	1.90e+14	2.87e+14	5.90e+08	2.74e+09	4.64e+00
2p*4f_(2)-1s*4f*(3)	1.77820	2.83e+12	2.87e+14	1.57e+11	7.72e+09	4.92e-02
2p*4s*(1)-1s*4s*(1)	1.77822	7.42e+13	2.72e+14	1.89e+13	1.45e+13	7.65e-01
2p*4f*(4)-1s*4f_(3)	1.77822	7.51e+13	2.86e+14	8.74e+10	2.06e+11	2.36e+00
2p*3p*(2)-1s*3p*(2)	1.77824	6.34e+13	3.06e+14	1.01e+14	7.87e+13	7.79e-01
2p*4d_(0)-1s*4d_(1)	1.77827	2.83e+14	2.84e+14	1.04e+11	1.03e+11	9.97e-01
2p*4d*(2)-1s*4d_(2)	1.77831	5.58e+13	2.84e+14	8.35e+10	8.19e+10	9.81e-01
2p*4d*(2)-1s*4d_(1)	1.77831	3.85e+13	2.84e+14	8.35e+10	5.35e+10	6.41e-01
2p*4f*(4)-1s*4f*(4)	1.77832	1.17e+14	2.86e+14	8.74e+10	3.22e+11	3.69e+00
2p*4d_(1)-1s*4d_(2)	1.77833	5.58e+13	2.84e+14	1.14e+11	6.72e+10	5.89e-01
2p*4f_(3)-1s*4f_(3)	1.77833	1.43e+14	2.86e+14	6.60e+10	2.31e+11	3.51e+00
2p*4f*(4)-1s*4f*(3)	1.77833	9.37e+13	2.86e+14	8.74e+10	2.58e+11	2.95e+00
2p*4d_(1)-1s*4d_(1)	1.77834	2.21e+14	2.84e+14	1.14e+11	2.67e+11	2.33e+00
2p*4f_(3)-1s*4f_(2)	1.77834	1.28e+14	2.86e+14	6.60e+10	2.04e+11	3.09e+00
2p*3d_(0)-1s*3d_(1)	1.77836	2.73e+14	2.78e+14	1.06e+11	1.04e+11	9.83e-01
2p*4p*(2)-1s*4p*(2)	1.77841	1.15e+14	3.11e+14	3.20e+13	5.38e+13	1.68e+00
2p*4f_(3)-1s*4f*(4)	1.77842	3.98e+12	2.86e+14	6.60e+10	6.40e+09	9.69e-02
2p*4p*(1)-1s*4p_(0)	1.77843	3.92e+13	3.06e+14	1.22e+11	4.67e+10	3.84e-01
2p*4f_(3)-1s*4f*(3)	1.77843	1.25e+13	2.86e+14	6.60e+10	2.01e+10	3.05e-01
2p*4d*(2)-1s*4d*(3)	1.77849	5.25e+13	2.84e+14	8.35e+10	7.71e+10	9.23e-01
2p*3d_(1)-1s*3d_(2)	1.77850	6.62e+13	2.79e+14	2.90e+11	2.06e+11	7.11e-01
2p*3d*(2)-1s*3d_(2)	1.77850	6.12e+13	2.79e+14	9.47e+10	1.04e+11	1.10e+00
2p*4p*(1)-1s*4p_(1)	1.77850	7.34e+13	3.06e+14	1.22e+11	8.74e+10	7.19e-01
2p*3d_(1)-1s*3d_(1)	1.77852	1.97e+14	2.79e+14	2.90e+11	6.14e+11	2.12e+00
2p*3d*(2)-1s*3d_(1)	1.77852	3.24e+13	2.79e+14	9.47e+10	5.31e+10	5.62e-01
2p*4d*(2)-1s*4d*(2)	1.77853	1.36e+14	2.84e+14	8.35e+10	1.99e+11	2.39e+00
2p*4d_(1)-1s*4d*(2)	1.77855	5.26e+12	2.84e+14	1.14e+11	6.33e+08	5.55e-02
2p*4d_(3)-1s*4d_(2)	1.77863	1.92e+14	2.85e+14	1.53e+12	7.14e+12	4.68e+00
2p*4s*(2)-1s*4s*(1)	1.77868	2.78e+14	2.84e+14	2.63e+11	1.28e+12	4.88e+00
2p*4d_(3)-1s*4d*(3)	1.77882	6.94e+13	2.85e+14	1.53e+12	2.58e+12	1.69e+00
2p*4d_(3)-1s*4d*(2)	1.77886	2.61e+13	2.85e+14	1.53e+12	8.98e+11	5.88e-01
2p*4p_(2)-1s*4p_(1)	1.77889	2.57e+14	3.11e+14	1.19e+13	4.73e+13	3.99e+00
2p*4d_(2)-1s*4d_(2)	1.77889	9.17e+13	2.86e+14	4.74e+11	7.58e+11	1.60e+00
2p*4d_(2)-1s*4d_(1)	1.77889	1.02e+14	2.86e+14	4.74e+11	8.48e+11	1.79e+00
2p*3d*(2)-1s*3d*(3)	1.77893	6.44e+13	2.79e+14	9.47e+10	1.09e+11	1.16e+00
2p*4p*(2)-1s*4p*(1)	1.77893	1.65e+14	3.11e+14	3.20e+13	7.69e+13	2.40e+00
2s*2p*(1)-1s*2s*(1)	1.77898	1.06e+13	2.80e+14	2.16e+14	1.37e+13	6.52e-02
2p*4p*(1)-1s*4p*(2)	1.77906	4.17e+13	3.06e+14	1.22e+11	4.87e+10	4.08e-01
2p*3d_(1)-1s*3d*(2)	1.77908	9.81e+12	2.79e+14	2.90e+11	3.09e+10	1.07e-01
2p*3d*(2)-1s*3d*(2)	1.77908	1.13e+14	2.79e+14	9.47e+10	1.31e+11	2.82e+00
2p*4d*(4)-1s*4d*(3)	1.77902	2.83e+14	2.83e+14	2.15e+12	1.92e+13	8.93e+00
2p*4p_(1)-1s*4p_(0)	1.77903	1.58e+14	3.14e+14	9.93e+10	1.42e+11	1.43e+00
2p*4s*(1)-1s*4s*(0)	1.77905	1.94e+14	2.72e+14	1.89e+13	3.78e+13	2.06e+00
2p*4d_(2)-1s*4d*(3)	1.77907	2.36e+13	2.86e+14	4.74e+11	1.97e+11	4.16e-01
2p*4p*(2)-1s*4f_(3)	1.77907	4.96e+10	3.11e+14	3.20e+13	2.31e+10	7.22e-04
2p*4p*(2)-1s*4f_(2)	1.77907	6.36e+11	3.11e+14	3.20e+13	2.97e+11	9.28e-03
2p_3d*(2)-1s*3s*(1)	1.77908	1.01e+14	2.88e+14	2.90e+11	5.43e+11	1.87e+00
2p*4p_(1)-1s*4p_(1)	1.77910	3.53e+13	3.14e+14	9.93e+10	3.35e+10	3.37e-01
2p*4d_(2)-1s*4d*(2)	1.77911	6.79e+13	2.86e+14	4.74e+11	5.38e+11	1.16e+00
2p*4p*(3)-1s*4p*(2)	1.77917	2.88e+14	3.16e+14	4.15e+11	2.62e+12	6.32e+00
2p*4p*(2)-1s*4f*(3)	1.77917	1.32e+12	3.11e+14	3.20e+13	6.14e+11	1.92e-02
2p*3p*(1)-1s*3p_(0)	1.77925	5.25e+13	3.31e+14	1.37e+11	6.53e+10	4.75e-01
2p*3s*(1)-1s*3s*(0)	1.77937	1.76e+14	2.38e+14	7.80e+13	1.34e+14	1.72e+00
2p*4p_(2)-1s*4p*(2)	1.77937	1.85e+13	3.11e+14	1.19e+13	3.40e+12	2.87e-01
2p*3p*(1)-1s*3p_(1)	1.77940	8.80e+13	3.31e+14	1.37e+11	1.11e+11	8.05e-01
2p*3d_(3)-1s*3d_(2)	1.77946	1.51e+14	2.86e+14	2.37e+12	8.88e+12	3.67e+00
2p*4p*(1)-1s*4p*(1)	1.77950	1.24e+14	3.08e+14	1.22e+11	1.47e+11	1.21e+00
2p*3p*(2)-1s*3p*(1)	1.77956	1.84e+14	3.06e+14	1.01e+14	2.28e+14	2.26e+00
2p*4p_(1)-1s*4p*(2)	1.77958	1.63e+13	3.14e+14	9.93e+10	1.55e+10	1.56e-01
2p*3p_(2)-1s*3p_(1)	1.77961	1.66e+14	3.04e+14	1.27e+13	3.28e+13	2.53e+00
2p*3d_(3)-1s*3d*(3)	1.77968	1.18e+14	2.86e+14	2.37e+12	6.88e+12	2.87e+00
2p*4p_(2)-1s*4p*(1)	1.77989	6.11e+12	3.11e+14	1.19e+13	1.12e+12	9.46e-02
2p*3d_(3)-1s*3d*(2)	1.77996	1.65e+13	2.86e+14	2.37e+12	9.49e+11	4.01e-01
2p*4p_(2)-1s*4f_(2)	1.78003	1.04e+11	3.11e+14	1.19e+13	1.92e+10	1.62e-03
2p*4s*(1)-1s*4d_(2)	1.78006	1.12e+11	2.72e+14	1.89e+13	2.18e+10	1.15e-03
2p*4s*(1)-1s*4d_(1)	1.78006	1.47e+12	2.72e+14	1.89e+13	2.87e+11	1.51e-02
2p*4p_(1)-1s*4p*(1)	1.78009	8.39e+13	3.14e+14	9.93e+10	7.95e+10	8.01e-01
2p*4p_(2)-1s*4f*(3)	1.78013	1.42e+11	3.11e+14	1.19e+13	2.61e+10	2.20e-03
2p*4s*(1)-1s*4d*(2)	1.78027	7.65e+11	2.72e+14	1.89e+13	1.49e+11	7.88e-03
2p*3d_(2)-1s*3d_(2)	1.78031	9.55e+13	2.85e+14	8.14e+11	1.38e+12	1.67e+00
2p*3d_(2)-1s*3d_(1)	1.78033	9.58e+13	2.85e+14	8.14e+11	1.38e+12	1.68e+00
2p*3s*(2)-1s*3s*(1)	1.78048	1.74e+14	2.85e+14	1.09e+12	3.30e+12	3.04e+00

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p*3p*(1)-1s*3p*(2)	1.78051	5.77e+13	5.31e+14	1.37e+11	4.68e+10	3.41e-01
2p*4s*(2)-1s*4d_(2)	1.78053	2.84e+11	2.84e+14	2.63e+11	1.31e+09	4.99e-03
2p*4s*(2)-1s*4d_(1)	1.78053	3.38e+11	2.84e+14	2.63e+11	1.56e+09	5.94e-03
2p*3p_(1)-1s*3p_(0)	1.78058	1.32e+14	3.50e+14	3.14e+11	3.54e+11	1.13e+00
2p*3p_(2)-1s*3p*(2)	1.78072	8.45e+13	3.04e+14	1.27e+13	1.68e+13	1.34e+00
2p*3d_(2)-1s*3d*(3)	1.78073	4.91e+13	2.85e+14	8.14e+11	7.00e+11	8.60e-01
2p*3p_(1)-1s*3p_(1)	1.78073	2.11e+13	3.50e+14	3.14e+11	5.69e+10	1.81e-01
2p*4s*(2)-1s*4d*(2)	1.78075	5.58e+12	2.84e+14	2.63e+11	2.58e+10	9.80e-02
2p*3d_(2)-1s*3d*(2)	1.78081	4.27e+13	2.85e+14	8.14e+11	6.09e+11	7.48e-01
2p*3d*(4)-1s*3d*(3)	1.78102	2.04e+14	2.84e+14	4.69e+12	4.15e+13	8.85e+00
2p*3p*(3)-1s*3p*(2)	1.78104	2.42e+14	3.10e+14	1.34e+12	7.31e+12	5.44e+00
2p_3d_(1)-1s*3s*(0)	1.78126	8.75e+12	2.79e+14	2.07e+12	1.94e+11	9.34e-02
2s*4f_(2)-1s*4s*(1)	1.78132	2.83e+10	1.87e+13	1.68e+11	1.26e+09	7.49e-03
2s*3d*(2)-1s*3p_(1)	1.78148	8.08e+13	1.02e+14	1.45e+13	3.74e+13	2.58e+00
2p*3s*(1)-1s*3d_(2)	1.78168	1.12e+12	2.30e+14	7.80e+13	8.48e+11	1.09e-02
2p*3s*(1)-1s*3d_(1)	1.78170	6.78e+12	2.30e+14	7.80e+13	5.15e+12	6.61e-02
2p_4d*(2)-1s*4s*(1)	1.78178	3.63e+12	2.48e+14	1.31e+11	9.56e+09	7.30e-02
2p*3p*(1)-1s*3p*(1)	1.78184	8.15e+13	3.31e+14	1.37e+11	1.01e+11	7.37e-01
2p*3p_(1)-1s*3p*(2)	1.78185	5.29e+13	3.50e+14	3.14e+11	1.42e+11	4.53e-01
2p_3d_(2)-1s*3s*(1)	1.78190	1.17e+12	2.81e+14	3.79e+12	7.80e+10	2.06e-02
2p*3p_(2)-1s*3p*(1)	1.78204	4.71e+11	3.04e+14	1.27e+13	9.42e+10	7.45e-03
2p*3s*(1)-1s*3d*(2)	1.78218	6.27e+11	2.30e+14	7.80e+13	4.77e+11	6.11e-03
2p_4f_(2)-1s*4p_(1)	1.78232	2.02e+12	2.17e+14	4.95e+11	2.30e+10	4.64e-02
2s*4d*(2)-1s*4p_(1)	1.78236	5.05e+12	9.75e+13	5.63e+11	1.45e+11	2.57e-01
2p_4d_(1)-1s*4s*(0)	1.78246	1.54e+12	2.68e+14	1.13e+11	1.94e+09	1.72e-02
2s*3d*(2)-1s*3p*(2)	1.78260	8.18e+12	1.02e+14	1.45e+13	5.11e+12	3.53e-01
2s*4p*(1)-1s*4s*(1)	1.78261	7.07e+13	1.03e+14	1.55e+13	2.79e+13	1.79e+00
2p_4d_(2)-1s*4s*(1)	1.78268	8.44e+10	2.65e+14	1.55e+12	2.46e+09	1.58e-03
2p_4f*(3)-1s*4p*(2)	1.78274	2.57e+11	2.88e+14	3.42e+10	2.38e+08	6.73e-03
2p_4f_(2)-1s*4p*(2)	1.78280	9.67e+12	2.17e+14	4.95e+11	1.18e+11	2.22e-01
2s*4d*(2)-1s*4p*(2)	1.78284	1.57e+13	9.75e+13	5.63e+11	4.49e+11	7.98e-01
2s*3p*(1)-1s*3s*(1)	1.78290	1.28e+14	1.82e+14	1.26e+13	2.58e+13	1.97e+00
2p*2p*(0)-1s*2p*(1)	1.78302	4.90e+14	4.91e+14	2.84e+13	2.69e+13	9.44e-01
2s*4d_(1)-1s*4p_(0)	1.78303	3.51e+12	4.93e+13	1.16e+12	2.41e+11	2.09e-01
2s*3d_(1)-1s*3p_(0)	1.78305	1.17e+12	7.70e+13	2.18e+12	9.67e+10	4.43e-02
2s*4d_(1)-1s*4p_(1)	1.78310	1.75e+13	4.93e+13	1.16e+12	1.21e+12	1.04e+00
2s*4f_(3)-1s*4d_(2)	1.78311	1.33e+11	4.14e+13	7.08e+11	1.56e+10	2.21e-02
2s*3d_(2)-1s*3p_(1)	1.78313	1.07e+11	9.11e+13	2.04e+13	9.80e+10	4.80e-03
2s*4d_(2)-1s*4p_(1)	1.78316	3.22e+10	5.13e+13	4.18e+12	1.22e+10	2.90e-03
2s*4f_(2)-1s*4d_(2)	1.78316	9.20e+12	1.87e+13	1.68e+11	4.10e+11	2.43e+00
2s*4f*(3)-1s*4d*(3)	1.78318	8.05e+11	1.76e+12	1.97e+10	6.22e+10	3.17e+00
2p*3p_(1)-1s*3p*(1)	1.78317	7.19e+13	3.50e+14	3.14e+11	1.94e+11	6.17e-01
2s*4f_(2)-1s*4d_(1)	1.78317	5.33e+12	1.87e+13	1.68e+11	2.38e+11	1.41e+00
2s*3d_(1)-1s*3p_(1)	1.78320	1.79e+13	7.70e+13	2.18e+12	1.48e+12	6.77e-01
2s*4f*(3)-1s*4d*(2)	1.78320	8.37e+11	1.76e+12	1.97e+10	8.47e+10	3.29e+00
2s*4f_(3)-1s*4d*(3)	1.78330	2.18e+13	4.14e+13	7.08e+11	2.56e+12	3.61e+00
2p_4f_(2)-1s*4p*(1)	1.78332	1.95e+12	2.17e+14	4.95e+11	2.22e+10	4.48e-02
2s*4f_(3)-1s*4d*(2)	1.78333	1.95e+13	4.14e+13	7.08e+11	2.29e+12	3.23e+00
2s*4f_(2)-1s*4d*(3)	1.78335	3.76e+12	1.87e+13	1.68e+11	1.68e+11	9.95e-01
2s*4p*(2)-1s*4s*(1)	1.78336	1.73e+12	7.13e+13	2.43e+12	2.85e+11	1.17e-01
2p_4p_(0)-1s*4p_(1)	1.78336	2.16e+14	2.39e+14	1.84e+12	1.65e+12	8.94e-01
2s*4d*(2)-1s*4p*(1)	1.78336	2.00e+12	9.75e+13	5.63e+11	5.75e+10	1.02e-01
2s*4f*(4)-1s*4d*(3)	1.78336	1.87e+12	1.91e+12	7.50e+06	6.81e+07	8.81e+00
2s*4f_(2)-1s*4d*(2)	1.78338	3.45e+11	1.87e+13	1.68e+11	1.54e+10	9.13e-02
2p_4f*(3)-1s*4f_(3)	1.78340	7.74e+10	2.68e+14	3.42e+10	6.92e+07	2.03e-03
2p_4f*(3)-1s*4f_(2)	1.78341	4.98e+11	2.68e+14	3.42e+10	4.43e+08	1.30e-02
2p_4f*(4)-1s*4f_(3)	1.78344	1.67e+10	2.83e+14	2.41e+11	1.28e+08	5.31e-04
2s*4p*(1)-1s*4s*(0)	1.78345	5.11e+12	1.03e+14	1.55e+13	2.01e+12	1.30e-01
2p_4d_(1)-1s*4d_(2)	1.78346	2.07e+14	2.68e+14	1.13e+11	2.62e+11	2.31e+00
2p_4f_(2)-1s*4f_(3)	1.78346	1.47e+14	2.17e+14	4.95e+11	1.67e+12	3.37e+00
2p_4d_(1)-1s*4d_(1)	1.78347	5.78e+13	2.68e+14	1.13e+11	7.32e+10	6.47e-01
2p_4f_(2)-1s*4f_(2)	1.78347	5.55e+13	2.17e+14	4.95e+11	6.32e+11	1.28e+00
2p_4f*(3)-1s*4f*(4)	1.78349	1.87e+14	2.68e+14	3.42e+10	1.67e+11	4.88e+00
2s*4p_(0)-1s*4s*(1)	1.78350	8.27e+13	1.07e+14	8.85e+11	6.76e+11	7.64e-01
2s*4d*(2)-1s*4f_(3)	1.78350	5.35e+13	9.75e+13	5.63e+11	1.54e+12	2.73e+00
2p_4f*(3)-1s*4f*(3)	1.78350	8.00e+13	2.68e+14	3.42e+10	7.15e+10	2.09e+00
2s*4d*(2)-1s*4f_(2)	1.78351	1.88e+13	9.75e+13	5.63e+11	5.39e+11	9.57e-01
2p_3d*(2)-1s*3d_(2)	1.78352	1.12e+11	2.88e+14	2.90e+11	6.07e+08	2.09e-03
2p_4p*(1)-1s*4p_(0)	1.78354	3.07e+12	2.52e+14	4.89e+10	1.79e+09	3.65e-02
2p_3d*(2)-1s*3d_(1)	1.78354	5.92e+10	2.68e+14	2.90e+11	3.20e+08	1.10e-03
2p_4f*(4)-1s*4f*(4)	1.78354	1.28e+14	2.83e+14	2.41e+11	9.82e+11	4.07e+00
2p_4f*(4)-1s*4f*(3)	1.78355	1.55e+14	2.83e+14	2.41e+11	1.19e+12	4.92e+00
2p_ (1/2)-1s* (1/2)	1.78356	2.87e+14	2.87e+14	0.	0.	2.00e+00
2p_4f_(2)-1s*4f*(3)	1.78357	3.04e+10	2.17e+14	4.95e+11	3.46e+08	6.98e-04
2p_3d_(1)-1s*3d_(2)	1.78358	1.88e+14	2.79e+14	2.07e+12	4.15e+12	2.00e+00

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4d_(1)-1s*4p*(2)	1.78358	2.28e+13	4.93e+13	1.16e+12	1.57e+12	1.36e+00
2p*2p*(2)-1s*2p_(1)	1.78359	8.84e+11	5.57e+14	2.42e+14	1.01e+12	4.16e-03
2p_4d*(2)-1s*4d_(2)	1.78360	1.70e+11	2.48e+14	1.31e+11	4.47e+08	3.41e-03
2p_3d_(1)-1s*3d_(1)	1.78360	7.73e+13	2.79e+14	2.07e+12	1.71e+12	8.25e-01
2s*4d*(2)-1s*4f*(3)	1.78360	1.58e+11	9.75e+13	5.63e+11	4.47e+09	7.95e-03
2p_4d*(2)-1s*4d_(1)	1.78361	6.49e+11	2.48e+14	1.31e+11	1.71e+09	1.31e-02
2p_4f_(3)-1s*4f_(3)	1.78362	1.32e+14	2.83e+14	1.79e+11	5.66e+11	3.27e+00
2p_4f_(3)-1s*4f_(2)	1.78363	1.50e+14	2.83e+14	1.79e+11	6.64e+11	3.71e+00
2s*4d_(2)-1s*4p*(2)	1.78364	1.51e+13	5.13e+13	4.19e+12	5.71e+12	1.36e+00
2p_4d_(1)-1s*4d*(2)	1.78368	1.78e+11	2.68e+14	1.13e+11	2.25e+08	1.99e-03
2s*3p*(2)-1s*3s*(1)	1.78368	2.84e+12	1.02e+14	6.48e+12	8.49e+11	1.31e-01
2s*4d*(3)-1s*4p*(2)	1.78369	4.82e+12	2.41e+13	7.92e+11	1.03e+12	1.38e+00
2p_3p_(0)-1s*3p_(1)	1.78370	2.50e+14	3.12e+14	3.73e+12	2.90e+12	7.93e-01
2p_4f_(3)-1s*4f*(4)	1.78372	7.35e+11	2.83e+14	1.79e+11	3.25e+09	1.82e-02
2p_4f_(3)-1s*4f*(3)	1.78372	5.87e+10	2.83e+14	1.79e+11	2.60e+08	1.45e-03
2p_4d*(2)-1s*4d*(3)	1.78379	1.69e+14	2.48e+14	1.31e+11	4.44e+11	3.39e+00
2p_4d*(2)-1s*4d*(2)	1.78382	7.19e+13	2.48e+14	1.31e+11	1.90e+11	1.45e+00
2p_4d*(3)-1s*4d_(2)	1.78383	8.23e+12	2.41e+14	3.05e+12	7.19e+11	2.36e-01
2s*4p_(1)-1s*4p*(1)	1.78389	1.23e+13	5.13e+13	6.71e+12	3.98e+12	5.94e-01
2s*3d*(2)-1s*3p*(1)	1.78393	1.14e+13	1.02e+14	1.45e+13	7.13e+12	4.92e-01
2p_3d*(2)-1s*3d*(3)	1.78394	6.08e+13	2.68e+14	2.90e+11	3.28e+11	1.13e+00
2p_3d*(2)-1s*3d*(2)	1.78402	1.01e+14	2.68e+14	2.90e+11	5.48e+11	1.88e+00
2p_4d*(3)-1s*4d*(3)	1.78402	1.13e+14	2.41e+14	3.05e+12	9.92e+12	3.26e+00
2p_4d*(3)-1s*4d*(2)	1.78405	1.19e+14	2.41e+14	3.05e+12	1.04e+13	3.42e+00
2p_3d_(1)-1s*3d*(2)	1.78406	3.89e+12	2.79e+14	2.07e+12	8.60e+10	4.15e-02
2p_4p*(2)-1s*4p_(1)	1.78408	2.09e+13	2.44e+14	1.12e+13	4.58e+12	4.09e-01
2p_4p*(1)-1s*4p*(2)	1.78409	1.82e+14	2.52e+14	4.89e+10	9.43e+10	1.93e+00
2s*4d_(1)-1s*4p*(1)	1.78410	3.71e+11	4.93e+13	1.16e+12	2.55e+10	2.21e-02
2s*4d_(2)-1s*4p*(1)	1.78410	2.13e+13	5.13e+13	4.19e+12	8.03e+12	1.91e+00
2s*3d_(2)-1s*3p*(2)	1.78425	3.29e+13	9.11e+13	2.04e+13	3.01e+13	1.48e+00
2s*4d_(1)-1s*4f_(2)	1.78425	5.79e+11	4.93e+13	1.16e+12	3.98e+10	3.44e-02
2s*4d_(2)-1s*4f_(3)	1.78430	9.61e+12	5.13e+13	4.19e+12	3.95e+12	8.47e-01
2s*4d_(2)-1s*4f_(2)	1.78431	1.40e+12	5.13e+13	4.19e+12	5.83e+11	1.34e-01
2s*3d_(1)-1s*3p*(2)	1.78432	4.08e+13	7.70e+13	2.18e+12	3.37e+12	1.98e+00
2p_3p*(1)-1s*3p_(0)	1.78435	4.25e+10	2.86e+14	1.54e+11	6.88e+07	4.49e-04
2s*4d*(3)-1s*4f_(3)	1.78435	3.48e+11	2.41e+13	7.92e+11	7.79e+10	9.83e-02
2s*4d*(3)-1s*4f_(2)	1.78436	2.11e+11	2.41e+13	7.92e+11	4.70e+10	5.93e-02
2p_4p_(0)-1s*4p*(1)	1.78437	6.33e+11	2.39e+14	1.84e+12	4.84e+09	2.62e-03
2s*4d_(2)-1s*4f*(3)	1.78440	1.19e+11	5.13e+13	4.19e+12	4.48e+10	1.07e-02
2p_4s*(0)-1s*4s*(1)	1.78444	2.02e+14	2.10e+14	2.77e+12	2.82e+12	9.47e-01
2s*4p*(1)-1s*4d_(2)	1.78445	4.84e+11	1.03e+14	1.55e+13	1.91e+11	1.23e-02
2s*4d*(3)-1s*4f*(4)	1.78445	1.51e+13	2.41e+13	7.92e+11	3.37e+12	4.25e+00
2s*4p*(1)-1s*4d_(1)	1.78446	1.59e+12	1.03e+14	1.55e+13	8.25e+11	4.02e-02
2s*4d*(3)-1s*4f*(3)	1.78446	3.22e+12	2.41e+13	7.92e+11	7.19e+11	9.07e-01
2p_4s*(1)-1s*4s*(1)	1.78453	1.27e+14	2.23e+14	4.46e+11	7.61e+11	1.71e+00
2p_4d_(2)-1s*4d_(2)	1.78463	1.25e+14	2.85e+14	1.55e+12	3.64e+12	2.34e+00
2p_4d_(2)-1s*4d_(1)	1.78463	1.37e+14	2.85e+14	1.55e+12	4.00e+12	2.57e+00
2p_4p*(2)-1s*4p*(2)	1.78466	1.12e+14	2.44e+14	1.12e+13	2.45e+13	2.19e+00
2s*3p_(0)-1s*3s*(1)	1.78468	7.31e+13	1.39e+14	2.28e+12	1.18e+12	5.18e-01
2p_4p*(1)-1s*4p*(1)	1.78481	6.31e+13	2.52e+14	4.89e+10	3.67e+10	7.50e-01
2p_3d*(3)-1s*3d_(2)	1.78485	3.88e+13	2.83e+14	5.66e+12	5.33e+12	9.42e-01
2s*4p*(1)-1s*4d*(2)	1.78487	3.51e+12	1.03e+14	1.55e+13	1.38e+12	8.90e-02
2p_4d_(2)-1s*4d*(3)	1.78471	2.93e+12	2.68e+14	1.53e+12	7.37e+10	4.74e-02
2s*4p_(1)-1s*4s*(0)	1.78473	6.46e+10	5.53e+13	6.71e+12	2.10e+10	3.13e-03
2p_4d_(2)-1s*4d*(2)	1.78475	1.87e+11	2.85e+14	1.55e+12	3.11e+09	2.00e-03
2p_4p*(1)-1s*4f_(2)	1.78476	5.68e+10	2.52e+14	4.89e+10	3.30e+07	6.74e-04
2s*3d*(3)-1s*3p*(2)	1.78480	3.87e+13	4.98e+13	1.18e+12	6.26e+12	5.32e+00
2s*3p_(1)-1s*3s*(1)	1.78487	5.55e+13	1.20e+14	1.33e+13	1.86e+13	1.25e+00
2p_4p_(1)-1s*4p_(0)	1.78492	8.92e+13	2.74e+14	2.83e+10	2.78e+10	9.78e-01
2p*3s*(2)-1s*3d_(2)	1.78493	1.07e+11	2.85e+14	1.09e+12	2.04e+09	1.88e-03
2p*3s*(2)-1s*3d_(1)	1.78496	1.95e+12	2.85e+14	1.09e+12	3.69e+10	3.40e-02
2p_4p_(1)-1s*4p_(1)	1.78498	1.42e+14	2.74e+14	2.83e+10	4.40e+10	1.56e+00
2s*3p*(1)-1s*3s*(0)	1.78503	2.50e+12	1.82e+14	1.26e+13	4.88e+11	3.88e-02
2p_3d*(3)-1s*3d*(3)	1.78508	1.25e+14	2.83e+14	5.66e+12	1.71e+13	3.03e+00
2p_4p*(2)-1s*4p*(1)	1.78508	8.73e+13	2.44e+14	1.12e+13	1.91e+13	1.71e+00
2p_3d*(3)-1s*3d*(2)	1.78515	1.19e+14	2.83e+14	5.66e+12	1.64e+13	2.90e+00
2s*4p*(2)-1s*4d_(2)	1.78521	3.64e+12	7.13e+13	2.43e+12	5.99e+11	2.47e-01
2s*4p*(2)-1s*4d_(1)	1.78522	1.43e+12	7.13e+13	2.43e+12	2.38e+11	9.78e-02
2p_4p*(2)-1s*4f_(3)	1.78522	1.83e+11	2.44e+14	1.12e+13	4.01e+10	3.58e-03
2s*4s*(0)-1s*4p_(1)	1.78529	6.35e+13	9.13e+13	5.43e+13	2.37e+13	4.38e-01
2p_4p*(2)-1s*4f*(3)	1.78533	1.69e+11	2.44e+14	1.12e+13	3.72e+10	3.32e-03
2p*3s*(2)-1s*3d*(3)	1.78535	8.19e+13	2.85e+14	1.09e+12	1.55e+12	1.43e+00
2s*4p_(0)-1s*4d_(1)	1.78535	4.95e+12	1.07e+14	8.85e+11	4.05e+10	4.58e-02
2p_4s*(1)-1s*4s*(0)	1.78537	8.27e+13	2.25e+14	4.46e+11	4.96e+11	1.11e+00
2s*4p*(2)-1s*4d*(3)	1.78540	3.51e+13	7.13e+13	2.43e+12	5.79e+12	2.38e+00

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2s*3s*(2)-1s*3d*(2)	1.78543	2.66e+13	2.85e+14	1.09e+12	5.04e+11	4.64e-01
2s*4p*(2)-1s*4d*(2)	1.78543	4.66e+12	7.13e+13	2.43e+12	7.68e+11	3.16e-01
2p_4p_(1)-1s*4p*(2)	1.78547	8.18e+12	2.74e+14	2.83e+10	2.53e+09	8.95e-02
2p_3p*(2)-1s*3p_(1)	1.78556	6.09e+13	2.73e+14	1.18e+13	1.27e+13	1.07e+00
2s*3d_(2)-1s*3p*(1)	1.78558	3.94e+13	9.11e+13	2.04e+13	3.81e+13	1.77e+00
2p_3p*(1)-1s*3p*(2)	1.78562	1.18e+14	2.86e+14	1.54e+11	1.88e+11	1.22e+00
2s*3d_(1)-1s*3p*(1)	1.78565	1.34e+12	7.70e+13	2.18e+12	1.11e+11	5.07e-02
2p_3s*(0)-1s*3s*(1)	1.78565	2.06e+14	2.27e+14	7.70e+12	6.84e+12	8.88e-01
2s*4p_(1)-1s*4d_(2)	1.78574	1.70e+13	5.53e+13	6.71e+12	5.51e+12	8.22e-01
2s*4p_(1)-1s*4d_(1)	1.78574	1.66e+11	5.53e+13	6.71e+12	5.49e+10	8.05e-03
2s*4s*(1)-1s*4p_(0)	1.78575	1.01e+12	6.17e+13	5.06e+11	2.47e+10	4.88e-02
2s*4s*(1)-1s*4p_(1)	1.78581	1.63e+13	6.17e+13	5.06e+11	3.87e+11	7.85e-01
2p_4p_(1)-1s*4p*(1)	1.78589	8.49e+12	2.74e+14	2.83e+10	2.63e+09	9.29e-02
2p_4p_(1)-1s*4f_(2)	1.78614	8.91e+10	2.74e+14	2.83e+10	2.76e+07	9.75e-04
2p_3p_(0)-1s*3p*(1)	1.78615	1.61e+12	3.12e+14	3.73e+12	1.90e+10	5.10e-03
2s*4s*(1)-1s*4p*(2)	1.78630	3.36e+13	6.17e+13	5.06e+11	8.20e+11	1.62e+00
2p_4s*(0)-1s*4d_(1)	1.78630	1.95e+11	2.10e+14	2.77e+12	2.53e+09	9.16e-04
2s*4s*(0)-1s*4p*(1)	1.78630	1.93e+13	9.13e+13	5.43e+13	7.27e+12	1.33e-01
2p_3d_(2)-1s*3p_(2)	1.78636	1.24e+14	2.81e+14	3.79e+12	8.28e+12	2.18e+00
2p_4s*(1)-1s*4d_(2)	1.78638	4.47e+12	2.23e+14	4.46e+11	2.68e+10	6.02e-02
2p_4s*(1)-1s*4d_(1)	1.78638	2.56e+11	2.23e+14	4.46e+11	1.54e+09	3.45e-03
2p_3d_(2)-1s*3d_(1)	1.78638	1.53e+14	2.81e+14	3.79e+12	1.02e+13	2.69e+00
2p_3s*(1)-1s*3s*(1)	1.78643	6.86e+13	2.05e+14	9.76e+11	9.73e+11	9.97e-01
2p_4s*(1)-1s*4d*(2)	1.78648	7.08e+11	2.23e+14	4.46e+11	4.25e+09	9.53e-03
2p_3p*(2)-1s*3p*(2)	1.78648	9.90e+13	2.73e+14	1.18e+13	2.08e+13	1.74e+00
2p_3d_(2)-1s*3d*(3)	1.78678	8.39e+11	2.81e+14	3.79e+12	5.58e+10	1.47e-02
2s*4s*(1)-1s*4p*(1)	1.78682	4.73e+12	6.17e+13	5.06e+11	1.15e+11	2.28e-01
2p_3d_(2)-1s*3d*(2)	1.78686	1.11e+12	2.81e+14	3.79e+12	7.39e+10	1.95e-02
2p_3p*(1)-1s*3p*(1)	1.78695	1.08e+14	2.86e+14	1.54e+11	1.75e+11	1.14e+00
2s*3p_(1)-1s*3s*(0)	1.78701	1.38e+12	1.20e+14	1.33e+13	4.13e+11	3.11e-02
2s*3p*(1)-1s*3d_(2)	1.78736	2.42e+12	1.82e+14	1.26e+13	4.72e+11	3.73e-02
2p*2p*(2)-1s*2p*(2)	1.78736	1.35e+14	5.57e+14	2.42e+14	2.04e+14	8.44e-01
2s*3p*(1)-1s*3d_(1)	1.78738	2.08e+12	1.82e+14	1.26e+13	4.88e+11	3.21e-02
2s*2p*(1)-1s*2s*(0)	1.78751	2.70e+14	2.80e+14	2.10e+14	3.48e+14	1.65e+00
2p_3p_(1)-1s*3p_(0)	1.78760	9.80e+13	3.21e+14	4.00e+10	3.88e+10	9.15e-01
2p_3p_(1)-1s*3p_(1)	1.78775	1.34e+14	3.21e+14	4.00e+10	5.00e+10	1.25e+00
2s*3p*(1)-1s*3d*(2)	1.78788	6.86e+12	1.82e+14	1.26e+13	1.73e+12	1.36e-01
2s*3s*(0)-1s*3p_(1)	1.78797	3.99e+13	8.31e+13	1.59e+14	2.82e+13	1.64e-01
2p_3p*(2)-1s*3p*(1)	1.78801	5.37e+13	2.73e+14	1.18e+13	1.12e+13	9.45e-01
2s*3p*(2)-1s*3d_(2)	1.78814	4.00e+12	1.02e+14	6.48e+12	1.20e+12	1.85e-01
2s*3p*(2)-1s*3d_(1)	1.78816	3.18e+11	1.02e+14	6.48e+12	9.53e+10	1.47e-02
2s*2p*(2)-1s*2s*(1)	1.78823	2.82e+14	2.82e+14	1.75e+13	8.24e+13	4.71e+00
2s*3p*(2)-1s*3d*(3)	1.78857	2.86e+13	1.02e+14	6.48e+12	8.58e+12	1.32e+00
2s*3p*(2)-1s*3d*(2)	1.78884	1.18e+12	1.02e+14	6.48e+12	3.38e+11	5.10e-02
2p_3s*(1)-1s*3s*(0)	1.78887	9.56e+13	2.05e+14	9.76e+11	1.38e+12	1.39e+00
2p_3p_(1)-1s*3p*(2)	1.78887	5.23e+12	3.21e+14	4.00e+10	1.95e+09	4.88e-02
2p_2p*(2)-1s*2p_(1)	1.78896	1.75e+14	5.58e+14	1.16e+14	1.58e+14	1.29e+00
2s*3p_(0)-1s*3d_(1)	1.78897	1.43e+13	1.39e+14	2.28e+12	2.31e+11	1.01e-01
2s*3p_(1)-1s*3d_(2)	1.78934	7.35e+12	1.20e+14	1.33e+13	2.19e+12	1.65e-01
2s*3p_(1)-1s*3d_(1)	1.78936	2.81e+11	1.20e+14	1.33e+13	8.38e+10	6.30e-03
2s*3s*(1)-1s*3p_(0)	1.78980	3.21e+11	6.81e+13	1.04e+12	1.45e+10	1.39e-02
2s*3p_(1)-1s*3d*(2)	1.78984	3.65e+11	1.20e+14	1.33e+13	1.09e+11	8.21e-03
2s*3s*(1)-1s*3p_(1)	1.78995	2.00e+13	6.81e+13	1.04e+12	9.08e+11	8.68e-01
2p_2p*(1)-1s*2p_(0)	1.79016	1.87e+14	5.60e+14	2.13e+10	2.13e+10	1.00e+00
2p_3p_(1)-1s*3p*(1)	1.79021	1.38e+13	3.21e+14	4.00e+10	5.14e+09	1.29e-01
2s*3s*(0)-1s*3p*(1)	1.79043	2.74e+13	8.31e+13	1.59e+14	1.88e+13	1.13e-01
2p_2p*(1)-1s*2p_(1)	1.79088	1.29e+14	5.60e+14	2.13e+10	1.47e+10	6.89e-01
2p_3s*(1)-1s*3d_(2)	1.79101	9.02e+12	2.05e+14	9.76e+11	1.28e+11	1.31e-01
2s*3s*(1)-1s*3p*(2)	1.79108	3.18e+13	6.81e+13	1.04e+12	1.44e+12	1.38e+00
2p_3s*(1)-1s*3d*(2)	1.79151	1.14e+12	2.05e+14	9.76e+11	1.82e+10	1.66e-02
2p*2p*(2)-1s*2p*(1)	1.79223	4.22e+14	5.57e+14	2.42e+14	6.38e+14	2.64e+00
2s*2p_(1)-1s*2s*(1)	1.79238	2.78e+14	2.81e+14	2.79e+13	7.34e+13	2.63e+00
2s*3s*(1)-1s*3p*(1)	1.79242	1.25e+12	6.81e+13	1.04e+12	5.64e+10	5.41e-02
2p_2p*(2)-1s*2p*(2)	1.79275	2.86e+14	5.58e+14	1.16e+14	2.48e+14	2.12e+00
2p_2p_(0)-1s*2p_(1)	1.79327	5.07e+14	5.16e+14	5.50e+12	5.35e+12	9.72e-01
2s*2p_(0)-1s*2s*(1)	1.79352	2.80e+14	2.80e+14	2.18e+13	2.02e+13	9.28e-01
2p_2p*(1)-1s*2p*(2)	1.79447	2.33e+14	5.60e+14	2.13e+10	2.65e+10	1.25e+00
2p_2p*(2)-1s*2p*(1)	1.79765	9.78e+13	5.58e+14	1.16e+14	8.40e+13	7.25e-01
2p_2p*(1)-1s*2p*(1)	1.79939	1.15e+13	5.60e+14	2.13e+10	1.31e+09	6.15e-02
2s*2p_(1)-1s*2s*(0)	1.80093	1.03e+13	2.81e+14	2.79e+13	2.79e+12	9.97e-02
2p_2p_(0)-1s*2p*(1)	1.80200	9.10e+12	5.16e+14	5.50e+12	9.61e+10	1.75e-02
2s*2s*(0)-1s*2p_(1)	1.80262	5.17e+13	1.13e+14	3.67e+14	3.95e+13	1.08e-01
2s*2s*(0)-1s*2p*(1)	1.81144	6.11e+13	1.13e+14	3.67e+14	4.67e+13	1.27e-01
2p*3d*(3)-1s*4d_(2)	1.88884	1.34e+10	2.85e+14	1.91e+13	5.86e+09	3.08e-04
2p*3d*(3)-1s*4d*(2)	1.88909	4.36e+10	2.85e+14	1.91e+13	1.91e+10	1.00e-03

Z = 26

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p*3p*(1)-1s*4p_(0)	1.89334	6.99e+09	3.31e+14	1.37e+11	8.69e+08	6.33e-05
2p*3s*(1)-1s*4s*(0)	1.89345	1.07e+10	2.30e+14	7.80e+13	8.16e+08	1.05e-04
2p*3d*(4)-1s*4d*(3)	1.89357	3.15e+10	2.84e+14	4.69e+12	4.61e+09	9.82e-04
2p*3p_(2)-1s*4p_(1)	1.89385	2.22e+10	3.04e+14	1.27e+13	4.44e+09	3.51e-04
2p*3p*(1)-1s*4p*(1)	1.89455	3.05e+10	3.31e+14	1.37e+11	3.79e+07	2.78e-04
2p*3p*(3)-1s*4p*(2)	1.89456	4.60e+10	3.10e+14	1.34e+12	1.39e+08	1.03e-03
2p*3s*(1)-1s*4d*(2)	1.89484	3.87e+10	2.30e+14	7.80e+13	2.94e+10	3.77e-04
2p*3p_(1)-1s*4p_(0)	1.89485	2.45e+10	3.50e+14	3.14e+11	6.61e+07	2.10e-04
2p*3p*(3)-1s*4f*(4)	1.89541	2.42e+10	3.10e+14	1.34e+12	7.31e+08	5.45e-04
2s*3d*(2)-1s*4p_(1)	1.89578	1.38e+10	1.02e+14	1.45e+13	8.70e+08	6.00e-04
2p*3p_(1)-1s*4p*(1)	1.89606	4.65e+10	3.50e+14	3.14e+11	1.25e+08	3.99e-04
2p*3s*(2)-1s*4s*(1)	1.89617	3.17e+10	2.85e+14	1.09e+12	6.01e+08	5.54e-04
2s*3d*(2)-1s*4f*(3)	1.89718	6.53e+10	1.02e+14	1.45e+13	4.07e+10	2.81e-03
2p_3d*(3)-1s*4d_(2)	1.89795	2.17e+10	2.83e+14	5.66e+12	2.98e+09	5.27e-04
2s*3d*(3)-1s*4p*(2)	1.89881	2.67e+10	4.98e+13	1.18e+12	4.32e+09	3.67e-03
2s*3d_(2)-1s*4f_(3)	1.89894	5.13e+10	9.11e+13	2.04e+13	4.78e+10	2.30e-03
2s*3d_(1)-1s*4f_(2)	1.89903	6.24e+10	7.70e+13	2.18e+12	5.16e+09	2.37e-03
2s*3d*(3)-1s*4f*(4)	1.89967	4.72e+10	4.98e+13	1.18e+12	7.64e+09	6.49e-03
2s*3p*(1)-1s*4s*(0)	1.89987	1.83e+10	1.82e+14	1.26e+13	3.18e+09	2.51e-04
2p_3d_(2)-1s*4d_(1)	1.89988	1.78e+10	2.81e+14	3.79e+12	1.18e+09	3.12e-04
2p_3p*(1)-1s*4p*(1)	1.90033	6.50e+10	2.86e+14	1.54e+11	1.05e+08	6.82e-04
2p_3p*(2)-1s*4p_(1)	1.90039	2.65e+10	2.73e+14	1.18e+13	5.52e+09	4.66e-04
2p_3p*(2)-1s*4p*(2)	1.90094	2.52e+10	2.73e+14	1.18e+13	5.25e+09	4.43e-04
2s*3p_(1)-1s*4s*(1)	1.90115	2.04e+10	1.20e+14	1.33e+13	6.10e+09	4.59e-04
2p_3p_(1)-1s*4p_(0)	1.90200	3.52e+10	3.21e+14	4.00e+10	1.31e+07	3.28e-04
2p_3p_(1)-1s*4p_(1)	1.90287	3.97e+10	3.21e+14	4.00e+10	1.48e+07	3.71e-04
2p_3s*(1)-1s*4s*(0)	1.90309	7.15e+10	2.05e+14	9.76e+11	1.01e+09	1.04e-03
2s*3s*(1)-1s*4p_(1)	1.90337	2.43e+10	6.81e+13	1.04e+12	1.10e+09	1.06e-03
2s*3s*(1)-1s*4p*(2)	1.90502	3.57e+10	6.81e+13	1.04e+12	1.62e+09	1.55e-03
2p*2p*(0)-1s*3p*(1)	2.14741	1.40e+11	4.91e+14	2.84e+13	7.68e+09	2.70e-04
2p*2p*(2)-1s*3p*(2)	2.15884	2.22e+10	5.57e+14	2.42e+14	3.37e+10	1.39e-04
2p*2p*(2)-1s*3p*(1)	2.16879	7.86e+10	5.57e+14	2.42e+14	1.19e+11	4.92e-04
2s*2p*(1)-1s*3s*(0)	2.16205	4.25e+10	2.86e+14	2.10e+14	5.48e+10	2.60e-04
2p_2p*(2)-1s*3p_(1)	2.16507	3.22e+10	5.58e+14	1.16e+14	2.77e+10	2.39e-04
2s*2p*(1)-1s*3d_(2)	2.16547	2.90e+10	2.86e+14	2.10e+14	3.72e+10	1.77e-04
2s*2p*(1)-1s*3d*(2)	2.16621	7.01e+10	2.86e+14	2.10e+14	9.01e+10	4.29e-04
2p_2p*(2)-1s*3p*(2)	2.16672	4.54e+10	5.58e+14	1.16e+14	3.90e+10	3.37e-04
2p_2p*(1)-1s*3p_(0)	2.16736	3.54e+10	5.60e+14	2.13e+10	4.03e+06	1.96e-04
2p_2p*(1)-1s*3p_(1)	2.16758	2.24e+10	5.60e+14	2.13e+10	2.59e+06	1.26e-04
2p_2p*(2)-1s*3p*(1)	2.16868	1.76e+10	5.58e+14	1.16e+14	1.51e+10	1.31e-04
2p_2p*(1)-1s*3p*(2)	2.16924	3.53e+10	5.60e+14	2.13e+10	4.02e+06	1.89e-04
2p_2p_(0)-1s*3p_(1)	2.17138	8.55e+10	5.16e+14	5.50e+12	9.03e+08	1.64e-04
2p*2p*(2)-1s*3s*(1)	2.17237	4.04e+10	2.82e+14	1.75e+13	1.18e+10	8.74e-04
2s*2p_(1)-1s*3s*(1)	2.17854	3.94e+10	2.81e+14	2.79e+13	1.07e+10	3.83e-04
2s*2s*(0)-1s*3p*(1)	2.18877	4.30e+10	1.13e+14	3.67e+14	3.28e+10	8.96e-05
2p*2p*(0)-1s*4p*(1)	2.31327	5.62e+10	4.91e+14	2.84e+13	3.08e+09	1.08e-04
2p_2p*(1)-1s*4p_(0)	2.33906	6.10e+09	5.60e+14	2.13e+10	6.94e+05	3.26e-05
2s*2p*(2)-1s*4s*(1)	2.34733	1.82e+10	2.82e+14	1.75e+13	4.73e+09	2.70e-04
2s*2p_(1)-1s*4s*(1)	2.35430	1.65e+10	2.81e+14	2.79e+13	4.49e+09	1.61e-04

Z = 30

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
4p+ (3/2)-1s+ (1/2)	1.06693	5.53e+13	5.53e+13	0.	0.	4.00e+00
4p_ (1/2)-1s+ (1/2)	1.06736	5.29e+13	5.29e+13	0.	0.	2.00e+00
2p+4d+(2)-1s+2s+(1)	1.07328	1.75e+11	5.08e+14	9.65e+10	1.66e+08	1.72e-03
2p+4d_(0)-1s+2s+(1)	1.07329	2.42e+11	5.08e+14	1.41e+11	6.73e+07	4.77e-04
2p+4d_(1)-1s+2s+(1)	1.07332	1.77e+11	5.08e+14	1.15e+11	1.20e+08	1.04e-03
2p+4s+(2)-1s+2s+(1)	1.07440	2.40e+11	5.08e+14	3.50e+11	8.24e+08	2.36e-03
2p+4d+(1)-1s+2s+(0)	1.07459	7.21e+10	5.09e+14	2.47e+11	1.05e+08	4.25e-04
2p+4p+(0)-1s+2p_(1)	1.07666	1.11e+12	5.83e+14	1.29e+13	2.48e+10	1.92e-03
2p_4d_(1)-1s+2s+(1)	1.07671	6.17e+11	4.74e+14	3.38e+11	1.31e+09	3.91e-03
2p_4d+(2)-1s+2s+(1)	1.07672	6.66e+12	4.39e+14	1.18e+11	8.93e+09	7.58e-02
2p+4p+(2)-1s+2p_(1)	1.07708	1.59e+12	5.80e+14	2.82e+13	3.81e+11	1.35e-02
2s+4p+(1)-1s+2s+(1)	1.07711	1.28e+13	1.46e+14	1.80e+13	4.18e+12	2.33e-01
2p_4d_(2)-1s+2s+(1)	1.07716	8.51e+11	4.74e+14	1.62e+12	1.45e+10	8.99e-03
2p+4p+(1)-1s+2p_(1)	1.07735	2.17e+12	5.54e+14	1.34e+11	1.57e+09	1.18e-02
2s+4p+(2)-1s+2s+(1)	1.07742	4.44e+13	1.26e+14	2.44e+12	4.21e+12	1.73e+00
2p+4p_(1)-1s+2p_(0)	1.07745	2.82e+10	5.59e+14	1.18e+11	1.78e+07	1.51e-04
2p+4p_(2)-1s+2p_(1)	1.07762	3.58e+11	5.57e+14	1.52e+13	4.76e+10	3.13e-03
2s+4p_(0)-1s+2s+(1)	1.07763	3.68e+13	1.74e+14	1.00e+12	2.11e+11	2.10e-01
2p+4p_(1)-1s+2p_(1)	1.07768	1.87e+12	5.59e+14	1.18e+11	1.18e+09	1.00e-02
2s+4p_(1)-1s+2s+(1)	1.07776	3.70e+13	8.85e+13	7.96e+12	9.17e+12	1.15e+00
2p+4s+(1)-1s+2s+(0)	1.07790	1.02e+12	4.98e+14	1.61e+13	9.58e+10	5.96e-03
2p_4s+(0)-1s+2s+(1)	1.07805	1.33e+13	3.06e+14	3.06e+12	1.05e+11	3.43e-02
2p_4s+(1)-1s+2s+(1)	1.07806	3.58e+11	4.22e+14	4.82e+11	1.22e+09	2.54e-03
2p+4p+(2)-1s+2p+(2)	1.07972	1.79e+13	5.60e+14	2.82e+13	4.28e+12	1.52e-01
2p+4p+(1)-1s+2p+(2)	1.08000	2.24e+13	5.54e+14	1.34e+11	1.83e+10	1.22e-01
2p+4p+(3)-1s+2p+(2)	1.08005	5.37e+13	5.58e+14	3.68e+11	2.48e+11	6.74e-01
2s+4d+(2)-1s+2p_(1)	1.08010	4.77e+12	1.18e+14	1.63e+12	3.24e+11	1.09e-01
2p_4f_(2)-1s+2p_(1)	1.08013	3.32e+11	4.77e+14	1.02e+11	3.97e+08	3.89e-03
2s+4d_(1)-1s+2p_(0)	1.08024	6.27e+12	6.91e+13	1.19e+12	3.28e+11	2.60e-01
2p+4p_(2)-1s+2p+(2)	1.08028	3.53e+13	5.57e+14	1.52e+13	4.89e+12	3.09e-01
2p+4p_(1)-1s+2p+(2)	1.08034	2.83e+13	5.59e+14	1.18e+11	1.79e+10	1.52e-01
2p_4d_(1)-1s+2s+(0)	1.08040	2.44e+12	4.74e+14	3.38e+11	5.18e+09	1.54e-02
2p_4p+(1)-1s+2p_(0)	1.08048	2.35e+13	4.08e+14	4.47e+10	6.85e+09	1.53e-01
2s+4d_(2)-1s+2p_(1)	1.08050	4.30e+12	7.20e+13	3.19e+12	9.12e+11	2.06e-01
2p_4p_(0)-1s+2p_(1)	1.08071	3.82e+13	3.99e+14	2.10e+12	2.00e+11	9.52e-02
2p_4p+(1)-1s+2p_(1)	1.08073	1.82e+13	4.68e+14	4.47e+10	5.30e+09	1.18e-01
2s+4p+(1)-1s+2s+(0)	1.08081	2.96e+13	1.46e+14	1.80e+13	9.72e+12	5.41e-01
2p_4p+(2)-1s+2p_(1)	1.08090	4.27e+13	4.53e+14	1.32e+13	6.06e+12	4.58e-01
2p+4f+(2)-1s+2p+(1)	1.08102	1.18e+11	5.12e+14	1.39e+11	1.49e+06	1.08e-03
2p_4p_(1)-1s+2p_(0)	1.08120	2.35e+13	4.08e+14	5.23e+10	7.61e+09	1.45e-01
2p+4f_(2)-1s+2p+(1)	1.08122	1.05e+11	5.11e+14	9.76e+10	1.00e+08	1.03e-03
2p+4p+(0)-1s+2p+(1)	1.08128	5.73e+13	5.08e+14	1.29e+13	1.28e+12	9.91e-02
2p_4p_(1)-1s+2p_(1)	1.08144	2.06e+13	4.08e+14	5.23e+10	6.68e+09	1.28e-01
2s+4p_(1)-1s+2s+(0)	1.08148	9.78e+12	8.85e+13	7.96e+12	2.40e+12	3.02e-01
2s+4s+(1)-1s+2p_(0)	1.08152	3.31e+11	1.07e+14	4.80e+11	4.44e+09	9.25e-03
2s+4s+(0)-1s+2p_(1)	1.08156	1.41e+13	1.75e+14	5.45e+13	3.34e+12	6.14e-02
2p+4p+(2)-1s+2p+(1)	1.08170	3.38e+13	5.60e+14	2.82e+13	7.99e+12	2.81e-01
2s+4s+(1)-1s+2p_(1)	1.08176	9.35e+12	1.07e+14	4.80e+11	1.25e+11	2.61e-01
2p_4s+(1)-1s+2s+(0)	1.08178	9.79e+12	4.22e+14	4.82e+11	3.35e+10	6.95e-02
2p+4p+(1)-1s+2p+(1)	1.08187	2.89e+13	5.54e+14	1.34e+11	1.95e+10	1.46e-01
2p+4p_(2)-1s+2p+(1)	1.08225	1.54e+13	5.57e+14	1.52e+13	2.05e+12	1.35e-01
2p+4p_(1)-1s+2p+(1)	1.08231	2.12e+13	5.58e+14	1.18e+11	1.34e+10	1.14e-01
2s+4d+(3)-1s+2p+(2)	1.08313	4.26e+11	3.85e+13	8.56e+11	6.49e+10	7.58e-02
2s+4d_(2)-1s+2p+(2)	1.08318	7.21e+10	7.20e+13	3.19e+12	1.53e+10	4.88e-03
2p_4p+(2)-1s+2p+(2)	1.08357	8.64e+10	4.53e+14	1.32e+13	1.23e+10	9.27e-04
2p_4p_(1)-1s+2p+(2)	1.08411	9.82e+10	4.85e+14	5.23e+10	3.18e+07	6.06e-04
2s+4s+(1)-1s+2p+(2)	1.08443	5.42e+11	1.07e+14	4.80e+11	7.26e+09	1.51e-02
2s+4d+(2)-1s+2p+(1)	1.08475	8.99e+10	1.18e+14	1.63e+12	4.76e+09	2.92e-03
2s+4d_(2)-1s+2p+(1)	1.08515	9.69e+11	7.20e+13	3.19e+12	2.05e+11	6.44e-02
2p_4p_(0)-1s+2p+(1)	1.08537	4.29e+11	3.98e+14	2.10e+12	2.24e+09	1.07e-03
2p_4p+(1)-1s+2p+(1)	1.08538	2.18e+12	4.60e+14	4.47e+10	6.35e+08	1.42e-02
2p_4p+(2)-1s+2p+(1)	1.08556	1.37e+12	4.53e+14	1.32e+13	1.85e+11	1.47e-02
2p_4p_(1)-1s+2p+(1)	1.08610	1.40e+12	4.85e+14	5.23e+10	4.54e+08	8.67e-03
2s+4s+(0)-1s+2p+(1)	1.08622	2.20e+12	1.75e+14	5.45e+13	5.22e+11	9.58e-03
2s+4s+(1)-1s+2p+(1)	1.08642	2.33e+11	1.07e+14	4.80e+11	3.13e+09	6.52e-03
3p+ (3/2)-1s+ (1/2)	1.12482	1.37e+14	1.37e+14	0.	0.	4.00e+00
3p_ (1/2)-1s+ (1/2)	1.12597	1.33e+14	1.33e+14	0.	0.	2.00e+00
2p+3d+(1)-1s+2s+(1)	1.12672	2.58e+11	5.03e+14	4.65e+10	7.17e+07	1.54e-03
2p+3d+(2)-1s+2s+(1)	1.12790	1.93e+12	5.02e+14	1.37e+11	2.65e+09	1.93e-02
2p+3d_(0)-1s+2s+(1)	1.12791	2.17e+12	5.01e+14	1.77e+11	7.63e+08	4.32e-03
2p+3d_(1)-1s+2s+(1)	1.12798	1.77e+12	5.02e+14	2.28e+11	2.41e+09	1.06e-02
2p+3d_(2)-1s+2s+(1)	1.12877	1.34e+11	5.08e+14	9.48e+11	1.25e+09	1.32e-03
2p+3s+(1)-1s+2s+(1)	1.13006	6.56e+10	4.45e+14	6.89e+13	2.64e+10	3.83e-04
2p+3d+(1)-1s+2s+(0)	1.13076	9.32e+11	5.03e+14	4.65e+10	2.58e+08	5.56e-03
2p+3s+(2)-1s+2s+(1)	1.13091	4.07e+12	4.98e+14	8.28e+11	3.39e+10	4.09e-02

Z = 30

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p+3p+(0)-1s+2p_(1)	1.13098	4.11e+11	6.15e+14	2.43e+13	1.56e+10	6.42e-04
2p_3d_(1)-1s+2s+(1)	1.13181	2.03e+12	4.95e+14	3.57e+11	4.38e+09	1.23e-02
2p_3d+(2)-1s+2s+(1)	1.13187	7.36e+12	4.84e+14	6.77e+11	5.14e+10	7.59e-02
2p+3d_(1)-1s+2s+(0)	1.13203	3.31e+10	5.02e+14	2.28e+11	4.51e+07	1.98e-04
2p+3p+(2)-1s+2p_(1)	1.13236	1.50e+12	6.09e+14	8.82e+13	9.53e+11	1.08e-02
2p_3d_(2)-1s+2s+(1)	1.13295	1.53e+12	4.97e+14	3.84e+12	5.88e+10	1.53e-02
2p+3p+(1)-1s+2p_(0)	1.13319	7.95e+10	6.14e+14	1.84e+11	7.13e+07	3.88e-04
2s+3p+(1)-1s+2s+(1)	1.13328	2.98e+13	2.82e+14	2.29e+13	7.17e+12	3.13e-01
2p+3p+(1)-1s+2p_(1)	1.13344	8.61e+12	6.14e+14	1.84e+11	5.82e+09	3.23e-02
2s+3p+(2)-1s+2s+(1)	1.13373	1.17e+14	1.78e+14	8.37e+12	2.02e+13	3.17e+00
2p+3p_(2)-1s+2p_(1)	1.13385	8.67e+11	5.81e+14	3.58e+13	2.58e+11	7.03e-03
2p+3p_(1)-1s+2p_(0)	1.13398	8.91e+11	6.31e+14	2.53e+11	1.07e+09	4.23e-03
2p+3s+(1)-1s+2s+(0)	1.13413	1.80e+13	4.45e+14	6.89e+13	7.23e+12	1.05e-01
2p+3p_(1)-1s+2p_(1)	1.13425	8.65e+12	6.31e+14	2.53e+11	1.04e+10	4.11e-02
2s+3p_(0)-1s+2s+(1)	1.13454	9.85e+13	2.29e+14	2.58e+12	1.07e+12	4.17e-01
2s+3p_(1)-1s+2s+(1)	1.13462	9.20e+13	2.07e+14	1.69e+13	2.09e+13	1.23e+00
2p_3s+(0)-1s+2s+(1)	1.13509	2.94e+13	4.13e+14	8.42e+12	5.88e+11	6.99e-02
2p+3p+(2)-1s+2p+(2)	1.13520	3.20e+13	6.09e+14	8.82e+13	2.03e+13	2.38e-01
2s+3d+(2)-1s+2p_(1)	1.13532	7.22e+12	9.77e+13	3.29e+12	1.17e+12	3.57e-01
2p_3s+(1)-1s+2s+(1)	1.13541	3.53e+12	3.84e+14	5.01e+11	1.38e+10	2.76e-02
2p_3d_(1)-1s+2s+(0)	1.13569	5.70e+11	4.95e+14	3.57e+11	1.23e+09	3.45e-03
2p+3p+(0)-1s+2p_(1)	1.13600	1.21e+14	6.15e+14	2.43e+13	4.58e+12	1.88e-01
2s+3d_(1)-1s+2p_(0)	1.13615	2.25e+13	1.12e+14	2.28e+12	1.34e+12	5.82e-01
2s+3d_(2)-1s+2p_(1)	1.13636	2.27e+13	1.31e+14	1.61e+13	1.24e+13	7.72e-01
2p+3p+(1)-1s+2p+(2)	1.13639	6.92e+13	6.14e+14	1.84e+11	6.28e+10	3.38e-01
2s+3d_(1)-1s+2p_(1)	1.13642	5.79e+11	1.12e+14	2.28e+12	3.44e+10	1.52e-02
2p+3p+(3)-1s+2p+(2)	1.13655	1.32e+14	6.07e+14	9.84e+11	1.47e+12	1.52e+00
2p_3p+(1)-1s+2p_(0)	1.13673	5.42e+13	5.12e+14	1.75e+11	5.88e+10	3.18e-01
2p+3p_(2)-1s+2p+(2)	1.13679	8.96e+13	5.81e+14	3.58e+13	2.58e+13	7.26e-01
2p_3p_(0)-1s+2p_(1)	1.13687	1.00e+14	5.19e+14	4.34e+12	8.38e+11	1.91e-01
2p_3p+(1)-1s+2p_(1)	1.13700	3.92e+13	5.12e+14	1.75e+11	4.01e+10	2.38e-01
2p+3p_(1)-1s+2p+(2)	1.13718	5.38e+13	6.31e+14	2.53e+11	6.66e+10	2.84e-01
2s+3p+(1)-1s+2s+(0)	1.13737	5.87e+13	2.02e+14	2.29e+13	1.41e+13	6.17e-01
2p_3p+(2)-1s+2p_(1)	1.13745	1.02e+14	4.83e+14	1.85e+13	1.88e+13	9.97e-01
2p+3p+(2)-1s+2p+(1)	1.13747	8.21e+13	6.09e+14	8.82e+13	5.19e+13	5.89e-01
2s+3d+(2)-1s+2p+(2)	1.13826	2.54e+12	9.77e+13	3.29e+12	4.12e+11	1.26e-01
2p+3p+(1)-1s+2p+(1)	1.13856	5.89e+13	6.14e+14	1.84e+11	5.10e+10	2.78e-01
2p_3p_(1)-1s+2p_(0)	1.13866	5.58e+13	5.72e+14	7.31e+10	2.13e+10	2.91e-01
2s+3p_(1)-1s+2p+(0)	1.13873	8.36e+12	2.07e+14	1.69e+13	1.90e+12	1.12e-01
2p_3p_(1)-1s+2p_(1)	1.13893	6.23e+13	5.72e+14	7.31e+10	2.38e+10	3.27e-01
2p+3p_(2)-1s+2p+(1)	1.13897	2.24e+13	5.81e+14	3.58e+13	6.46e+12	1.81e-01
2s+3p+(0)-1s+2p_(1)	1.13900	2.20e+13	1.57e+14	1.59e+14	1.15e+13	7.29e-02
2s+3d_(2)-1s+2p+(2)	1.13930	3.78e+11	1.31e+14	1.61e+13	2.07e+11	1.29e-02
2s+3d+(3)-1s+2p+(2)	1.13935	7.25e+12	3.28e+13	1.58e+12	2.38e+12	1.46e+00
2p+3p_(1)-1s+2p+(1)	1.13937	6.36e+13	6.31e+14	2.53e+11	7.63e+10	3.02e-01
2p_3s+(1)-1s+2s+(0)	1.13951	4.30e+13	5.84e+14	5.01e+11	1.68e+11	3.36e-01
2s+3s+(1)-1s+2p_(0)	1.13962	8.88e+11	1.05e+14	9.67e+11	2.42e+10	2.51e-02
2s+3s+(1)-1s+2p_(1)	1.13980	1.78e+13	1.05e+14	9.67e+11	4.84e+11	4.88e-01
2p_3p+(1)-1s+2p+(2)	1.13995	1.04e+11	5.12e+14	1.75e+11	1.07e+08	6.12e-04
2p_3p+(2)-1s+2p+(2)	1.14040	3.54e+12	4.93e+14	1.85e+13	6.48e+11	3.46e-02
2s+3d+(2)-1s+2p+(1)	1.14046	1.28e+13	9.77e+13	3.29e+12	1.95e+12	5.93e-01
2s+3d_(2)-1s+2p+(1)	1.14150	4.85e+12	1.31e+14	1.61e+13	2.22e+12	1.38e-01
2p_3p_(1)-1s+2p+(2)	1.14190	6.58e+11	5.72e+14	7.31e+10	2.52e+08	3.45e-03
2p_3p_(0)-1s+2p+(1)	1.14202	3.00e+11	5.19e+14	4.34e+12	3.15e+09	7.26e-04
2p_3p+(1)-1s+2p+(1)	1.14215	1.55e+13	5.12e+14	1.75e+11	1.58e+10	9.07e-02
2s+3s+(1)-1s+2p+(2)	1.14288	4.54e+12	1.05e+14	9.67e+11	1.24e+11	1.28e-01
2p_3p_(1)-1s+2p+(1)	1.14410	5.26e+12	5.72e+14	7.31e+10	2.01e+08	2.76e-02
2s+3s+(0)-1s+2p+(1)	1.14417	7.29e+12	1.57e+14	1.59e+14	3.67e+12	2.31e-02
2s+3s+(1)-1s+2p+(1)	1.14507	2.38e+11	1.05e+14	9.67e+11	6.51e+09	6.73e-03
2p+4s+(2)-1s+3s+(1)	1.25390	4.43e+10	5.08e+14	3.50e+11	1.52e+08	4.36e-04
2p+4p_(1)-1s+3p_(0)	1.25483	3.72e+10	5.58e+14	1.18e+11	2.35e+07	2.00e-04
2p+4p_(2)-1s+3p_(1)	1.25484	8.26e+10	5.57e+14	1.52e+13	1.18e+10	7.23e-04
2p+4s+(1)-1s+3s+(0)	1.25493	5.59e+10	4.98e+14	1.61e+13	5.24e+09	3.26e-04
2p+4p+(0)-1s+3p+(1)	1.25533	1.31e+11	5.45e+14	1.29e+13	2.92e+09	2.26e-04
2p+4p+(3)-1s+3p+(2)	1.25568	2.54e+11	5.58e+14	3.68e+11	1.17e+09	3.19e-03
2p+4d_(2)-1s+3d_(1)	1.25578	2.85e+10	5.09e+14	5.03e+11	1.41e+08	2.80e-04
2p+4d_(3)-1s+3d+(2)	1.25605	3.29e+10	5.08e+14	1.96e+12	8.88e+08	4.52e-04
2p+4d+(4)-1s+3d+(3)	1.25608	1.39e+11	5.05e+14	2.20e+12	5.45e+08	2.47e-03
2p+4p+(1)-1s+3p+(1)	1.25627	2.22e+11	5.54e+14	1.34e+11	1.81e+08	1.20e-03
2p+4p_(1)-1s+3p+(1)	1.25673	1.38e+11	5.59e+14	1.18e+11	8.70e+07	7.38e-04
2s+4d_(1)-1s+3p_(0)	1.25863	2.18e+10	6.91e+13	1.19e+12	1.10e+09	9.21e-04
2s+4p+(1)-1s+3s+(0)	1.25887	7.58e+10	1.46e+14	1.60e+13	2.48e+10	1.38e-03
2p_4p+(1)-1s+3p_(0)	1.25895	1.56e+10	4.60e+14	4.47e+10	4.58e+08	1.02e-04
2p_4p+(2)-1s+3p_(1)	1.25929	7.13e+10	4.53e+14	1.32e+13	1.01e+10	7.63e-04
2s+4p_(1)-1s+3s+(0)	1.25978	3.57e+10	8.85e+13	7.96e+12	8.84e+09	1.11e-03

Z = 30

TRANSITION	LAMBDA	A(ij)	A(tot)	AUGER	Qd	qf
2s*4f_(3)-1s*3d_(2)	1.25982	1.27e+11	6.05e+13	6.32e+11	9.18e+09	1.45e-02
2s*4f_(2)-1s*3d_(1)	1.25987	8.02e+10	2.80e+13	1.54e+11	2.36e+09	1.53e-02
2p_4p_(1)-1s*3p_(0)	1.25993	1.13e+11	4.85e+14	5.23e+10	3.66e+07	8.99e-04
2p_4p_(1)-1s*3p_(1)	1.26002	1.23e+11	4.85e+14	5.23e+10	3.97e+07	7.59e-04
2s*4f*(3)-1s*3d*(2)	1.26015	1.30e+11	4.18e+12	3.45e+10	7.48e+09	2.17e-01
2p_4s*(1)-1s*3s*(0)	1.26017	1.38e+11	4.22e+14	4.82e+11	4.72e+08	9.79e-04
2s*4f*(4)-1s*3d*(3)	1.26021	6.15e+10	1.27e+12	2.22e+09	9.64e+08	4.34e-01
2s*4s*(1)-1s*3p_(1)	1.26045	5.16e+10	1.07e+14	4.80e+11	6.91e+08	1.44e-03
2p_4d_(2)-1s*3d_(1)	1.26074	5.48e+10	4.74e+14	1.62e+12	9.35e+08	5.77e-04
2p_4p_(0)-1s*3p*(1)	1.26085	1.61e+11	3.99e+14	2.10e+12	8.41e+08	4.01e-04
2p_4p*(1)-1s*3p*(1)	1.26086	8.35e+10	4.60e+14	4.47e+10	1.85e+07	4.14e-04
2p*3d*(1)-1s*3s*(1)	1.32576	4.87e+11	5.03e+14	4.65e+10	1.35e+08	2.90e-03
2p*3d*(1)-1s*3s*(0)	1.32716	4.32e+11	5.03e+14	4.65e+10	1.20e+08	2.57e-03
2p*2p*(0)-1s*2p_(1)	1.32726	2.35e+11	9.13e+14	3.75e+13	9.29e+09	2.48e-04
2p*3d_(0)-1s*3s*(1)	1.32740	2.42e+12	5.01e+14	1.77e+11	8.51e+08	4.82e-03
2p*3d*(2)-1s*3s*(1)	1.32740	6.82e+12	5.02e+14	1.37e+11	9.33e+09	6.79e-02
2p*3d_(1)-1s*3s*(1)	1.32750	3.40e+12	5.02e+14	2.28e+11	4.64e+09	2.03e-02
2p*3p*(0)-1s*3p_(1)	1.32778	9.32e+11	6.15e+14	2.43e+13	3.55e+10	1.46e-03
2p*3d_(2)-1s*3s*(1)	1.32860	6.30e+11	5.08e+14	9.48e+11	5.87e+09	6.20e-03
2p*4d*(1)-1s*4s*(1)	1.32871	6.47e+11	5.09e+14	2.47e+11	9.44e+08	3.81e-03
2p*3d_(1)-1s*3s*(0)	1.32891	7.53e+11	5.02e+14	2.28e+11	1.03e+09	4.50e-03
2p*3d*(1)-1s*3d_(2)	1.32914	1.40e+13	5.03e+14	4.65e+10	3.88e+09	8.34e-02
2p*3d*(1)-1s*3d_(1)	1.32916	6.50e+12	5.03e+14	4.65e+10	1.80e+09	3.87e-02
2p*4d*(2)-1s*4s*(1)	1.32926	3.96e+12	5.08e+14	9.65e+10	3.78e+09	3.90e-02
2p*4f*(2)-1s*4p_(1)	1.32926	1.12e+11	5.12e+14	1.39e+11	1.52e+08	1.09e-03
2p*4d*(1)-1s*4s*(0)	1.32927	1.24e+12	5.09e+14	2.47e+11	1.80e+09	7.28e-03
2p*4d_(0)-1s*4s*(1)	1.32928	4.94e+11	5.08e+14	1.41e+11	1.37e+08	9.72e-04
2p*4d_(1)-1s*4s*(1)	1.32932	1.14e+12	5.09e+14	1.15e+11	7.75e+08	6.72e-03
2p*4f_(1)-1s*4p_(0)	1.32935	1.27e+10	5.12e+14	1.57e+09	1.17e+09	7.45e-05
2p*4f_(2)-1s*4p_(1)	1.32956	1.89e+11	5.11e+14	9.76e+10	1.81e+08	1.85e-03
2p*3d*(3)-1s*3d_(2)	1.32967	1.53e+14	5.07e+14	1.75e+13	3.58e+13	2.04e+00
2p*3d*(1)-1s*3d*(2)	1.32984	4.81e+14	5.03e+14	4.65e+10	1.33e+11	2.87e+00
2p*4s*(0)-1s*4p_(1)	1.32985	9.36e+12	5.65e+14	1.29e+13	2.09e+11	1.62e-02
2p*4d_(2)-1s*4s*(1)	1.32986	6.57e+10	5.09e+14	5.03e+11	3.26e+08	6.45e-04
2p*3p*(2)-1s*3p_(1)	1.32988	1.60e+12	6.09e+14	8.82e+13	1.01e+12	1.15e-02
2p*4f*(2)-1s*4p*(2)	1.32978	3.48e+11	5.12e+14	1.39e+11	4.72e+08	3.40e-03
2p*3s*(0)-1s*3p*(1)	1.32980	4.94e+14	6.15e+14	2.43e+13	1.80e+13	7.71e-01
2p*4d_(1)-1s*4s*(0)	1.32988	5.00e+11	5.09e+14	1.15e+11	3.98e+08	3.46e-03
2p*3d*(3)-1s*3d*(3)	1.33001	1.15e+14	5.07e+14	1.75e+13	2.68e+13	1.53e+00
2p*4f*(3)-1s*4p*(2)	1.33002	9.30e+10	5.10e+14	1.45e+09	1.80e+08	1.28e-03
2p*3d*(3)-1s*3d*(2)	1.33007	2.40e+14	5.07e+14	1.75e+13	5.61e+13	3.18e+00
2p*4f_(2)-1s*4p*(2)	1.33008	3.07e+11	5.11e+14	9.76e+10	2.94e+08	3.01e-03
2p*4f*(2)-1s*4p*(1)	1.33010	1.07e+12	5.12e+14	1.39e+11	1.45e+09	1.04e-02
2p*4d*(1)-1s*4d_(2)	1.33012	2.24e+12	5.09e+14	2.47e+11	3.27e+09	1.32e-02
2p*4d*(1)-1s*4d_(1)	1.33013	7.17e+12	5.09e+14	2.47e+11	1.05e+10	4.22e-02
2p*4f*(2)-1s*4f_(3)	1.33027	4.81e+11	5.12e+14	1.39e+11	6.53e+08	4.70e-03
2p*4f*(2)-1s*4f_(2)	1.33028	4.12e+12	5.12e+14	1.39e+11	5.80e+09	4.93e-02
2p*4p*(2)-1s*4p_(1)	1.33029	7.01e+10	5.60e+14	2.82e+13	1.68e+10	5.95e-04
2p*4d*(3)-1s*4d_(2)	1.33030	1.29e+14	5.08e+14	7.46e+12	1.31e+13	1.76e+00
2p*4d*(1)-1s*4d*(2)	1.33033	4.97e+14	5.09e+14	2.47e+11	7.25e+11	2.93e+00
2p*4f*(2)-1s*4f*(3)	1.33037	5.06e+14	5.12e+14	1.39e+11	6.88e+11	4.94e+00
2p*3s*(1)-1s*3s*(1)	1.33038	8.80e+13	4.45e+14	6.89e+13	3.46e+13	5.02e-01
2p*4f_(2)-1s*4p*(1)	1.33040	6.34e+11	5.11e+14	9.76e+10	6.06e+08	6.21e-03
2p*4f_(1)-1s*4f_(2)	1.33041	5.12e+14	5.12e+14	1.57e+09	4.70e+09	3.00e+00
2p*4f_(4)-1s*4f_(3)	1.33046	3.30e+14	5.07e+14	3.79e+11	2.22e+12	5.85e+00
2p*4p*(0)-1s*4p*(1)	1.33049	4.97e+14	5.65e+14	1.29e+13	1.11e+13	8.60e-01
2p*4d*(3)-1s*4d*(3)	1.33049	1.74e+14	5.08e+14	7.46e+12	1.77e+13	2.37e+00
2p*4f*(3)-1s*4f_(3)	1.33051	1.20e+13	5.10e+14	1.45e+09	2.39e+08	1.65e-01
2p*4d*(3)-1s*4d*(2)	1.33051	2.04e+14	5.08e+14	7.46e+12	2.07e+13	2.78e+00
2p*4f*(3)-1s*4f_(2)	1.33052	8.84e+12	5.10e+14	1.45e+09	1.72e+08	1.19e-01
2p*4f_(4)-1s*4f*(4)	1.33056	9.84e+13	5.07e+14	3.79e+11	6.61e+11	1.74e+00
2p*4f_(4)-1s*4f*(3)	1.33056	7.87e+13	5.07e+14	3.79e+11	5.29e+11	1.40e+00
2p*4f_(2)-1s*4f_(3)	1.33057	1.20e+14	5.11e+14	9.76e+10	1.22e+11	1.25e+00
2p* (3/2)-1s* (1/2)	1.33058	5.14e+14	5.14e+14	0.	0.	4.00e+00
2p*4f_(2)-1s*4f_(2)	1.33058	3.78e+14	5.11e+14	9.76e+10	3.61e+11	3.70e+00
2p*4f*(5)-1s*4f*(4)	1.33058	5.07e+14	5.07e+14	2.42e+11	2.66e+12	1.10e+01
2p*4f*(3)-1s*4f*(4)	1.33061	1.37e+14	5.10e+14	1.45e+09	2.71e+09	1.87e+00
2p*4f*(4)-1s*4f_(3)	1.33062	1.77e+14	5.09e+14	9.95e+10	3.11e+11	3.13e+00
2p*4f*(3)-1s*4f*(3)	1.33062	3.53e+14	5.10e+14	1.45e+09	7.01e+09	4.84e+00
2p*4p*(1)-1s*4p_(0)	1.33065	2.82e+13	5.54e+14	1.34e+11	2.04e+10	1.53e-01
2p*4d*(2)-1s*4d_(2)	1.33067	7.38e+13	5.08e+14	9.65e+10	7.00e+10	7.26e-01
2p*4f_(2)-1s*4f*(3)	1.33067	4.18e+12	5.11e+14	9.76e+10	4.00e+09	4.10e-02
2p*4d*(2)-1s*4d_(1)	1.33068	5.32e+13	5.08e+14	9.65e+10	5.05e+10	5.24e-01
2p*4p*(1)-1s*4p_(1)	1.33070	6.89e+13	5.54e+14	1.34e+11	5.00e+10	3.73e-01
2p*4d_(0)-1s*4d_(1)	1.33070	5.07e+14	5.08e+14	1.41e+11	1.41e+11	9.98e-01

Z = 30

TRANSITION	LAMBDA	A(ij)	A(tot)	AUGER	Qd	qf
2p*4s*(1)-1s*4s*(1)	1.33072	1.49e+14	4.98e+14	1.61e+13	1.40e+13	8.69e-01
2p*4f_(3)-1s*4f_(3)	1.33072	2.84e+14	5.09e+14	6.61e+10	2.40e+11	3.63e+00
2p*4f_(3)-1s*4f_(2)	1.33072	2.24e+14	5.09e+14	6.61e+10	2.04e+11	3.09e+00
2p*4f*(4)-1s*4f*(4)	1.33072	1.88e+14	5.09e+14	9.95e+10	3.31e+11	3.32e+00
2p*4f*(4)-1s*4f*(3)	1.33073	1.44e+14	5.09e+14	9.95e+10	2.53e+11	2.55e+00
2p*4d_(1)-1s*4d_(2)	1.33074	9.35e+13	5.09e+14	1.15e+11	6.36e+10	5.51e-01
2p*4d_(1)-1s*4d_(1)	1.33074	4.84e+14	5.09e+14	1.15e+11	2.75e+11	2.38e+00
2p*3d*(2)-1s*3d_(2)	1.33079	9.03e+13	5.02e+14	1.37e+11	1.24e+11	8.99e-01
2p*4p*(2)-1s*4p*(2)	1.33080	2.29e+14	5.60e+14	2.82e+13	5.48e+13	1.95e+00
2p*3d*(2)-1s*3d_(1)	1.33081	5.67e+13	5.02e+14	1.37e+11	7.77e+10	5.65e-01
2p*4f_(3)-1s*4f*(4)	1.33081	4.92e+12	5.09e+14	6.61e+10	4.48e+09	6.77e-02
2p*3d_(0)-1s*3d_(1)	1.33082	4.96e+14	5.01e+14	1.77e+11	1.75e+11	9.91e-01
2p*4f_(3)-1s*4f*(3)	1.33082	1.58e+13	5.09e+14	6.61e+10	1.42e+10	2.15e-01
2p*4d*(2)-1s*4d*(3)	1.33086	9.59e+13	5.08e+14	9.65e+10	9.11e+10	9.44e-01
2p*3p*(2)-1s*3p*(2)	1.33088	1.80e+14	6.09e+14	8.82e+13	1.14e+14	1.29e+00
2p*4d*(2)-1s*4d*(2)	1.33089	2.81e+14	5.08e+14	9.65e+10	2.67e+11	2.77e+00
2p*3d_(1)-1s*3d_(2)	1.33090	1.84e+14	5.02e+14	2.28e+11	1.42e+11	6.24e-01
2p*4d_(3)-1s*4d_(2)	1.33090	3.71e+14	5.08e+14	1.96e+12	1.08e+13	5.08e+00
2p*3d_(1)-1s*3d_(1)	1.33092	3.77e+14	5.02e+14	2.28e+11	5.14e+11	2.25e+00
2p*4d_(1)-1s*4d*(2)	1.33095	8.78e+12	5.09e+14	1.15e+11	5.98e+09	5.17e-02
2p*4s*(2)-1s*4s*(1)	1.33097	5.02e+14	5.08e+14	3.50e+11	1.73e+12	4.94e+00
2p*4d_(2)-1s*4d_(2)	1.33107	1.88e+14	5.09e+14	5.03e+11	9.18e+11	1.83e+00
2p*4d_(2)-1s*4d_(1)	1.33108	1.98e+14	5.09e+14	5.03e+11	9.68e+11	1.92e+00
2p*3p*(1)-1s*3p_(0)	1.33109	4.41e+13	6.14e+14	1.84e+11	3.96e+10	2.16e-01
2p*4d_(3)-1s*4d*(3)	1.33109	9.64e+13	5.08e+14	1.96e+12	2.60e+12	1.32e+00
2p*4p_(2)-1s*4p_(1)	1.33112	4.82e+14	5.57e+14	1.52e+13	6.41e+13	4.21e+00
2p*4d_(3)-1s*4d*(2)	1.33112	4.04e+13	5.08e+14	1.96e+12	1.09e+12	5.55e-01
2p*4p*(2)-1s*4p*(1)	1.33113	2.78e+14	5.60e+14	2.82e+13	6.61e+13	2.35e+00
2p*4p_(1)-1s*4p_(0)	1.33117	3.08e+14	5.59e+14	1.18e+11	1.95e+11	1.66e+00
2p*4d*(4)-1s*4d*(3)	1.33118	5.05e+14	5.05e+14	2.20e+12	1.97e+13	8.96e+00
2p*3p*(1)-1s*3p_(1)	1.33120	9.38e+13	6.14e+14	1.84e+11	8.41e+10	4.58e-01
2p*4p*(1)-1s*4p*(2)	1.33121	8.39e+13	5.54e+14	1.34e+11	6.09e+10	4.54e-01
2p*4p_(1)-1s*4p_(1)	1.33122	1.15e+14	5.58e+14	1.18e+11	7.25e+10	6.15e-01
2p*3d*(2)-1s*3d*(3)	1.33123	1.05e+14	5.02e+14	1.37e+11	1.43e+11	1.04e+00
2p*4d_(2)-1s*4d*(3)	1.33126	3.09e+13	5.08e+14	5.03e+11	1.53e+11	3.03e-01
2p*4s*(1)-1s*4s*(0)	1.33127	3.45e+14	4.98e+14	1.61e+13	3.23e+13	2.01e+00
2p*4d_(2)-1s*4d*(2)	1.33128	9.57e+13	5.09e+14	5.03e+11	4.73e+11	9.38e-01
2p*3d*(2)-1s*3d*(2)	1.33129	2.41e+14	5.02e+14	1.37e+11	3.31e+11	2.40e+00
2p*4p*(3)-1s*4p*(2)	1.33129	5.04e+14	5.58e+14	3.68e+11	2.32e+12	6.32e+00
2p*4p*(2)-1s*4f_(3)	1.33130	7.42e+10	5.60e+14	2.82e+13	1.78e+10	6.31e-04
2p*4p*(2)-1s*4f_(2)	1.33130	6.86e+11	5.60e+14	2.82e+13	1.64e+11	5.83e-03
2p*3d_(1)-1s*3d*(2)	1.33138	1.45e+13	5.02e+14	2.28e+11	1.98e+10	8.66e-02
2p*4p*(2)-1s*4f*(3)	1.33140	1.57e+12	5.60e+14	2.82e+13	3.75e+11	1.33e-02
2s*2p*(1)-1s*2s*(1)	1.33142	3.48e+13	5.08e+14	2.04e+14	3.02e+13	1.48e-01
2p*3d_(3)-1s*3d_(2)	1.33145	3.18e+14	5.08e+14	3.38e+12	1.47e+13	4.36e+00
2p*4p*(1)-1s*4p*(1)	1.33154	3.21e+14	5.54e+14	1.34e+11	2.33e+11	1.74e+00
2p*3s*(2)-1s*3s*(1)	1.33156	4.18e+14	4.96e+14	8.28e+11	3.49e+12	4.21e+00
2p*4p_(2)-1s*4p*(2)	1.33164	1.49e+13	5.57e+14	1.52e+13	1.98e+12	1.30e-01
2p*3p*(2)-1s*3p*(1)	1.33171	3.12e+14	6.09e+14	8.82e+13	1.97e+14	2.23e+00
2p*4p_(1)-1s*4p*(2)	1.33173	1.16e+13	5.58e+14	1.18e+11	7.34e+09	6.23e-02
2p*3p_(2)-1s*3p_(1)	1.33174	3.88e+14	5.81e+14	3.56e+13	1.12e+14	3.14e+00
2p*3s*(1)-1s*3s*(0)	1.33180	3.36e+14	4.45e+14	6.89e+13	1.35e+14	1.96e+00
2p*3d_(3)-1s*3d*(3)	1.33180	1.58e+14	5.08e+14	3.38e+12	7.31e+12	2.16e+00
2p*4p*(3)-1s*4f*(3)	1.33180	6.47e+10	5.58e+14	3.68e+11	2.99e+08	8.12e-04
2p*3d_(3)-1s*3d*(2)	1.33184	3.18e+13	5.08e+14	3.38e+12	1.47e+12	4.35e-01
2p*4p_(2)-1s*4p*(1)	1.33186	8.19e+12	5.57e+14	1.52e+13	1.09e+12	7.16e-02
2p*3d_(2)-1s*3d_(2)	1.33200	1.81e+14	5.08e+14	9.48e+11	1.68e+12	1.78e+00
2p*3d_(2)-1s*3d_(1)	1.33203	1.80e+14	5.08e+14	9.48e+11	1.68e+12	1.77e+00
2p*4p_(1)-1s*4p*(1)	1.33206	7.22e+13	5.59e+14	1.18e+11	4.56e+10	3.87e-01
2p*4s*(1)-1s*4d_(2)	1.33213	1.98e+11	4.98e+14	1.61e+13	1.84e+10	1.14e-03
2p*4s*(1)-1s*4d_(1)	1.33214	1.13e+12	4.98e+14	1.61e+13	1.06e+11	6.60e-03
2p*4p_(2)-1s*4f_(2)	1.33214	1.77e+11	5.57e+14	1.52e+13	2.35e+10	1.54e-03
2p*3p_(1)-1s*3p_(0)	1.33218	2.87e+14	6.31e+14	2.53e+11	3.45e+11	1.36e+00
2p*4p_(2)-1s*4f*(3)	1.33224	1.82e+11	5.57e+14	1.52e+13	2.42e+10	1.59e-03
2p*3p_(1)-1s*3p_(1)	1.33229	9.18e+13	6.31e+14	2.53e+11	1.10e+11	4.36e-01
2p*4s*(1)-1s*4d*(2)	1.33235	1.95e+12	4.98e+14	1.61e+13	1.82e+11	1.14e-02
2p*4s*(2)-1s*4d_(2)	1.33239	3.07e+11	5.08e+14	3.50e+11	1.05e+09	3.01e-03
2p*4s*(2)-1s*4d_(1)	1.33239	4.12e+11	5.08e+14	3.50e+11	1.41e+09	4.05e-03
2p*3p*(1)-1s*3p*(2)	1.33240	8.36e+13	6.14e+14	1.84e+11	7.49e+10	4.08e-01
2p*3d_(2)-1s*3d*(3)	1.33245	5.77e+13	5.08e+14	9.48e+11	5.37e+11	5.67e-01
2p*3d*(4)-1s*3d*(3)	1.33247	5.06e+14	5.08e+14	4.74e+12	4.22e+13	8.92e+00
2p*3d_(2)-1s*3d*(2)	1.33250	8.86e+13	5.08e+14	9.48e+11	8.26e+11	8.72e-01
2p*4s*(2)-1s*4d*(3)	1.33258	7.61e+10	5.08e+14	3.50e+11	2.62e+08	7.48e-04
2p*4s*(2)-1s*4d*(2)	1.33260	4.67e+12	5.08e+14	3.50e+11	1.60e+10	4.59e-02
2p*3p*(3)-1s*3p*(2)	1.33263	4.75e+14	6.07e+14	9.64e+11	5.27e+12	5.46e+00

Z = 30

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qf
2p+2p+(2)-1s+2p_(1)	1.33267	1.31e+12	9.96e+14	2.00e+14	1.09e+12	5.47e-03
2p_3d+(2)-1s+3s+(1)	1.33289	7.89e+13	4.84e+14	8.77e+11	5.50e+11	8.13e-01
2p+3p_(2)-1s+3p+(2)	1.33295	7.07e+13	5.81e+14	3.56e+13	2.04e+13	5.73e-01
2p+3p+(1)-1s+3p+(1)	1.33323	2.60e+14	6.14e+14	1.84e+11	2.33e+11	1.27e+00
2p+3p_(1)-1s+3p+(2)	1.33349	4.28e+13	8.31e+14	2.53e+11	5.13e+10	2.03e-01
2p+3p_(2)-1s+3p+(1)	1.33377	9.91e+12	5.81e+14	3.56e+13	2.86e+12	8.03e-02
2s+3d+(2)-1s+3p_(1)	1.33377	5.24e+13	9.77e+13	3.29e+12	8.52e+12	2.59e+00
2p+3s+(1)-1s+3d_(2)	1.33379	3.14e+11	4.45e+14	6.89e+13	1.28e+11	1.83e-03
2p+3s+(1)-1s+3d_(1)	1.33381	4.95e+12	4.45e+14	6.89e+13	1.99e+12	2.89e-02
2p_3d_(1)-1s+3s+(0)	1.33396	8.96e+12	4.95e+14	3.57e+11	1.51e+10	4.22e-02
2p+2p+(0)-1s+2p+(1)	1.33429	9.12e+14	9.13e+14	3.75e+13	3.60e+13	9.60e-01
2p+3p_(1)-1s+3p+(1)	1.33432	8.09e+13	6.31e+14	2.53e+11	9.71e+10	3.84e-01
2p_3d_(2)-1s+3s+(1)	1.33438	6.45e+11	4.97e+14	3.84e+12	2.47e+10	6.44e-03
2p_4d+(2)-1s+4s+(1)	1.33454	2.11e+12	4.38e+14	1.18e+11	2.83e+09	2.41e-02
2s+3p+(1)-1s+3s+(1)	1.33485	1.59e+14	2.62e+14	2.29e+13	3.82e+13	1.67e+00
2s+4d+(2)-1s+4p_(1)	1.33491	5.04e+12	1.18e+14	1.63e+12	3.43e+11	2.10e-01
2p_4f_(2)-1s+4p_(1)	1.33495	6.15e+11	4.27e+14	1.02e+11	7.35e+08	7.19e-03
2s+3d+(2)-1s+3p+(2)	1.33498	2.20e+13	9.77e+13	3.29e+12	3.58e+12	1.09e+00
2p+3s+(2)-1s+3d_(1)	1.33500	4.68e+11	4.96e+14	8.28e+11	3.90e+09	4.72e-03
2p_4d_(1)-1s+4s+(0)	1.33509	9.36e+11	4.74e+14	3.36e+11	1.99e+09	5.92e-03
2s+4p+(1)-1s+4s+(1)	1.33515	8.27e+13	1.48e+14	1.80e+13	2.71e+13	1.51e+00
2s+3d_(1)-1s+3p_(0)	1.33518	2.82e+12	1.12e+14	2.26e+12	1.56e+11	6.88e-02
2s+3d_(2)-1s+3p_(1)	1.33520	2.46e+11	1.31e+14	1.61e+13	1.34e+11	8.16e-03
2p_4d_(2)-1s+4s+(1)	1.33522	8.55e+10	4.74e+14	1.62e+12	1.48e+09	9.00e-04
2s+3d_(1)-1s+3p_(1)	1.33528	2.10e+13	1.12e+14	2.26e+12	1.25e+12	5.51e-01
2p_4f+(3)-1s+4p+(2)	1.33538	1.55e+11	4.72e+14	4.09e+10	9.37e+07	2.29e-03
2p+3s+(2)-1s+3d+(3)	1.33542	2.18e+13	4.96e+14	8.28e+11	1.82e+11	2.20e-01
2s+4d+(2)-1s+4p+(2)	1.33543	3.22e+13	1.18e+14	1.63e+12	2.19e+12	1.34e+00
2s+4d_(1)-1s+4p_(0)	1.33545	5.15e+12	8.91e+13	1.19e+12	2.62e+11	2.20e-01
2p_4f_(2)-1s+4p+(2)	1.33547	2.07e+12	4.27e+14	1.02e+11	2.47e+09	2.42e-02
2p+3s+(2)-1s+3d+(2)	1.33548	5.09e+13	4.96e+14	8.28e+11	4.25e+11	5.13e-01
2s+3s+(2)-1s+3s+(1)	1.33548	2.46e+12	1.78e+14	6.37e+12	4.25e+11	6.67e-02
2s+4d_(1)-1s+4p_(1)	1.33549	2.11e+13	8.91e+13	1.19e+12	1.08e+12	9.00e-01
2s+4d_(2)-1s+4p_(1)	1.33551	5.12e+10	7.20e+13	3.19e+12	1.09e+10	3.40e-03
2s+4p+(2)-1s+4s+(1)	1.33562	1.35e+12	1.26e+14	2.44e+12	1.28e+11	5.25e-02
2s+4f_(3)-1s+4d_(2)	1.33563	7.35e+10	6.05e+13	6.32e+11	5.32e+09	8.42e-03
2s+4f_(2)-1s+4d_(2)	1.33566	1.19e+13	2.60e+13	1.54e+11	3.49e+11	2.27e+00
2s+4f_(2)-1s+4d_(1)	1.33567	8.07e+12	2.60e+13	1.54e+11	2.37e+11	1.54e+00
2s+4f+(3)-1s+4d+(3)	1.33570	1.95e+12	4.18e+12	3.45e+10	1.12e+11	3.23e+00
2s+4p+(1)-1s+4s+(0)	1.33571	1.07e+13	1.48e+14	1.80e+13	3.51e+12	1.96e-01
2s+4f+(3)-1s+4d+(2)	1.33572	2.10e+12	4.18e+12	3.45e+10	1.21e+11	3.49e+00
2s+4d+(2)-1s+4p+(1)	1.33575	1.14e+13	1.18e+14	1.63e+12	7.74e+11	4.74e-01
2p_4f_(2)-1s+4p+(1)	1.33579	4.88e+11	4.27e+14	1.02e+11	5.87e+08	5.74e-03
2s+3d+(2)-1s+3p+(1)	1.33581	1.52e+12	9.77e+13	3.29e+12	2.48e+11	7.54e-02
2p_4p+(1)-1s+4p_(0)	1.33581	3.03e+12	4.60e+14	4.47e+10	8.83e+08	1.97e-02
2s+4f+(4)-1s+4d+(3)	1.33581	1.21e+12	1.27e+12	2.22e+09	1.90e+10	8.55e+00
2s+4f_(3)-1s+4d+(3)	1.33582	3.01e+13	6.05e+13	6.32e+11	2.18e+12	3.45e+00
2p_4p_(0)-1s+4p_(1)	1.33584	3.59e+14	3.99e+14	2.10e+12	1.88e+12	8.96e-01
2s+4f_(3)-1s+4d+(2)	1.33584	3.01e+13	6.05e+13	6.32e+11	2.18e+12	3.45e+00
2s+4f_(2)-1s+4d+(3)	1.33585	5.18e+12	2.60e+13	1.54e+11	1.52e+11	9.92e-01
2p_4p+(1)-1s+4p_(1)	1.33586	4.20e+10	4.60e+14	4.47e+10	1.22e+07	2.74e-04
2p_4f+(3)-1s+4f_(3)	1.33588	1.44e+11	4.72e+14	4.09e+10	8.74e+07	2.14e-03
2s+4f_(2)-1s+4d+(2)	1.33588	7.61e+11	2.60e+13	1.54e+11	2.24e+10	1.45e-01
2p_4f+(3)-1s+4f_(2)	1.33588	5.83e+11	4.72e+14	4.09e+10	3.41e+08	8.35e-03
2p_3p_(0)-1s+3p_(1)	1.33591	4.18e+14	5.19e+14	4.34e+12	3.45e+12	7.96e-01
2s+4d+(2)-1s+4f_(3)	1.33593	4.77e+13	1.18e+14	1.63e+12	3.25e+12	1.99e+00
2s+4d+(2)-1s+4f_(2)	1.33593	1.71e+13	1.18e+14	1.63e+12	1.17e+12	7.15e-01
2s+4p_(0)-1s+4s+(1)	1.33594	1.33e+14	1.74e+14	1.00e+12	7.61e+11	7.59e-01
2p_4d_(1)-1s+4d_(2)	1.33595	3.77e+14	4.74e+14	3.36e+11	8.00e+11	2.38e+00
2p_3d_(1)-1s+3d_(2)	1.33596	3.63e+14	4.85e+14	3.57e+11	7.85e+11	2.20e+00
2p_4d_(1)-1s+4d_(1)	1.33596	9.29e+13	4.74e+14	3.36e+11	1.98e+11	5.88e-01
2p_4d+(2)-1s+4d_(2)	1.33597	4.26e+11	4.39e+14	1.18e+11	5.71e+08	4.85e-03
2p_4d+(2)-1s+4d_(1)	1.33597	1.03e+12	4.39e+14	1.18e+11	1.39e+09	1.18e-02
2p_4f_(2)-1s+4f_(3)	1.33597	3.17e+14	4.27e+14	1.02e+11	3.80e+11	3.71e+00
2p_4f_(2)-1s+4f_(2)	1.33597	1.06e+14	4.27e+14	1.02e+11	1.27e+11	1.24e+00
2p_4f+(3)-1s+4f+(4)	1.33597	3.39e+14	4.72e+14	4.09e+10	2.05e+11	5.02e+00
2s+4d+(3)-1s+4p+(2)	1.33598	3.21e+12	3.85e+13	8.56e+11	4.89e+11	5.71e-01
2p_3p+(1)-1s+3p_(0)	1.33598	2.21e+10	5.12e+14	1.75e+11	2.27e+07	1.30e-04
2p_3d_(1)-1s+3d_(1)	1.33598	1.17e+14	4.95e+14	3.57e+11	2.54e+11	7.12e-01
2p_4f+(3)-1s+4f+(3)	1.33598	3.33e+14	4.72e+14	4.09e+10	8.04e+10	1.97e+00
2s+4d_(1)-1s+4p+(2)	1.33601	3.42e+13	8.91e+13	1.19e+12	1.74e+12	1.46e+00
2p_4f+(4)-1s+4f+(4)	1.33601	2.21e+14	5.02e+14	2.53e+11	1.00e+12	3.96e+00
2p_4f+(4)-1s+4f+(3)	1.33601	2.81e+14	5.02e+14	2.53e+11	1.28e+12	5.04e+00
2p_(1/2)-1s+(1/2)	1.33602	5.09e+14	5.09e+14	0.	0.	2.00e+00
2s+4d_(2)-1s+4p+(2)	1.33603	2.17e+13	7.20e+13	3.19e+12	4.60e+12	1.44e+00

Z = 30

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qf
2p_4f_(3)-1s+4f_(3)	1.33606	2.31e+14	5.02e+14	1.89e+11	6.07e+11	3.21e+00
2p_4f_(3)-1s+4f_(2)	1.33607	2.70e+14	5.02e+14	1.89e+11	7.11e+11	3.77e+00
2p_4f_(2)-1s+4f+(3)	1.33607	1.45e+11	4.27e+14	1.02e+11	1.73e+08	1.70e-03
2p_3p+(1)-1s+3p_(1)	1.33609	4.35e+11	5.12e+14	1.75e+11	4.46e+08	2.55e-03
2p_4d+(3)-1s+4d_(2)	1.33610	6.54e+12	4.39e+14	3.46e+12	3.58e+11	1.04e-01
2p_4p+(2)-1s+4p_(1)	1.33613	2.02e+13	4.53e+14	1.32e+13	2.87e+12	2.17e-01
2s+4p_(1)-1s+4s+(1)	1.33616	1.68e+13	8.85e+13	7.96e+12	4.17e+12	5.23e-01
2p_4d+(2)-1s+4d+(3)	1.33616	3.13e+14	4.39e+14	1.18e+11	4.19e+11	3.56e+00
2p_4f_(3)-1s+4f+(4)	1.33616	1.00e+12	5.02e+14	1.89e+11	2.84e+09	1.40e-02
2p_4f_(3)-1s+4f+(3)	1.33616	1.35e+11	5.02e+14	1.89e+11	3.58e+08	1.86e-03
2p_4d_(1)-1s+4d+(2)	1.33617	2.84e+11	4.74e+14	3.36e+11	4.34e+08	1.29e-03
2p_4d+(2)-1s+4d+(2)	1.33618	1.16e+14	4.39e+14	1.18e+11	1.58e+11	1.32e+00
2s+3p+(1)-1s+3s+(0)	1.33627	1.38e+12	2.62e+14	2.29e+13	3.33e+11	1.46e-02
2p_4d+(3)-1s+4d+(3)	1.33629	2.05e+14	4.39e+14	3.46e+12	1.12e+13	3.24e+00
2p_3d+(2)-1s+3d_(2)	1.33631	3.27e+11	4.84e+14	6.77e+11	2.29e+09	3.38e-03
2p_4d+(3)-1s+4d+(2)	1.33632	2.27e+14	4.39e+14	3.46e+12	1.24e+13	3.60e+00
2p_3d+(2)-1s+3d_(1)	1.33633	6.00e+11	4.84e+14	6.77e+11	4.19e+09	6.19e-03
2s+4d_(1)-1s+4p+(1)	1.33634	1.86e+12	8.91e+13	1.19e+12	9.46e+10	7.92e-02
2s+4d_(2)-1s+4p+(1)	1.33636	2.77e+13	7.20e+13	3.19e+12	5.87e+12	1.84e+00
2p_4p+(1)-1s+4p+(2)	1.33638	3.17e+14	4.60e+14	4.47e+10	9.25e+10	2.07e+00
2s+3d_(2)-1s+3p+(2)	1.33641	4.77e+13	1.31e+14	1.61e+13	2.61e+13	1.62e+00
2p_3d+(3)-1s+3d_(2)	1.33642	3.50e+13	5.02e+14	6.49e+12	3.13e+12	4.83e-01
2p_3d_(1)-1s+3d+(2)	1.33646	4.76e+12	4.95e+14	3.57e+11	1.03e+10	2.88e-02
2s+4d+(3)-1s+4f_(3)	1.33648	6.78e+11	3.85e+13	8.56e+11	1.02e+11	1.19e-01
2s+3d+(3)-1s+3p+(2)	1.33648	2.54e+13	3.28e+13	1.58e+12	8.88e+12	5.19e+00
2s+4d+(3)-1s+4f_(2)	1.33649	5.30e+11	3.85e+13	8.56e+11	8.07e+10	9.43e-02
2s+3d_(1)-1s+3p+(2)	1.33650	6.88e+13	1.12e+14	2.26e+12	3.61e+12	1.60e+00
2s+4d_(1)-1s+4f_(2)	1.33652	4.82e+11	6.91e+13	1.19e+12	2.51e+10	2.10e-02
2s+4d_(2)-1s+4f_(3)	1.33653	1.44e+13	7.20e+13	3.19e+12	3.05e+12	9.58e-01
2s+4d_(2)-1s+4f_(2)	1.33654	2.88e+12	7.20e+13	3.19e+12	5.69e+11	1.78e-01
2s+4p+(1)-1s+4d_(2)	1.33657	4.38e+12	1.46e+14	1.80e+13	1.41e+12	7.85e-02
2s+4p+(1)-1s+4d_(1)	1.33658	3.81e+12	1.46e+14	1.80e+13	9.87e+11	5.50e-02
2s+4d+(3)-1s+4f+(4)	1.33658	2.89e+13	3.85e+13	8.56e+11	4.10e+12	4.79e+00
2p_4s+(0)-1s+4s+(1)	1.33658	3.72e+14	3.86e+14	3.06e+12	2.93e+12	9.58e-01
2s+4d+(3)-1s+4f+(3)	1.33659	6.74e+12	3.85e+13	8.56e+11	1.03e+12	1.20e+00
2p_4s+(1)-1s+4s+(1)	1.33660	2.57e+14	4.22e+14	4.82e+11	8.78e+11	1.82e+00
2s+3p_(0)-1s+3s+(1)	1.33660	1.18e+14	2.28e+14	2.56e+12	1.38e+12	5.09e-01
2s+4d_(2)-1s+4f+(3)	1.33663	1.14e+11	7.20e+13	3.19e+12	2.42e+10	7.86e-03
2p_4p+(2)-1s+4p+(2)	1.33665	2.08e+14	4.53e+14	1.32e+13	2.95e+13	2.23e+00
2p_4d_(2)-1s+4d_(2)	1.33665	2.27e+14	4.74e+14	1.62e+12	3.87e+12	2.39e+00
2p_4d_(2)-1s+4d_(1)	1.33665	2.41e+14	4.74e+14	1.62e+12	4.11e+12	2.54e+00
2p_4p_(0)-1s+4p+(1)	1.33668	8.26e+11	3.99e+14	2.10e+12	4.32e+09	2.06e-03
2p_4p+(1)-1s+4p+(1)	1.33670	9.56e+13	4.60e+14	4.47e+10	2.79e+10	6.25e-01
2p_3p+(2)-1s+3p_(1)	1.33671	6.41e+13	4.83e+14	1.85e+13	1.18e+13	6.26e-01
2s+3p_(1)-1s+3s+(1)	1.33672	8.93e+13	2.07e+14	1.68e+13	2.83e+13	1.20e+00
2p+2p+(2)-1s+2p+(2)	1.33672	3.29e+14	9.86e+14	2.00e+14	2.74e+14	1.37e+00
2s+4p_(1)-1s+4s+(0)	1.33673	1.66e+11	8.85e+13	7.96e+12	4.16e+10	5.23e-03
2p_3d+(2)-1s+3d+(3)	1.33675	2.74e+14	4.84e+14	6.77e+11	1.91e+12	2.83e+00
2s+4p+(1)-1s+4d+(2)	1.33679	3.18e+12	1.46e+14	1.80e+13	1.04e+12	5.81e-02
2p_3d+(2)-1s+3d+(2)	1.33681	1.23e+14	4.84e+14	6.77e+11	8.58e+11	1.27e+00
2p_4d_(2)-1s+4d+(3)	1.33684	4.75e+12	4.74e+14	1.62e+12	8.10e+10	5.00e-02
2p_3d+(3)-1s+3d+(3)	1.33686	2.34e+14	5.02e+14	6.49e+12	2.09e+13	3.23e+00
2p_4p_(1)-1s+4p_(0)	1.33691	1.55e+14	4.88e+14	5.23e+10	5.02e+10	9.59e-01
2p_3d+(3)-1s+3d+(2)	1.33692	2.33e+14	5.02e+14	6.49e+12	2.08e+13	3.20e+00
2p_4p_(1)-1s+4p_(1)	1.33695	2.84e+14	4.88e+14	5.23e+10	8.95e+10	1.63e+00
2p_4p+(2)-1s+4p+(1)	1.33697	1.80e+14	4.53e+14	1.32e+13	2.56e+13	1.93e+00
2s+4p+(2)-1s+4d_(2)	1.33705	7.84e+12	1.26e+14	2.44e+12	7.43e+11	3.05e-01
2s+4p+(2)-1s+4d_(1)	1.33705	4.51e+12	1.26e+14	2.44e+12	4.27e+11	1.75e-01
2s+2p+(1)-1s+2s+(0)	1.33707	4.85e+14	5.00e+14	2.04e+14	4.04e+14	1.98e+00
2s+4s+(0)-1s+4p_(1)	1.33713	1.40e+14	1.75e+14	5.45e+13	3.31e+13	6.08e-01
2p_4p+(2)-1s+4f_(3)	1.33715	1.67e+11	4.53e+14	1.32e+13	2.37e+10	1.79e-03
2p_4s+(1)-1s+4s+(0)	1.33717	1.48e+14	4.22e+14	4.82e+11	5.05e+11	1.05e+00
2s+2p+(2)-1s+4d+(2)	1.33718	5.02e+14	5.03e+14	1.76e+13	8.52e+13	4.83e+00
2s+4p+(2)-1s+4d+(3)	1.33724	5.82e+13	1.26e+14	2.44e+12	5.52e+12	2.26e+00
2s+3d_(2)-1s+3p+(1)	1.33724	5.37e+13	1.31e+14	1.61e+13	3.05e+13	1.90e+00
2p_4p+(2)-1s+4f+(3)	1.33725	1.61e+11	4.53e+14	1.32e+13	2.01e+10	1.52e-03
2s+4p+(2)-1s+4d+(2)	1.33726	9.78e+12	1.26e+14	2.44e+12	9.28e+11	3.81e-01
2p_3p+(1)-1s+3p+(2)	1.33730	2.66e+14	5.12e+14	1.75e+11	2.73e+11	1.56e+00
2s+3d_(1)-1s+3p+(1)	1.33733	4.40e+12	1.12e+14	2.26e+12	2.61e+11	1.15e-01
2p_3s+(0)-1s+3s+(1)	1.33737	3.83e+14	4.13e+14	8.42e+12	7.66e+12	9.10e-01
2s+4p_(0)-1s+4d_(1)	1.33738	4.37e+12	1.74e+14	1.00e+12	2.51e+10	2.50e-02
2s+4s+(1)-1s+4p_(0)	1.33740	6.47e+12	1.07e+14	4.80e+11	8.66e+10	1.81e-01
2s+4s+(1)-1s+4p_(1)	1.33744	3.65e+13	1.07e+14	4.80e+11	4.89e+11	1.02e+00
2p_4p_(1)-1s+4p+(2)	1.33747	1.27e+13	4.85e+14	5.23e+10	4.13e+09	7.88e-02
2s+4p_(1)-1s+4d_(2)	1.33759	2.40e+13	8.85e+13	7.96e+12	5.95e+12	7.46e-01

Z = 30

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4p_(1)-1s*4d_(1)	1.33760	6.71e+11	8.85e+13	7.98e+12	1.66e+11	2.09e-02
2p_2p*(2)-1s*2p_(1)	1.33773	3.48e+14	9.93e+14	1.59e+14	2.40e+14	1.51e+00
2p_3s*(1)-1s*3s*(1)	1.33780	1.67e+14	3.84e+14	5.01e+11	6.52e+11	1.30e+00
2p_4p_(1)-1s*4p*(1)	1.33780	7.24e+12	4.85e+14	5.23e+10	2.35e+09	4.48e-02
2p_3d_(2)-1s*3d_(2)	1.33782	2.27e+14	4.97e+14	3.84e+12	8.72e+12	2.27e+00
2p_3d_(2)-1s*3d_(1)	1.33784	2.65e+14	4.97e+14	3.84e+12	1.01e+13	2.64e+00
2p_3p*(2)-1s*3p*(2)	1.33792	1.90e+14	4.93e+14	1.85e+13	3.44e+13	1.86e+00
2p_3p_(0)-1s*3p*(1)	1.33795	2.18e+12	5.19e+14	4.34e+12	1.81e+10	4.17e-03
2s*4s*(1)-1s*4p*(2)	1.33796	4.56e+13	1.07e+14	4.80e+11	6.11e+11	1.27e+00
2s*4s*(0)-1s*4p*(1)	1.33798	1.94e+13	1.75e+14	5.45e+13	4.59e+12	8.42e-02
2p_4s*(1)-1s*4d_(2)	1.33803	6.60e+12	4.22e+14	4.82e+11	2.26e+10	4.69e-02
2p_4s*(1)-1s*4d_(1)	1.33804	4.33e+11	4.22e+14	4.82e+11	1.48e+09	3.08e-03
2p_3p*(1)-1s*3p*(1)	1.33813	1.38e+14	5.12e+14	1.75e+11	1.39e+11	7.97e-01
2s*3p_(1)-1s*3s*(0)	1.33814	6.28e+12	2.07e+14	1.89e+13	1.43e+12	8.42e-02
2p_4s*(1)-1s*4d*(2)	1.33825	4.52e+11	4.22e+14	4.82e+11	1.54e+09	3.21e-03
2p_3d_(2)-1s*3d*(3)	1.33827	2.09e+12	4.97e+14	3.84e+12	8.01e+10	2.09e-02
2s*3p*(1)-1s*3d_(2)	1.33828	4.29e+11	2.62e+14	2.29e+13	1.03e+11	4.51e-03
2s*4s*(1)-1s*4p*(1)	1.33829	7.89e+12	1.07e+14	4.80e+11	1.06e+11	2.20e-01
2s*3p*(1)-1s*3d_(1)	1.33830	2.63e+12	2.62e+14	2.29e+13	6.33e+11	2.77e-02
2p_3d_(2)-1s*3d*(2)	1.33832	4.97e+11	4.97e+14	3.84e+12	1.91e+10	4.98e-03
2p_2p*(1)-1s*2p_(0)	1.33860	3.34e+14	9.97e+14	3.80e+10	3.81e+10	1.00e+00
2p_3p_(1)-1s*3p_(0)	1.33865	1.70e+14	5.72e+14	7.31e+10	8.52e+10	8.92e-01
2p_3p*(2)-1s*3p*(1)	1.33875	1.33e+14	4.93e+14	1.85e+13	2.41e+13	1.30e+00
2p_3p_(1)-1s*3p_(1)	1.33876	2.57e+14	5.72e+14	7.31e+10	9.83e+10	1.35e+00
2s*3p*(1)-1s*3d*(2)	1.33878	1.06e+13	2.62e+14	2.29e+13	2.55e+12	1.11e-01
2s*3s*(0)-1s*3p_(1)	1.33885	9.74e+13	1.57e+14	1.59e+14	4.90e+13	3.09e-01
2s*3p*(2)-1s*3d_(2)	1.33892	7.46e+12	1.78e+14	6.37e+12	1.29e+12	2.03e-01
2s*3p*(2)-1s*3d_(1)	1.33894	1.53e+12	1.78e+14	6.37e+12	2.64e+11	4.14e-02
2p_2p*(1)-1s*2p_(1)	1.33897	2.17e+14	9.97e+14	3.80e+10	2.46e+10	6.53e-01
2s_3s*(1)-1s*3s*(0)	1.33923	1.55e+14	3.84e+14	5.01e+11	8.08e+11	1.21e+00
2s*3p*(2)-1s*3d*(3)	1.33938	4.64e+13	1.78e+14	6.37e+12	8.01e+12	1.26e+00
2s*3p*(2)-1s*3d*(2)	1.33942	3.15e+12	1.78e+14	6.37e+12	5.44e+11	8.54e-02
2p*2p*(2)-1s*2p*(1)	1.33975	6.66e+14	9.96e+14	2.00e+14	5.56e+14	2.78e+00
2s*3s*(1)-1s*3p_(0)	1.33997	1.92e+11	1.05e+14	9.67e+11	5.24e+09	5.42e-03
2p_3p_(1)-1s*3p*(2)	1.33998	7.87e+12	5.72e+14	7.31e+10	3.02e+09	4.13e-02
2s*3p_(0)-1s*3d_(1)	1.34008	1.45e+13	2.29e+14	2.58e+12	1.81e+11	6.28e-02
2s*3s*(1)-1s*3p_(1)	1.34008	3.71e+13	1.05e+14	9.67e+11	1.01e+12	1.05e+00
2s*3p_(1)-1s*3d_(2)	1.34016	1.05e+13	2.07e+14	1.69e+13	2.38e+12	1.40e-01
2s*3p_(1)-1s*3d_(1)	1.34018	1.06e+11	2.07e+14	1.69e+13	2.46e+10	1.42e-03
2s*3p_(1)-1s*3d*(2)	1.34066	3.41e+11	2.07e+14	1.69e+13	7.73e+10	4.57e-03
2p_3p_(1)-1s*3p*(1)	1.34081	1.38e+13	5.72e+14	7.31e+10	5.20e+09	7.11e-02
2s*3s*(0)-1s*3p*(1)	1.34090	2.93e+13	1.57e+14	1.59e+14	1.47e+13	9.29e-02
2p_3s*(1)-1s*3d_(2)	1.34125	1.43e+13	3.84e+14	5.01e+11	5.58e+10	1.11e-01
2s*3s*(1)-1s*3p*(2)	1.34130	4.31e+13	1.05e+14	9.67e+11	1.18e+12	1.22e+00
2s*2p_(1)-1s*2s*(1)	1.34143	4.65e+14	4.96e+14	3.61e+13	9.43e+13	2.61e+00
2p_3s*(1)-1s*3d*(2)	1.34175	6.79e+11	3.84e+14	5.01e+11	2.66e+09	5.30e-03
2s_2p*(2)-1s*2p*(2)	1.34181	4.21e+14	9.93e+14	1.59e+14	2.96e+14	1.83e+00
2p_2p_(0)-1s*2p_(1)	1.34198	8.56e+14	8.72e+14	6.97e+12	8.79e+12	9.74e-01
2s*3s*(1)-1s*3p*(1)	1.34214	2.28e+12	1.05e+14	9.67e+11	6.14e+10	6.35e-02
2s*2p_(0)-1s*2s*(1)	1.34249	4.98e+14	4.96e+14	2.35e+13	2.24e+13	9.55e-01
2p_2p*(1)-1s*2p*(2)	1.34308	4.13e+14	9.97e+14	3.80e+10	4.72e+10	1.24e+00
2p_2p*(2)-1s*2p*(1)	1.34486	2.24e+14	9.93e+14	1.59e+14	1.55e+14	9.74e-01
2p_2p*(1)-1s*2p*(1)	1.34612	3.27e+13	9.97e+14	3.80e+10	3.73e+09	9.82e-02
2s*2p_(1)-1s*2s*(0)	1.34718	3.38e+13	4.96e+14	3.61e+13	6.81e+12	1.88e-01
2s*2s*(0)-1s*2p_(1)	1.34843	1.38e+14	2.07e+14	3.61e+14	8.65e+13	2.40e-01
2p_2p_(0)-1s*2p*(1)	1.34917	1.58e+13	8.72e+14	6.97e+12	1.26e+11	1.80e-02
2s*2s*(0)-1s*2p*(1)	1.35569	7.11e+13	2.07e+14	3.61e+14	4.52e+13	1.25e-01
2p*3d*(3)-1s*4d*(2)	1.41453	5.17e+10	5.07e+14	1.75e+13	1.21e+10	6.90e-04
2p*3d*(4)-1s*4d*(3)	1.41729	4.25e+10	5.08e+14	4.74e+12	3.55e+09	7.50e-04
2p*3p_(2)-1s*4p_(1)	1.41798	4.35e+10	5.81e+14	3.56e+13	1.26e+10	3.53e-04
2p*3s*(1)-1s*4s*(0)	1.41810	2.54e+10	4.65e+14	6.89e+13	1.02e+10	1.48e-04
2p*3p*(3)-1s*4p*(2)	1.41821	7.64e+10	6.07e+14	9.64e+11	8.46e+08	8.79e-04
2p*3p*(1)-1s*4p*(1)	1.41831	7.97e+10	6.14e+14	1.84e+11	7.15e+07	3.89e-04
2p*3p_(1)-1s*4p_(0)	1.41855	4.33e+10	6.31e+14	2.53e+11	5.19e+07	2.06e-04
2p*3s*(2)-1s*4s*(1)	1.41880	3.19e+10	4.96e+14	8.28e+11	2.66e+08	3.21e-04
2p*3s*(1)-1s*4d*(2)	1.41931	5.52e+10	4.45e+14	6.89e+13	2.22e+10	3.22e-04
2p*3p_(1)-1s*4p*(1)	1.41955	4.73e+10	6.31e+14	2.53e+11	5.66e+07	2.25e-04
2p_3d*(2)-1s*4s*(1)	1.42031	2.02e+10	4.84e+14	6.77e+11	1.41e+08	2.08e-04
2s*3d*(2)-1s*4f*(3)	1.42155	1.01e+11	9.77e+13	3.29e+12	1.64e+10	4.98e-03
2p_3d*(3)-1s*4d_(2)	1.42204	2.92e+10	5.02e+14	6.49e+12	2.61e+09	4.02e-04
2s*3d_(2)-1s*4f_(3)	1.42305	7.18e+10	1.31e+14	1.61e+13	3.93e+10	2.44e-03
2s*3d_(1)-1s*4f_(2)	1.42316	8.40e+10	1.12e+14	2.26e+12	4.99e+09	2.21e-03
2s*3p*(1)-1s*4s*(0)	1.42317	2.58e+10	2.62e+14	2.29e+13	6.21e+09	2.71e-04
2s*3d*(3)-1s*4f*(4)	1.42324	7.48e+10	3.28e+13	1.56e+12	2.37e+10	1.52e-02
2p_3s*(2)-1s*4p_(1)	1.42361	2.56e+10	4.93e+14	1.85e+13	4.62e+09	2.50e-04

Z = 30

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p_3d_(2)-1s*4d_(1)	1.42364	2.34e+10	4.97e+14	3.84e+12	8.97e+08	2.34e-04
2p_3p*(1)-1s*4p*(1)	1.42387	6.20e+10	5.12e+14	1.75e+11	6.35e+07	3.63e-04
2p_3p*(2)-1s*4p*(2)	1.42420	3.50e+10	4.93e+14	1.85e+13	6.33e+09	3.42e-04
2p_3p*(2)-1s*4p*(1)	1.42457	1.99e+10	4.93e+14	1.85e+13	3.59e+09	1.94e-04
2p_3p_(1)-1s*4p_(0)	1.42589	4.83e+10	5.72e+14	7.31e+10	1.85e+07	2.53e-04
2p_3p_(1)-1s*4p_(1)	1.42594	5.65e+10	5.72e+14	7.31e+10	2.17e+07	2.96e-04
2p_3s*(1)-1s*4s*(0)	1.42653	8.48e+10	3.84e+14	5.01e+11	3.32e+08	6.63e-04
2s*3s*(1)-1s*4p_(1)	1.42744	3.48e+10	1.05e+14	9.67e+11	9.46e+08	9.78e-04
2p*2p*(0)-1s*3s*(1)	1.60970	1.91e+11	9.13e+14	3.75e+13	7.54e+09	2.01e-04
2p*2p*(2)-1s*3p*(2)	1.61645	4.06e+10	9.96e+14	2.00e+14	3.39e+10	1.70e-04
2p*2p*(2)-1s*3p*(1)	1.61786	9.23e+10	9.96e+14	2.00e+14	7.71e+10	3.86e-04
2s*2p*(1)-1s*3s*(0)	1.62066	5.70e+10	5.00e+14	2.04e+14	4.96e+10	2.43e-04
2p_2p*(2)-1s*3p_(1)	1.62210	4.94e+10	9.93e+14	1.59e+14	3.41e+10	2.15e-04
2p_2p*(1)-1s*3p_(0)	1.62377	4.97e+10	9.97e+14	3.80e+10	5.68e+08	1.50e-04
2p_2p*(2)-1s*3p*(2)	1.62389	4.96e+10	9.93e+14	1.59e+14	3.43e+10	2.15e-04
2p_2p*(1)-1s*3p_(1)	1.62393	2.91e+10	9.97e+14	3.80e+10	3.32e+08	8.74e-05
2s*2p*(1)-1s*3d*(2)	1.62435	8.93e+10	5.00e+14	2.04e+14	7.76e+10	3.81e-04
2p_2p*(2)-1s*3p*(1)	1.62512	2.96e+10	9.93e+14	1.59e+14	2.05e+10	1.29e-04
2p_2p*(1)-1s*3p*(2)	1.62573	4.61e+10	9.97e+14	3.80e+10	5.26e+08	1.39e-04
2s*2p*(2)-1s*3s*(1)	1.62708	5.42e+10	5.03e+14	1.76e+13	9.19e+09	5.21e-04
2p_2p_(0)-1s*3p_(1)	1.62837	1.11e+11	8.72e+14	6.97e+12	8.77e+08	1.26e-04
2s*2p_(1)-1s*3s*(1)	1.63338	5.13e+10	4.98e+14	3.61e+13	1.04e+10	2.08e-04
2p*2p*(0)-1s*4p*(1)	1.73540	7.58e+10	9.13e+14	3.75e+13	2.99e+09	7.98e-05
2p_2p*(1)-1s*4p_(0)	1.75383	8.55e+09	9.97e+14	3.80e+10	9.77e+05	2.57e-05
2s*2p*(2)-1s*4s*(1)	1.75928	2.19e+10	5.03e+14	1.76e+13	3.72e+09	2.11e-04
2s*2p_(1)-1s*4s*(1)	1.78662	2.21e+10	4.98e+14	3.61e+13	4.48e+09	1.24e-04

Z = 36

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
4p+ (3/2)-1s+ (1/2)	.73677	1.16e+14	1.16e+14	0.	0.	4.00e+00
4p_ (1/2)-1s+ (1/2)	.73720	1.09e+14	1.09e+14	0.	0.	2.00e+00
2p+4d+(2)-1s+2s+(1)	.73895	1.06e+11	1.06e+15	1.05e+11	5.28e+07	5.00e-04
2p+4s+(2)-1s+2s+(1)	.73981	1.73e+11	1.06e+15	4.51e+11	3.66e+08	8.13e-04
2p+4p+(0)-1s+2p_(1)	.74102	9.38e+11	1.19e+15	1.49e+13	1.16e+10	7.79e-04
2p+4p+(2)-1s+2p_(1)	.74125	1.34e+12	1.17e+15	2.47e+13	1.38e+11	5.59e-03
2p+4p+(1)-1s+2p_(1)	.74142	2.30e+12	1.16e+15	1.35e+11	7.97e+08	5.92e-03
2p+4p_(2)-1s+2p_(1)	.74174	4.53e+11	1.16e+15	1.78e+13	3.41e+10	1.92e-03
2p+4p_(1)-1s+2p_(1)	.74177	1.10e+12	1.17e+15	1.66e+11	4.69e+08	2.83e-03
2p+4s+(1)-1s+2s+(0)	.74191	6.34e+11	1.05e+15	1.40e+13	2.50e+10	1.78e-03
2p_4d+(2)-1s+2s+(1)	.74240	1.31e+13	9.22e+14	1.03e+11	7.31e+09	7.10e-02
2p_4d_(1)-1s+2s+(1)	.74245	3.34e+11	9.88e+14	5.50e+11	5.59e+08	1.02e-03
2s+4p+(1)-1s+2s+(1)	.74267	3.03e+13	2.34e+14	1.93e+13	6.94e+12	3.59e-01
2p_4d_(2)-1s+2s+(1)	.74271	3.81e+12	9.83e+14	1.72e+12	3.14e+10	1.83e-02
2s+4p+(2)-1s+2s+(1)	.74283	9.37e+13	2.63e+14	2.52e+12	4.45e+12	1.77e+00
2s+4p_(0)-1s+2s+(1)	.74314	8.08e+13	3.15e+14	1.27e+12	3.24e+11	2.55e-01
2s+4p_(1)-1s+2s+(1)	.74321	7.54e+13	1.85e+14	1.01e+13	1.30e+13	1.29e+00
2p_4s+(0)-1s+2s+(1)	.74340	2.32e+13	8.39e+14	3.65e+12	1.01e+11	2.76e-02
2p+4p+(2)-1s+2p+(2)	.74412	4.57e+13	1.17e+15	2.47e+13	4.71e+12	1.91e-01
2p+4p+(1)-1s+2p+(2)	.74429	3.15e+13	1.16e+15	1.35e+11	1.09e+10	8.11e-02
2p+4p+(3)-1s+2p+(2)	.74431	1.14e+14	1.17e+15	3.35e+11	2.28e+11	6.80e-01
2p+4p+(2)-1s+2p_(1)	.74441	7.74e+12	1.34e+14	2.09e+12	5.94e+11	2.85e-01
2p_4f_(2)-1s+2p_(1)	.74444	1.07e+11	9.75e+14	4.52e+10	2.47e+07	5.47e-04
2s+4d_(1)-1s+2p_(0)	.74457	9.07e+12	9.88e+13	1.23e+12	3.35e+11	2.72e-01
2p+4p_(2)-1s+2p+(2)	.74462	8.52e+13	1.16e+15	1.78e+13	4.91e+12	2.78e-01
2p+4p_(1)-1s+2p+(2)	.74464	7.45e+13	1.17e+15	1.66e+11	3.18e+10	1.92e-01
2p_4d_(1)-1s+2s+(0)	.74465	5.84e+12	9.88e+14	5.50e+11	9.78e+09	1.78e-02
2s+4d_(2)-1s+2p_(1)	.74468	6.43e+12	9.88e+13	2.20e+12	6.94e+11	3.16e-01
2p+4f+(2)-1s+2p+(1)	.74472	1.27e+11	1.07e+15	7.34e+10	4.37e+07	5.95e-04
2p_4p+(1)-1s+2p_(0)	.74473	5.81e+13	1.01e+15	3.68e+10	6.38e+09	1.73e-01
2p_4p+(1)-1s+2p_(1)	.74485	3.84e+13	1.01e+15	3.68e+10	4.20e+09	1.14e-01
2p+4f_(2)-1s+2p+(1)	.74486	1.21e+11	1.06e+15	4.89e+10	2.78e+07	5.89e-04
2s+4p+(1)-1s+2s+(0)	.74487	6.76e+13	2.34e+14	1.93e+13	1.55e+13	8.00e-01
2p_4p+(2)-1s+2p_(1)	.74493	9.74e+13	1.00e+15	1.56e+13	7.48e+12	4.79e-01
2p_4p_(0)-1s+2p_(1)	.74498	7.36e+13	7.88e+14	2.79e+12	2.68e+11	9.55e-02
2p+4p+(0)-1s+2p+(1)	.74498	1.21e+14	1.19e+15	1.49e+13	1.58e+12	1.01e-01
2p+4p+(2)-1s+2p+(1)	.74520	8.49e+13	1.17e+15	2.47e+13	6.88e+12	2.71e-01
2p_4p_(1)-1s+2p_(0)	.74530	4.48e+13	9.54e+14	9.74e+10	1.37e+10	1.41e-01
2p+4p+(1)-1s+2p+(1)	.74537	7.63e+13	1.16e+15	1.35e+11	2.65e+10	1.97e-01
2p+4p_(1)-1s+2s+(0)	.74561	2.30e+13	1.65e+14	1.01e+13	3.95e+12	3.93e-01
2p_4p_(1)-1s+2p_(1)	.74562	4.30e+13	9.54e+14	9.74e+10	1.32e+10	1.35e-01
2s+4s+(1)-1s+2p_(0)	.74568	9.44e+10	2.51e+14	4.52e+11	5.08e+08	1.12e-03
2s+4s+(0)-1s+2p_(1)	.74568	3.58e+13	4.08e+14	5.60e+13	4.34e+12	7.74e-02
2s+4s+(1)-1s+2p_(1)	.74558	2.34e+13	2.51e+14	4.52e+11	1.26e+11	2.78e-01
2p_4s+(1)-1s+2s+(0)	.74559	1.33e+13	9.38e+14	9.05e+11	3.85e+10	4.25e-02
2p+4p_(2)-1s+2p+(1)	.74570	4.08e+13	1.16e+15	1.78e+13	3.01e+12	1.69e-01
2p+4p_(1)-1s+2p+(1)	.74573	3.03e+13	1.17e+15	1.66e+11	1.29e+10	7.80e-02
2s+4d+(3)-1s+2p+(2)	.74750	3.08e+11	7.58e+13	9.05e+11	2.58e+10	2.85e-02
2s+4d+(2)-1s+2p+(1)	.74840	7.28e+10	1.34e+14	2.09e+12	5.53e+09	2.65e-03
2s+4s+(1)-1s+2p+(2)	.74848	4.32e+11	2.51e+14	4.52e+11	2.32e+09	5.14e-03
2s+4d_(2)-1s+2p+(1)	.74867	7.21e+11	9.95e+13	2.20e+12	7.79e+10	3.54e-02
2p_4p+(1)-1s+2s+(1)	.74884	1.60e+12	1.01e+15	3.68e+10	1.75e+08	4.74e-03
2p_4p+(2)-1s+2p+(1)	.74892	1.24e+12	1.00e+15	1.56e+13	9.49e+10	6.08e-03
2p_4p_(0)-1s+2p+(1)	.74898	4.58e+11	7.68e+14	2.79e+12	1.66e+09	5.98e-04
2p_4p_(1)-1s+2s+(1)	.74942	1.21e+12	9.54e+14	9.74e+10	3.70e+08	3.80e-03
2s+4s+(0)-1s+2s+(1)	.74947	1.92e+12	4.08e+14	5.60e+13	2.32e+11	4.14e-03
2s+4s+(1)-1s+2p+(1)	.74958	2.31e+11	2.51e+14	4.52e+11	1.24e+09	2.75e-03
2p+3d+(1)-1s+2s+(1)	.77600	2.99e+11	1.08e+15	2.43e+11	2.07e+08	8.49e-04
3s+ (3/2)-1s+ (1/2)	.77656	2.87e+14	2.87e+14	0.	0.	4.00e+00
2p+3d+(2)-1s+2s+(1)	.77689	1.51e+12	1.05e+15	1.70e+11	1.22e+09	7.17e-03
2p+3d_(0)-1s+2s+(1)	.77680	1.75e+12	1.05e+15	2.68e+11	4.46e+08	1.66e-03
2p+3d_(1)-1s+2s+(1)	.77684	1.38e+12	1.08e+15	2.19e+11	8.49e+08	3.87e-03
3p_ (1/2)-1s+ (1/2)	.77774	2.72e+14	2.72e+14	0.	0.	2.00e+00
2p+3d+(1)-1s+2s+(0)	.77840	6.70e+11	1.08e+15	2.43e+11	4.63e+08	1.90e-03
2p+3p+(0)-1s+2p_(1)	.77874	5.20e+11	1.32e+15	3.10e+13	1.19e+10	3.84e-04
2p+3s+(2)-1s+2s+(1)	.77902	2.18e+12	1.05e+15	1.37e+12	1.41e+10	1.03e-02
2p+3p+(2)-1s+2p_(1)	.77947	1.68e+12	1.32e+15	7.24e+13	4.35e+11	6.01e-03
2p+3p+(1)-1s+2p_(0)	.78000	7.94e+10	1.32e+15	2.02e+11	3.64e+07	1.81e-04
2p+3p+(1)-1s+2p_(1)	.78013	7.23e+12	1.32e+15	2.02e+11	3.32e+09	1.65e-02
2p_3d+(2)-1s+2s+(1)	.78049	1.98e+13	9.88e+14	3.29e+11	3.29e+10	1.00e-01
2p_3d_(1)-1s+2s+(1)	.78054	1.87e+12	1.03e+15	1.20e+10	6.54e+07	5.46e-03
2p+3p_(2)-1s+2p_(1)	.78082	1.94e+11	1.29e+15	5.15e+13	3.73e+10	7.24e-04
2p+3p_(1)-1s+2p_(0)	.78083	5.31e+11	1.32e+15	2.98e+11	3.60e+08	1.21e-03
2p+3p_(1)-1s+2p_(1)	.78096	4.19e+12	1.32e+15	2.98e+11	2.84e+09	9.53e-03
2p+3s+(1)-1s+2s+(0)	.78105	1.46e+13	1.01e+15	5.42e+13	2.24e+12	4.12e-02

Z = 36

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2p_3d_(2)-1s+2s+(1)	.78131	5.24e+12	1.03e+15	3.88e+12	9.87e+10	2.55e-02
2s+3p+(1)-1s+2s+(1)	.78143	7.10e+13	4.12e+14	3.51e+13	1.87e+13	4.78e-01
2s+3p+(2)-1s+2s+(1)	.78172	2.49e+14	3.63e+14	6.38e+12	2.15e+13	3.37e+00
2s+3d+(2)-1s+2p_(1)	.78255	1.32e+13	9.88e+13	4.32e+11	2.88e+11	6.68e-01
2p+3p+(2)-1s+2p+(2)	.78265	9.84e+13	1.32e+15	7.24e+13	2.55e+13	3.53e-01
2s+3s_(0)-1s+2s+(1)	.78267	2.11e+14	4.33e+14	3.12e+12	1.51e+12	4.84e-01
2s+3p_(1)-1s+2s+(1)	.78267	1.81e+14	4.28e+14	2.39e+13	2.88e+13	1.20e+00
2p_3d_(1)-1s+2s+(0)	.78297	3.55e+12	1.03e+15	1.20e+10	1.25e+08	1.04e-02
2p_3s+(0)-1s+2s+(1)	.78302	5.18e+13	8.84e+14	9.88e+12	5.73e+11	5.88e-02
2p+3p+(0)-1s+2p+(1)	.78310	2.64e+14	1.32e+15	3.10e+13	8.04e+12	1.95e-01
2p_3s+(1)-1s+2s+(1)	.78314	1.37e+13	8.36e+14	1.43e+11	7.05e+09	4.93e-02
2s+3d_(1)-1s+2p_(0)	.78326	3.57e+13	1.79e+14	2.34e+12	1.38e+12	5.98e-01
2p+3p+(1)-1s+2p+(2)	.78332	9.07e+13	1.32e+15	2.02e+11	4.18e+10	2.06e-01
2s+3d_(2)-1s+2p_(1)	.78333	3.78e+13	1.96e+14	1.16e+13	1.05e+13	9.06e-01
2p+3p+(3)-1s+2p+(2)	.78337	2.87e+14	1.32e+15	7.12e+11	1.08e+12	1.52e+00
2s+3d_(1)-1s+2p_(1)	.78339	1.76e+12	1.79e+14	2.34e+12	6.79e+10	2.90e-02
2p_3p+(1)-1s+2p_(0)	.78361	1.35e+14	1.11e+15	1.78e+11	6.38e+10	3.84e-01
2p_3p+(1)-1s+2p_(1)	.78374	9.09e+13	1.11e+15	1.78e+11	4.31e+10	2.45e-01
2p+3p+(2)-1s+2p+(1)	.78385	1.59e+14	1.32e+15	7.24e+13	4.12e+13	5.70e-01
2s+3p+(1)-1s+2s+(0)	.78386	1.61e+14	4.12e+14	3.51e+13	3.78e+13	1.08e+00
2p_3p+(2)-1s+2p_(1)	.78393	2.27e+14	1.08e+15	2.81e+13	2.88e+13	1.03e+00
2p+3p_(2)-1s+2p+(2)	.78400	1.65e+14	1.29e+15	5.15e+13	3.18e+13	6.17e-01
2p_3p_(0)-1s+2p_(1)	.78403	1.93e+14	9.96e+14	5.00e+12	9.66e+11	1.93e-01
2p+3p_(1)-1s+2p+(2)	.78415	1.73e+14	1.32e+15	2.98e+11	1.17e+11	3.94e-01
2p+3p+(1)-1s+2p+(1)	.78451	1.90e+14	1.32e+15	2.02e+11	8.71e+10	4.32e-01
2s+3p_(1)-1s+2s+(0)	.78512	2.84e+13	4.28e+14	2.39e+13	4.18e+12	1.75e-01
2p_3p_(1)-1s+2p_(0)	.78518	1.08e+14	1.17e+15	1.32e+11	3.68e+10	2.78e-01
2p+3p_(2)-1s+2p+(1)	.78521	8.62e+13	1.29e+15	5.15e+13	1.88e+13	3.22e-01
2p_3p_(1)-1s+2p_(1)	.78531	1.38e+14	1.17e+15	1.32e+11	4.62e+10	3.49e-01
2s+3s+(0)-1s+2p_(1)	.78532	8.27e+13	3.59e+14	1.59e+14	1.93e+13	1.21e-01
2p+3p_(1)-1s+2p+(1)	.78535	8.66e+13	1.32e+15	2.98e+11	5.88e+10	1.97e-01
2p_3s+(1)-1s+2s+(0)	.78559	6.55e+13	8.38e+14	1.43e+11	3.38e+10	2.35e-01
2s+3d+(2)-1s+2p+(2)	.78575	8.62e+11	9.88e+13	4.32e+11	1.88e+10	4.34e-02
2s+3s+(1)-1s+2p_(1)	.78580	3.85e+13	2.01e+14	8.77e+11	5.03e+11	5.73e-01
2s+3d+(3)-1s+2p+(2)	.78639	4.23e+12	1.81e+13	1.82e+12	2.58e+12	1.42e+00
2s+3d_(2)-1s+2p+(2)	.78654	3.54e+11	1.96e+14	1.18e+13	9.88e+10	8.54e-03
2p_3p+(1)-1s+2s+(2)	.78695	3.19e+11	1.11e+15	1.78e+11	1.51e+08	8.81e-04
2s+3d+(2)-1s+2p+(1)	.78698	7.48e+12	9.88e+13	4.32e+11	1.83e+11	3.78e-01
2p_3p+(2)-1s+2p+(2)	.78715	3.05e+12	1.08e+15	2.81e+13	3.87e+11	1.38e-02
2s+3d_(2)-1s+2p+(1)	.78774	3.44e+12	1.96e+14	1.18e+13	9.66e+11	8.30e-02
2p_3p+(1)-1s+2p+(1)	.78817	1.08e+13	1.11e+15	1.78e+11	5.11e+09	2.91e-02
2p_3p_(0)-1s+2p+(1)	.78845	4.43e+11	9.96e+14	5.00e+12	2.21e+09	4.43e-04
2p_3p_(1)-1s+2p+(2)	.78853	7.83e+11	1.17e+15	1.32e+11	2.88e+08	2.01e-03
2s+3s+(1)-1s+2p+(2)	.78902	4.18e+12	2.01e+14	8.77e+11	5.46e+10	6.23e-02
2p_3p_(1)-1s+2p+(1)	.78975	4.88e+12	1.17e+15	1.32e+11	1.63e+09	1.23e-02
2s+3s+(0)-1s+2p+(1)	.78978	6.74e+12	3.59e+14	1.59e+14	2.07e+12	1.38e-02
2s+3s+(1)-1s+2p+(1)	.79024	2.28e+11	2.01e+14	8.77e+11	2.95e+09	3.36e-03
2p+4s+(2)-1s+3s+(1)	.88445	6.54e+10	1.06e+15	4.51e+11	1.38e+08	3.08e-04
2p+4p_(1)-1s+3p_(0)	.88502	6.31e+10	1.17e+15	1.66e+11	2.88e+07	1.62e-04
2p+4p_(2)-1s+3p_(1)	.88502	1.30e+11	1.18e+15	1.78e+13	9.79e+09	5.50e-04
2p+4s+(1)-1s+3s+(0)	.88510	1.05e+11	1.05e+15	1.40e+13	4.18e+09	2.96e-04
2p+4p+(3)-1s+3p+(2)	.88577	3.73e+11	1.17e+15	3.35e+11	7.47e+08	2.23e-03
2p+4d+(4)-1s+3d+(3)	.88613	1.87e+11	1.06e+15	2.25e+12	3.77e+09	1.68e-03
2p+4p+(1)-1s+3p+(1)	.88615	4.13e+11	1.18e+15	1.35e+11	1.43e+08	1.06e-03
2p+4p_(1)-1s+3p+(1)	.88663	1.18e+11	1.17e+15	1.66e+11	4.97e+07	3.00e-04
2s+4p+(1)-1s+3s+(0)	.88913	1.34e+11	2.34e+14	1.93e+13	3.08e+10	1.58e-03
2p_4p+(1)-1s+3p_(0)	.88821	3.84e+10	1.01e+15	3.68e+10	3.98e+06	1.08e-04
2p_4p+(2)-1s+3p_(1)	.88836	1.03e+11	1.00e+15	1.56e+13	7.93e+08	5.07e-04
2s+4p_(1)-1s+3s+(0)	.88886	5.21e+10	1.65e+14	1.01e+13	8.98e+08	8.91e-04
2p_4p_(1)-1s+3p_(0)	.88898	1.72e+11	9.54e+14	9.74e+10	5.28e+07	5.42e-04
2p_4p_(1)-1s+3p_(1)	.87003	1.81e+11	9.54e+14	9.74e+10	5.53e+07	5.70e-04
2p_4s+(1)-1s+3s+(0)	.87010	1.71e+11	9.38e+14	9.05e+11	4.95e+08	5.47e-04
2s+4f_(3)-1s+3d_(2)	.87012	2.01e+11	8.85e+13	4.84e+11	7.63e+08	1.58e-02
2s+4f_(2)-1s+3d_(1)	.87016	1.11e+11	3.57e+13	1.28e+11	1.98e+08	1.55e-02
2s+4s+(1)-1s+3p_(1)	.87024	1.03e+11	2.51e+14	4.52e+11	5.57e+08	1.23e-03
2s+4f+(3)-1s+3d+(2)	.87047	1.88e+11	8.57e+12	4.21e+10	6.43e+09	1.52e-01
2s+4f+(4)-1s+3d+(3)	.87049	1.02e+11	8.35e+11	6.94e+09	7.55e+09	1.09e+00
2p_4d_(2)-1s+3d_(1)	.87077	8.59e+10	9.83e+14	1.72e+12	7.48e+08	4.36e-04
2p_4p_(0)-1s+3p+(1)	.87102	2.66e+11	7.68e+14	2.79e+12	9.61e+08	3.45e-04
2p+3d+(1)-1s+3s+(1)	.91427	9.08e+11	1.06e+15	2.43e+11	6.27e+08	2.58e-03
2p+3d+(1)-1s+3s+(0)	.91512	1.19e+12	1.06e+15	2.43e+11	8.25e+08	3.39e-03
2p+3d+(2)-1s+3s+(1)	.91524	7.43e+12	1.05e+15	1.70e+11	5.98e+09	3.52e-02
2p+3d_(0)-1s+3s+(1)	.91539	2.14e+12	1.05e+15	2.68e+11	5.45e+08	2.03e-03
2p+3d_(1)-1s+3s+(1)	.91545	3.11e+12	1.06e+15	2.19e+11	1.94e+09	8.83e-03
2p+3p+(0)-1s+3p_(1)	.91576	1.16e+12	1.32e+15	3.10e+13	2.65e+10	8.53e-04

Z = 36

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*3d_(2)-1s*3s*(1)	.91602	6.97e+10	1.06e+15	1.07e+12	3.51e+08	3.29e-04
2p*3d_(1)-1s*3s*(0)	.91630	7.98e+11	1.06e+15	2.19e+11	4.97e+08	2.27e-03
2p*4d*(1)-1s*4s*(1)	.91641	9.81e+11	1.06e+15	3.29e+11	9.11e+08	2.77e-03
2p*4f*(2)-1s*4p_(1)	.91668	1.48e+11	1.07e+15	7.34e+10	5.11e+07	6.96e-04
2p*4d*(2)-1s*4s*(1)	.91674	4.11e+12	1.06e+15	1.05e+11	2.03e+09	1.94e-02
2p*4d*(1)-1s*4s*(0)	.91674	1.97e+12	1.06e+15	3.29e+11	1.83e+09	5.55e-03
2p*3p*(2)-1s*3p_(1)	.91677	6.00e+11	1.32e+15	7.24e+13	1.56e+11	2.15e-03
2p*4d_(0)-1s*4s*(1)	.91682	3.96e+11	1.06e+15	1.84e+11	6.87e+07	3.74e-04
2p*4d_(1)-1s*4s*(1)	.91684	9.38e+11	1.06e+15	1.28e+11	3.40e+08	2.65e-03
2p*3d*(1)-1s*3d_(2)	.91686	1.51e+13	1.06e+15	2.43e+11	1.05e+10	4.30e-02
2p*3d*(1)-1s*3d_(1)	.91688	1.23e+13	1.06e+15	2.43e+11	8.53e+09	3.50e-02
2p*4f_(2)-1s*4p_(1)	.91690	2.44e+11	1.06e+15	4.89e+10	5.61e+07	1.15e-03
2p*2p*(2)-1s*2p_(1)	.91703	1.48e+12	2.08e+15	1.62e+14	5.35e+11	3.30e-03
2p*4p*(0)-1s*4p_(1)	.91707	8.52e+12	1.19e+15	1.49e+13	1.06e+11	7.08e-03
2p*3d*(3)-1s*3d_(2)	.91715	2.39e+14	1.06e+15	1.51e+13	2.35e+13	1.56e+00
2p*4d_(1)-1s*4s*(0)	.91718	5.61e+11	1.06e+15	1.28e+11	2.03e+08	1.58e-03
2p*4f*(2)-1s*4p*(2)	.91724	5.38e+11	1.07e+15	7.34e+10	1.85e+08	2.52e-03
2p*3d*(1)-1s*3d*(2)	.91735	1.03e+15	1.06e+15	2.43e+11	7.09e+11	2.91e+00
2p*4f*(3)-1s*4p*(2)	.91738	2.01e+11	1.06e+15	2.58e+09	3.40e+06	1.32e-03
2p*4f*(2)-1s*4p*(1)	.91742	1.20e+12	1.07e+15	7.34e+10	4.15e+08	5.64e-03
2p*4f_(2)-1s*4p*(2)	.91745	4.08e+11	1.06e+15	4.89e+10	9.38e+07	1.92e-03
2p*4d*(1)-1s*4d_(2)	.91749	3.17e+12	1.06e+15	3.29e+11	2.95e+09	8.95e-03
2p*4d*(1)-1s*4d_(1)	.91750	1.12e+13	1.06e+15	3.29e+11	1.04e+10	3.17e-02
2p*3p*(0)-1s*3p*(1)	.91752	1.06e+15	1.32e+15	3.10e+13	2.43e+13	7.81e-01
2p*3d*(3)-1s*3d*(3)	.91760	3.52e+14	1.06e+15	1.51e+13	3.46e+13	2.29e+00
2p*4d*(3)-1s*4d_(2)	.91760	1.87e+14	1.06e+15	6.54e+12	8.04e+12	1.23e+00
2p*4f*(2)-1s*4f_(3)	.91761	8.01e+11	1.07e+15	7.34e+10	2.76e+08	3.78e-03
2p*4f*(2)-1s*4f_(2)	.91761	5.66e+12	1.07e+15	7.34e+10	1.95e+09	2.66e-02
2p*4f_(2)-1s*4p*(1)	.91763	6.17e+11	1.06e+15	4.89e+10	1.42e+08	2.90e-03
2p*3p*(1)-1s*3p_(0)	.91764	2.06e+13	1.32e+15	2.02e+11	9.46e+09	4.70e-02
2p*3d*(3)-1s*3d*(2)	.91764	4.66e+14	1.06e+15	1.51e+13	4.60e+13	3.05e+00
2p*4p*(1)-1s*4p_(0)	.91765	1.42e+13	1.16e+15	1.35e+11	4.92e+09	3.65e-02
2p*4p*(1)-1s*4p_(1)	.91767	4.85e+13	1.16e+15	1.35e+11	1.68e+10	1.25e-01
2p*3p*(1)-1s*3p_(1)	.91769	6.55e+13	1.32e+15	2.02e+11	3.01e+10	1.49e-01
2p*4d*(1)-1s*4d*(2)	.91770	1.05e+15	1.06e+15	3.29e+11	9.71e+11	2.95e+00
2p*4f*(2)-1s*4f*(3)	.91771	1.06e+15	1.07e+15	7.34e+10	3.84e+11	4.96e+00
2p*4f_(1)-1s*4f_(2)	.91773	1.07e+15	1.07e+15	2.44e+09	7.33e+09	3.00e+00
2p*4f*(4)-1s*4f_(3)	.91774	4.49e+14	1.06e+15	3.39e+11	1.30e+12	3.82e+00
2p*4f*(3)-1s*4f_(3)	.91775	1.33e+13	1.06e+15	2.58e+09	2.26e+08	8.78e-02
2p*4f*(3)-1s*4f_(2)	.91775	9.88e+12	1.06e+15	2.58e+09	1.68e+08	6.51e-02
2p*4p*(0)-1s*4p*(1)	.91780	1.06e+15	1.19e+15	1.49e+13	1.31e+13	8.79e-01
2p*4d*(3)-1s*4d*(3)	.91780	4.43e+14	1.06e+15	6.54e+12	1.90e+13	2.91e+00
2p* (3/2)-1s* (1/2)	.91782	1.07e+15	1.07e+15	0.	0.	4.00e+00
2p*4d*(2)-1s*4d_(2)	.91782	8.49e+13	1.06e+15	1.05e+11	4.20e+10	4.00e-01
2p*4f_(2)-1s*4f_(3)	.91782	2.53e+14	1.06e+15	4.89e+10	5.81e+10	1.19e+00
2p*4d*(3)-1s*4d*(2)	.91782	4.29e+14	1.06e+15	6.54e+12	1.84e+13	2.81e+00
2p*4f*(5)-1s*4f*(4)	.91782	1.06e+15	1.06e+15	2.44e+11	2.71e+12	1.10e+01
2p*3d*(2)-1s*3d_(2)	.91783	1.21e+14	1.05e+15	1.70e+11	9.77e+10	5.76e-01
2p*4d*(2)-1s*4d_(1)	.91783	6.61e+13	1.06e+15	1.05e+11	3.27e+10	3.11e-01
2p*4f_(4)-1s*4f_(3)	.91783	6.06e+14	1.06e+15	1.52e+11	7.85e+11	5.17e+00
2p*4f_(2)-1s*4f_(2)	.91783	8.04e+14	1.06e+15	4.89e+10	1.65e+11	3.78e+00
2p*4f*(4)-1s*4f*(4)	.91784	3.47e+14	1.06e+15	3.39e+11	1.00e+12	2.95e+00
2p*4f*(4)-1s*4f*(3)	.91784	2.62e+14	1.06e+15	3.39e+11	7.57e+11	2.23e+00
2p*4f*(3)-1s*4f*(4)	.91785	2.77e+14	1.06e+15	2.58e+09	4.68e+09	1.82e+00
2p*4f*(3)-1s*4f*(3)	.91785	7.63e+14	1.06e+15	2.58e+09	1.29e+10	5.02e+00
2p*3d*(2)-1s*3d_(1)	.91786	8.78e+13	1.05e+15	1.70e+11	7.06e+10	4.16e-01
2p*4f_(3)-1s*4f_(3)	.91790	5.68e+14	1.06e+15	6.81e+10	2.48e+11	3.75e+00
2p*4d_(0)-1s*4d_(1)	.91791	1.06e+15	1.06e+15	1.84e+11	1.83e+11	9.99e-01
2p*4f_(3)-1s*4f_(2)	.91791	4.09e+14	1.06e+15	6.81e+10	2.05e+11	3.10e+00
2p*4f_(2)-1s*4f*(3)	.91792	6.03e+12	1.06e+15	4.89e+10	1.39e+09	2.83e-02
2p*3s*(1)-1s*3s*(1)	.91793	2.64e+14	1.01e+15	5.42e+13	4.05e+13	7.47e-01
2p*4d_(1)-1s*4d_(2)	.91793	1.87e+14	1.06e+15	1.28e+11	6.77e+10	5.27e-01
2p*4d_(1)-1s*4d_(1)	.91793	8.60e+14	1.06e+15	1.28e+11	3.12e+11	2.43e+00
2p*4f_(4)-1s*4f*(4)	.91793	2.59e+14	1.06e+15	1.52e+11	3.34e+11	2.20e+00
2p*4f_(4)-1s*4f*(3)	.91793	1.92e+14	1.06e+15	1.52e+11	2.46e+11	1.63e+00
2p*4s*(1)-1s*4s*(1)	.91794	3.33e+14	1.05e+15	1.40e+13	1.32e+13	9.37e-01
2p*4p*(2)-1s*4p*(2)	.91797	5.08e+14	1.17e+15	2.47e+13	5.24e+13	2.12e+00
2p*4d_(3)-1s*4d_(2)	.91800	8.85e+14	1.06e+15	2.73e+12	1.56e+13	5.71e+00
2p*4f_(3)-1s*4f*(4)	.91800	5.50e+12	1.06e+15	6.61e+10	2.40e+09	3.63e-02
2p*4f_(3)-1s*4f*(3)	.91800	1.75e+13	1.06e+15	6.81e+10	7.65e+09	1.16e-01
2p*3d_(0)-1s*3d_(1)	.91801	1.05e+15	1.05e+15	2.68e+11	2.67e+11	9.96e-01
2p*4d*(2)-1s*4d*(3)	.91801	2.16e+14	1.06e+15	1.05e+11	1.07e+11	1.02e+00
2p*4d*(2)-1s*4d*(2)	.91803	6.90e+14	1.06e+15	1.05e+11	3.42e+11	3.25e+00
2p*3d_(1)-1s*3d_(2)	.91804	1.99e+14	1.06e+15	2.19e+11	1.24e+11	5.65e-01
2p*4s*(2)-1s*4s*(1)	.91806	1.06e+15	1.06e+15	4.51e+11	2.24e+12	4.97e+00

Z = 36

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p*3d_(1)-1s*3d_(1)	.91807	8.29e+14	1.06e+15	2.19e+11	5.17e+11	2.36e+00
2p*3p*(2)-1s*3p*(2)	.91808	4.68e+14	1.32e+15	7.24e+13	1.21e+14	1.68e+00
2p*4d_(2)-1s*4d_(2)	.91810	4.52e+14	1.06e+15	5.39e+11	1.15e+12	2.13e+00
2p*4d_(2)-1s*4d_(1)	.91811	4.58e+14	1.06e+15	5.39e+11	1.16e+12	2.16e+00
2p*4d_(1)-1s*4d*(2)	.91814	1.39e+13	1.06e+15	1.28e+11	5.02e+09	3.91e-02
2p*4p*(2)-1s*4p*(1)	.91815	5.52e+14	1.17e+15	2.47e+13	5.69e+13	2.30e+00
2p*4p_(2)-1s*4p_(1)	.91817	1.04e+15	1.16e+15	1.78e+13	7.82e+13	4.40e+00
2p*4d*(4)-1s*4d*(3)	.91818	1.06e+15	1.06e+15	2.25e+12	2.02e+13	8.98e+00
2p*4p_(1)-1s*4p_(0)	.91819	6.92e+14	1.17e+15	1.66e+11	2.95e+11	1.78e+00
2p*4d_(3)-1s*4d*(3)	.91819	1.30e+14	1.06e+15	2.73e+12	2.34e+12	8.56e-01
2p*4p_(1)-1s*4p_(1)	.91821	3.17e+14	1.17e+15	1.66e+11	1.35e+11	8.16e-01
2p*4d_(3)-1s*4d*(2)	.91821	6.34e+13	1.06e+15	2.73e+12	1.14e+12	4.18e-01
2p*4p*(1)-1s*4p*(2)	.91823	1.02e+14	1.16e+15	1.35e+11	6.31e+10	4.68e-01
2p*4p*(3)-1s*4p*(2)	.91825	1.05e+15	1.17e+15	3.35e+11	2.11e+12	6.31e+00
2p*4s*(1)-1s*4s*(0)	.91827	7.14e+14	1.05e+15	1.40e+13	2.82e+13	2.01e+00
2p*3d*(2)-1s*3d*(3)	.91829	2.19e+14	1.05e+15	1.70e+11	1.76e+11	1.04e+00
2p*4d_(2)-1s*4d*(3)	.91829	3.52e+13	1.06e+15	5.39e+11	8.95e+10	1.66e-01
2p*3d_(3)-1s*3d_(2)	.91830	7.91e+14	1.06e+15	4.98e+12	2.59e+13	5.21e+00
2p*4d_(2)-1s*4d*(2)	.91831	1.15e+14	1.06e+15	5.39e+11	2.93e+11	5.44e-01
2p*3d*(2)-1s*3d*(2)	.91833	6.17e+14	1.05e+15	1.70e+11	4.98e+11	2.92e+00
2p*4p*(2)-1s*4f_(2)	.91834	7.37e+11	1.17e+15	2.47e+13	7.80e+10	3.08e-03
2p*4p*(1)-1s*4p*(1)	.91841	8.09e+14	1.16e+15	1.35e+11	2.81e+11	2.09e+00
2p*4p*(2)-1s*4f*(3)	.91844	1.89e+12	1.17e+15	2.47e+13	1.95e+11	7.87e-03
2p*3s*(2)-1s*3s*(1)	.91847	1.03e+15	1.05e+15	1.37e+12	6.67e+12	4.86e+00
2s*2p*(1)-1s*2s*(1)	.91853	1.32e+14	1.04e+15	1.94e+14	6.22e+13	3.21e-01
2p*3d_(1)-1s*3d*(2)	.91853	2.21e+13	1.06e+15	2.19e+11	1.38e+10	6.28e-02
2p*3p*(2)-1s*3p*(1)	.91854	5.85e+14	1.32e+15	7.24e+13	1.54e+14	2.13e+00
2p*3d_(2)-1s*3d_(2)	.91861	4.29e+14	1.06e+15	1.07e+12	2.18e+12	2.02e+00
2p*3p_(2)-1s*3p_(1)	.91864	9.88e+14	1.29e+15	5.15e+13	1.88e+14	3.62e+00
2p*3d_(2)-1s*3d_(1)	.91864	4.20e+14	1.06e+15	1.07e+12	2.11e+12	1.98e+00
2p*4p_(2)-1s*4p*(2)	.91872	1.09e+13	1.16e+15	1.78e+13	8.22e+11	4.62e-02
2p*4p*(3)-1s*4f*(3)	.91872	1.55e+11	1.17e+15	3.35e+11	3.11e+08	9.30e-04
2p*3d_(3)-1s*3d*(3)	.91876	2.09e+14	1.06e+15	4.98e+12	6.85e+12	1.37e+00
2p*4p_(1)-1s*4p*(2)	.91876	6.29e+12	1.17e+15	1.66e+11	2.68e+09	1.62e-02
2p*3s*(1)-1s*3s*(0)	.91878	7.23e+14	1.01e+15	5.42e+13	1.11e+14	2.04e+00
2p*3d_(3)-1s*3d*(2)	.91879	5.83e+13	1.06e+15	4.98e+12	1.91e+12	3.84e-01
2p*3p_(1)-1s*3p_(0)	.91879	6.78e+14	1.32e+15	2.98e+11	4.60e+11	1.54e+00
2p*3p_(1)-1s*3p_(1)	.91884	3.02e+14	1.32e+15	2.98e+11	2.05e+11	6.87e-01
2p*3d*(4)-1s*3d*(3)	.91891	1.05e+15	1.05e+15	4.75e+12	4.26e+13	8.96e+00
2p*4p_(2)-1s*4p*(1)	.91891	7.72e+12	1.16e+15	1.78e+13	5.81e+11	3.27e-02
2p*4p_(1)-1s*4p*(1)	.91895	4.46e+13	1.17e+15	1.66e+11	1.90e+10	1.15e-01
2p*3p*(1)-1s*3p*(2)	.91900	1.91e+14	1.32e+15	2.02e+11	8.76e+10	4.34e-01
2p*4s*(1)-1s*4d_(2)	.91902	2.22e+11	1.08e+15	1.40e+13	8.77e+08	6.24e-04
2p*4s*(1)-1s*4d_(1)	.91903	8.43e+11	1.08e+15	1.40e+13	3.33e+10	2.37e-03
2p*3p*(3)-1s*3p*(2)	.91907	1.03e+15	1.32e+15	7.12e+11	3.90e+12	5.47e+00
2p*3d_(2)-1s*3d*(3)	.91907	6.61e+13	1.06e+15	1.07e+12	3.33e+11	3.12e-01
2p*3d_(2)-1s*3d*(2)	.91910	1.44e+14	1.06e+15	1.07e+12	7.23e+11	6.78e-01
2p*4p_(2)-1s*4f_(2)	.91910	2.27e+11	1.16e+15	1.78e+13	1.71e+10	9.63e-04
2p*4s*(2)-1s*4d_(2)	.91915	3.41e+11	1.08e+15	4.51e+11	7.23e+08	1.61e-03
2p*4s*(2)-1s*4d_(1)	.91916	4.96e+11	1.08e+15	4.51e+11	1.05e+09	2.34e-03
2p*4p_(2)-1s*4f*(3)	.91920	2.06e+11	1.16e+15	1.78e+13	1.55e+10	8.74e-04
2p*4s*(1)-1s*4d*(2)	.91923	3.38e+12	1.05e+15	1.40e+13	1.34e+11	9.54e-03
2p*4s*(2)-1s*4d*(3)	.91934	2.07e+11	1.08e+15	4.51e+11	4.39e+08	9.75e-04
2p*4s*(2)-1s*4d*(2)	.91936	3.94e+12	1.08e+15	4.51e+11	8.37e+08	1.86e-02
2p*3p*(1)-1s*3p*(1)	.91945	7.53e+14	1.32e+15	2.02e+11	3.46e+11	1.71e+00
2p*3p_(2)-1s*3p*(2)	.91995	4.73e+13	1.29e+15	5.15e+13	9.12e+12	1.77e-01
2p*3p_(1)-1s*3p*(2)	.92015	2.50e+13	1.32e+15	2.98e+11	1.70e+10	5.70e-02
2p*2p*(0)-1s*2p*(1)	.92032	1.09e+15	2.08e+15	5.02e+13	4.90e+13	9.75e-01
2p*3p_(2)-1s*3p*(1)	.92041	1.91e+13	1.29e+15	5.15e+13	3.88e+12	7.14e-02
2p_3d*(2)-1s*3s*(1)	.92052	2.20e+13	9.88e+14	3.29e+11	3.66e+10	1.11e-01
2p*3s*(1)-1s*3d_(1)	.92056	3.19e+12	1.01e+15	5.42e+13	4.89e+11	9.02e-03
2p*3p_(1)-1s*3p*(1)	.92060	4.88e+13	1.32e+15	2.98e+11	3.31e+10	1.11e-01
2p*3s*(1)-1s*3d*(2)	.92103	1.70e+12	1.01e+15	5.42e+13	2.61e+11	4.81e-03
2s*3d*(2)-1s*3p_(1)	.92104	3.01e+13	9.88e+13	4.32e+11	8.56e+11	1.52e+00
2p*3s*(2)-1s*3d_(2)	.92108	2.65e+11	1.05e+15	1.37e+12	1.73e+09	1.26e-03
2p*3s*(2)-1s*3d_(1)	.92111	1.03e+12	1.05e+15	1.37e+12	6.67e+09	4.87e-03
2p*2p*(2)-1s*2p*(2)	.92143	8.46e+14	2.08e+15	1.62e+14	3.05e+14	1.88e+00
2p_3d_(1)-1s*3s*(0)	.92144	4.09e+12	1.03e+15	1.20e+10	1.43e+08	1.20e-02
2p*3s*(2)-1s*3d*(3)	.92154	2.78e+12	1.05e+15	1.37e+12	1.81e+10	1.32e-02
2p*3s*(2)-1s*3d*(2)	.92158	2.09e+13	1.05e+15	1.37e+12	1.36e+11	9.91e-02
2s*2p*(2)-1s*2s*(1)	.92166	1.05e+15	1.05e+15	1.82e+13	8.93e+13	4.91e+00
2p_3d_(2)-1s*3s*(1)	.92166	4.68e+11	1.03e+15	3.88e+12	8.81e+09	2.27e-03
2s*3p*(1)-1s*3s*(1)	.92182	1.65e+14	4.12e+14	3.51e+13	3.88e+13	1.11e+00
2s*2p*(1)-1s*2s*(0)	.92190	9.12e+14	1.04e+15	1.94e+14	4.28e+14	2.21e+00
2p_4d*(2)-1s*4s*(1)	.92206	1.18e+12	9.22e+14	1.03e+11	6.57e+08	6.39e-03

Z = 36

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2p_2p*(2)-1s*2p_(1)	.92207	8.31e+14	2.07e+15	1.97e+14	3.61e+14	1.83e+00
2s*3d_(2)-1s*3p_(1)	.92211	9.14e+11	1.96e+14	1.16e+13	2.55e+11	2.20e-02
2s*3d_(1)-1s*3p_(0)	.92215	4.23e+12	1.79e+14	2.34e+12	1.64e+11	6.98e-02
2s*3d_(1)-1s*3p_(1)	.92220	2.31e+13	1.79e+14	2.34e+12	8.94e+11	3.81e-01
2s*3p*(2)-1s*3s*(1)	.92223	2.06e+12	3.63e+14	6.38e+12	1.78e+11	2.79e-02
2s*4d*(2)-1s*4p_(1)	.92225	3.40e+12	1.34e+14	2.09e+12	2.61e+11	1.25e-01
2p_4f_(2)-1s*4p_(1)	.92231	1.08e+11	9.75e+14	4.52e+10	2.50e+07	5.53e-04
2s*3d*(2)-1s*3p*(2)	.92236	4.29e+13	9.88e+13	4.32e+11	9.33e+11	2.16e+00
2s*4p*(1)-1s*4s*(1)	.92247	8.86e+13	2.34e+14	1.93e+13	2.03e+13	1.05e+00
2p_4d_(1)-1s*4s*(0)	.92248	4.30e+11	9.86e+14	5.50e+11	7.20e+08	1.31e-03
2p_4d_(2)-1s*4s*(1)	.92253	1.05e+11	9.83e+14	1.72e+12	9.13e+08	5.32e-04
2p_3p*(1)-1s*3p_(0)	.92264	3.27e+10	1.11e+15	1.76e+11	1.55e+07	8.83e-05
2p_2p*(1)-1s*2p_(0)	.92265	6.97e+14	2.08e+15	7.93e+10	7.98e+10	1.01e+00
2s*4d_(1)-1s*4p_(0)	.92266	6.73e+12	9.88e+13	1.23e+12	2.49e+11	2.02e-01
2s*4d_(2)-1s*4p_(1)	.92267	1.78e+11	9.95e+13	2.20e+12	1.93e+10	8.76e-03
2s*4d_(1)-1s*4p_(1)	.92268	2.33e+13	9.88e+13	1.23e+12	8.61e+11	6.99e-01
2p_3p*(1)-1s*3p_(1)	.92269	1.13e+12	1.11e+15	1.76e+11	5.35e+08	3.04e-03
2s*4p*(2)-1s*4s*(1)	.92272	9.79e+11	2.63e+14	2.52e+12	4.65e+10	1.84e-02
2p_4f*(3)-1s*4p*(2)	.92277	8.72e+10	9.78e+14	4.46e+10	2.78e+07	6.24e-04
2s*4p*(1)-1s*4s*(0)	.92281	1.71e+13	2.34e+14	1.93e+13	3.91e+12	2.02e-01
2s*3d*(2)-1s*3p*(1)	.92282	4.05e+12	9.88e+13	4.32e+11	8.82e+10	2.04e-01
2s*4d*(2)-1s*4p*(2)	.92282	4.81e+13	1.34e+14	2.09e+12	3.69e+12	1.77e+00
2p_2p*(1)-1s*2p_(1)	.92283	4.18e+14	2.08e+15	7.93e+10	4.79e+10	6.04e-01
2p_4f_(2)-1s*4p*(2)	.92287	5.56e+11	9.75e+14	4.52e+10	1.29e+08	2.85e-03
2p_4p*(1)-1s*4p_(0)	.92291	2.15e+12	1.01e+15	3.68e+10	2.36e+08	6.40e-03
2p_4p*(1)-1s*4p_(1)	.92293	1.08e+11	1.01e+15	3.68e+10	1.19e+07	3.22e-04
2s*4f_(2)-1s*4d_(2)	.92294	1.53e+13	3.57e+13	1.26e+11	2.68e+11	2.13e+00
2s*4f_(2)-1s*4d_(1)	.92295	1.17e+13	3.57e+13	1.26e+11	2.05e+11	1.63e+00
2p_3p*(2)-1s*3p_(1)	.92295	5.69e+13	1.08e+15	2.81e+13	7.22e+12	2.57e-01
2s*4d*(2)-1s*4p*(1)	.92300	2.70e+13	1.34e+14	2.09e+12	2.07e+12	9.93e-01
2s*4f*(3)-1s*4d*(3)	.92301	3.93e+12	8.57e+12	4.21e+10	1.35e+11	3.19e+00
2s*4f*(3)-1s*4d*(2)	.92303	4.45e+12	8.57e+12	4.21e+10	1.53e+11	3.62e+00
2p_4p*(2)-1s*4p_(1)	.92305	1.68e+13	1.00e+15	1.56e+13	1.29e+12	8.25e-02
2p_4f_(2)-1s*4p*(1)	.92305	2.39e+11	9.75e+14	4.52e+10	5.55e+07	1.23e-03
2s*4f*(4)-1s*4d*(3)	.92307	7.33e+11	8.35e+11	8.94e+09	5.44e+10	7.84e+00
2p_3p_(0)-1s*3p_(1)	.92308	8.00e+14	9.98e+14	5.00e+12	3.99e+12	7.99e-01
2p*2p*(2)-1s*2p*(1)	.92309	1.24e+15	2.08e+15	1.82e+14	4.46e+14	2.75e+00
2s*4d*(3)-1s*4p*(2)	.92312	2.08e+12	7.50e+13	9.05e+11	1.73e+11	1.92e-01
2s*4f_(3)-1s*4d*(3)	.92312	4.23e+13	8.85e+13	4.84e+11	1.61e+12	3.32e+00
2p_4p_(0)-1s*4p_(1)	.92313	6.93e+14	7.88e+14	2.79e+12	2.50e+12	8.99e-01
2p_3d*(2)-1s*3d_(2)	.92314	4.14e+11	9.88e+14	3.29e+11	8.88e+08	2.09e-03
2s*4f_(2)-1s*4d*(3)	.92314	7.23e+12	3.57e+13	1.26e+11	1.27e+11	1.01e+00
2s*4f_(3)-1s*4d*(2)	.92314	4.60e+13	8.85e+13	4.84e+11	1.75e+12	3.62e+00
2p_4d*(2)-1s*4d_(2)	.92315	7.73e+11	9.22e+14	1.03e+11	4.31e+08	4.19e-03
2p_4f*(3)-1s*4f_(3)	.92315	2.02e+11	9.78e+14	4.46e+10	6.45e+07	1.45e-03
2p_4f*(3)-1s*4f_(2)	.92315	5.63e+11	9.78e+14	4.46e+10	1.80e+08	4.03e-03
2p_4d*(2)-1s*4d_(1)	.92316	1.35e+12	9.22e+14	1.03e+11	7.51e+08	7.30e-03
2s*4f_(2)-1s*4d*(2)	.92316	1.41e+12	3.57e+13	1.26e+11	2.48e+10	1.97e-01
2s*4d*(2)-1s*4f_(3)	.92319	3.55e+13	1.34e+14	2.09e+12	2.72e+12	1.31e+00
2s*4d*(2)-1s*4f_(2)	.92319	1.20e+13	1.34e+14	2.09e+12	9.23e+11	4.42e-01
2s*4p_(0)-1s*4s*(1)	.92320	2.31e+14	3.15e+14	1.27e+12	9.27e+11	7.30e-01
2p_3d_(1)-1s*3d_(2)	.92320	8.01e+14	1.03e+15	1.20e+10	2.81e+10	2.34e+00
2p_3d*(3)-1s*3d_(2)	.92321	2.68e+13	1.04e+15	7.35e+12	1.35e+12	1.78e-01
2p_4d*(3)-1s*4d_(2)	.92322	4.57e+12	9.46e+14	3.92e+12	1.32e+11	3.37e-02
2s*4d_(2)-1s*4p*(2)	.92323	2.98e+13	9.95e+13	2.20e+12	3.21e+12	1.46e+00
2p_3d_(1)-1s*3d_(1)	.92323	2.10e+14	1.03e+15	1.20e+10	7.36e+09	6.14e-01
2p_4d_(1)-1s*4d_(2)	.92323	8.00e+14	9.86e+14	5.50e+11	1.34e+12	2.43e+00
2s*3d*(3)-1s*3p*(2)	.92323	1.47e+13	1.91e+13	1.82e+12	8.98e+12	4.93e+00
2s*4d_(1)-1s*4p*(2)	.92324	5.36e+13	9.86e+13	1.23e+12	1.98e+12	1.61e+00
2p_4d_(1)-1s*4d_(1)	.92324	1.79e+14	9.86e+14	5.50e+11	2.99e+11	5.43e-01
2p_4f_(2)-1s*4f_(3)	.92324	7.42e+14	9.75e+14	4.52e+10	1.72e+11	3.81e+00
2p_4f_(2)-1s*4f_(2)	.92325	2.32e+14	9.75e+14	4.52e+10	5.37e+10	1.19e+00
2p_4f*(3)-1s*4f*(4)	.92325	7.16e+14	9.78e+14	4.46e+10	2.28e+11	5.12e+00
2p_4f*(3)-1s*4f*(3)	.92325	2.61e+14	9.78e+14	4.46e+10	8.34e+10	1.87e+00
2p_4f*(4)-1s*4f*(4)	.92326	4.49e+14	1.04e+15	2.64e+11	1.02e+12	3.87e+00
2p_ (1/2)-1s* (1/2)	.92327	1.05e+15	1.05e+15	0.	0.	2.00e+00
2p_4f*(4)-1s*4f*(3)	.92327	5.94e+14	1.04e+15	2.64e+11	1.35e+12	5.12e+00
2p_4f_(3)-1s*4f_(3)	.92329	4.71e+14	1.04e+15	1.99e+11	6.31e+11	3.17e+00
2s*4p_(1)-1s*4s*(1)	.92330	2.99e+13	1.65e+14	1.01e+13	5.15e+12	5.12e-01
2p_4f_(3)-1s*4f_(2)	.92330	5.67e+14	1.04e+15	1.99e+11	7.59e+11	3.82e+00
2p_4d*(2)-1s*4d*(3)	.92335	6.81e+14	9.22e+14	1.03e+11	3.80e+11	3.69e+00
2p_4f_(2)-1s*4f*(3)	.92335	1.15e+11	9.75e+14	4.52e+10	2.66e+07	5.88e-04
2p_4d*(2)-1s*4d*(2)	.92337	2.25e+14	9.22e+14	1.03e+11	1.26e+11	1.22e+00
2p_4f_(3)-1s*4f*(4)	.92339	1.42e+12	1.04e+15	1.99e+11	1.91e+09	9.59e-03
2p_4f_(3)-1s*4f*(3)	.92340	2.78e+11	1.04e+15	1.99e+11	3.73e+08	1.87e-03

Z = 36

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	qW
2s*4d_(2)-1s*4p*(1)	.92341	3.57e+13	9.95e+13	2.20e+12	3.85e+12	1.75e+00
2s*4d_(1)-1s*4p*(1)	.92342	5.65e+12	9.88e+13	1.23e+12	2.09e+11	1.69e-01
2p_4d*(3)-1s*4d*(3)	.92342	4.35e+14	9.46e+14	3.92e+12	1.26e+13	3.21e+00
2p_4d*(3)-1s*4d*(2)	.92343	5.06e+14	9.46e+14	3.92e+12	1.46e+13	3.73e+00
2s*3d_(2)-1s*3p*(2)	.92344	7.13e+13	1.96e+14	1.16e+13	1.99e+13	1.72e+00
2p_4d_(1)-1s*4d*(2)	.92345	2.25e+11	9.86e+14	5.50e+11	3.76e+08	6.84e-04
2s*4d*(3)-1s*4f_(3)	.92349	1.82e+12	7.58e+13	9.05e+11	1.52e+11	1.68e-01
2p_4p*(1)-1s*4p*(2)	.92350	7.31e+14	1.01e+15	3.68e+10	8.00e+10	2.17e+00
2s*4d*(3)-1s*4f_(2)	.92350	1.79e+12	7.58e+13	9.05e+11	1.48e+11	1.65e-01
2s*3d_(1)-1s*3p*(2)	.92352	1.02e+14	1.79e+14	2.34e+12	3.98e+12	1.69e+00
2s*3p_(0)-1s*3s*(1)	.92354	2.09e+14	4.33e+14	3.12e+12	1.49e+12	4.79e-01
2s*3p_(1)-1s*3s*(1)	.92355	1.78e+14	4.28e+14	2.39e+13	2.83e+13	1.18e+00
2s*4p*(1)-1s*4d_(2)	.92357	2.84e+13	2.34e+14	1.93e+13	4.67e+12	2.42e-01
2p_4s*(1)-1s*4s*(1)	.92358	5.98e+14	9.38e+14	9.05e+11	1.73e+12	1.91e+00
2s*4p*(1)-1s*4d_(1)	.92358	7.18e+12	2.34e+14	1.93e+13	1.84e+12	8.58e-02
2p_4s*(0)-1s*4s*(1)	.92359	8.16e+14	8.38e+14	3.65e+12	3.54e+12	9.88e-01
2s*4d*(3)-1s*4f*(4)	.92359	5.38e+13	7.58e+13	9.05e+11	4.49e+12	4.99e+00
2s*4d_(2)-1s*4f_(3)	.92360	2.21e+13	9.95e+13	2.20e+12	2.39e+12	1.09e+00
2p_3d*(2)-1s*3d*(3)	.92360	6.79e+14	9.88e+14	3.29e+11	1.13e+12	3.44e+00
2s*4d*(3)-1s*4f*(3)	.92360	1.52e+13	7.58e+13	9.05e+11	1.27e+12	1.40e+00
2p_4p*(2)-1s*4p*(2)	.92361	4.59e+14	1.08e+15	1.56e+13	3.52e+13	2.25e+00
2s*4d_(2)-1s*4f_(2)	.92361	4.67e+12	9.95e+13	2.20e+12	5.05e+11	2.30e-01
2s*4d_(1)-1s*4f_(2)	.92362	3.88e+11	9.88e+13	1.23e+12	1.40e+10	1.14e-02
2p_4d_(2)-1s*4d_(2)	.92363	4.75e+14	9.83e+14	1.72e+12	4.14e+12	2.41e+00
2p_3d*(2)-1s*3d*(2)	.92364	2.86e+14	9.88e+14	3.29e+11	4.43e+11	1.35e+00
2s*4p_(1)-1s*4s*(0)	.92364	2.80e+12	1.65e+14	1.01e+13	4.82e+11	4.79e-02
2p_4d_(2)-1s*4d_(1)	.92364	4.93e+14	9.83e+14	1.72e+12	4.29e+12	2.50e+00
2p_3d*(3)-1s*3d*(3)	.92367	4.03e+14	1.04e+15	7.35e+12	2.48e+13	3.39e+00
2p_4p*(1)-1s*4p*(1)	.92368	1.79e+14	1.01e+15	3.68e+10	1.96e+10	5.31e-01
2p_3d_(1)-1s*3d*(2)	.92370	4.87e+12	1.03e+15	1.20e+10	1.64e+08	1.37e-02
2p_3d*(3)-1s*3d*(2)	.92371	5.22e+14	1.04e+15	7.35e+12	2.63e+13	3.48e+00
2s*4p*(1)-1s*4d*(2)	.92378	2.54e+12	2.34e+14	1.93e+13	5.81e+11	3.01e-02
2p_4p_(1)-1s*4p_(0)	.92379	3.01e+14	9.54e+14	9.74e+10	9.22e+10	9.47e-01
2p_4p*(2)-1s*4p*(1)	.92380	4.28e+14	1.08e+15	1.56e+13	3.28e+13	2.10e+00
2p_4p_(1)-1s*4p_(1)	.92381	5.39e+14	9.54e+14	9.74e+10	1.65e+11	1.69e+00
2s*4p*(2)-1s*4d_(2)	.92382	2.52e+13	2.63e+14	2.52e+12	1.20e+12	4.75e-01
2s*4p*(2)-1s*4d_(1)	.92382	1.94e+13	2.63e+14	2.52e+12	9.22e+11	3.66e-01
2p_4d_(2)-1s*4d*(3)	.92382	1.08e+13	9.83e+14	1.72e+12	9.36e+10	5.46e-02
2p_4d_(2)-1s*4d*(2)	.92384	6.17e+11	9.83e+14	1.72e+12	5.38e+09	3.13e-03
2p_4p_(0)-1s*4p*(1)	.92386	6.24e+11	7.88e+14	2.79e+12	2.20e+09	8.10e-04
2s*4s*(0)-1s*4p_(1)	.92388	3.52e+14	4.06e+14	5.60e+13	4.27e+13	7.62e-01
2s*3d_(2)-1s*3p*(1)	.92388	6.21e+13	1.98e+14	1.16e+13	2.29e+13	1.98e+00
2p_4s*(1)-1s*4s*(0)	.92392	3.16e+14	9.38e+14	9.05e+11	9.14e+11	1.01e+00
2s*3d_(1)-1s*3p*(1)	.92396	1.21e+13	1.79e+14	2.34e+12	4.68e+11	2.00e-01
2p_3p*(1)-1s*3p*(2)	.92401	6.63e+14	1.11e+15	1.76e+11	3.15e+11	1.79e+00
2s*4p*(2)-1s*4d*(3)	.92401	1.02e+14	2.63e+14	2.52e+12	4.87e+12	1.93e+00
2s*4s*(1)-1s*4p_(0)	.92403	3.90e+13	2.51e+14	4.52e+11	2.10e+11	4.84e-01
2s*4p*(2)-1s*4d*(2)	.92403	2.10e+13	2.63e+14	2.52e+12	9.96e+11	3.95e-01
2p_3s*(0)-1s*3s*(1)	.92404	8.33e+14	8.84e+14	9.88e+12	9.28e+12	9.31e-01
2s*4s*(1)-1s*4p_(1)	.92405	1.21e+14	2.51e+14	4.52e+11	6.58e+11	1.44e+00
2p_3s*(1)-1s*3s*(1)	.92420	4.37e+14	8.36e+14	1.43e+11	2.24e+11	1.57e+00
2p_3p*(2)-1s*3p*(2)	.92428	4.31e+14	1.08e+15	2.81e+13	5.48e+13	1.95e+00
2p_3d_(2)-1s*3d_(2)	.92429	4.84e+14	1.03e+15	3.88e+12	9.11e+12	2.35e+00
2s*4p_(0)-1s*4d_(1)	.92430	3.53e+12	3.15e+14	1.27e+12	1.41e+10	1.11e-02
2p_3d_(2)-1s*3d_(1)	.92432	5.32e+14	1.03e+15	3.88e+12	1.00e+13	2.58e+00
2p_4p_(1)-1s*4p*(2)	.92437	2.08e+13	9.54e+14	9.74e+10	6.37e+09	6.54e-02
2s*4p_(1)-1s*4d_(2)	.92440	3.25e+13	1.03e+14	1.01e+13	5.58e+12	5.56e-01
2s*4p_(2)-1s*4d*(2)	.92440	1.78e+12	1.03e+14	1.01e+13	2.93e+11	2.91e-02
2s*3p_(1)-1s*3s*(0)	.92442	2.84e+13	4.28e+14	2.39e+13	4.58e+12	1.89e-01
2s*3p*(1)-1s*3d_(2)	.92445	1.17e+12	4.12e+14	3.51e+13	2.75e+11	7.85e-03
2s*3p*(1)-1s*3d_(1)	.92447	4.22e+12	4.12e+14	3.51e+13	9.94e+11	2.83e-02
2p_3p*(1)-1s*3p*(1)	.92447	2.11e+14	1.11e+15	1.76e+11	1.08e+11	5.69e-01
2p_4p_(1)-1s*4p*(1)	.92456	3.85e+12	9.54e+14	9.74e+10	1.18e+09	1.21e-02
2s*4s*(1)-1s*4p*(2)	.92461	5.53e+13	2.51e+14	4.52e+11	2.98e+11	6.59e-01
2s*4s*(0)-1s*4p*(1)	.92464	1.65e+13	4.06e+14	5.60e+13	2.00e+12	3.57e-02
2p_4s*(1)-1s*4d_(2)	.92467	9.12e+12	9.38e+14	9.05e+11	2.64e+10	2.91e-02
2p_4s*(1)-1s*4d_(1)	.92468	6.84e+11	9.38e+14	9.05e+11	1.98e+09	2.19e-03
2p_3p*(2)-1s*3p*(1)	.92474	3.61e+14	1.08e+15	2.81e+13	4.58e+13	1.63e+00
2p_3d_(2)-1s*3d*(3)	.92475	4.58e+12	1.03e+15	3.88e+12	8.63e+10	2.22e-02
2s*4s*(1)-1s*4p*(1)	.92480	1.20e+13	2.51e+14	4.52e+11	6.45e+10	1.43e-01
2p_3p_(1)-1s*3p_(0)	.92481	3.38e+14	1.17e+15	1.32e+11	1.15e+11	8.69e-01
2p_3p_(1)-1s*3p_(1)	.92486	5.58e+14	1.17e+15	1.32e+11	1.90e+11	1.43e+00
2s*3p*(2)-1s*3d_(2)	.92486	1.77e+13	3.83e+14	6.38e+12	1.52e+12	2.39e-01
2p_3p_(0)-1s*3p*(1)	.92487	2.50e+12	9.96e+14	5.00e+12	1.25e+10	2.49e-03
2s*3s*(0)-1s*3p_(1)	.92487	2.63e+14	3.59e+14	1.59e+14	8.08e+13	5.07e-01

Z = 36

TRANSITION	LAMBDA	A(rad)	A(tot)	AUGER	Qd	qf
2s*3p*(2)-1s*3d_(1)	.92489	7.51e+12	3.63e+14	6.38e+12	6.48e+11	1.02e-01
2p_4s*(1)-1s*4d*(2)	.92489	1.97e+11	9.38e+14	9.05e+11	5.70e+08	6.30e-04
2s*3p*(1)-1s*3d*(2)	.92495	1.02e+13	4.12e+14	3.51e+13	2.39e+12	6.81e-02
2p_3s*(1)-1s*3s*(0)	.92507	2.98e+14	8.36e+14	1.43e+11	1.53e+11	1.07e+00
2s*3p*(2)-1s*3d*(3)	.92533	7.86e+13	3.63e+14	6.38e+12	6.79e+12	1.08e+00
2s*3p*(2)-1s*3d*(2)	.92536	8.53e+12	3.63e+14	6.38e+12	7.36e+11	1.15e-01
2s*3s*(1)-1s*3p_(0)	.92548	9.04e+12	2.01e+14	8.77e+11	1.18e+11	1.35e-01
2s*3s*(1)-1s*3p_(1)	.92554	9.13e+13	2.01e+14	8.77e+11	1.19e+12	1.36e+00
2p_3p_(1)-1s*3p*(2)	.92619	1.16e+13	1.17e+15	1.32e+11	3.93e+09	2.97e-02
2s*3p_(1)-1s*3d_(2)	.92619	1.39e+13	4.28e+14	2.39e+13	2.21e+12	9.28e-02
2s*2p_(1)-1s*2s*(1)	.92620	9.07e+14	1.03e+15	5.22e+13	1.31e+14	2.50e+00
2s*3p_(0)-1s*3d_(1)	.92621	1.31e+13	4.33e+14	3.12e+12	9.38e+10	3.01e-02
2p_2p_(0)-1s*2p_(1)	.92647	1.67e+15	1.09e+15	8.07e+12	7.93e+12	9.82e-01
2p_2p*(2)-1s*2p*(2)	.92651	7.17e+14	2.07e+15	1.97e+14	3.11e+14	1.58e+00
2p_3p_(1)-1s*3p*(1)	.92665	1.05e+13	1.17e+15	1.32e+11	3.57e+09	2.69e-02
2s*3s*(0)-1s*3p*(1)	.92666	2.65e+13	3.59e+14	1.59e+14	8.14e+12	5.11e-02
2s*3p_(1)-1s*3d*(2)	.92669	1.79e+11	4.28e+14	2.39e+13	2.83e+10	1.19e-03
2p_3s*(1)-1s*3d_(2)	.92685	2.11e+13	8.36e+14	1.43e+11	1.06e+10	7.58e-02
2s*3s*(1)-1s*3p*(2)	.92687	5.38e+13	2.01e+14	8.77e+11	7.00e+11	7.98e-01
2s*2p_(0)-1s*2s*(1)	.92700	1.03e+15	1.03e+15	2.72e+13	2.65e+13	9.74e-01
2p_2p*(1)-1s*2p*(2)	.92728	8.59e+14	2.08e+15	7.93e+10	9.84e+10	1.24e+00
2s*3s*(1)-1s*3p*(1)	.92733	3.71e+12	2.01e+14	8.77e+11	4.84e+10	5.52e-02
2p_3s*(1)-1s*3d*(2)	.92735	2.42e+11	8.36e+14	1.43e+11	1.24e+08	8.68e-04
2p_2p*(2)-1s*2p*(1)	.92819	5.20e+14	2.07e+15	1.97e+14	2.28e+14	1.15e+00
2p_2p*(1)-1s*2p*(1)	.92896	1.02e+14	2.08e+15	7.93e+10	1.17e+10	1.48e-01
2s*2p_(1)-1s*2s*(0)	.92962	1.28e+14	1.03e+15	5.22e+13	1.84e+13	3.53e-01
2s*2s*(0)-1s*2p_(1)	.93045	3.94e+14	4.65e+14	3.59e+14	1.72e+14	4.79e-01
2p_2p_(0)-1s*2p*(1)	.93265	2.20e+13	1.09e+15	8.07e+12	1.05e+11	1.30e-02
2s*2s*(0)-1s*2p*(1)	.93669	7.08e+13	4.65e+14	3.59e+14	3.08e+13	8.68e-02
2p*3d*(3)-1s*4d*(2)	.97824	6.12e+10	1.06e+15	1.51e+13	6.01e+09	3.99e-04
2p*3d*(4)-1s*4d*(3)	.97770	6.24e+10	1.05e+15	4.75e+12	2.52e+09	5.30e-04
2p*3p*(3)-1s*4p*(2)	.97844	1.26e+11	1.32e+15	7.12e+11	4.78e+08	6.72e-04
2p*3p*(1)-1s*4p*(1)	.97856	1.74e+11	1.32e+15	2.02e+11	7.98e+07	3.96e-04
2p*3p_(2)-1s*4p_(1)	.97880	8.49e+10	1.29e+15	5.15e+13	1.64e+10	3.17e-04
2p*3s*(1)-1s*4s*(0)	.97899	6.29e+10	1.01e+15	5.42e+13	9.68e+09	1.78e-04
2p*3p_(1)-1s*4p_(0)	.97900	8.06e+10	1.32e+15	2.98e+11	5.47e+07	1.83e-04
2p*3s*(2)-1s*4s*(1)	.97922	6.57e+10	1.05e+15	1.37e+12	4.27e+08	3.12e-04
2s*3d*(2)-1s*4f*(3)	.98271	1.53e+11	9.08e+13	4.32e+11	3.34e+09	7.72e-03
2s*3p*(1)-1s*4s*(0)	.98342	3.78e+10	4.12e+14	3.51e+13	8.84e+09	2.52e-04
2s*3d*(3)-1s*4f*(4)	.98369	1.16e+11	1.91e+13	1.82e+12	7.05e+10	3.88e-02
2s*3d_(2)-1s*4f_(3)	.98381	1.16e+11	1.96e+14	1.16e+13	3.06e+10	2.64e-03
2s*3d_(1)-1s*4f_(2)	.98392	1.16e+11	1.79e+14	2.34e+12	4.58e+09	1.95e-03
2p_3p_(1)-1s*4p_(0)	.98585	7.27e+10	1.17e+15	1.32e+11	2.47e+07	1.87e-04
2p_3p_(1)-1s*4p_(1)	.98587	8.43e+10	1.17e+15	1.32e+11	2.87e+07	2.17e-04
2p_3s*(1)-1s*4s*(0)	.98613	1.07e+11	8.36e+14	1.43e+11	5.49e+07	3.84e-04
2p*2p*(0)-1s*3p*(1)	1.11172	2.04e+11	2.08e+15	5.02e+13	6.97e+09	1.39e-04
2p*2p*(2)-1s*3p*(2)	1.11510	7.33e+10	2.08e+15	1.62e+14	2.65e+10	1.63e-04
2p*2p*(2)-1s*3p*(1)	1.11577	1.19e+11	2.08e+15	1.62e+14	4.30e+10	2.65e-04
2s*2p*(1)-1s*3s*(0)	1.12009	6.39e+10	1.04e+15	1.94e+14	3.84e+10	2.03e-04
2p_2p*(2)-1s*3p_(1)	1.12060	6.44e+10	2.07e+15	1.97e+14	3.67e+10	1.86e-04
2p_2p*(1)-1s*3p_(0)	1.12165	7.91e+10	2.08e+15	7.93e+10	9.05e+06	1.14e-04
2p_2p*(2)-1s*3p*(2)	1.12255	5.81e+10	2.07e+15	1.97e+14	2.52e+10	1.28e-04
2p_2p*(2)-1s*3p*(1)	1.12323	4.61e+10	2.07e+15	1.97e+14	2.00e+10	1.02e-04
2s*2p*(1)-1s*3d*(2)	1.12343	1.21e+11	1.04e+15	1.94e+14	5.67e+10	2.92e-04
2s*2p*(2)-1s*3s*(1)	1.12347	7.95e+10	1.05e+15	1.82e+13	6.77e+09	3.72e-04
2s*2p_(1)-1s*3s*(1)	1.13022	7.10e+10	1.03e+15	5.22e+13	1.02e+10	1.98e-04
2s*2p*(2)-1s*4s*(1)	1.21573	3.28e+10	1.05e+15	1.82e+13	2.77e+09	1.53e-04

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
4p+ (3/2)-1s+ (1/2)	.53764	2.18e+14	2.18e+14	0.	0.	4.00e+00
4p_ (1/2)-1s+ (1/2)	.53807	1.99e+14	1.99e+14	0.	0.	2.00e+00
2p+4p+(2)-1s+2p_(1)	.53920	1.02e+12	2.19e+15	2.27e+13	5.22e+10	2.30e-03
2p+4p+(1)-1s+2p_(1)	.53931	1.88e+12	2.18e+15	1.33e+11	3.45e+08	2.59e-03
2p+4p_(2)-1s+2p_(1)	.53967	4.03e+11	2.17e+15	1.90e+13	1.75e+10	9.22e-04
2p+4p_(1)-1s+2p_(1)	.53968	7.18e+11	2.17e+15	2.19e+11	2.17e+08	9.92e-04
2p+4s+(1)-1s+2s+(0)	.53980	3.96e+11	1.97e+15	1.31e+13	7.86e+09	6.00e-04
2p_4d+(2)-1s+2s+(1)	.54116	2.09e+13	1.75e+15	8.71e+10	5.20e+09	5.97e-02
2p+4p+(1)-1s+2s+(1)	.54136	6.16e+13	3.74e+14	1.93e+13	9.06e+12	4.78e-01
2p_4d_(2)-1s+2s+(1)	.54139	1.63e+13	1.76e+15	1.82e+12	8.41e+10	4.61e-02
2s+4p+(2)-1s+2s+(1)	.54145	1.71e+14	5.29e+14	2.62e+12	4.23e+12	1.61e+00
2s+4p_(0)-1s+2s+(1)	.54181	1.57e+14	5.07e+14	1.67e+12	5.14e+11	3.06e-01
2s+4p_(1)-1s+2s+(1)	.54184	1.36e+14	2.81e+14	1.20e+13	1.67e+13	1.39e+00
2p_4s+(0)-1s+2s+(1)	.54198	3.48e+13	1.63e+15	4.37e+12	9.33e+10	2.13e-02
2p+4p+(2)-1s+2p+(2)	.54223	9.39e+13	2.19e+15	2.27e+13	4.81e+12	2.12e-01
2p+4p+(3)-1s+2p+(2)	.54234	2.14e+14	2.18e+15	3.18e+11	2.18e+11	6.85e-01
2p+4p+(1)-1s+2p+(2)	.54234	4.77e+13	2.18e+15	1.33e+11	8.74e+09	6.57e-02
2s+4d+(2)-1s+2p_(1)	.54243	1.02e+13	1.62e+14	2.02e+12	6.28e+11	3.11e-01
2s+4d_(1)-1s+2p_(0)	.54262	1.14e+13	1.24e+14	1.26e+12	3.44e+11	2.72e-01
2s+4d_(2)-1s+2p_(1)	.54264	7.80e+12	1.15e+14	1.59e+12	5.19e+11	3.28e-01
2s+4d_(1)-1s+2p_(1)	.54265	2.27e+11	1.24e+14	1.26e+12	6.88e+09	5.45e-03
2p_4d_(1)-1s+2s+(0)	.54267	1.19e+13	1.83e+15	7.03e+11	1.37e+10	1.95e-02
2p+4p_(2)-1s+2p+(2)	.54270	1.12e+14	2.17e+15	1.90e+13	4.86e+12	2.58e-01
2p+4p_(1)-1s+2p+(2)	.54271	1.48e+14	2.17e+15	2.19e+11	4.49e+10	2.05e-01
2p_4p+(1)-1s+2p_(0)	.54274	1.22e+14	1.97e+15	3.09e+10	5.75e+09	1.88e-01
2p+4p+(0)-1s+2p+(1)	.54275	2.27e+14	2.22e+15	1.62e+13	1.64e+12	1.01e-01
2p_4p+(1)-1s+2p_(1)	.54276	7.12e+13	1.97e+15	3.09e+10	3.36e+09	1.09e-01
2s+4p+(1)-1s+2s+(0)	.54280	1.30e+14	3.74e+14	1.93e+13	1.92e+13	9.94e-01
2p_4p+(2)-1s+2p_(1)	.54281	1.94e+14	1.95e+15	1.75e+13	8.58e+12	4.92e-01
2p+4p+(2)-1s+2p+(1)	.54288	1.17e+14	2.19e+15	2.27e+13	5.97e+12	2.63e-01
2p+4p+(1)-1s+2p+(1)	.54289	1.59e+14	2.18e+15	1.33e+11	2.91e+10	2.19e-01
2p_4p_(0)-1s+2p_(1)	.54300	1.26e+14	1.32e+15	4.07e+12	3.87e+11	9.51e-02
2p_4p_(1)-1s+2p_(0)	.54325	7.05e+13	1.52e+15	1.53e+11	2.13e+10	1.39e-01
2p_4p_(1)-1s+2p_(1)	.54326	6.91e+13	1.52e+15	1.53e+11	2.09e+10	1.38e-01
2s+4p_(1)-1s+2s+(0)	.54328	4.78e+13	2.81e+14	1.20e+13	5.89e+12	4.90e-01
2s+4s+(0)-1s+2p_(1)	.54331	7.59e+13	8.40e+14	5.85e+13	4.94e+12	8.44e-02
2s+4s+(1)-1s+2p_(0)	.54333	5.34e+12	6.70e+14	4.27e+11	1.02e+10	2.39e-02
2s+4s+(1)-1s+2p_(1)	.54334	5.68e+13	6.70e+14	4.27e+11	1.09e+11	2.54e-01
2p+4p_(2)-1s+2p+(1)	.54336	8.17e+13	2.17e+15	1.90e+13	3.55e+12	1.87e-01
2p+4p_(1)-1s+2p+(1)	.54337	4.53e+13	2.17e+15	2.18e+11	1.37e+10	6.28e-02
2p_4s+(1)-1s+2s+(0)	.54340	1.58e+13	1.81e+15	1.68e+12	4.40e+10	2.62e-02
2s+4d+(3)-1s+2p+(2)	.54581	2.49e+11	1.34e+14	9.29e+11	1.20e+10	1.29e-02
2s+4d_(2)-1s+2p+(1)	.54637	5.44e+11	1.15e+14	1.59e+12	3.71e+10	2.33e-02
2p_4p+(1)-1s+2p+(1)	.54681	1.09e+12	1.97e+15	3.09e+10	5.14e+07	1.66e-03
2p_4p+(2)-1s+2p+(1)	.54685	9.19e+11	1.95e+15	1.75e+13	4.07e+10	2.33e-03
2p_4p_(1)-1s+2p+(1)	.54702	8.51e+11	1.52e+15	1.53e+11	2.57e+08	1.68e-03
2s+4s+(0)-1s+2p+(1)	.54705	1.51e+12	8.40e+14	5.85e+13	9.85e+10	1.68e-03
2s+4s+(1)-1s+2p+(1)	.54710	2.27e+11	6.70e+14	4.27e+11	4.34e+08	1.02e-03
2p+3d+(1)-1s+2s+(1)	.56466	2.71e+11	1.97e+15	3.97e+11	1.63e+08	4.12e-04
2p+3s+(2)-1s+2s+(1)	.56512	1.07e+12	1.97e+15	1.85e+11	5.04e+08	2.72e-03
2p+3d_(0)-1s+2s+(1)	.56529	1.30e+12	1.97e+15	3.40e+11	2.23e+08	6.57e-04
2p+3d_(1)-1s+2s+(1)	.56532	9.71e+11	1.97e+15	2.40e+11	3.54e+08	1.48e-03
2p+3d+(1)-1s+2s+(0)	.56624	4.15e+11	1.97e+15	3.97e+11	2.51e+08	6.31e-04
3p+ (3/2)-1s+ (1/2)	.56685	5.36e+14	5.36e+14	0.	0.	4.00e+00
2p+3p+(2)-1s+2p_(1)	.56700	1.38e+12	2.49e+15	6.43e+13	1.74e+11	2.71e-03
2p+3s+(2)-1s+2s+(1)	.56709	1.59e+12	1.97e+15	1.69e+12	6.83e+09	4.05e-03
2p+3p+(1)-1s+2p_(1)	.56742	5.69e+12	2.48e+15	1.99e+11	1.37e+09	6.88e-03
3p_ (1/2)-1s+ (1/2)	.56771	4.99e+14	4.99e+14	0.	0.	2.00e+00
2p+3p_(1)-1s+2p_(0)	.56830	3.21e+11	2.46e+15	3.95e+11	1.55e+08	3.92e-04
2p+3p_(1)-1s+2p_(1)	.56834	2.30e+12	2.46e+15	3.95e+11	1.11e+09	2.81e-03
2p+3s+(1)-1s+2s+(0)	.56844	9.99e+12	1.93e+15	4.54e+13	6.87e+11	1.51e-02
2p_3d+(2)-1s+2s+(1)	.56891	3.19e+13	1.84e+15	2.11e+11	1.82e+10	8.64e-02
2p_3d_(1)-1s+2s+(1)	.56907	9.68e+11	1.98e+15	1.40e+11	2.18e+08	1.56e-03
2p_3d_(2)-1s+2s+(1)	.56955	1.52e+13	1.89e+15	3.89e+12	1.57e+11	4.02e-02
2s+3p+(1)-1s+2s+(1)	.56959	1.47e+14	6.47e+14	4.13e+13	2.65e+13	6.41e-01
2s+3p+(2)-1s+2s+(1)	.56978	4.71e+14	6.65e+14	6.61e+12	2.32e+13	3.51e+00
2s+3d+(2)-1s+2p_(1)	.57022	1.99e+13	1.20e+14	1.51e+12	1.23e+12	8.19e-01
2p+3p+(2)-1s+2p+(2)	.57035	2.13e+14	2.49e+15	6.43e+13	2.68e+13	4.17e-01
2p+3p+(0)-1s+2p+(1)	.57064	5.04e+14	2.50e+15	3.51e+13	6.99e+12	1.99e-01
2p_3d_(1)-1s+2s+(0)	.57066	8.27e+12	1.90e+15	1.40e+11	1.82e+09	1.30e-02
2p+3p+(1)-1s+2p+(2)	.57078	1.29e+14	2.48e+15	1.99e+11	3.11e+10	1.56e-01
2s+3p_(1)-1s+2s+(1)	.57078	3.12e+14	7.98e+14	3.18e+13	3.59e+13	1.13e+00
2s+3p_(0)-1s+2s+(1)	.57080	4.04e+14	7.47e+14	3.93e+12	2.12e+12	5.38e-01
2p+3p+(3)-1s+2p+(2)	.57080	5.39e+14	2.48e+15	6.09e+11	9.26e+11	1.52e+00
2s+3d_(2)-1s+2p_(1)	.57082	5.08e+13	2.51e+14	8.21e+12	8.04e+12	9.80e-01

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s+3d_(1)-1s+2p_(0)	.57084	5.03e+13	2.58e+14	2.42e+12	1.40e+12	5.79e-01
2s+3d_(1)-1s+2p_(1)	.57088	4.18e+12	2.58e+14	2.42e+12	1.16e+11	4.81e-02
2p_3s+(0)-1s+2s+(1)	.57104	8.18e+13	1.68e+15	1.21e+13	5.81e+11	4.82e-02
2p+3p+(2)-1s+2p+(1)	.57108	2.81e+14	2.49e+15	6.43e+13	3.55e+13	5.51e-01
2p_3p+(1)-1s+2p_(0)	.57109	2.82e+14	2.16e+15	1.68e+11	6.58e+10	3.92e-01
2p_3s+(1)-1s+2s+(1)	.57109	3.67e+13	1.58e+15	2.40e+11	1.67e+10	6.96e-02
2p_3p+(1)-1s+2p_(1)	.57112	1.72e+14	2.16e+15	1.68e+11	4.02e+10	2.39e-01
2s+3p+(1)-1s+2s+(0)	.57118	3.29e+14	6.47e+14	4.13e+13	5.92e+13	1.43e+00
2p_3p+(2)-1s+2p_(1)	.57120	4.51e+14	2.12e+15	3.80e+13	3.77e+13	1.05e+00
2p+3p+(1)-1s+2p+(1)	.57150	4.07e+14	2.48e+15	1.99e+11	9.80e+10	4.93e-01
2p+3p_(2)-1s+2p+(2)	.57164	2.82e+14	2.43e+15	5.59e+13	3.17e+13	5.67e-01
2p_3p_(0)-1s+2p_(1)	.57167	3.38e+14	1.74e+15	6.18e+12	1.28e+12	1.94e-01
2p+3p_(1)-1s+2p+(2)	.57170	3.82e+14	2.46e+15	3.95e+11	1.75e+11	4.42e-01
2p+3p_(2)-1s+2p+(1)	.57237	1.82e+14	2.43e+15	5.59e+13	2.16e+13	3.87e-01
2s+3p_(1)-1s+2s+(0)	.57238	6.59e+13	7.98e+14	3.18e+13	7.58e+12	2.38e-01
2p+3p_(1)-1s+2p+(1)	.57244	1.22e+14	2.46e+15	3.95e+11	5.89e+10	1.49e-01
2p_3p_(1)-1s+2p_(0)	.57248	1.83e+14	2.06e+15	1.94e+11	5.18e+10	2.67e-01
2s+3s+(0)-1s+2p_(1)	.57249	1.36e+14	7.28e+14	1.83e+14	2.49e+13	1.52e-01
2p_3p_(1)-1s+2p_(1)	.57251	2.48e+14	2.06e+15	1.94e+11	6.97e+10	3.68e-01
2p_3s+(1)-1s+2s+(0)	.57268	9.27e+13	1.58e+15	2.40e+11	4.22e+10	1.76e-01
2s+3s+(1)-1s+2p_(0)	.57274	3.47e+12	4.19e+14	8.22e+11	2.04e+10	2.48e-02
2s+3s+(1)-1s+2p_(1)	.57278	8.17e+13	4.19e+14	8.22e+11	4.88e+11	5.84e-01
2s+3d+(2)-1s+2p+(2)	.57361	3.08e+11	1.20e+14	1.51e+12	1.96e+10	1.28e-02
2s+3d+(3)-1s+2p+(2)	.57399	2.83e+12	1.25e+13	1.92e+12	2.64e+12	1.37e+00
2s+3d_(2)-1s+2p+(2)	.57422	3.53e+11	2.51e+14	8.21e+12	5.58e+10	6.80e-03
2s+3d+(2)-1s+2p+(1)	.57435	4.98e+12	1.20e+14	1.51e+12	3.10e+11	2.05e-01
2p_3p+(1)-1s+2p+(2)	.57452	5.88e+11	2.16e+15	1.68e+11	1.31e+08	7.78e-04
2p_3p+(2)-1s+2p+(2)	.57460	2.54e+12	2.12e+15	3.60e+13	2.13e+11	5.88e-03
2s+3d_(2)-1s+2p+(1)	.57495	2.91e+12	2.51e+14	8.21e+12	4.61e+11	5.61e-02
2p_3p+(1)-1s+2p+(1)	.57528	7.64e+12	2.16e+15	1.68e+11	1.78e+09	1.08e-02
2p_3p_(1)-1s+2p+(2)	.57593	8.82e+11	2.06e+15	1.94e+11	2.48e+08	1.28e-03
2s+3s+(1)-1s+2p+(2)	.57819	3.41e+12	4.19e+14	8.22e+11	2.08e+10	2.43e-02
2s+3s+(0)-1s+2p+(1)	.57868	5.46e+12	7.28e+14	1.83e+14	1.08e+12	8.13e-03
2p_3p_(1)-1s+2p+(1)	.57867	3.83e+12	2.06e+15	1.94e+11	1.08e+09	5.57e-03
2p+4p_(1)-1s+3p_(0)	.63010	9.95e+10	2.17e+15	2.19e+11	3.01e+07	1.38e-04
2p+4p_(2)-1s+3p_(1)	.63010	1.89e+11	2.17e+15	1.90e+13	8.19e+09	4.32e-04
2p+4s+(1)-1s+3s+(0)	.63018	1.69e+11	1.97e+15	1.31e+13	3.34e+09	2.55e-04
2p+4p+(3)-1s+3p+(2)	.63085	5.19e+11	2.18e+15	3.18e+11	5.29e+08	1.67e-03
2p+4p+(1)-1s+3p+(1)	.63106	6.15e+11	2.18e+15	1.33e+11	1.13e+08	8.48e-04
2p+4d+(4)-1s+3d+(3)	.63116	2.66e+11	1.97e+15	2.30e+12	2.79e+09	1.21e-03
2s+4p+(1)-1s+3s+(0)	.63425	2.28e+11	3.74e+14	1.93e+13	3.24e+10	1.68e-03
2p_4p+(1)-1s+3p_(0)	.63433	7.09e+10	1.97e+15	3.09e+10	3.35e+08	1.08e-04
2p_4p+(2)-1s+3p_(1)	.63438	1.58e+11	1.95e+15	1.75e+13	6.66e+09	3.81e-04
2s+4p_(1)-1s+3s+(0)	.63491	7.68e+10	2.81e+14	1.20e+13	9.46e+09	7.89e-04
2p_4p_(1)-1s+3p_(0)	.63501	2.35e+11	1.52e+15	1.53e+11	7.11e+07	4.65e-04
2p_4p_(1)-1s+3p_(1)	.63503	2.13e+11	1.52e+15	1.53e+11	6.43e+07	4.20e-04
2p_4s+(1)-1s+3s+(0)	.63509	2.05e+11	1.81e+15	1.68e+12	5.71e+08	3.46e-04
2s+4s+(1)-1s+3p_(1)	.63514	2.07e+11	6.70e+14	4.27e+11	3.95e+08	9.25e-04
2s+4f_(3)-1s+3d_(2)	.63529	2.93e+11	1.11e+14	3.50e+11	6.48e+08	1.85e-02
2s+4f_(2)-1s+3d_(1)	.63532	1.47e+11	4.19e+13	1.00e+11	1.75e+08	1.75e-02
2s+4f+(4)-1s+3d+(3)	.63564	1.56e+11	6.44e+11	1.02e+10	2.18e+10	2.14e+00
2s+4f+(3)-1s+3d+(2)	.63564	2.55e+11	1.18e+13	3.74e+10	5.83e+09	1.51e-01
2p_4d_(2)-1s+3d_(1)	.63579	1.23e+11	1.76e+15	1.82e+12	6.33e+08	3.47e-04
2p+3d+(1)-1s+3s+(1)	.66594	1.21e+12	1.97e+15	3.97e+11	7.29e+08	1.84e-03
2p+3d+(1)-1s+3s+(0)	.66649	1.76e+12	1.97e+15	3.97e+11	1.06e+09	2.68e-03
2p+2p+(2)-1s+2p_(1)	.66652	1.05e+12	3.89e+15	1.42e+14	1.85e+11	1.38e-03
2p+3d+(2)-1s+3s+(1)	.66654	6.96e+12	1.97e+15	1.85e+11	3.27e+08	1.77e-02
2p+3d_(0)-1s+3s+(1)	.66680	1.82e+12	1.97e+15	3.40e+11	3.13e+08	9.22e-04
2p+3d_(1)-1s+3s+(1)	.66684	2.59e+12	1.97e+15	2.40e+11	9.45e+08	3.94e-03
2p+3p+(0)-1s+3p_(1)	.66708	9.12e+11	2.50e+15	3.51e+13	1.27e+10	3.60e-04
2p+3d_(1)-1s+3s+(0)	.66738	7.40e+11	1.97e+15	2.40e+11	2.70e+08	1.12e-03
2p+3p+(2)-1s+3p_(1)	.66758	3.83e+11	2.49e+15	6.43e+13	4.83e+10	7.51e-04
2p+4s+(1)-1s+4s+(1)	.66766	1.14e+12	1.98e+15	3.50e+11	6.87e+08	1.73e-03
2p+4f+(2)-1s+4p_(1)	.66782	1.67e+11	1.98e+15	3.94e+10	1.65e+07	4.28e-04
2p+4d+(2)-1s+4s+(1)	.66789	3.74e+12	1.98e+15	1.10e+11	1.04e+09	9.45e-03
2p+4d+(1)-1s+4s+(0)	.66790	2.29e+12	1.98e+15	3.50e+11	1.21e+09	3.47e-03
2p+4f_(2)-1s+4p_(1)	.66799	2.47e+11	1.98e+15	2.49e+10	1.55e+07	6.23e-04
2p+4d_(1)-1s+4s+(1)	.66802	7.28e+11	1.98e+15	1.42e+11	1.58e+08	1.10e-03
2p+3d+(1)-1s+3d_(2)	.66812	1.52e+13	1.97e+15	3.97e+11	9.17e+09	2.31e-02
2p+4d_(2)-1s+4s+(1)	.66812	1.55e+11	1.98e+15	5.72e+11	2.24e+08	3.92e-04
2p+3d+(1)-1s+3d_(1)	.66814	1.71e+13	1.97e+15	3.97e+11	1.03e+10	2.60e-02
2p+4p+(0)-1s+4p_(1)	.66818	6.41e+12	2.22e+15	1.62e+13	4.65e+10	2.87e-03
2p+3p+(1)-1s+3p_(0)	.66825	1.04e+13	2.48e+15	1.99e+11	2.51e+09	1.26e-02
2p+4d_(1)-1s+4s+(0)	.66825	4.81e+11	1.98e+15	1.42e+11	1.04e+08	7.29e-04
2p+3p+(1)-1s+3p_(1)	.66826	4.29e+13	2.48e+15	1.99e+11	1.03e+10	5.18e-02

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p*3d*(3)-1s*3d_(2)	.66832	2.92e+14	1.97e+15	1.26e+13	1.30e+13	1.03e+00
2p*4f*(2)-1s*4p*(2)	.66840	6.78e+11	1.98e+15	3.94e+10	6.73e+07	1.71e-03
2p*4f*(3)-1s*4p*(2)	.66849	2.95e+11	1.98e+15	3.34e+09	3.48e+06	1.04e-03
2p*4f*(2)-1s*4p*(1)	.66851	1.26e+12	1.98e+15	3.94e+10	1.25e+08	3.18e-03
2p*4p*(1)-1s*4p_(0)	.66855	8.11e+12	2.18e+15	1.33e+11	1.49e+09	1.12e-02
2p*4p*(1)-1s*4p_(1)	.66855	3.31e+13	2.18e+15	1.33e+11	6.07e+09	4.56e-02
2p*4f_(2)-1s*4p*(2)	.66857	4.56e+11	1.98e+15	2.49e+10	2.86e+07	1.15e-03
2p*4d*(1)-1s*4d_(2)	.66860	3.77e+12	1.98e+15	3.50e+11	2.00e+09	5.72e-03
2p*3d*(1)-1s*3d*(2)	.66861	1.94e+15	1.97e+15	3.97e+11	1.17e+12	2.94e+00
2p*4d*(1)-1s*4d_(1)	.66861	1.37e+13	1.98e+15	3.50e+11	7.26e+09	2.07e-02
2p*4d*(3)-1s*4d_(2)	.66868	2.14e+14	1.97e+15	5.70e+12	4.31e+12	7.56e-01
2p*4f_(2)-1s*4p*(1)	.66868	5.72e+11	1.98e+15	2.49e+10	3.59e+07	1.44e-03
2p*4f*(2)-1s*4f_(3)	.66870	1.02e+12	1.98e+15	3.94e+10	1.02e+08	2.58e-03
2p*4f*(2)-1s*4f_(2)	.66871	6.66e+12	1.98e+15	3.94e+10	6.66e+08	1.68e-02
2p*3d*(2)-1s*3d_(2)	.66874	1.24e+14	1.97e+15	1.85e+11	5.84e+10	3.15e-01
2p*3p*(0)-1s*3p*(1)	.66874	1.99e+15	2.50e+15	3.51e+13	2.77e+13	7.87e-01
2p*3d*(2)-1s*3d_(1)	.66877	9.63e+13	1.97e+15	1.85e+11	4.52e+10	2.44e-01
2p*3d*(3)-1s*3d*(3)	.66878	8.17e+14	1.97e+15	1.26e+13	3.84e+13	2.88e+00
2p*4f*(3)-1s*4f_(3)	.66879	1.27e+13	1.98e+15	3.34e+09	1.50e+08	4.51e-02
2p*4f*(4)-1s*4f_(3)	.66880	3.61e+14	1.97e+15	2.55e+11	4.19e+11	1.65e+00
2p*4f*(3)-1s*4f_(2)	.66880	9.66e+12	1.98e+15	3.34e+09	1.14e+08	3.42e-02
2p*4d*(1)-1s*4d*(2)	.66880	1.96e+15	1.98e+15	3.50e+11	1.04e+12	2.97e+00
2p*4f*(2)-1s*4f*(3)	.66880	1.97e+15	1.98e+15	3.94e+10	1.96e+11	4.98e+00
2p*3d*(3)-1s*3d*(2)	.66881	8.63e+14	1.97e+15	1.26e+13	3.84e+13	3.04e+00
2p*4d*(2)-1s*4d_(2)	.66881	7.74e+13	1.98e+15	1.10e+11	2.16e+10	1.96e-01
2p*4d*(2)-1s*4d_(1)	.66882	6.26e+13	1.98e+15	1.10e+11	1.75e+10	1.58e-01
2p*4f_(1)-1s*4f_(2)	.66882	1.98e+15	1.98e+15	2.86e+09	8.57e+09	3.08e+00
2p* (3/2)-1s* (1/2)	.66887	1.99e+15	1.99e+15	0.	0.	4.00e+00
2p*4p*(0)-1s*4p*(1)	.66887	1.98e+15	2.22e+15	1.62e+13	1.44e+13	8.88e-01
2p*4d*(3)-1s*4d*(3)	.66887	9.35e+14	1.97e+15	5.70e+12	1.88e+13	3.31e+00
2p*4f_(2)-1s*4f_(3)	.66887	4.59e+14	1.98e+15	2.49e+10	2.86e+10	1.18e+00
2p*4f_(4)-1s*4f_(3)	.66887	1.81e+15	1.97e+15	2.36e+11	1.73e+12	7.34e+00
2p*4f_(2)-1s*4f_(2)	.66888	1.51e+15	1.98e+15	2.49e+10	9.50e+10	3.82e+00
2p*4d*(3)-1s*4d*(2)	.66888	8.25e+14	1.97e+15	5.70e+12	1.66e+13	2.92e+00
2p*4f*(5)-1s*4f*(4)	.66888	1.97e+15	1.97e+15	2.41e+11	2.65e+12	1.10e+01
2p*4f*(4)-1s*4f*(4)	.66889	9.28e+14	1.97e+15	2.55e+11	1.08e+12	4.23e+00
2p*4f*(3)-1s*4f*(4)	.66890	5.09e+14	1.98e+15	3.34e+09	6.00e+09	1.80e+00
2p*4f*(3)-1s*4f*(3)	.66891	1.45e+15	1.98e+15	3.34e+09	1.71e+10	5.12e+00
2p*4f*(4)-1s*4f*(3)	.66890	6.84e+14	1.97e+15	2.55e+11	7.94e+11	3.12e+00
2p*4f_(3)-1s*4f_(3)	.66892	1.08e+15	1.98e+15	6.46e+10	2.46e+11	3.81e+00
2p*4d_(0)-1s*4d_(1)	.66893	1.98e+15	1.98e+15	2.12e+11	2.12e+11	1.00e+00
2p*4f_(3)-1s*4f_(2)	.66893	8.77e+14	1.98e+15	6.46e+10	2.01e+11	3.11e+00
2p*4d_(1)-1s*4d_(2)	.66894	3.41e+14	1.98e+15	1.42e+11	7.34e+10	5.18e-01
2p*4d_(1)-1s*4d_(1)	.66895	1.62e+15	1.98e+15	1.42e+11	3.49e+11	2.46e+00
2p*4s*(1)-1s*4s*(1)	.66896	6.38e+14	1.97e+15	1.31e+13	1.27e+13	9.66e-01
2p*4p*(2)-1s*4p*(2)	.66897	9.67e+14	2.19e+15	2.27e+13	4.95e+13	2.18e+00
2p*4f_(4)-1s*4f*(4)	.66897	2.10e+14	1.97e+15	2.36e+11	2.26e+11	9.57e-01
2p*4f_(4)-1s*4f*(3)	.66897	1.53e+14	1.97e+15	2.36e+11	1.85e+11	6.99e-01
2p*4d_(3)-1s*4d_(2)	.66898	1.75e+15	1.97e+15	3.58e+12	2.22e+13	6.21e+00
2p*4f_(2)-1s*4f*(3)	.66898	7.25e+12	1.98e+15	2.49e+10	4.55e+08	1.83e-02
2p*4d*(2)-1s*4d*(3)	.66900	4.25e+14	1.98e+15	1.10e+11	1.19e+11	1.07e+00
2p*3d_(0)-1s*3d_(1)	.66901	1.97e+15	1.97e+15	3.40e+11	3.39e+11	9.98e-01
2p*3s*(1)-1s*3s*(1)	.66902	5.72e+14	1.93e+15	4.54e+13	3.93e+13	8.66e-01
2p*3d_(1)-1s*3d_(2)	.66902	3.55e+14	1.97e+15	2.40e+11	1.29e+11	5.40e-01
2p*4d*(2)-1s*4d*(2)	.66902	1.41e+15	1.98e+15	1.10e+11	3.94e+11	3.56e+00
2p*4f_(3)-1s*4f*(4)	.66902	5.30e+12	1.98e+15	6.46e+10	1.21e+09	1.88e-02
2p*4s*(2)-1s*4s*(1)	.66903	1.97e+15	1.98e+15	5.34e+11	2.66e+12	4.99e+00
2p*4f_(3)-1s*4f*(3)	.66903	1.69e+13	1.98e+15	6.46e+10	3.87e+09	5.98e-02
2p*3d_(1)-1s*3d_(1)	.66904	1.59e+15	1.97e+15	2.40e+11	5.78e+11	2.41e+00
2p*4d_(2)-1s*4d_(2)	.66904	9.18e+14	1.98e+15	5.72e+11	1.33e+12	2.32e+00
2p*4d_(2)-1s*4d_(1)	.66905	9.17e+14	1.98e+15	5.72e+11	1.33e+12	2.32e+00
2p*3p*(2)-1s*3p*(2)	.66906	9.33e+14	2.49e+15	6.43e+13	1.18e+14	1.83e+00
2p*4p*(2)-1s*4p*(1)	.66908	1.01e+15	2.19e+15	2.27e+13	5.17e+13	2.28e+00
2p*4p_(2)-1s*4p_(1)	.66910	1.96e+15	2.17e+15	1.90e+13	8.50e+13	4.48e+00
2p*4d*(4)-1s*4d*(3)	.66910	1.97e+15	1.97e+15	2.30e+12	2.07e+13	8.99e+00
2p*4p_(1)-1s*4p_(0)	.66912	1.31e+15	2.17e+15	2.19e+11	3.96e+11	1.81e+00
2p*4p_(1)-1s*4p_(1)	.66913	6.35e+14	2.17e+15	2.19e+11	1.92e+11	8.78e-01
2p*4p*(1)-1s*4p*(2)	.66914	3.37e+14	2.18e+15	1.33e+11	6.19e+10	4.65e-01
2p*3d_(3)-1s*3d_(2)	.66915	1.66e+15	1.97e+15	6.52e+12	3.83e+13	5.87e+00
2p*4p*(3)-1s*4p*(2)	.66915	1.97e+15	2.18e+15	3.18e+11	2.01e+12	6.31e+00
2p*4d_(1)-1s*4d*(2)	.66915	1.71e+13	1.98e+15	1.42e+11	3.68e+09	2.59e-02
2p*4d_(3)-1s*4d*(3)	.66917	1.43e+14	1.97e+15	3.58e+12	1.82e+12	5.08e-01
2p*4s*(1)-1s*4s*(0)	.66918	1.33e+15	1.97e+15	1.31e+13	2.63e+13	2.01e+00
2p*4d_(3)-1s*4d*(2)	.66919	7.55e+13	1.97e+15	3.58e+12	9.58e+11	2.68e-01
2p*3d*(2)-1s*3d*(3)	.66920	4.28e+14	1.97e+15	1.85e+11	2.01e+11	1.09e+00

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gf
2p*3d*(2)-1s*3d*(2)	.66923	1.31e+15	1.97e+15	1.85e+11	6.17e+11	3.33e+00
2p*4d_(2)-1s*4d*(3)	.66924	3.21e+13	1.98e+15	5.72e+11	4.65e+10	8.12e-02
2p*4p*(1)-1s*4p*(1)	.66925	1.59e+15	2.18e+15	1.33e+11	2.91e+11	2.19e+00
2p*4d_(2)-1s*4d*(2)	.66925	1.07e+14	1.98e+15	5.72e+11	1.55e+11	2.72e-01
2p*4p*(2)-1s*4f_(2)	.66926	7.49e+11	2.19e+15	2.27e+13	3.84e+10	1.69e-03
2p*3s*(2)-1s*3s*(1)	.66930	1.95e+15	1.97e+15	1.69e+12	8.36e+12	4.95e+00
2p*3d_(2)-1s*3d_(2)	.66934	8.86e+14	1.97e+15	1.13e+12	2.54e+12	2.24e+00
2p*3p*(2)-1s*3p*(1)	.66934	1.06e+15	2.49e+15	6.43e+13	1.33e+14	2.07e+00
2p*3d_(2)-1s*3d_(1)	.66936	8.65e+14	1.97e+15	1.13e+12	2.48e+12	2.19e+00
2p*4p*(2)-1s*4f*(3)	.66938	2.07e+12	2.19e+15	2.27e+13	1.06e+11	4.66e-03
2s*2p*(1)-1s*2s*(1)	.66943	3.51e+14	1.95e+15	1.85e+14	9.14e+13	4.94e-01
2p*3p_(2)-1s*3p_(1)	.66945	1.91e+15	2.43e+15	5.59e+13	2.14e+14	3.83e+00
2p*3d_(1)-1s*3d*(2)	.66951	2.79e+13	1.97e+15	2.40e+11	1.02e+10	4.24e-02
2p*3p_(1)-1s*3p_(0)	.66952	1.30e+15	2.46e+15	3.95e+11	6.26e+11	1.59e+00
2p*3p_(1)-1s*3p_(1)	.66954	6.26e+14	2.46e+15	3.95e+11	3.02e+11	7.64e-01
2p*3d*(4)-1s*3d*(3)	.66955	1.97e+15	1.97e+15	4.69e+12	4.21e+13	8.98e+00
2p*4p*(3)-1s*4f*(3)	.66955	2.31e+11	2.18e+15	3.18e+11	2.35e+08	7.40e-04
2p*3s*(1)-1s*3s*(0)	.66958	1.35e+15	1.93e+15	4.54e+13	9.27e+13	2.04e+00
2p*3d_(3)-1s*3d*(3)	.66961	2.38e+14	1.97e+15	6.52e+12	5.44e+12	8.34e-01
2p*3d_(3)-1s*3d*(2)	.66964	7.83e+13	1.97e+15	6.52e+12	1.81e+12	2.77e-01
2p*3p*(1)-1s*3p*(2)	.66965	3.51e+14	2.48e+15	1.99e+11	8.44e+10	4.24e-01
2p*3p*(3)-1s*3p*(2)	.66967	1.94e+15	2.48e+15	8.09e+11	3.34e+12	5.48e+00
2p*4p_(2)-1s*4p*(2)	.66968	8.27e+12	2.17e+15	1.90e+13	3.59e+11	1.89e-02
2p*4p_(1)-1s*4p*(2)	.66971	3.92e+12	2.17e+15	2.19e+11	1.19e+09	5.41e-03
2p*3d_(2)-1s*3d*(3)	.66980	6.34e+13	1.97e+15	1.13e+12	1.82e+11	1.61e-01
2p*4p_(2)-1s*4p*(1)	.66980	5.82e+12	2.17e+15	1.90e+13	2.53e+11	1.33e-02
2p*4p_(1)-1s*4p*(1)	.66982	2.81e+13	2.17e+15	2.19e+11	8.51e+09	3.89e-02
2p*3d_(2)-1s*3d*(2)	.66983	1.58e+14	1.97e+15	1.13e+12	4.52e+11	4.00e-01
2p*4s*(1)-1s*4d_(1)	.66989	6.66e+11	1.97e+15	1.31e+13	1.32e+10	1.01e-03
2p*3p*(1)-1s*3p*(1)	.66993	1.53e+15	2.46e+15	1.99e+11	3.69e+11	1.85e+00
2p*4s*(2)-1s*4d_(2)	.66995	3.32e+11	1.98e+15	5.34e+11	4.75e+08	8.89e-04
2p*4s*(2)-1s*4d_(1)	.66996	5.36e+11	1.98e+15	5.34e+11	7.28e+08	1.36e-03
2p*4p_(2)-1s*4f_(2)	.67000	2.27e+11	2.17e+15	1.90e+13	9.88e+09	5.19e-04
2p*4s*(1)-1s*4d*(2)	.67009	4.06e+12	1.97e+15	1.31e+13	8.04e+10	6.14e-03
2p*4s*(2)-1s*4d*(3)	.67014	2.77e+11	1.98e+15	5.34e+11	3.74e+08	7.01e-04
2p*4s*(2)-1s*4d*(2)	.67016	3.37e+12	1.98e+15	5.34e+11	4.55e+09	8.53e-03
2p*2p*(0)-1s*2p*(1)	.67050	3.81e+15	3.81e+15	5.97e+13	5.68e+13	9.84e-01
2p*3p_(2)-1s*3p*(2)	.67083	3.37e+13	2.43e+15	5.59e+13	3.79e+12	6.78e-02
2p*3p_(1)-1s*3p*(2)	.67092	1.66e+13	2.46e+15	3.95e+11	7.98e+09	2.02e-02
2p*3p_(2)-1s*3p*(1)	.67111	1.81e+13	2.43e+15	5.59e+13	2.03e+12	3.63e-02
2p*2p*(2)-1s*2p*(2)	.67115	1.73e+15	3.89e+15	1.42e+14	3.04e+14	2.14e+00
2p*3p_(1)-1s*3p*(1)	.67121	2.72e+13	2.48e+15	3.95e+11	1.31e+10	3.33e-02
2p*3s*(1)-1s*3d_(1)	.67124	2.34e+12	1.93e+15	4.54e+13	1.61e+11	3.55e-03
2s*2p*(2)-1s*2s*(1)	.67130	1.96e+15	1.98e+15	1.90e+13	9.43e+13	4.95e+00
2p*3s*(2)-1s*3d_(2)	.67150	4.28e+11	1.97e+15	1.69e+12	1.83e+09	1.08e-03
2p*3s*(2)-1s*3d_(1)	.67152	1.18e+12	1.97e+15	1.69e+12	5.08e+09	3.01e-03
2s*2p*(1)-1s*2s*(0)	.67162	1.80e+15	1.95e+15	1.85e+14	4.16e+14	2.25e+00
2p_2p*(2)-1s*2p_(1)	.67162	1.88e+15	3.85e+15	2.15e+14	4.47e+14	2.08e+00
2p*3s*(1)-1s*3d*(2)	.67171	3.82e+12	1.93e+15	4.54e+13	2.63e+11	5.78e-03
2p_3d*(2)-1s*3s*(1)	.67184	1.05e+13	1.84e+15	2.11e+11	5.98e+09	2.84e-02
2p*3s*(2)-1s*3d*(3)	.67197	4.56e+11	1.97e+15	1.69e+12	1.95e+09	1.16e-03
2p*3s*(2)-1s*3d*(2)	.67198	1.35e+13	1.97e+15	1.69e+12	5.78e+10	3.42e-02
2p_2p*(1)-1s*2p_(0)	.67205	1.38e+15	3.86e+15	1.48e+11	1.49e+11	1.01e+00
2p_2p*(1)-1s*2p_(1)	.67210	7.35e+14	3.86e+15	1.48e+11	8.43e+10	5.70e-01
2s*3d*(2)-1s*3p_(1)	.67215	1.63e+13	1.20e+14	1.51e+12	1.02e+12	6.73e-01
2p*2p*(2)-1s*2p*(1)	.67216	2.16e+15	3.89e+15	1.42e+14	3.81e+14	2.68e+00
2p_3d_(1)-1s*3s*(0)	.67263	2.53e+12	1.90e+15	1.40e+11	5.58e+08	3.99e-03
2p_3d_(2)-1s*3s*(1)	.67273	4.26e+11	1.89e+15	3.89e+12	4.36e+09	1.15e-03
2s*3p*(1)-1s*3s*(1)	.67279	1.46e+14	6.47e+14	4.13e+13	2.62e+13	6.35e-01
2s*3d_(2)-1s*3p_(1)	.67299	1.99e+12	2.51e+14	8.21e+12	3.15e+11	3.84e-02
2s*3d_(1)-1s*3p_(0)	.67305	4.91e+12	2.58e+14	2.42e+12	1.37e+11	5.66e-02
2s*3p*(2)-1s*3s*(1)	.67305	1.78e+12	6.65e+14	6.61e+12	8.77e+10	1.33e-02
2s*3d_(1)-1s*3p_(1)	.67306	2.27e+13	2.58e+14	2.42e+12	6.32e+11	2.61e-01
2p_4d*(2)-1s*4s*(1)	.67326	7.48e+11	1.75e+15	8.71e+10	1.84e+08	2.12e-03
2s*4d*(2)-1s*4p_(1)	.67336	1.93e+12	1.62e+14	2.02e+12	1.18e+11	5.86e-02
2s*3p*(1)-1s*3s*(0)	.67336	7.38e+11	6.47e+14	4.13e+13	1.32e+11	3.21e-03
2p_3p*(1)-1s*3p_(1)	.67340	1.25e+12	2.16e+15	1.68e+11	2.92e+08	1.74e-03
2p_3p*(2)-1s*3p_(1)	.67352	4.55e+13	2.12e+15	3.80e+13	3.81e+12	1.00e-01
2s*3d*(2)-1s*3p*(2)	.67355	5.96e+13	1.20e+14	1.51e+12	3.70e+12	2.46e+00
2s*4p*(1)-1s*4s*(1)	.67357	8.31e+13	3.74e+14	1.93e+13	1.22e+13	6.33e-01
2p_4d_(1)-1s*4s*(0)	.67361	1.62e+11	1.83e+15	7.03e+11	1.87e+08	2.66e-04
2p_4d_(2)-1s*4s*(1)	.67362	1.59e+11	1.76e+15	1.82e+12	8.18e+08	4.49e-04
2s*4d_(2)-1s*4p_(1)	.67368	3.70e+11	1.15e+14	1.59e+12	2.52e+10	1.59e-02
2s*4d_(1)-1s*4p_(0)	.67369	7.23e+12	1.24e+14	1.26e+12	2.19e+11	1.73e-01
2s*4d_(1)-1s*4p_(1)	.67370	2.27e+13	1.24e+14	1.26e+12	6.88e+11	5.44e-01

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2s*4p*(2)-1s*4s*(1)	.67371	7.17e+11	5.29e+14	2.62e+12	1.77e+10	6.74e-03
2s*4p*(1)-1s*4s*(0)	.67380	1.91e+13	3.74e+14	1.93e+13	2.81e+12	1.46e-01
2s*3d*(2)-1s*3p*(1)	.67384	1.85e+13	1.20e+14	1.51e+12	1.15e+12	7.62e-01
2p_4p*(1)-1s*4p_(0)	.67389	1.21e+12	1.97e+15	3.09e+10	5.72e+07	1.85e-03
2p_4p*(2)-1s*4p_(1)	.67394	1.29e+13	1.95e+15	1.75e+13	5.71e+11	3.27e-02
2s*4d*(2)-1s*4p*(2)	.67395	6.02e+13	1.62e+14	2.02e+12	3.70e+12	1.83e+00
2p_4f_(2)-1s*4p*(2)	.67401	2.80e+11	1.86e+15	2.89e+10	2.18e+07	7.53e-04
2s*4f_(2)-1s*4d_(2)	.67402	1.71e+13	4.19e+13	1.00e+11	2.05e+11	2.04e+00
2s*4f_(2)-1s*4d_(1)	.67403	1.39e+13	4.19e+13	1.00e+11	1.66e+11	1.65e+00
2p_3d*(2)-1s*3d_(2)	.67406	4.68e+11	1.84e+15	2.11e+11	2.79e+08	1.32e-03
2s*4d*(2)-1s*4p*(1)	.67406	4.12e+13	1.62e+14	2.02e+12	2.53e+12	1.25e+00
2s*3d*(3)-1s*3p*(2)	.67408	9.68e+12	1.25e+13	1.92e+12	9.03e+12	4.70e+00
2p_3d*(3)-1s*3d_(2)	.67408	1.96e+13	1.93e+15	8.19e+12	5.80e+11	7.09e-02
2s*4f*(3)-1s*4d*(3)	.67410	5.33e+12	1.18e+13	3.74e+10	1.18e+11	3.15e+00
2s*4f*(3)-1s*4d*(2)	.67411	6.23e+12	1.18e+13	3.74e+10	1.37e+11	3.88e+00
2p_4f_(2)-1s*4p*(1)	.67412	1.77e+11	1.86e+15	2.89e+10	1.38e+07	4.76e-04
2s*4d*(3)-1s*4p*(2)	.67413	1.47e+12	1.34e+14	9.29e+11	7.07e+10	7.61e-02
2s*4f*(4)-1s*4d*(3)	.67414	4.89e+11	6.44e+11	1.02e+10	6.87e+10	6.72e+00
2p_3p_(0)-1s*3p_(1)	.67416	1.40e+15	1.74e+15	6.18e+12	4.95e+12	8.01e-01
2p_4d*(2)-1s*4d_(2)	.67419	9.04e+11	1.75e+15	8.71e+10	2.25e+08	2.59e-03
2p_4d*(2)-1s*4d_(1)	.67420	1.32e+12	1.75e+15	8.71e+10	3.28e+08	3.77e-03
2s*4f_(3)-1s*4d*(3)	.67421	5.16e+13	1.11e+14	3.50e+11	1.14e+12	3.25e+00
2p_4d*(3)-1s*4d_(2)	.67422	3.18e+12	1.81e+15	4.28e+12	5.28e+10	1.23e-02
2s*4f_(2)-1s*4d*(3)	.67422	8.80e+12	4.19e+13	1.00e+11	1.05e+11	1.05e+00
2p_4f*(3)-1s*4f_(3)	.67422	2.11e+11	1.82e+15	4.39e+10	3.56e+07	8.12e-04
2p_4f*(3)-1s*4f_(2)	.67422	4.89e+11	1.82e+15	4.39e+10	8.27e+07	1.88e-03
2s*4f_(3)-1s*4d*(2)	.67422	5.88e+13	1.11e+14	3.50e+11	1.30e+12	3.70e+00
2p_4p_(0)-1s*4p_(1)	.67423	1.19e+15	1.32e+15	4.07e+12	3.67e+12	9.02e-01
2s*4f_(2)-1s*4d*(2)	.67423	1.95e+12	4.19e+13	1.00e+11	2.34e+10	2.32e-01
2s*4p_(0)-1s*4s*(1)	.67426	3.47e+14	5.07e+14	1.67e+12	1.14e+12	6.83e-01
2s*4d*(2)-1s*4f_(3)	.67426	3.68e+13	1.62e+14	2.02e+12	2.28e+12	1.12e+00
2s*4d*(2)-1s*4f_(2)	.67426	1.20e+13	1.62e+14	2.02e+12	7.40e+11	3.66e-01
2s*4d_(2)-1s*4p*(2)	.67427	3.35e+13	1.15e+14	1.59e+12	2.28e+12	1.44e+00
2p_3d_(1)-1s*3d_(2)	.67429	1.53e+15	1.90e+15	1.40e+11	3.37e+11	2.41e+00
2s*4d_(1)-1s*4p*(2)	.67429	7.23e+13	1.24e+14	1.26e+12	2.19e+12	1.73e+00
2s*4p_(1)-1s*4s*(1)	.67431	4.89e+13	2.81e+14	1.20e+13	6.03e+12	5.01e-01
2p_4d_(1)-1s*4d_(2)	.67431	1.50e+15	1.83e+15	7.03e+11	1.73e+12	2.46e+00
2p_3d_(1)-1s*3d_(1)	.67431	3.58e+14	1.90e+15	1.40e+11	7.91e+10	5.65e-01
2p_4d_(1)-1s*4d_(1)	.67432	3.18e+14	1.83e+15	7.03e+11	3.67e+11	5.22e-01
2p_4f_(2)-1s*4f_(3)	.67432	1.43e+15	1.86e+15	2.89e+10	1.11e+11	3.84e+00
2p_4f_(2)-1s*4f_(2)	.67432	4.30e+14	1.86e+15	2.89e+10	3.35e+10	1.16e+00
2p_4f*(3)-1s*4f*(4)	.67432	1.34e+15	1.82e+15	4.39e+10	2.27e+11	5.18e+00
2p_4f*(3)-1s*4f*(3)	.67432	4.73e+14	1.82e+15	4.39e+10	8.00e+10	1.82e+00
2p_ (1/2)-1s* (1/2)	.67433	1.95e+15	1.95e+15	0.	0.	2.00e+00
2p_4f*(4)-1s*4f*(4)	.67433	8.22e+14	1.93e+15	2.64e+11	1.01e+12	3.83e+00
2p_4f*(4)-1s*4f*(3)	.67433	1.11e+15	1.93e+15	2.64e+11	1.36e+12	5.17e+00
2p_4f_(3)-1s*4f_(3)	.67435	8.64e+14	1.92e+15	2.04e+11	6.43e+11	3.15e+00
2p_4f_(3)-1s*4f_(2)	.67435	1.05e+15	1.92e+15	2.04e+11	7.84e+11	3.84e+00
2s*3d_(2)-1s*3p*(2)	.67439	9.09e+13	2.51e+14	8.21e+12	1.44e+13	1.75e+00
2s*4d_(2)-1s*4p*(1)	.67439	3.92e+13	1.15e+14	1.58e+12	2.68e+12	1.68e+00
2p_4d*(2)-1s*4d*(3)	.67439	1.31e+15	1.75e+15	8.71e+10	3.28e+11	3.76e+00
2s*4d_(1)-1s*4p*(1)	.67440	9.94e+12	1.24e+14	1.26e+12	3.01e+11	2.38e-01
2p_4d*(2)-1s*4d*(2)	.67440	4.09e+14	1.75e+15	8.71e+10	1.02e+11	1.17e+00
2p_4d*(3)-1s*4d*(3)	.67442	8.24e+14	1.81e+15	4.28e+12	1.36e+13	3.18e+00
2p_4d*(3)-1s*4d*(2)	.67443	9.82e+14	1.81e+15	4.28e+12	1.62e+13	3.79e+00
2s*4d*(3)-1s*4f_(3)	.67444	5.89e+12	1.34e+14	9.29e+11	2.84e+11	3.06e-01
2s*4d*(3)-1s*4f_(2)	.67444	6.49e+12	1.34e+14	9.29e+11	3.13e+11	3.37e-01
2p_4f_(3)-1s*4f*(4)	.67445	2.21e+12	1.92e+15	2.04e+11	1.64e+09	8.05e-03
2s*3p_(1)-1s*3s*(1)	.67445	3.26e+14	7.98e+14	3.18e+13	3.75e+13	1.18e+00
2p_4f_(3)-1s*4f*(3)	.67445	5.39e+11	1.92e+15	2.04e+11	4.01e+08	1.96e-03
2s*3d_(1)-1s*3p*(2)	.67447	1.54e+14	2.58e+14	2.42e+12	4.28e+12	1.77e+00
2s*3p_(0)-1s*3s*(1)	.67448	3.32e+14	7.47e+14	3.93e+12	1.73e+12	4.41e-01
2p_4p*(1)-1s*4p*(2)	.67449	1.45e+15	1.97e+15	5.09e+10	6.84e+10	2.21e+00
2s*4p*(1)-1s*4d_(2)	.67450	6.15e+13	3.74e+14	1.93e+13	9.04e+12	4.69e-01
2p_4s*(1)-1s*4s*(1)	.67451	1.18e+15	1.81e+15	1.68e+12	3.28e+12	1.96e+00
2s*4p*(1)-1s*4d_(1)	.67451	1.65e+13	3.74e+14	1.93e+13	2.43e+12	1.26e-01
2p_4s*(0)-1s*4s*(1)	.67453	1.59e+15	1.63e+15	4.37e+12	4.27e+12	9.76e-01
2p_3d*(2)-1s*3d*(3)	.67453	1.34e+15	1.84e+15	2.11e+11	7.64e+11	3.63e+00
2p_4d_(1)-1s*4d*(2)	.67453	2.53e+11	1.83e+15	7.03e+11	2.92e+08	4.15e-04
2s*4p_(1)-1s*4s*(0)	.67454	6.97e+12	2.81e+14	1.20e+13	1.11e+12	9.19e-02
2p_4p*(2)-1s*4p*(2)	.67454	8.91e+14	1.95e+15	1.75e+13	3.94e+13	2.26e+00
2s*4d*(3)-1s*4f*(4)	.67454	9.22e+13	1.34e+14	9.29e+11	4.45e+12	4.79e+00
2s*4d*(3)-1s*4f*(3)	.67454	2.76e+13	1.34e+14	9.29e+11	1.33e+12	1.43e+00
2p_3d*(2)-1s*3d*(2)	.67455	4.64e+14	1.84e+15	2.11e+11	2.65e+11	1.26e+00
2p_3d*(3)-1s*3d*(3)	.67455	9.04e+14	1.93e+15	8.19e+12	2.67e+13	3.27e+00

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	q#
2p_4d_(2)-1s*4d_(2)	.67455	8.49e+14	1.76e+15	1.82e+12	4.38e+12	2.40e+00
2p_4d_(2)-1s*4d_(1)	.67456	8.70e+14	1.76e+15	1.82e+12	4.49e+12	2.46e+00
2p_3d*(3)-1s*3d*(2)	.67458	1.01e+15	1.93e+15	8.19e+12	2.97e+13	3.63e+00
2s*4d_(2)-1s*4f_(3)	.67458	2.76e+13	1.15e+14	1.59e+12	1.89e+12	1.18e+00
2s*4d_(2)-1s*4f_(2)	.67459	8.21e+12	1.15e+14	1.59e+12	4.24e+11	2.66e-01
2p_4p*(1)-1s*4p*(1)	.67460	3.21e+14	1.97e+15	3.09e+10	1.52e+10	4.91e-01
2s*4d_(1)-1s*4f_(2)	.67460	2.93e+11	1.24e+14	1.26e+12	8.85e+09	7.00e-03
2s*4p*(2)-1s*4d_(2)	.67464	9.41e+13	5.29e+14	2.62e+12	2.32e+12	8.85e-01
2s*4p*(2)-1s*4d_(1)	.67465	6.40e+13	5.29e+14	2.62e+12	2.07e+12	7.90e-01
2p_4p*(2)-1s*4p*(1)	.67465	6.55e+14	1.95e+15	1.75e+13	3.79e+13	2.17e+00
2p_4p_(1)-1s*4p_(0)	.67466	4.77e+14	1.52e+15	1.53e+11	1.44e+11	9.42e-01
2p_4p_(1)-1s*4p_(1)	.67466	8.70e+14	1.52e+15	1.53e+11	2.63e+11	1.72e+00
2s*3d_(2)-1s*3p*(1)	.67467	1.04e+14	2.51e+14	8.21e+12	1.63e+13	2.01e+00
2s*4p*(0)-1s*4p_(1)	.67471	7.50e+14	8.40e+14	5.85e+13	4.88e+13	8.34e-01
2s*4p*(1)-1s*4d*(2)	.67471	1.95e+12	3.74e+14	1.93e+13	2.88e+11	1.48e-02
2p_4s*(1)-1s*4s*(0)	.67473	6.02e+14	1.81e+15	1.68e+12	1.68e+12	9.98e-01
2p_4d_(2)-1s*4d*(3)	.67475	2.55e+13	1.76e+15	1.82e+12	1.32e+11	7.23e-02
2s*3d_(1)-1s*3p*(1)	.67475	2.23e+13	2.58e+14	2.42e+12	6.21e+11	2.57e-01
2p_4d_(2)-1s*4d*(2)	.67476	3.27e+12	1.76e+15	1.82e+12	1.69e+10	9.27e-03
2p_3d_(1)-1s*3d*(2)	.67478	4.03e+12	1.90e+15	1.40e+11	8.89e+08	6.36e-03
2s*4s*(1)-1s*4p_(0)	.67479	1.58e+14	6.70e+14	4.27e+11	3.03e+11	7.09e-01
2s*4s*(1)-1s*4p_(1)	.67479	3.85e+14	6.70e+14	4.27e+11	7.36e+11	1.72e+00
2p_3s*(0)-1s*3s*(1)	.67481	1.66e+15	1.68e+15	1.21e+13	1.14e+13	9.45e-01
2p_3p*(1)-1s*3p*(2)	.67481	1.35e+15	2.18e+15	1.68e+11	3.15e+11	1.86e+00
2s*4p*(2)-1s*4d*(3)	.67484	1.46e+14	5.29e+14	2.62e+12	3.59e+12	1.37e+00
2s*4p*(2)-1s*4d*(2)	.67485	3.32e+13	5.29e+14	2.62e+12	8.18e+11	3.12e-01
2p_3s*(1)-1s*3s*(1)	.67488	8.99e+14	1.58e+15	2.40e+11	4.09e+11	1.70e+00
2p_3p*(2)-1s*3p*(2)	.67492	6.50e+14	2.12e+15	3.60e+13	7.11e+13	1.97e+00
2p_3d_(2)-1s*3d_(2)	.67496	9.03e+14	1.89e+15	3.89e+12	9.30e+12	2.39e+00
2p_3d_(2)-1s*3d_(1)	.67498	9.59e+14	1.89e+15	3.89e+12	9.88e+12	2.54e+00
2s*3p_(1)-1s*3s*(0)	.67502	7.87e+13	7.98e+14	3.18e+13	9.05e+12	2.85e-01
2s*3p*(1)-1s*3d_(2)	.67502	9.00e+12	8.47e+14	4.13e+13	1.62e+12	3.92e-02
2s*3p*(1)-1s*3d_(1)	.67504	6.97e+12	8.47e+14	4.13e+13	1.25e+12	3.04e-02
2p_3p*(1)-1s*3p*(1)	.67509	3.45e+14	2.18e+15	1.68e+11	8.04e+10	4.79e-01
2p_3p*(2)-1s*3p*(1)	.67520	7.68e+14	2.12e+15	3.60e+13	6.43e+13	1.78e+00
2s*4p_(0)-1s*4d_(1)	.67521	2.87e+12	5.07e+14	1.67e+12	9.38e+09	5.63e-03
2s*4p_(1)-1s*4d_(2)	.67525	3.68e+13	2.81e+14	1.20e+13	4.34e+12	3.78e-01
2s*4p_(1)-1s*4d_(1)	.67525	2.53e+12	2.81e+14	1.20e+13	3.17e+11	2.59e-02
2p_4p_(1)-1s*4p*(2)	.67526	3.13e+13	1.52e+15	1.53e+11	9.45e+09	6.17e-02
2s*3p*(2)-1s*3d_(2)	.67527	4.04e+13	6.65e+14	8.61e+12	1.99e+12	3.01e-01
2s*3p*(2)-1s*3d_(1)	.67530	2.51e+13	6.65e+14	8.61e+12	1.23e+12	1.87e-01
2s*3s*(0)-1s*3p_(1)	.67531	5.66e+14	7.28e+14	1.83e+14	1.04e+14	6.35e-01
2p_3p_(1)-1s*3p_(0)	.67532	5.88e+14	2.08e+15	1.94e+11	1.66e+11	8.55e-01
2p_3p_(1)-1s*3p_(1)	.67533	1.02e+15	2.08e+15	1.94e+11	2.96e+11	1.48e+00
2p_4p_(1)-1s*4p*(1)	.67537	9.71e+11	1.52e+15	1.53e+11	2.93e+08	1.92e-03
2s*4s*(1)-1s*4p*(2)	.67539	5.01e+13	6.70e+14	4.27e+11	9.57e+10	2.24e-01
2s*4s*(0)-1s*4p*(1)	.67542	1.30e+13	8.40e+14	5.85e+13	8.45e+11	1.45e-02
2p_3d_(2)-1s*3d*(3)	.67543	7.67e+12	1.89e+15	3.89e+12	8.11e+10	2.08e-02
2p_4s*(1)-1s*4d_(2)	.67544	1.00e+13	1.81e+15	1.68e+12	2.79e+10	1.66e-02
2p_3s*(1)-1s*3s*(0)	.67545	5.31e+14	1.58e+15	2.40e+11	2.41e+11	1.00e+00
2p_4s*(1)-1s*4d_(1)	.67545	8.17e+11	1.81e+15	1.68e+12	2.27e+09	1.35e-03
2s*4s*(1)-1s*4p*(1)	.67550	1.39e+13	6.70e+14	4.27e+11	2.66e+10	6.22e-02
2s*3p*(1)-1s*3d*(2)	.67552	8.35e+12	6.47e+14	4.13e+13	1.50e+12	3.64e-02
2s*3s*(1)-1s*3p_(0)	.67589	5.03e+13	4.19e+14	8.22e+11	2.95e+11	3.59e-01
2s*3s*(1)-1s*3p_(1)	.67570	2.22e+14	4.19e+14	8.22e+11	1.30e+12	1.58e+00
2s*3p*(2)-1s*3d*(3)	.67574	1.11e+14	6.65e+14	8.61e+12	5.47e+12	8.28e-01
2s*3p*(2)-1s*3d*(2)	.67577	1.54e+13	6.65e+14	8.61e+12	7.60e+11	1.15e-01
2p_3p_(0)-1s*3p*(1)	.67586	2.63e+12	1.74e+15	6.18e+12	9.32e+08	1.51e-03
2s*2p_(1)-1s*2s*(1)	.67808	1.58e+15	1.92e+15	6.96e+13	1.66e+14	2.38e+00
2p_2p_(0)-1s*2p_(1)	.67825	2.95e+15	2.97e+15	9.10e+12	9.00e+12	9.89e-01
2p_2p*(2)-1s*2p*(2)	.67832	1.18e+15	3.85e+15	2.15e+14	3.13e+14	1.46e+00
2s*2p_(0)-1s*2s*(1)	.67867	1.92e+15	1.92e+15	3.23e+13	3.18e+13	9.83e-01
2s*3p_(1)-1s*3d_(2)	.67869	1.55e+13	7.98e+14	3.18e+13	1.78e+12	5.59e-02
2s*3p_(0)-1s*3d_(1)	.67874	1.12e+13	7.47e+14	3.93e+12	5.88e+10	1.50e-02
2p_3p_(1)-1s*3p*(2)	.67875	1.48e+13	2.08e+15	1.94e+11	4.17e+09	2.15e-02
2p_2p*(1)-1s*2p*(2)	.67881	1.59e+15	3.86e+15	1.48e+11	1.83e+11	1.24e+00
2s*3s*(0)-1s*3p*(1)	.67701	2.12e+13	7.29e+14	1.63e+14	3.88e+12	2.38e-02
2p_3p_(1)-1s*3p*(1)	.67703	6.84e+12	2.08e+15	1.94e+11	1.93e+09	9.94e-03
2p_3s*(1)-1s*3d_(2)	.67712	2.51e+13	1.58e+15	2.40e+11	1.14e+10	4.76e-02
2s*3s*(1)-1s*3p*(2)	.67712	5.40e+13	4.19e+14	8.22e+11	3.17e+11	3.88e-01
2p_2p*(2)-1s*2p*(1)	.67735	9.75e+14	3.85e+15	2.15e+14	2.58e+14	1.20e+00
2s*3s*(1)-1s*3p*(1)	.67740	4.63e+12	4.19e+14	8.22e+11	2.72e+10	3.30e-02
2p_2p*(1)-1s*2p*(1)	.67784	2.35e+14	3.86e+15	1.48e+11	2.69e+10	1.82e-01
2s*2p_(1)-1s*2s*(0)	.67832	3.38e+14	1.92e+15	6.96e+13	3.56e+13	5.11e-01
2s*2s*(0)-1s*2p_(1)	.67884	8.71e+14	9.32e+14	3.66e+14	2.46e+14	6.71e-01

Z = 42

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	gW
2p_2p_(0)-1s*2p*(1)	.68205	2.35e+13	2.97e+15	9.10e+12	7.16e+10	7.87e-03
2s*2s*(0)-1s*2p*(1)	.68469	6.11e+13	9.32e+14	3.66e+14	1.72e+13	4.70e-02
2p*3p*(3)-1s*4p*(2)	.71300	1.86e+11	2.48e+15	6.09e+11	3.19e+08	5.24e-04
2p*3p*(1)-1s*4p*(1)	.71309	2.72e+11	2.48e+15	1.99e+11	6.55e+07	3.29e-04
2p*3p_(2)-1s*4p_(1)	.71365	1.36e+11	2.43e+15	5.59e+13	1.53e+10	2.74e-04
2p*3p_(1)-1s*4p_(0)	.71374	1.31e+11	2.46e+15	3.95e+11	6.32e+07	1.60e-04
2p*3s*(1)-1s*4s*(0)	.71380	1.17e+11	1.93e+15	4.54e+13	8.07e+09	1.78e-04
2p*3s*(2)-1s*4s*(1)	.71386	9.89e+10	1.97e+15	1.69e+12	4.24e+08	2.51e-04
2s*3d*(2)-1s*4f*(3)	.71784	2.05e+11	1.20e+14	1.51e+12	1.27e+10	8.45e-03
2s*3p*(1)-1s*4s*(0)	.71810	4.80e+10	6.47e+14	4.13e+13	8.64e+09	2.09e-04
2p_3p_(1)-1s*4p_(0)	.72034	1.03e+11	2.06e+15	1.94e+11	2.91e+07	1.50e-04
2p_3s*(1)-1s*4s*(0)	.72047	1.35e+11	1.58e+15	2.40e+11	8.15e+07	2.56e-04
2p*2p*(0)-1s*3p*(1)	.81026	3.95e+11	3.81e+15	5.97e+13	6.10e+09	1.02e-04
2p*2p*(2)-1s*3p*(2)	.81215	1.12e+11	3.89e+15	1.42e+14	1.98e+10	1.39e-04
2p*2p*(2)-1s*3p*(1)	.81256	1.56e+11	3.89e+15	1.42e+14	2.74e+10	1.93e-04
2s*2p*(1)-1s*3s*(0)	.81748	1.19e+11	1.95e+15	1.85e+14	3.10e+10	1.68e-04
2p_2p*(2)-1s*3p_(1)	.81787	1.30e+11	3.85e+15	2.15e+14	3.45e+10	1.60e-04
2p_2p*(1)-1s*3p_(0)	.81835	1.21e+11	3.86e+15	1.48e+11	1.39e+07	9.41e-05
2s*2p*(2)-1s*3s*(1)	.81944	1.11e+11	1.96e+15	1.90e+13	5.35e+09	2.81e-04
2p_2p*(2)-1s*3p*(1)	.82016	6.12e+10	3.85e+15	2.15e+14	1.62e+10	7.54e-05

Z = 54

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4p*(2)-1s*2s_(1)	.31854	5.53e+11	6.08e+15	2.07e+13	9.37e+09	4.54e-04
2p*4p*(1)-1s*2s_(1)	.31859	1.03e+12	6.04e+15	1.28e+11	6.43e+07	5.12e-04
4p* (3/2)-1s* (1/2)	.31963	6.10e+14	6.10e+14	0.	0.	4.00e+00
4p_ (1/2)-1s* (1/2)	.32007	5.22e+14	5.22e+14	0.	0.	2.00e+00
2p_4d*(2)-1s*2s*(1)	.32125	3.37e+13	4.98e+15	5.56e+10	1.88e+09	3.38e-02
2p_4d_(1)-1s*2s*(1)	.32136	1.09e+13	4.67e+15	1.88e+12	1.32e+10	6.98e-03
2s*4p*(1)-1s*2s*(1)	.32139	1.75e+14	1.24e+15	1.81e+13	7.61e+12	4.20e-01
2s*4p*(2)-1s*2s*(1)	.32141	4.24e+14	1.91e+15	2.59e+12	2.88e+12	1.11e+00
2p_4d_(2)-1s*2s*(1)	.32143	1.32e+14	4.20e+15	2.36e+12	3.72e+11	1.57e-01
2p*4p*(2)-1s*2p*(2)	.32174	2.85e+14	6.08e+15	2.07e+13	4.82e+12	2.34e-01
2p*4p*(3)-1s*2p*(2)	.32180	6.01e+14	6.05e+15	3.04e+11	2.11e+11	6.95e-01
2p*4p*(1)-1s*2p*(2)	.32180	1.12e+14	6.04e+15	1.28e+11	6.99e+09	5.57e-02
2s*4p_(0)-1s*2s*(1)	.32183	4.56e+14	9.96e+14	3.28e+12	1.48e+12	4.56e-01
2s*4p_(1)-1s*2s*(1)	.32184	3.48e+14	6.51e+14	1.59e+13	2.48e+13	1.57e+00
2p*4d*(2)-1s*2p_(1)	.32184	1.20e+13	1.78e+14	1.50e+12	5.09e+11	3.38e-01
2p_4s*(0)-1s*2s*(1)	.32192	5.30e+13	4.80e+15	6.43e+12	7.09e+10	1.10e-02
2p_4s*(1)-1s*2s*(1)	.32192	1.22e+12	5.12e+15	3.82e+12	2.73e+09	7.16e-04
2p*4p*(0)-1s*2p*(1)	.32198	6.31e+14	6.14e+15	1.88e+13	1.73e+12	1.03e-01
2s*4d_(2)-1s*2p_(1)	.32199	8.07e+12	1.15e+14	1.16e+12	4.06e+11	3.49e-01
2s*4d_(1)-1s*2p_(1)	.32200	9.14e+11	1.56e+14	1.36e+12	2.37e+10	1.74e-02
2p*4p*(2)-1s*2p*(1)	.32204	3.12e+14	6.08e+15	2.07e+13	5.29e+12	2.56e-01
2s*4d_(1)-1s*2p_(0)	.32205	1.40e+13	1.56e+14	1.36e+12	3.63e+11	2.67e-01
2p_4s*(1)-1s*2p_(1)	.32209	1.98e+14	5.67e+15	2.52e+10	2.84e+09	1.05e-01
2p_4d_(1)-1s*2s*(0)	.32209	8.22e+13	4.67e+15	1.88e+12	7.52e+10	3.99e-02
2p*4p*(1)-1s*2p*(1)	.32209	4.77e+14	8.04e+15	1.28e+11	2.97e+10	2.37e-01
2p_4p*(2)-1s*2p_(1)	.32210	5.79e+14	5.68e+15	2.00e+13	1.02e+13	5.10e-01
2s*4p*(1)-1s*2s*(0)	.32212	3.43e+14	1.24e+15	1.81e+13	1.49e+13	8.21e-01
2p_4p*(1)-1s*2p_(0)	.32214	3.80e+14	5.67e+15	2.52e+10	5.07e+09	2.01e-01
2p*4p_(1)-1s*2p*(2)	.32220	4.13e+14	5.98e+15	3.41e+11	7.07e+10	2.07e-01
2p*4p_(2)-1s*2p*(2)	.32220	2.76e+14	5.97e+15	2.01e+13	4.64e+12	2.31e-01
2p_4p_(0)-1s*2p_(1)	.32241	2.75e+14	2.96e+15	9.67e+12	8.95e+11	9.28e-02
2p*4p_(1)-1s*2p*(1)	.32250	1.00e+14	5.98e+15	3.41e+11	1.71e+10	5.02e-02
2p*4p_(2)-1s*2p*(1)	.32250	2.36e+14	5.97e+15	2.01e+13	3.97e+12	1.97e-01
2s*4s*(1)-1s*2p_(1)	.32254	6.68e+13	1.67e+15	3.23e+11	3.88e+10	1.20e-01
2s*4s*(0)-1s*2p_(1)	.32255	2.59e+14	2.89e+15	6.35e+13	5.57e+12	8.77e-02
2s*4p_(1)-1s*2s*(0)	.32257	1.46e+14	6.51e+14	1.58e+13	1.06e+13	6.66e-01
2s_4p_(1)-1s*2p_(1)	.32258	2.73e+14	4.16e+15	3.38e+11	6.66e+10	1.97e-01
2s*4s*(1)-1s*2p_(0)	.32259	8.33e+13	1.67e+15	3.23e+11	4.84e+10	1.50e-01
2s_4p_(1)-1s*2p_(0)	.32263	9.99e+13	4.16e+15	3.38e+11	2.43e+10	7.19e-02
2p_4s*(1)-1s*2s*(0)	.32265	1.60e+13	5.12e+15	3.82e+12	4.03e+10	1.06e-02
2s*4d_(2)-1s*2p*(1)	.32558	3.96e+11	1.15e+14	1.16e+12	1.99e+10	1.71e-02
2p*3d*(2)-1s*2s*(1)	.33376	4.58e+11	5.46e+15	2.01e+11	8.44e+07	4.20e-04
2p*3p*(2)-1s*2p_(1)	.33401	7.52e+11	6.92e+15	5.66e+13	3.05e+10	5.38e-04
2p*3p*(1)-1s*2p_(1)	.33501	2.78e+12	6.91e+15	1.85e+11	2.23e+08	1.20e-03
2p*3s*(2)-1s*2s*(1)	.33543	1.21e+12	5.45e+15	2.23e+12	2.46e+09	1.10e-03
2p*3p_(1)-1s*2p_(1)	.33603	7.85e+11	6.76e+15	6.52e+11	2.27e+08	3.48e-04
2p*3s*(1)-1s*2s*(0)	.33615	4.20e+12	5.44e+15	3.78e+13	8.70e+10	2.30e-03
3p* (3/2)-1s* (1/2)	.33661	1.50e+15	1.50e+15	0.	0.	4.00e+00
2p_3d*(2)-1s*2s*(1)	.33759	4.83e+13	5.14e+15	1.07e+11	5.05e+09	4.78e-02
3p_ (1/2)-1s* (1/2)	.33777	1.32e+15	1.32e+15	0.	0.	2.00e+00
2p_3d_(2)-1s*2s*(1)	.33805	1.12e+14	4.96e+15	4.01e+12	4.54e+11	1.13e-01
2s*3p*(1)-1s*2s*(1)	.33805	4.54e+14	1.59e+15	4.55e+13	3.78e+13	8.32e-01
2s*3p*(2)-1s*2s*(1)	.33812	1.30e+15	1.90e+15	7.31e+12	2.49e+13	3.40e+00
2p*3d*(2)-1s*2p_(1)	.33820	2.82e+13	1.54e+14	2.38e+12	2.09e+12	9.00e-01
2p*3s*(2)-1s*2p*(2)	.33836	6.65e+14	6.92e+15	5.88e+13	2.70e+13	4.77e-01
2p*3p*(0)-1s*2p*(1)	.33850	1.43e+15	6.97e+15	3.88e+13	7.88e+12	2.04e-01
2p*3p*(1)-1s*2p*(2)	.33856	2.90e+14	6.91e+15	1.85e+11	2.33e+10	1.26e-01
2p*3p*(3)-1s*2p*(2)	.33857	1.51e+15	6.91e+15	5.24e+11	7.99e+11	1.52e+00
2s*3d_(2)-1s*2p_(1)	.33863	6.96e+13	3.22e+14	4.38e+12	4.67e+12	1.07e+00
2p_3d_(1)-1s*2s*(0)	.33865	2.32e+13	5.20e+15	2.83e+11	3.80e+09	1.34e-02
2s*3d_(1)-1s*2p_(1)	.33867	1.27e+13	4.31e+14	2.58e+12	2.27e+11	8.80e-02
2p*3p*(2)-1s*2p*(1)	.33869	7.46e+14	6.92e+15	5.66e+13	3.02e+13	5.34e-01
2s*3d_(1)-1s*2p_(0)	.33873	8.02e+13	4.31e+14	2.58e+12	1.43e+12	5.55e-01
2p_3p*(1)-1s*2p_(1)	.33881	4.80e+14	6.27e+15	1.64e+11	3.75e+10	2.30e-01
2p_3p*(2)-1s*2p_(1)	.33883	1.36e+15	6.27e+15	4.71e+13	5.08e+13	1.08e+00
2s*3p*(1)-1s*2s*(0)	.33886	9.59e+14	1.59e+15	4.55e+13	7.99e+13	1.76e+00
2p_3p*(1)-1s*2p_(0)	.33887	8.85e+14	6.27e+15	1.64e+11	6.92e+10	4.23e-01
2p*3p*(1)-1s*2p*(1)	.33889	1.22e+15	6.91e+15	1.85e+11	9.83e+10	5.31e-01
2s*3p_(1)-1s*2s*(1)	.33920	7.77e+14	2.08e+15	4.73e+13	5.20e+13	1.10e+00
2s*3p_(0)-1s*2s*(1)	.33923	1.17e+15	1.72e+15	7.43e+12	5.04e+12	6.78e-01
2p_3s*(0)-1s*2s*(1)	.33935	1.30e+14	4.86e+15	1.79e+13	4.77e+11	2.67e-02
2p_3s*(1)-1s*2s*(1)	.33936	1.21e+14	4.47e+15	1.50e+12	1.22e+11	8.13e-02
2p*3p_(2)-1s*2p*(2)	.33958	7.00e+14	6.74e+15	5.78e+13	2.97e+13	5.15e-01
2p*3p_(1)-1s*2p*(2)	.33960	1.04e+15	6.76e+15	6.52e+11	3.01e+11	4.61e-01
2p_3p_(0)-1s*2p_(1)	.33965	8.33e+14	4.33e+15	1.10e+13	2.11e+12	1.92e-01

Z = 54

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p*3p_(2)-1s*2p*(1)	.33992	5.85e+14	6.74e+15	5.78e+13	2.49e+13	4.30e-01
2p*3p_(1)-1s*2p*(1)	.33994	2.60e+14	6.76e+15	6.52e+11	7.53e+10	1.16e-01
2s*3p_(1)-1s*2s*(0)	.34002	2.57e+14	2.08e+15	4.73e+13	1.72e+13	3.62e-01
2s*3s*(0)-1s*2p_(1)	.34003	4.40e+14	2.31e+15	1.81e+14	3.20e+13	1.77e-01
2p_3p_(1)-1s*2p_(1)	.34006	5.54e+14	4.58e+15	3.20e+11	1.17e+11	3.65e-01
2p_3p_(1)-1s*2p_(0)	.34012	3.81e+14	4.56e+15	3.20e+11	8.05e+10	2.51e-01
2s*3s*(1)-1s*2p_(1)	.34016	3.38e+14	2.08e+15	7.84e+11	3.86e+11	4.92e-01
2p_3s*(1)-1s*2s*(0)	.34018	1.58e+14	4.47e+15	1.50e+12	1.60e+11	1.06e-01
2s*3s*(1)-1s*2p_(0)	.34021	8.42e+13	2.08e+15	7.84e+11	9.61e+10	1.23e-01
2s*3d*(3)-1s*2p*(2)	.34107	1.61e+12	6.89e+12	2.00e+12	2.54e+12	1.27e+00
2s*3d*(2)-1s*2p*(1)	.34215	2.91e+12	1.54e+14	2.30e+12	2.15e+11	9.33e-02
2p_3p*(2)-1s*2p*(2)	.34248	1.79e+12	6.27e+15	4.71e+13	6.69e+10	1.42e-03
2s*3d_(2)-1s*2p*(1)	.34280	2.29e+12	3.22e+14	4.38e+12	1.54e+11	3.51e-02
2p_3p*(1)-1s*2p*(1)	.34276	4.19e+12	6.27e+15	1.64e+11	3.28e+08	2.00e-03
2p_3p_(1)-1s*2p*(2)	.34372	1.09e+12	4.56e+15	3.20e+11	2.30e+08	7.18e-04
2s*3s*(1)-1s*2p*(2)	.34382	1.65e+12	2.06e+15	7.84e+11	2.11e+09	2.69e-03
2s*3s*(0)-1s*2p*(1)	.34483	3.12e+12	2.31e+15	1.81e+14	2.27e+11	1.25e-03
2p_3p_(1)-1s*2p*(1)	.34486	2.04e+12	4.56e+15	3.20e+11	4.31e+08	1.34e-03
2p*4p_(2)-1s*3p_(1)	.37311	3.62e+11	5.97e+15	2.01e+13	6.07e+09	3.02e-04
2p*4p_(1)-1s*3p_(0)	.37314	2.28e+11	5.98e+15	3.41e+11	3.91e+07	1.14e-04
2p*4s*(1)-1s*3s*(0)	.37316	3.53e+11	5.46e+15	1.26e+13	2.43e+09	1.94e-04
2p*4p*(3)-1s*3p*(2)	.37388	9.09e+11	6.05e+15	3.04e+11	3.20e+08	1.05e-03
2p*4p*(1)-1s*3p*(1)	.37389	1.11e+12	6.04e+15	1.28e+11	6.94e+07	5.52e-04
2p*4d*(4)-1s*3d*(3)	.37614	4.37e+11	5.45e+15	2.29e+12	1.65e+09	7.21e-04
2s*4p*(1)-1s*3s*(0)	.37732	4.99e+11	1.24e+15	1.81e+13	2.16e+10	1.19e-03
2p_4p*(2)-1s*3p_(1)	.37739	3.18e+11	5.66e+15	2.00e+13	5.57e+09	2.78e-04
2p_4p*(1)-1s*3p_(0)	.37739	1.96e+11	5.67e+15	2.52e+10	2.62e+06	1.04e-04
2s*4p_(1)-1s*3s*(0)	.37794	1.62e+11	6.51e+14	1.59e+13	1.16e+10	7.30e-04
2s*4s*(1)-1s*3p_(0)	.37801	2.70e+11	1.67e+15	3.23e+11	1.57e+08	4.85e-04
2p_4p_(1)-1s*3p_(1)	.37804	6.74e+11	4.18e+15	3.38e+11	1.64e+08	4.85e-04
2p_4s*(1)-1s*3s*(0)	.37805	2.84e+11	5.12e+15	5.82e+12	6.34e+08	1.66e-04
2p_4p_(1)-1s*3p_(0)	.37806	2.36e+11	4.18e+15	3.38e+11	5.75e+07	1.70e-04
2s*4f_(3)-1s*3d_(2)	.37843	5.70e+11	1.29e+14	1.68e+11	5.20e+09	3.10e-02
2s*4f*(3)-1s*3d*(2)	.37877	4.35e+11	1.30e+13	2.22e+10	5.18e+09	2.33e-01
2p*3d*(1)-1s*3s*(1)	.39392	1.26e+12	5.47e+15	5.18e+11	3.59e+08	8.92e-04
2p*3d*(1)-1s*3s*(0)	.39420	1.85e+12	5.47e+15	5.18e+11	5.27e+08	1.02e-03
2p*3d*(2)-1s*3s*(1)	.39421	4.85e+12	5.46e+15	2.01e+11	8.94e+08	4.44e-03
2p*3d_(0)-1s*3s*(1)	.39454	1.30e+12	5.47e+15	4.35e+11	1.04e+08	2.38e-04
2p*3d_(1)-1s*3s*(1)	.39458	1.82e+12	5.47e+15	2.88e+11	2.56e+08	8.91e-04
2p*3d_(2)-1s*3s*(1)	.39460	5.41e+11	5.46e+15	1.22e+12	6.02e+08	4.95e-04
2p*3d_(1)-1s*3s*(0)	.39485	5.36e+11	5.47e+15	2.88e+11	8.47e+07	2.94e-04
2p*3p*(2)-1s*3p_(1)	.39496	4.18e+11	6.92e+15	5.66e+13	1.70e+10	2.99e-04
2p*3p*(1)-1s*3p_(1)	.39524	2.03e+13	6.91e+15	1.85e+11	1.63e+09	8.83e-03
2p*3p*(1)-1s*3p_(0)	.39528	4.24e+12	6.91e+15	1.85e+11	3.41e+08	1.84e-03
2p*4d*(1)-1s*4s*(1)	.39533	1.03e+12	5.48e+15	3.41e+11	1.92e+08	5.64e-04
2p*4d*(2)-1s*4s*(1)	.39543	2.64e+12	5.47e+15	1.17e+11	2.82e+08	2.41e-03
2p*4d*(1)-1s*4s*(0)	.39544	2.81e+12	5.48e+15	3.41e+11	3.75e+08	1.10e-03
2p*4d_(2)-1s*4s*(1)	.39563	4.41e+11	5.47e+15	6.16e+11	2.48e+08	4.04e-04
2p*4p*(0)-1s*4p_(1)	.39568	2.92e+12	6.14e+15	1.89e+13	8.03e+09	4.74e-04
2p*4d_(1)-1s*4s*(0)	.39570	3.34e+11	5.48e+15	1.66e+11	3.08e+07	1.83e-04
2p*3d*(1)-1s*3d_(2)	.39574	1.32e+13	5.47e+15	5.18e+11	3.77e+09	7.27e-03
2p*3d*(1)-1s*3d_(1)	.39576	1.98e+13	5.47e+15	5.18e+11	5.83e+09	1.09e-02
2p*4p*(1)-1s*4p_(1)	.39584	1.83e+13	6.04e+15	1.26e+11	1.01e+09	8.08e-03
2p*4p*(1)-1s*4p_(0)	.39584	3.75e+12	6.04e+15	1.26e+11	2.34e+08	1.86e-03
2p*3d*(3)-1s*3d_(2)	.39585	2.85e+14	5.46e+15	8.01e+12	3.29e+12	3.65e-01
2p*4f*(2)-1s*4p*(2)	.39595	7.58e+11	5.48e+15	1.21e+10	8.33e+06	6.91e-04
2p*4f*(3)-1s*4p*(2)	.39599	3.81e+11	5.47e+15	3.94e+09	1.92e+06	4.87e-04
2p*4f*(2)-1s*4p_(1)	.39600	1.17e+12	5.48e+15	1.21e+10	1.29e+07	1.07e-03
2p*3d*(2)-1s*3d_(2)	.39603	8.67e+13	5.48e+15	2.01e+11	1.60e+10	7.93e-02
2p*3d*(2)-1s*3d_(1)	.39605	7.19e+13	5.48e+15	2.01e+11	1.32e+10	6.58e-02
2p*4f_(2)-1s*4p*(2)	.39608	4.37e+11	5.48e+15	7.43e+09	2.96e+06	3.99e-04
2p*4d*(1)-1s*4d_(2)	.39609	3.98e+12	5.48e+15	3.41e+11	7.42e+08	2.18e-03
2p*4d*(1)-1s*4d_(1)	.39610	1.37e+13	5.48e+15	3.41e+11	2.56e+09	7.52e-03
2p*4f_(2)-1s*4p*(1)	.39613	4.51e+11	5.48e+15	7.43e+09	3.06e+06	4.12e-04
2p*4d*(3)-1s*4d_(2)	.39614	1.69e+14	5.46e+15	4.25e+12	1.03e+12	2.42e-01
2p*4d*(2)-1s*4d_(2)	.39618	4.99e+13	5.47e+15	1.17e+11	5.32e+09	4.56e-02
2p*4f*(2)-1s*4f_(3)	.39619	1.12e+12	5.48e+15	1.21e+10	1.24e+07	1.03e-03
2p*4d*(2)-1s*4d_(1)	.39620	4.25e+13	5.47e+15	1.17e+11	4.53e+09	3.88e-02
2p*4f*(2)-1s*4f_(2)	.39620	7.07e+12	5.48e+15	1.21e+10	7.78e+07	6.45e-03
2p*3d*(1)-1s*3d*(2)	.39622	5.43e+15	5.47e+15	5.18e+11	1.54e+12	2.98e+00
2p*4f*(4)-1s*4f_(3)	.39624	1.50e+14	5.46e+15	1.59e+11	3.93e+10	2.48e-01
2p*4f*(3)-1s*4f_(3)	.39624	9.73e+12	5.47e+15	3.94e+09	4.90e+07	1.24e-02
2p*4f*(3)-1s*4f_(2)	.39624	7.70e+12	5.47e+15	3.94e+09	3.88e+07	9.85e-03
2p*3p*(0)-1s*3p*(1)	.39628	5.54e+15	6.97e+15	3.88e+13	3.05e+13	7.90e-01
2p*4f*(2)-1s*4f*(3)	.39629	5.47e+15	5.48e+15	1.21e+10	6.02e+10	4.99e+00

Z = 54

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p+4f_(1)-1s+4f_(2)	.39630	5.48e+15	5.48e+15	3.03e+09	9.09e+09	3.00e+00
2p+4p+(1)-1s+4p+(2)	.39630	5.46e+15	5.48e+15	3.41e+11	1.02e+12	2.99e+00
2p+3d+(3)-1s+3d+(3)	.39631	2.75e+15	5.46e+15	9.01e+12	5.17e+13	3.52e+00
2p+(3/2)-1s+(1/2)	.39632	5.49e+15	5.49e+15	0.	0.	4.00e+00
2p+4f_(2)-1s+4f_(3)	.39632	1.24e+15	5.48e+15	7.43e+09	8.42e+09	1.13e+00
2p+4f_(4)-1s+4f_(3)	.39632	5.30e+15	5.45e+15	3.26e+11	2.85e+12	8.75e+00
2p+3d+(3)-1s+3d+(2)	.39633	2.42e+15	5.46e+15	9.01e+12	2.79e+13	3.10e+00
2p+4p+(0)-1s+4p+(1)	.39633	5.51e+15	6.14e+15	1.69e+13	1.51e+13	8.94e-01
2p+4d+(3)-1s+4d+(3)	.39633	2.89e+15	5.46e+15	4.25e+12	1.57e+13	3.70e+00
2p+4f_(2)-1s+4f_(2)	.39633	4.23e+15	5.48e+15	7.43e+09	2.87e+10	3.86e+00
2p+4f+(3)-1s+4f+(4)	.39633	1.39e+15	5.47e+15	3.94e+09	6.99e+09	1.78e+00
2p+4f+(5)-1s+4f+(4)	.39633	5.45e+15	5.45e+15	2.25e+11	2.48e+12	1.10e+01
2p+4f+(3)-1s+4f+(3)	.39633	4.07e+15	5.47e+15	3.94e+09	2.05e+10	5.20e+00
2p+4d+(3)-1s+4d+(2)	.39634	2.38e+15	5.46e+15	4.25e+12	1.50e+13	3.05e+00
2p+4f+(4)-1s+4f+(4)	.39634	3.08e+15	5.46e+15	1.59e+11	8.07e+11	5.08e+00
2p+4f+(4)-1s+4f+(3)	.39634	2.23e+15	5.46e+15	1.59e+11	5.83e+11	3.67e+00
2p+4d_(0)-1s+4d_(1)	.39635	5.48e+15	5.48e+15	2.54e+11	2.54e+11	1.00e+00
2p+4f_(3)-1s+4f_(3)	.39635	3.02e+15	5.46e+15	6.20e+10	2.40e+11	3.86e+00
2p+4f_(3)-1s+4f_(2)	.39635	2.43e+15	5.46e+15	6.20e+10	1.93e+11	3.11e+00
2p+4d_(1)-1s+4d_(2)	.39636	9.28e+14	5.48e+15	1.68e+11	8.57e+10	5.08e-01
2p+4d_(1)-1s+4d_(1)	.39636	4.53e+15	5.48e+15	1.68e+11	4.18e+11	2.48e+00
2p+4s+(1)-1s+4s+(1)	.39637	1.80e+15	5.46e+15	1.26e+13	1.24e+13	9.87e-01
2p+4p+(2)-1s+4p+(2)	.39637	2.72e+15	6.08e+15	2.07e+13	4.60e+13	2.23e+00
2p+4d_(3)-1s+4d_(2)	.39637	5.26e+15	5.45e+15	4.81e+12	3.25e+13	6.75e+00
2p+3d_(1)-1s+3d_(2)	.39639	9.47e+14	5.47e+15	2.88e+11	1.50e+11	5.20e-01
2p+3d_(0)-1s+3d_(1)	.39639	5.46e+15	5.47e+15	4.35e+11	4.35e+11	1.00e+00
2p+4d+(2)-1s+4d+(3)	.39639	1.22e+15	5.47e+15	1.17e+11	1.30e+11	1.11e+00
2p+4s+(2)-1s+4s+(1)	.39640	5.47e+15	5.47e+15	7.07e+11	3.53e+12	5.00e+00
2p+4d_(2)-1s+4d_(2)	.39640	2.69e+15	5.47e+15	6.16e+11	1.52e+12	2.46e+00
2p+4d+(2)-1s+4d+(2)	.39640	4.16e+15	5.47e+15	1.17e+11	4.43e+11	3.80e+00
2p+3d_(1)-1s+3d_(1)	.39641	4.49e+15	5.47e+15	2.88e+11	7.09e+11	2.46e+00
2p+4d_(2)-1s+4d_(1)	.39641	2.06e+15	5.47e+15	6.16e+11	1.51e+12	2.45e+00
2p+4f_(4)-1s+4f+(4)	.39641	8.75e+13	5.45e+15	3.26e+11	4.70e+10	1.44e-01
2p+3p+(2)-1s+3p+(2)	.39642	2.69e+15	6.02e+15	5.66e+13	1.09e+14	1.93e+00
2p+4p+(2)-1s+4p+(1)	.39642	2.76e+15	6.08e+15	2.07e+13	4.67e+13	2.26e+00
2p+4f_(2)-1s+4f+(3)	.39642	7.79e+12	5.48e+15	7.43e+09	5.29e+07	7.12e-03
2p+4f_(4)-1s+4f+(3)	.39642	8.38e+13	5.45e+15	3.26e+11	3.43e+10	1.05e-01
2p+4d+(4)-1s+4d+(3)	.39643	5.45e+15	5.45e+15	2.29e+12	2.08e+13	9.00e+00
2p+3s+(1)-1s+3s+(1)	.39643	1.74e+15	5.44e+15	3.78e+13	3.60e+13	9.51e-01
2p+3d_(3)-1s+3d_(2)	.39644	5.15e+15	5.45e+15	8.98e+12	5.93e+13	6.61e+00
2p+4p_(2)-1s+4p_(1)	.39644	5.45e+15	5.97e+15	2.01e+13	9.16e+13	4.55e+00
2p+4f_(3)-1s+4f+(4)	.39644	4.14e+12	5.46e+15	6.20e+10	3.29e+08	5.31e-03
2p+4p_(1)-1s+4p_(1)	.39645	1.81e+15	5.98e+15	3.41e+11	3.10e+11	9.09e-01
2p+4p+(1)-1s+4p+(2)	.39645	9.23e+14	6.04e+15	1.26e+11	5.78e+10	4.58e-01
2p+4f_(3)-1s+4f+(3)	.39645	1.30e+13	5.46e+15	6.20e+10	1.03e+09	1.66e-02
2p+4p_(1)-1s+4p_(0)	.39646	3.64e+15	5.98e+15	3.41e+11	6.24e+11	1.83e+00
2p+4p+(3)-1s+4p+(2)	.39646	5.45e+15	8.05e+15	3.04e+11	1.92e+12	6.30e+00
2p+3d+(2)-1s+3d+(3)	.39649	1.23e+15	5.46e+15	2.01e+11	2.27e+11	1.13e+00
2p+4s+(1)-1s+4s+(0)	.39649	3.85e+15	5.46e+15	1.26e+13	2.52e+13	2.00e+00
2p+4p+(1)-1s+4p+(1)	.39650	4.51e+15	6.04e+15	1.26e+11	2.81e+11	2.24e+00
2p+3d+(2)-1s+3d+(2)	.39651	4.07e+15	5.46e+15	2.01e+11	7.49e+11	3.72e+00
2p+3d_(2)-1s+3d_(2)	.39652	2.67e+15	5.46e+15	1.22e+12	2.97e+12	2.45e+00
2p+3s+(2)-1s+3s+(1)	.39653	5.44e+15	5.45e+15	2.23e+12	1.11e+13	4.99e+00
2p+3d_(2)-1s+3d_(1)	.39654	2.83e+15	5.46e+15	1.22e+12	2.93e+12	2.41e+00
2p+3p+(2)-1s+3p+(1)	.39655	2.82e+15	6.02e+15	5.66e+13	1.14e+14	2.02e+00
2p+4d_(3)-1s+4d+(3)	.39656	1.22e+14	5.45e+15	4.81e+12	7.56e+11	1.57e-01
2p+4d_(1)-1s+4d+(2)	.39656	1.77e+13	5.46e+15	1.68e+11	1.63e+09	9.67e-03
2p+4d_(3)-1s+4d+(2)	.39657	6.08e+13	5.45e+15	4.81e+12	4.31e+11	8.95e-02
2p+4d_(2)-1s+4d+(3)	.39658	2.10e+13	5.47e+15	6.16e+11	1.16e+10	1.92e-02
2p+4d_(2)-1s+4d+(2)	.39660	7.05e+13	5.47e+15	6.16e+11	3.97e+10	6.44e-02
2p+4p+(2)-1s+4f_(2)	.39662	6.71e+11	6.08e+15	2.07e+13	1.14e+10	5.51e-04
2p+3p_(2)-1s+3p_(1)	.39663	5.42e+15	6.74e+15	5.78e+13	2.30e+14	3.99e+00
2p+3d+(4)-1s+3d+(3)	.39663	5.44e+15	5.44e+15	4.54e+12	4.08e+13	8.99e+00
2s+2p+(1)-1s+2s+(1)	.39665	1.36e+15	5.41e+15	1.75e+14	1.28e+14	7.32e-01
2p+3p_(1)-1s+3p_(1)	.39666	1.81e+15	6.76e+15	6.52e+11	5.22e+11	8.01e-01
2p+3p_(1)-1s+3p_(0)	.39668	3.63e+15	6.76e+15	6.52e+11	1.05e+12	1.61e+00
2p+3p+(1)-1s+3p+(2)	.39670	9.37e+14	6.91e+15	1.85e+11	7.54e+10	4.07e-01
2p+3p+(3)-1s+3p+(2)	.39671	5.41e+15	6.91e+15	5.24e+11	2.87e+12	5.47e+00
2p+4p+(2)-1s+4f+(3)	.39671	2.00e+12	6.08e+15	2.07e+13	3.38e+10	1.64e-03
2p+3s+(1)-1s+3s+(0)	.39672	3.69e+15	5.44e+15	3.78e+13	7.64e+13	2.02e+00
2p+3p+(1)-1s+3p+(1)	.39683	4.43e+15	6.91e+15	1.85e+11	3.56e+11	1.92e+00
2p+3d_(1)-1s+3d+(2)	.39687	3.02e+13	5.47e+15	2.88e+11	4.78e+09	1.66e-02
2p+3d_(3)-1s+3d+(3)	.39690	2.14e+14	5.45e+15	8.98e+12	2.46e+12	2.74e-01
2p+3d_(3)-1s+3d+(2)	.39692	8.37e+13	5.45e+15	8.98e+12	9.64e+11	1.07e-01
2p+3d_(2)-1s+3d+(3)	.39698	4.26e+13	5.46e+15	1.22e+12	4.74e+10	3.90e-02

Z = 54

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2p+3d_(2)-1s+3d+(2)	.39700	1.16e+14	5.46e+15	1.22e+12	1.29e+11	1.06e-01
2p+4p_(2)-1s+4p+(2)	.39706	5.16e+12	5.97e+15	2.01e+13	8.67e+10	4.30e-03
2p+4p_(1)-1s+4p+(2)	.39707	2.06e+12	5.98e+15	3.41e+11	3.56e+08	1.04e-03
2p+4p_(2)-1s+4p+(1)	.39711	2.64e+12	5.97e+15	2.01e+13	4.43e+10	2.20e-03
2p+4p_(1)-1s+4p+(1)	.39712	1.30e+13	5.98e+15	3.41e+11	2.22e+09	6.50e-03
2p+4s+(1)-1s+4d_(1)	.39715	4.67e+11	5.46e+15	1.26e+13	3.22e+09	2.56e-04
2p+4s+(2)-1s+4d_(1)	.39718	5.29e+11	5.47e+15	7.07e+11	3.42e+08	4.83e-04
2p+2p+(0)-1s+2p+(1)	.39718	1.07e+16	1.07e+16	6.73e+13	6.69e+13	9.94e-01
2p+4s+(1)-1s+4d+(2)	.39735	3.73e+12	5.46e+15	1.26e+13	2.57e+10	2.04e-03
2p+2p+(2)-1s+2p+(2)	.39738	5.14e+15	1.08e+16	1.22e+14	2.87e+14	2.35e+00
2p+4s+(2)-1s+4d+(2)	.39738	2.43e+12	5.47e+15	7.07e+11	1.57e+09	2.22e-03
2s+2p+(2)-1s+2s+(1)	.39748	5.42e+15	5.42e+15	2.15e+13	1.07e+14	4.98e+00
2p_2p+(2)-1s+2p_(1)	.39769	5.09e+15	1.06e+16	2.32e+14	5.45e+14	2.35e+00
2s+2p+(1)-1s+2s+(0)	.39777	4.04e+15	5.41e+15	1.75e+14	3.79e+14	2.17e+00
2p+2p+(2)-1s+2p+(1)	.39784	5.66e+15	1.08e+16	1.22e+14	3.17e+14	2.59e+00
2p_2p+(1)-1s+2p_(1)	.39790	1.90e+15	1.06e+16	4.06e+11	2.18e+11	5.37e-01
2p_2p+(1)-1s+2p_(0)	.39790	3.60e+15	1.06e+16	4.06e+11	4.12e+11	1.02e+00
2p+3p_(2)-1s+3p+(2)	.39810	2.02e+13	6.74e+15	5.78e+13	8.57e+11	1.48e-02
2p+3p_(1)-1s+3p+(2)	.39813	9.68e+12	6.76e+15	6.52e+11	2.86e+09	4.38e-03
2p+3p_(2)-1s+3p+(1)	.39823	1.10e+13	6.74e+15	5.78e+13	4.67e+11	8.09e-03
2p+3p_(1)-1s+3p+(1)	.39826	1.02e+13	6.76e+15	6.52e+11	2.98e+09	4.54e-03
2p+3s+(1)-1s+3d_(1)	.39830	1.58e+12	5.44e+15	3.78e+13	3.26e+10	8.64e-04
2p+3s+(2)-1s+3d_(2)	.39838	5.43e+11	5.45e+15	2.23e+12	1.11e+09	4.98e-04
2p+3s+(2)-1s+3d_(1)	.39840	1.16e+12	5.45e+15	2.23e+12	2.36e+09	1.06e-03
2p+3s+(1)-1s+3d+(2)	.39878	5.51e+12	5.44e+15	3.78e+13	1.14e+11	3.02e-03
2p+3s+(2)-1s+3d+(2)	.39886	7.92e+12	5.45e+15	2.23e+12	1.62e+10	7.26e-03
2p_3d+(2)-1s+3s+(1)	.39953	4.12e+12	5.14e+15	1.07e+11	4.31e+08	4.01e-03
2s+3d+(2)-1s+3p_(1)	.39968	4.79e+12	1.54e+14	2.30e+12	3.54e+11	1.54e-01
2p_3d_(1)-1s+3s+(0)	.40020	1.27e+12	5.20e+15	2.83e+11	2.08e+08	7.34e-04
2p_3d_(2)-1s+3s+(1)	.40020	4.85e+11	4.98e+15	4.01e+12	1.96e+09	4.88e-04
2s+3p+(1)-1s+3s+(1)	.40028	9.63e+13	1.59e+15	4.55e+13	8.19e+12	1.80e-01
2s+3d_(2)-1s+3p_(1)	.40029	3.54e+12	3.22e+14	4.38e+12	2.38e+11	5.43e-02
2s+3p+(2)-1s+3s+(1)	.40038	1.34e+12	1.90e+15	7.31e+12	2.57e+10	3.52e-03
2s+3d_(1)-1s+3p_(1)	.40034	1.91e+13	4.31e+14	2.58e+12	3.41e+11	1.32e-01
2s+3d_(1)-1s+3p_(0)	.40036	4.60e+12	4.31e+14	2.58e+12	8.23e+10	3.18e-02
2s+3p+(1)-1s+3s+(0)	.40049	2.20e+12	1.59e+15	4.55e+13	1.83e+11	4.03e-03
2p_3p+(1)-1s+3p_(1)	.40054	6.35e+11	6.27e+15	1.64e+11	6.53e+07	3.99e-04
2p_3p+(2)-1s+3p_(1)	.40056	2.62e+13	6.27e+15	4.71e+13	9.78e+11	2.07e-02
2p_4d+(2)-1s+4s+(1)	.40083	3.34e+11	4.98e+15	5.56e+10	1.86e+07	3.35e-04
2s+4d+(2)-1s+4p_(1)	.40086	5.35e+11	1.76e+14	1.50e+12	2.27e+10	1.51e-02
2p_4d_(1)-1s+4s+(1)	.40102	1.37e+12	4.67e+15	1.88e+12	1.66e+09	8.81e-04
2s+4p+(1)-1s+4s+(1)	.40107	5.93e+13	1.24e+15	1.81e+13	2.57e+12	1.42e-01
2s+4p+(2)-1s+4s+(1)	.40110	5.78e+11	1.81e+15	2.59e+12	3.92e+09	1.51e-03
2s+4d_(2)-1s+4p_(1)	.40111	5.84e+11	1.15e+14	1.16e+12	2.93e+10	2.52e-02
2s+4d_(1)-1s+4p_(1)	.40112	1.85e+13	1.56e+14	1.36e+12	4.79e+11	3.51e-01
2s+4d_(1)-1s+4p_(0)	.40113	6.48e+12	1.56e+14	1.36e+12	1.88e+11	1.23e-01
2s+3d+(2)-1s+3p+(2)	.40117	7.48e+13	1.54e+14	2.30e+12	5.53e+12	2.40e+00
2s+4p+(1)-1s+4s+(0)	.40119	1.81e+13	1.24e+15	1.81e+13	6.98e+11	3.85e-02
2p_4p+(2)-1s+4p_(1)	.40127	8.91e+12	5.66e+15	2.00e+13	1.22e+11	6.08e-03
2p_4p+(1)-1s+4p_(0)	.40127	2.96e+11	5.67e+15	2.52e+10	3.95e+06	1.57e-04
2s+3d+(2)-1s+3p+(1)	.40131	4.28e+13	1.54e+14	2.30e+12	3.16e+12	1.37e+00
2s+3d+(3)-1s+3p+(2)	.40138	5.28e+12	8.89e+12	2.00e+12	8.30e+12	4.16e+00
2p_3d+(2)-1s+3d_(2)	.40143	4.88e+11	5.14e+15	1.07e+11	5.02e+07	4.67e-04
2p_3d+(3)-1s+3d_(2)	.40143	1.03e+13	5.26e+15	8.73e+12	1.10e+11	1.36e-02
2s+4d+(2)-1s+4p+(2)	.40150	6.70e+13	1.76e+14	1.50e+12	2.84e+12	1.88e+00
2s+4f_(2)-1s+4d_(2)	.40152	1.63e+13	4.28e+13	6.39e+10	1.21e+11	1.90e+00
2s+4f_(2)-1s+4d_(1)	.40153	1.48e+13	4.28e+13	6.39e+10	1.04e+11	1.63e+00
2s+4d+(2)-1s+4p+(1)	.40155	5.37e+13	1.76e+14	1.50e+12	2.27e+12	1.51e+00
2s+4d+(3)-1s+4p+(2)	.40157	7.10e+11	1.15e+15	8.31e+11	3.58e+09	4.31e-03
2s+4f+(3)-1s+4d+(3)	.40161	5.70e+12	1.30e+13	2.22e+10	6.79e+10	3.06e+00
2s+4f+(3)-1s+4d+(2)	.40162	6.88e+12	1.30e+13	2.22e+10	8.19e+10	3.69e+00
2p_4d+(2)-1s+4d_(2)	.40164	8.81e+11	4.98e+15	5.56e+10	3.86e+07	6.83e-04
2p_4d+(3)-1s+4d_(2)	.40165	1.52e+12	5.12e+15	4.81e+12	9.58e+09	2.08e-03
2p_4d+(2)-1s+4d_(1)	.40165	7.66e+11	4.98e+15	5.56e+10	4.27e+07	7.69e-04
2p_3p_(0)-1s+3p_(1)	.40170	3.49e+15	4.33e+15	1.10e+13	8.85e+12	8.05e-01
2s+4f_(2)-1s+4d+(3)	.40172	1.01e+13	4.28e+13	6.39e+10	7.50e+10	1.17e+00
2s+4f_(3)-1s+4d+(3)	.40172	5.86e+13	1.29e+14	1.68e+11	5.35e+11	3.19e+00
2s+4f_(3)-1s+4d+(2)	.40172	6.94e+13	1.29e+14	1.68e+11	6.33e+11	3.77e+00
2s+4f_(2)-1s+4d+(2)	.40173	2.50e+12	4.28e+13	6.39e+10	1.86e+10	2.91e-01
2s+4d_(2)-1s+4p+(2)	.40174	3.34e+13	1.15e+14	1.16e+12	1.68e+12	1.44e+00
2s+4d+(2)-1s+4f_(3)	.40174	3.26e+13	1.76e+14	1.50e+12	1.38e+12	9.17e-01
2s+4p_(0)-1s+4s+(1)	.40175	5.38e+14	9.96e+14	3.20e+12	1.72e+12	5.39e-01
2p_4p_(0)-1s+4p_(1)	.40175	2.68e+15	2.96e+15	9.67e+12	8.74e+12	9.04e-01
2s+4d+(2)-1s+4f_(2)	.40175	1.03e+13	1.76e+14	1.50e+12	4.38e+11	2.91e-01
2s+4p_(1)-1s+4s+(1)	.40176	8.99e+13	6.51e+14	1.59e+13	6.42e+12	4.05e-01

Z = 54

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*4d_(1)-1s*4p*(2)	.40176	9.98e+13	1.58e+14	1.36e+12	2.58e+12	1.90e+00
2s*3d_(2)-1s*3p*(2)	.40179	1.18e+14	3.22e+14	4.38e+12	7.79e+12	1.78e+00
2p_3d_(1)-1s*3d_(2)	.40179	4.28e+15	5.20e+15	2.83e+11	6.97e+11	2.46e+00
2s*4d_(2)-1s*4p*(1)	.40180	3.81e+13	1.15e+14	1.16e+12	1.91e+12	1.65e+00
2p_3d_(1)-1s*3d_(1)	.40181	9.10e+14	5.20e+15	7.83e+11	1.49e+11	5.25e-01
2p_4d_(1)-1s*4d_(2)	.40181	3.82e+15	4.67e+15	1.88e+12	4.62e+12	2.45e+00
2p_4d_(1)-1s*4d_(1)	.40181	7.79e+14	4.67e+15	1.88e+12	9.42e+11	5.00e-01
2s*4d_(1)-1s*4p*(1)	.40181	1.67e+13	1.58e+14	1.36e+12	4.33e+11	3.18e-01
2p_4f_(2)-1s*4f_(3)	.40181	4.03e+15	5.21e+15	9.29e+09	3.59e+10	3.87e+00
2p_4f_(2)-1s*4f_(2)	.40181	1.18e+15	5.21e+15	9.29e+09	1.05e+10	1.13e+00
2p_ (1/2)-1s* (1/2)	.40181	5.30e+15	5.30e+15	0.	0.	2.00e+00
2p_4f*(4)-1s*4f*(4)	.40181	2.22e+15	5.26e+15	2.57e+11	9.73e+11	3.79e+00
2p_4f*(3)-1s*4f*(4)	.40181	3.75e+15	5.03e+15	3.50e+10	1.83e+11	5.22e+00
2p_4f*(3)-1s*4f*(3)	.40181	1.28e+15	5.03e+15	3.50e+10	6.23e+10	1.78e+00
2p_4f_(3)-1s*4f_(3)	.40182	1.94e+15	4.37e+15	3.43e+11	1.07e+12	3.11e+00
2s*4d*(3)-1s*4f_(3)	.40182	4.17e+14	1.15e+15	8.31e+11	2.10e+12	2.53e+00
2s*4d*(3)-1s*4f_(2)	.40182	5.19e+14	1.15e+15	8.31e+11	2.62e+12	3.15e+00
2s*3p_(1)-1s*3s*(1)	.40182	7.84e+14	2.08e+15	4.73e+13	5.11e+13	1.08e+00
2p_4f*(4)-1s*4f*(3)	.40182	3.05e+15	5.26e+15	2.57e+11	1.34e+12	5.21e+00
2p_4f_(3)-1s*4f_(2)	.40183	2.39e+15	4.37e+15	3.43e+11	1.32e+12	3.83e+00
2p_4d*(2)-1s*4d*(3)	.40184	3.82e+15	4.98e+15	5.56e+10	2.13e+11	3.83e+00
2s*3d_(1)-1s*3p*(2)	.40184	2.69e+14	4.31e+14	2.58e+12	4.81e+12	1.86e+00
2s*3p_(0)-1s*3s*(1)	.40185	5.40e+14	1.72e+15	7.43e+12	2.33e+12	3.13e-01
2p_4d*(3)-1s*4d*(3)	.40185	2.31e+15	5.12e+15	4.61e+12	1.45e+13	3.15e+00
2p_4d*(2)-1s*4d*(2)	.40185	1.13e+15	4.98e+15	5.56e+10	6.29e+10	1.13e+00
2s*4p*(1)-1s*4d_(2)	.40186	5.26e+14	1.24e+15	1.81e+13	2.28e+13	1.26e+00
2p_4d*(3)-1s*4d*(2)	.40186	2.81e+15	5.12e+15	4.61e+12	1.77e+13	3.84e+00
2s*4d*(1)-1s*4d_(1)	.40187	1.14e+14	1.24e+15	1.81e+13	4.95e+12	2.74e-01
2s*4p_(1)-1s*4s*(0)	.40188	2.65e+13	6.51e+14	1.58e+13	1.89e+12	1.19e-01
2p_4s*(1)-1s*4s*(1)	.40189	3.39e+15	5.12e+15	3.82e+12	7.59e+12	1.99e+00
2p_4p*(1)-1s*4p*(2)	.40189	4.22e+15	5.67e+15	2.52e+10	5.63e+10	2.23e+00
2s*4d*(2)-1s*4d_(2)	.40189	5.99e+14	1.91e+15	2.59e+12	4.06e+12	1.57e+00
2p_3d*(2)-1s*3d*(3)	.40190	3.88e+15	5.14e+15	1.07e+11	4.06e+11	3.78e+00
2p_3d*(3)-1s*3d*(3)	.40190	2.41e+15	5.26e+15	8.73e+12	2.80e+13	3.20e+00
2p_4s*(0)-1s*4s*(1)	.40190	4.75e+15	4.80e+15	6.43e+12	6.35e+12	9.88e-01
2p_4p*(2)-1s*4p*(2)	.40190	2.58e+15	5.66e+15	2.00e+13	4.51e+13	2.25e+00
2s*4p*(2)-1s*4d_(1)	.40190	6.23e+14	1.91e+15	2.59e+12	4.23e+12	1.63e+00
2s*4d*(3)-1s*4f*(4)	.40191	1.85e+14	1.15e+15	8.31e+11	8.32e+11	1.00e+00
2p_3d*(2)-1s*3d*(2)	.40192	1.28e+15	5.14e+15	1.07e+11	1.26e+11	1.17e+00
2p_3d*(3)-1s*3d*(2)	.40192	2.84e+15	5.26e+15	8.73e+12	3.29e+13	3.77e+00
2p_4d_(2)-1s*4d_(2)	.40192	2.01e+15	4.20e+15	2.36e+12	5.65e+12	2.38e+00
2s*3d_(2)-1s*3p*(1)	.40192	1.31e+14	3.22e+14	4.38e+12	8.77e+12	2.00e+00
2p_4f_(3)-1s*4f*(4)	.40192	2.88e+13	4.37e+15	3.43e+11	1.58e+10	4.62e-02
2p_4f_(3)-1s*4f*(3)	.40192	9.15e+12	4.37e+15	3.43e+11	5.04e+09	1.47e-02
2s*4d*(3)-1s*4f*(3)	.40192	5.16e+13	1.15e+15	8.31e+11	2.60e+11	3.13e-01
2p_4d_(2)-1s*4d_(1)	.40193	2.00e+15	4.20e+15	2.36e+12	5.60e+12	2.37e+00
2s*4s*(1)-1s*4p_(1)	.40195	9.43e+14	1.67e+15	3.23e+11	5.40e+11	1.69e+00
2p_4p*(1)-1s*4p*(1)	.40195	8.73e+14	5.67e+15	2.52e+10	1.16e+10	4.62e-01
2s*4s*(1)-1s*4p_(0)	.40196	5.23e+14	1.67e+15	3.23e+11	3.04e+11	9.40e-01
2p_4p*(2)-1s*4p*(1)	.40196	2.51e+15	5.66e+15	2.00e+13	4.43e+13	2.21e+00
2s*4s*(0)-1s*4p_(1)	.40197	2.62e+15	2.69e+15	6.35e+13	5.64e+13	8.88e-01
2s*3d_(1)-1s*3p*(1)	.40197	4.57e+13	4.31e+14	2.58e+12	8.16e+11	3.16e-01
2s*4d_(2)-1s*4f_(3)	.40199	2.76e+13	1.15e+14	1.16e+12	1.38e+12	1.19e+00
2s*4d_(2)-1s*4f_(2)	.40200	6.49e+12	1.15e+14	1.16e+12	3.26e+11	2.80e-01
2p_4p_(1)-1s*4p_(1)	.40201	2.54e+15	4.16e+15	3.38e+11	6.19e+11	1.83e+00
2p_4s*(1)-1s*4s*(0)	.40201	1.70e+15	5.12e+15	3.82e+12	3.79e+12	9.93e-01
2p_4p_(1)-1s*4p_(0)	.40202	1.22e+15	4.16e+15	3.38e+11	2.98e+11	8.81e-01
2p_3s*(0)-1s*3s*(1)	.40203	4.73e+15	4.86e+15	1.79e+13	1.74e+13	9.70e-01
2p_3p*(1)-1s*3p*(2)	.40204	4.03e+15	6.27e+15	1.64e+11	3.15e+11	1.93e+00
2p_3s*(1)-1s*3s*(1)	.40205	2.73e+15	4.47e+15	1.50e+12	2.75e+12	1.83e+00
2p_3p*(2)-1s*3p*(2)	.40206	2.49e+15	6.27e+15	4.71e+13	9.30e+13	1.97e+00
2s*4p*(1)-1s*4d*(2)	.40207	9.90e+11	1.24e+15	1.81e+13	4.29e+10	2.37e-03
2s*3p*(1)-1s*3d_(2)	.40208	5.55e+13	1.59e+15	4.55e+13	4.62e+12	1.02e-01
2p_3d_(2)-1s*3d_(2)	.40209	2.38e+15	4.96e+15	4.01e+12	9.60e+12	2.39e+00
2s*4p*(2)-1s*4d*(3)	.40209	2.12e+14	1.91e+15	2.59e+12	1.44e+12	5.56e-01
2s*3p*(1)-1s*3d_(1)	.40210	1.83e+13	1.59e+15	4.55e+13	1.52e+12	3.35e-02
2s*4p*(2)-1s*4d*(2)	.40210	4.76e+13	1.91e+15	2.59e+12	3.23e+11	1.25e-01
2p_3d_(2)-1s*3d_(1)	.40211	2.45e+15	4.96e+15	4.01e+12	9.89e+12	2.47e+00
2s*3p_(1)-1s*3s*(0)	.40211	2.64e+14	2.08e+15	4.73e+13	1.76e+13	3.72e-01
2p_4d_(2)-1s*4d*(3)	.40212	4.86e+13	4.20e+15	2.36e+12	1.37e+11	5.80e-02
2p_4d_(2)-1s*4d*(2)	.40213	1.38e+13	4.20e+15	2.36e+12	3.86e+10	1.65e-02
2p_3p*(1)-1s*3p*(1)	.40217	8.76e+14	6.27e+15	1.64e+11	6.85e+10	4.19e-01
2s*3p*(2)-1s*3d_(2)	.40219	2.30e+14	1.90e+15	7.31e+12	4.41e+12	6.03e-01
2p_3p*(2)-1s*3p*(1)	.40219	2.38e+15	6.27e+15	4.71e+13	8.89e+13	1.89e+00
2s*3p*(2)-1s*3d_(1)	.40221	1.98e+14	1.90e+15	7.31e+12	3.80e+12	5.21e-01

Z = 54

TRANSITION	LAMBDA	A(if)	A(tot)	AUGER	Qd	g#
2s*3s*(0)-1s*3p_(1)	.40224	1.85e+15	2.31e+15	1.81e+14	1.35e+14	7.44e-01
2p_3d_(1)-1s*3d*(2)	.40228	2.88e+12	5.20e+15	2.83e+11	4.88e+08	1.65e-03
2p_3p_(1)-1s*3p_(1)	.40228	2.31e+15	4.56e+15	3.20e+11	4.87e+11	1.52e+00
2p_3p_(1)-1s*3p_(0)	.40230	1.28e+15	4.56e+15	3.20e+11	2.71e+11	8.46e-01
2p_3s*(1)-1s*3s*(0)	.40234	1.44e+15	4.47e+15	1.50e+12	1.45e+12	9.66e-01
2s*3s*(1)-1s*3p_(1)	.40242	1.14e+15	2.06e+15	7.84e+11	1.30e+12	1.66e+00
2s*3s*(1)-1s*3p_(0)	.40244	4.52e+14	2.06e+15	7.84e+11	5.18e+11	6.58e-01
2s*4p_(0)-1s*4d_(1)	.40255	1.97e+12	9.96e+14	3.20e+12	6.31e+09	1.98e-03
2s*4p_(1)-1s*4d_(2)	.40256	3.53e+13	6.51e+14	1.59e+13	2.52e+12	1.59e-01
2s*4p_(1)-1s*4d_(1)	.40256	2.93e+12	6.51e+14	1.59e+13	2.09e+11	1.32e-02
2p_3d_(2)-1s*3d*(3)	.40256	1.90e+13	4.96e+15	4.01e+12	7.69e+10	1.92e-02
2s*3p*(1)-1s*3d*(2)	.40257	5.09e+12	1.59e+15	4.55e+13	4.24e+11	9.32e-03
2s*4s*(1)-1s*4p*(2)	.40258	5.20e+13	1.67e+15	3.23e+11	3.02e+10	9.35e-02
2s*2p_(1)-1s*2s*(1)	.40258	3.94e+15	5.24e+15	1.04e+14	2.31e+14	2.21e+00
2p_3d_(2)-1s*3d*(2)	.40258	1.67e+12	4.96e+15	4.01e+12	6.72e+09	1.68e-03
2s*4s*(1)-1s*4p*(1)	.40264	9.89e+11	1.67e+15	3.23e+11	5.75e+08	1.78e-03
2p_4p_(1)-1s*4p*(2)	.40265	1.57e+13	4.16e+15	3.38e+11	3.83e+09	1.13e-02
2s*3p*(2)-1s*3d*(3)	.40266	1.46e+14	1.90e+15	7.31e+12	2.79e+12	3.82e-01
2s*4s*(0)-1s*4p*(1)	.40266	7.47e+12	2.89e+15	6.35e+13	1.61e+11	2.53e-03
2p_2p_(0)-1s*2p_(1)	.40267	7.58e+15	7.60e+15	1.39e+13	1.38e+13	9.95e-01
2p_4s*(1)-1s*4d_(2)	.40268	8.37e+12	5.12e+15	3.82e+12	1.87e+10	4.90e-03
2s*3p*(2)-1s*3d*(2)	.40268	2.55e+13	1.90e+15	7.31e+12	4.88e+11	6.68e-02
2p_4s*(1)-1s*4d_(1)	.40269	7.41e+11	5.12e+15	3.82e+12	1.66e+09	4.34e-04
2p_4p_(1)-1s*4p*(1)	.40270	9.70e+12	4.16e+15	3.38e+11	2.36e+09	6.99e-03
2p_2p*(2)-1s*2p*(2)	.40271	2.89e+15	1.06e+16	2.32e+14	3.10e+14	1.34e+00
2s*2p_(0)-1s*2s*(1)	.40289	5.24e+15	5.24e+15	4.86e+13	4.82e+13	9.91e-01
2p_2p*(1)-1s*2p*(2)	.40292	4.35e+15	1.06e+16	4.06e+11	6.99e+11	1.23e+00
2p_2p*(2)-1s*2p*(1)	.40317	2.81e+15	1.06e+16	2.32e+14	2.80e+14	1.21e+00
2p_3p_(0)-1s*3p*(1)	.40335	2.79e+12	4.33e+15	1.10e+13	7.07e+09	6.43e-04
2p_2p*(1)-1s*2p*(1)	.40339	7.72e+14	1.06e+16	4.06e+11	8.84e+10	2.18e-01
2s*3p_(1)-1s*3d_(2)	.40372	1.54e+13	2.08e+15	4.73e+13	1.03e+12	2.17e-02
2s*2p_(1)-1s*2s*(0)	.40374	1.30e+15	5.24e+15	1.04e+14	7.81e+13	7.29e-01
2s*3p_(0)-1s*3d_(1)	.40377	7.89e+12	1.72e+15	7.43e+12	3.40e+10	4.57e-03
2p_3p_(1)-1s*3p*(2)	.40380	2.07e+13	4.56e+15	3.20e+11	4.38e+09	1.37e-02
2s*3s*(0)-1s*3p*(1)	.40389	1.23e+13	2.31e+15	1.81e+14	8.93e+11	4.93e-03
2s*2s*(0)-1s*2p_(1)	.40391	2.86e+15	2.90e+15	4.01e+14	3.46e+14	8.67e-01
2s*3s*(1)-1s*3p*(2)	.40393	3.69e+13	2.06e+15	7.84e+11	4.21e+10	5.37e-02
2p_3p_(1)-1s*3p*(1)	.40393	2.01e+12	4.56e+15	3.20e+11	4.24e+08	1.32e-03
2p_3s*(1)-1s*3d_(2)	.40395	2.44e+13	4.47e+15	1.50e+12	2.48e+10	1.64e-02
2s*3s*(1)-1s*3p*(1)	.40407	4.57e+12	2.06e+15	7.84e+11	5.21e+09	6.65e-03
2p_2p_(0)-1s*2p*(1)	.40828	2.26e+13	7.60e+15	1.39e+13	4.13e+10	2.97e-03
2s*2s*(0)-1s*2p*(1)	.40956	3.89e+13	2.90e+15	4.01e+14	4.73e+12	1.18e-02
2s*3p*(3)-1s*4p*(2)	.42222	3.45e+11	6.91e+15	5.24e+11	1.83e+08	3.49e-04
2p*3p*(1)-1s*4p*(1)	.42227	5.17e+11	6.91e+15	1.85e+11	4.15e+07	2.24e-04
2p*3p_(2)-1s*4p_(1)	.42310	2.88e+11	6.74e+15	5.78e+13	1.23e+10	2.12e-04
2p*3p_(1)-1s*4p_(0)	.42314	3.03e+11	6.76e+15	6.52e+11	8.77e+07	1.35e-04
2p*3s*(1)-1s*4s*(0)	.42318	2.89e+11	5.44e+15	3.78e+13	5.98e+09	1.58e-04
2p_3p_(1)-1s*4p_(0)	.42855	1.80e+11	4.56e+15	3.20e+11	3.79e+07	1.18e-04
2p_3s*(1)-1s*4s*(0)	.42959	2.20e+11	4.47e+15	1.50e+12	2.21e+08	1.48e-04
2p*2p*(2)-1s*3p*(1)	.48013	2.61e+11	1.08e+16	1.22e+14	1.46e+10	1.20e-04
2s*2p*(1)-1s*3s*(0)	.48547	2.34e+11	5.41e+15	1.75e+14	2.19e+10	1.26e-04
2p_2p*(2)-1s*3p_(1)	.48552	2.61e+11	1.06e+16	2.32e+14	2.79e+10	1.20e-04
2p_2p*(1)-1s*3p_(0)	.48586	2.86e+11	1.06e+16	4.06e+11	3.05e+07	7.51e-05
2s*2p*(2)-1s*3s*(1)	.48828	1.97e+11	5.42e+15	2.15e+13	3.90e+09	1.81e-04