

STARK BROADENING PARAMETER TABLES FOR P IV

M. S. Dimitrijević¹ and S. Sahal–Bréchet²¹ *Astronomical Observatory, Volgina 7, 11000 Belgrade, Yugoslavia*² *Laboratoire "Astrophysique, Atomes et Molécules"
Département Atomes et Molécules en Astrophysique
Unité associée au C.N.R.S. No 812
Observatoire de Paris–Meudon, 92190 Meudon, France*

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SUMMARY: Using a semiclassical approach, we have calculated electron-, proton-, and He III-impact line widths and shifts for 114 P IV multiplets as a function of temperature and perturber density.**1. INTRODUCTION**

Stark broadening parameters of P IV lines are of interest not only for the diagnostics and modelling of various plasmas in laboratory and astrophysics, but like wise, for the research of regularities and systematic trends and various theoretical considerations. In order to provide the needed Stark broadening data, we have calculated within the semiclassical-perturbation formalism (Sahal–Bréchet, 1969ab) electron-, proton-, and doubly charged helium ion-impact line widths and shifts for 114 P IV multiplets.

2. RESULTS AND DISCUSSION

The analysis of obtained results, details of calculations and the comparison with other theoretical data will be published elsewhere (Dimitrijević and Sahal–Bréchet, 1996). Here, we present only tables of Stark broadening parameters. Our results for 114 P IV multiplets are shown in Table 1, for perturber

densities 10^{15} – 10^{20} cm⁻³ and temperatures $T = 5,000 - 1,000,000$ K. We also specify a parameter c (Dimitrijević and Sahal–Bréchet 1984), which gives an estimate for the maximum perturber density for which the line may be treated as isolated when it is divided by the corresponding full width at half maximum. For each value given in Table 1, the collision volume (V) multiplied by the perturber density (N) is much less than one and the impact approximation is valid (Sahal–Bréchet, 1969ab). Values for $NV > 0.5$ are not given and values for $0.1 < NV \leq 0.5$ are denoted by an asterisk. Stark broadening parameters for densities lower than tabulated, are linear with perturber density. When the impact approximation is not valid, the ion broadening contribution may be estimated by using quasistatic approach (Sahal–Bréchet 1991 and Griem 1974). In the region between, where neither of these two approximations is valid, a unified type theory should be used. For example in Barnard et al. (1974), a simple analytical formulas for such a case is given. The accuracy of the results obtained decreases when broadening by ion interactions becomes important.

Table 1. This Table shows electron-, proton-, and He III- impact broadening parameters for P IV, for perturber densities of $10^{15} - 10^{20} \text{ cm}^{-3}$ and temperatures from 5,000 up to 1,000,000 K. Transitions and averaged wavelengths for the multiplet (in Å) are also given. By dividing c by the corresponding full width at half maximum (Dimitrijević *et al.*, 1991), we obtain an estimate for the maximum perturber density for which the line may be treated as isolated and tabulated data may be used. The asterisk identifies cases for which the collision volume multiplied by the perturber density (the condition for validity of the impact approximation) lies between 0.1 and 0.5. Stark broadening parameters for densities lower than tabulated, are linear with perturber density.

PERTURBER DENSITY = 1.E+15cm-3							
PERTURBERS ARE:		ELECTRONS		PROTONS		He III	
TRANSITION	T(K)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3S 3P 950.7 Å C= 0.81E+18	50000.	0.438E-04	-0.175E-06	0.101E-05	-0.283E-07	0.197E-05	-0.566E-07
	100000.	0.316E-04	-0.214E-06	0.178E-05	-0.563E-07	0.350E-05	-0.113E-06
	150000.	0.264E-04	-0.172E-06	0.218E-05	-0.825E-07	0.430E-05	-0.165E-06
	200000.	0.236E-04	-0.161E-06	0.251E-05	-0.106E-06	0.496E-05	-0.213E-06
	300000.	0.203E-04	-0.190E-06	0.280E-05	-0.143E-06	0.558E-05	-0.287E-06
500000.	0.173E-04	-0.228E-06	0.308E-05	-0.192E-06	0.612E-05	-0.389E-06	
P IV 3S 4P 388.3 Å C= 0.35E+17	50000.	0.193E-04	0.392E-06	0.146E-05	0.128E-06	0.288E-05	0.257E-06
	100000.	0.148E-04	0.266E-06	0.196E-05	0.212E-06	0.389E-05	0.428E-06
	150000.	0.130E-04	0.386E-06	0.211E-05	0.256E-06	0.419E-05	0.517E-06
	200000.	0.119E-04	0.419E-06	0.222E-05	0.296E-06	0.442E-05	0.598E-06
	300000.	0.107E-04	0.348E-06	0.237E-05	0.345E-06	0.472E-05	0.699E-06
500000.	0.943E-05	0.342E-06	0.254E-05	0.393E-06	0.506E-05	0.796E-06	
P IV 3S 5P 315.6 Å C= 0.57E+16	50000.	0.310E-04	-0.745E-06	0.356E-05	-0.140E-05	0.708E-05	-0.284E-05
	100000.	0.256E-04	-0.414E-06	0.411E-05	-0.177E-05	0.819E-05	-0.358E-05
	150000.	0.231E-04	-0.340E-06	0.445E-05	-0.198E-05	0.887E-05	-0.401E-05
	200000.	0.216E-04	-0.346E-06	0.470E-05	-0.212E-05	0.931E-05	-0.432E-05
	300000.	0.197E-04	-0.315E-06	0.500E-05	-0.236E-05	0.986E-05	-0.475E-05
500000.	0.177E-04	-0.144E-06	0.530E-05	-0.258E-05	0.103E-04	-0.526E-05	
P IV 3S 6P 282.3 Å C= 0.53E+16	50000.	0.475E-04	0.264E-05	0.827E-05	0.124E-05	0.165E-04	0.251E-05
	100000.	0.420E-04	0.253E-05	0.924E-05	0.156E-05	0.184E-04	0.315E-05
	150000.	0.393E-04	0.245E-05	0.965E-05	0.174E-05	0.193E-04	0.352E-05
	200000.	0.376E-04	0.237E-05	0.986E-05	0.188E-05	0.196E-04	0.379E-05
	300000.	0.353E-04	0.225E-05	0.100E-04	0.209E-05	0.201E-04	0.419E-05
500000.	0.326E-04	0.211E-05	0.103E-04	0.231E-05	0.204E-04	0.469E-05	
P IV 4S 4P 4250.9 Å C= 0.43E+19	50000.	0.334E-02	-0.115E-03	0.187E-03	-0.102E-03	0.368E-03	-0.206E-03
	100000.	0.260E-02	-0.161E-03	0.257E-03	-0.140E-03	0.514E-03	-0.284E-03
	150000.	0.229E-02	-0.154E-03	0.283E-03	-0.157E-03	0.566E-03	-0.319E-03
	200000.	0.211E-02	-0.140E-03	0.302E-03	-0.170E-03	0.603E-03	-0.346E-03
	300000.	0.190E-02	-0.142E-03	0.329E-03	-0.189E-03	0.660E-03	-0.383E-03
500000.	0.169E-02	-0.133E-03	0.367E-03	-0.216E-03	0.726E-03	-0.435E-03	
P IV 4S 5P 1206.4 Å C= 0.83E+17	50000.	0.531E-03	-0.239E-04	0.536E-04	-0.259E-04	0.107E-03	-0.522E-04
	100000.	0.437E-03	-0.216E-04	0.624E-04	-0.322E-04	0.125E-03	-0.650E-04
	150000.	0.395E-03	-0.211E-04	0.683E-04	-0.358E-04	0.136E-03	-0.722E-04
	200000.	0.369E-03	-0.204E-04	0.725E-04	-0.382E-04	0.143E-03	-0.777E-04
	300000.	0.338E-03	-0.194E-04	0.777E-04	-0.424E-04	0.152E-03	-0.856E-04
500000.	0.303E-03	-0.161E-04	0.837E-04	-0.466E-04	0.162E-03	-0.944E-04	
P IV 4S 6P 831.7 Å C= 0.46E+17	50000.	0.449E-03	0.137E-04	0.717E-04	0.814E-05	0.143E-03	0.164E-04
	100000.	0.394E-03	0.127E-04	0.800E-04	0.105E-04	0.159E-03	0.212E-04
	150000.	0.369E-03	0.125E-04	0.835E-04	0.116E-04	0.167E-03	0.236E-04
	200000.	0.352E-03	0.125E-04	0.851E-04	0.126E-04	0.170E-03	0.255E-04
	300000.	0.330E-03	0.121E-04	0.870E-04	0.139E-04	0.174E-03	0.282E-04
500000.	0.304E-03	0.114E-04	0.894E-04	0.155E-04	0.177E-03	0.316E-04	
P IV 5S 5P 17528.3 Å C= 0.18E+20	50000.	0.179	-0.205E-01	0.168E-01	-0.149E-01	0.339E-01	-0.302E-01
	100000.	0.150	-0.179E-01	0.212E-01	-0.180E-01	0.427E-01	-0.365E-01
	150000.	0.135	-0.169E-01	0.237E-01	-0.198E-01	0.480E-01	-0.401E-01
	200000.	0.126	-0.163E-01	0.259E-01	-0.214E-01	0.510E-01	-0.429E-01
	300000.	0.114	-0.154E-01	0.284E-01	-0.231E-01	0.560E-01	-0.464E-01
500000.	0.101	-0.127E-01	0.326E-01	-0.258E-01	0.611E-01	-0.518E-01	

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5S 6P 2322.8 Å C= 0.31E+18	50000.	0.457E-02	-0.152E-03	0.571E-03	-0.185E-03	0.114E-02	-0.374E-03
	100000.	0.403E-02	-0.127E-03	0.645E-03	-0.221E-03	0.128E-02	-0.448E-03
	150000.	0.375E-02	-0.117E-03	0.682E-03	-0.245E-03	0.135E-02	-0.495E-03
	200000.	0.357E-02	-0.112E-03	0.695E-03	-0.263E-03	0.138E-02	-0.535E-03
	300000.	0.332E-02	-0.102E-03	0.714E-03	-0.287E-03	0.142E-02	-0.581E-03
	500000.	0.302E-02	-0.745E-04	0.754E-03	-0.312E-03	0.146E-02	-0.633E-03
P IV 6S 6P 15077.5 Å C= 0.15E+20	50000.	0.217	-0.271E-01	0.261E-01	-0.141E-01	0.523E-01	-0.284E-01
	100000.	0.196	-0.225E-01	0.302E-01	-0.167E-01	0.603E-01	-0.340E-01
	150000.	0.185	-0.203E-01	0.324E-01	-0.185E-01	0.645E-01	-0.374E-01
	200000.	0.177	-0.192E-01	0.333E-01	-0.197E-01	0.669E-01	-0.398E-01
	300000.	0.166	-0.183E-01	0.351E-01	-0.210E-01	0.716E-01	-0.435E-01
	500000.	0.152	-0.153E-01	0.367E-01	-0.232E-01	0.733E-01	-0.471E-01
P IV 3P 4S 776.4 Å C= 0.14E+18	50000.	0.677E-04	0.603E-05	0.241E-05	0.370E-05	0.479E-05	0.748E-05
	100000.	0.507E-04	0.686E-05	0.417E-05	0.509E-05	0.835E-05	0.103E-04
	150000.	0.438E-04	0.697E-05	0.533E-05	0.567E-05	0.108E-04	0.115E-04
	200000.	0.399E-04	0.659E-05	0.604E-05	0.613E-05	0.123E-04	0.125E-04
	300000.	0.353E-04	0.634E-05	0.699E-05	0.685E-05	0.141E-04	0.139E-04
	500000.	0.305E-04	0.601E-05	0.823E-05	0.770E-05	0.168E-04	0.157E-04
P IV 3P 5S 485.5 Å C= 0.13E+17	50000.	0.786E-04	0.142E-04	0.874E-05	0.991E-05	0.177E-04	0.201E-04
	100000.	0.647E-04	0.129E-04	0.115E-04	0.119E-04	0.234E-04	0.241E-04
	150000.	0.573E-04	0.123E-04	0.133E-04	0.132E-04	0.268E-04	0.268E-04
	200000.	0.527E-04	0.118E-04	0.147E-04	0.141E-04	0.296E-04	0.285E-04
	300000.	0.470E-04	0.111E-04	0.168E-04	0.153E-04	0.337E-04	0.311E-04
	500000.	0.407E-04	0.951E-05	0.189E-04	0.170E-04	0.374E-04	0.340E-04
P IV 3P 6S 412.5 Å C= 0.11E+17	50000.	0.870E-04	0.348E-04	0.107E-04	0.117E-04	0.215E-04	0.236E-04
	100000.	0.735E-04	0.279E-04	0.137E-04	0.139E-04	0.281E-04	0.281E-04
	150000.	0.664E-04	0.241E-04	0.158E-04	0.152E-04	0.323E-04	0.310E-04
	200000.	0.619E-04	0.221E-04	0.174E-04	0.163E-04	0.352E-04	0.331E-04
	300000.	0.560E-04	0.201E-04	0.188E-04	0.173E-04	0.385E-04	0.351E-04
	500000.	0.495E-04	0.169E-04	0.215E-04	0.198E-04	0.424E-04	0.397E-04
P IV 3P 7S 380.2 Å C= 0.48E+16	50000.	0.160E-03	0.662E-04	0.258E-04	0.264E-04	0.525E-04	0.535E-04
	100000.	0.142E-03	0.518E-04	0.328E-04	0.308E-04	0.680E-04	0.629E-04
	150000.	0.132E-03	0.458E-04	0.360E-04	0.337E-04	0.740E-04	0.678E-04
	200000.	0.125E-03	0.422E-04	0.385E-04	0.353E-04	0.788E-04	0.714E-04
	300000.	0.115E-03	0.367E-04	0.449E-04	0.380E-04	0.907E-04	0.781E-04
	500000.	0.102E-03	0.297E-04	0.467E-04	0.426E-04	0.925E-04	0.856E-04
P IV 4P 5S 1863.6 Å C= 0.20E+18	50000.	0.141E-02	0.197E-03	0.135E-03	0.145E-03	0.272E-03	0.294E-03
	100000.	0.116E-02	0.181E-03	0.176E-03	0.174E-03	0.355E-03	0.353E-03
	150000.	0.103E-02	0.170E-03	0.202E-03	0.193E-03	0.405E-03	0.392E-03
	200000.	0.954E-03	0.163E-03	0.222E-03	0.207E-03	0.447E-03	0.417E-03
	300000.	0.855E-03	0.155E-03	0.253E-03	0.224E-03	0.506E-03	0.456E-03
	500000.	0.748E-03	0.131E-03	0.282E-03	0.249E-03	0.559E-03	0.498E-03
P IV 4P 6S 1110.1 Å C= 0.82E+17	50000.	0.693E-03	0.241E-03	0.788E-04	0.841E-04	0.158E-03	0.170E-03
	100000.	0.588E-03	0.194E-03	0.100E-03	0.100E-03	0.206E-03	0.203E-03
	150000.	0.535E-03	0.168E-03	0.115E-03	0.110E-03	0.236E-03	0.224E-03
	200000.	0.501E-03	0.153E-03	0.127E-03	0.117E-03	0.257E-03	0.239E-03
	300000.	0.457E-03	0.139E-03	0.138E-03	0.125E-03	0.282E-03	0.253E-03
	500000.	0.407E-03	0.119E-03	0.156E-03	0.143E-03	0.308E-03	0.287E-03
P IV 4P 7S 903.2 Å C= 0.27E+17	50000.	0.943E-03	0.370E-03	0.146E-03	0.149E-03	0.297E-03	0.302E-03
	100000.	0.840E-03	0.290E-03	0.185E-03	0.174E-03	0.384E-03	0.355E-03
	150000.	0.783E-03	0.253E-03	0.203E-03	0.190E-03	0.419E-03	0.382E-03
	200000.	0.740E-03	0.235E-03	0.217E-03	0.199E-03	0.446E-03	0.402E-03
	300000.	0.682E-03	0.205E-03	0.254E-03	0.215E-03	0.512E-03	0.442E-03
	500000.	0.609E-03	0.165E-03	0.263E-03	0.240E-03	0.523E-03	0.483E-03
P IV 5P 6S 3255.8 Å C= 0.60E+18	50000.	0.762E-02	0.212E-02	0.819E-03	0.782E-03	0.165E-02	0.159E-02
	100000.	0.658E-02	0.172E-02	0.101E-02	0.933E-03	0.206E-02	0.189E-02
	150000.	0.603E-02	0.148E-02	0.117E-02	0.103E-02	0.233E-02	0.209E-02
	200000.	0.568E-02	0.135E-02	0.125E-02	0.107E-02	0.255E-02	0.219E-02
	300000.	0.523E-02	0.124E-02	0.136E-02	0.119E-02	0.269E-02	0.242E-02
	500000.	0.470E-02	0.106E-02	0.160E-02	0.129E-02	0.317E-02	0.265E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5P 7S 1947.3 Å C= 0.13E+18	50000.	0.496E-02	0.177E-02	0.705E-03	0.710E-03	0.143E-02	0.143E-02
	100000.	0.444E-02	0.138E-02	0.888E-03	0.824E-03	0.182E-02	0.167E-02
	150000.	0.415E-02	0.119E-02	0.988E-03	0.901E-03	0.199E-02	0.182E-02
	200000.	0.393E-02	0.111E-02	0.105E-02	0.952E-03	0.211E-02	0.191E-02
	300000.	0.363E-02	0.971E-03	0.120E-02	0.100E-02	0.244E-02	0.208E-02
	500000.	0.326E-02	0.783E-03	0.128E-02	0.114E-02	0.249E-02	0.230E-02
P IV 6P 7S 7139.8 Å C= 0.17E+19	50000.	0.775E-01	0.197E-01	0.103E-01	0.911E-02	0.208E-01	0.184E-01
	100000.	0.715E-01	0.152E-01	0.128E-01	0.107E-01	0.260E-01	0.219E-01
	150000.	0.678E-01	0.135E-01	0.138E-01	0.115E-01	0.282E-01	0.234E-01
	200000.	0.650E-01	0.127E-01	0.147E-01	0.121E-01	0.297E-01	0.247E-01
	300000.	0.608E-01	0.112E-01	0.166E-01	0.132E-01	0.333E-01	0.273E-01
	500000.	0.552E-01	0.876E-02	0.171E-01	0.147E-01	0.337E-01	0.294E-01
P IV 3P 3D 877.5 Å C= 0.30E+18	50000.	0.607E-04	0.195E-05	0.265E-05	0.919E-06	0.519E-05	0.184E-05
	100000.	0.446E-04	0.173E-05	0.397E-05	0.146E-05	0.782E-05	0.294E-05
	150000.	0.380E-04	0.200E-05	0.473E-05	0.177E-05	0.940E-05	0.356E-05
	200000.	0.344E-04	0.215E-05	0.503E-05	0.201E-05	0.100E-04	0.407E-05
	300000.	0.302E-04	0.207E-05	0.548E-05	0.226E-05	0.109E-04	0.459E-05
	500000.	0.263E-04	0.196E-05	0.604E-05	0.260E-05	0.120E-04	0.528E-05
P IV 3P 4D 525.9 Å C= 0.14E+17	50000.	0.496E-04	-0.214E-05	0.429E-05	-0.268E-05	0.847E-05	-0.540E-05
	100000.	0.390E-04	-0.183E-05	0.559E-05	-0.356E-05	0.111E-04	-0.722E-05
	150000.	0.344E-04	-0.182E-05	0.624E-05	-0.396E-05	0.124E-04	-0.804E-05
	200000.	0.316E-04	-0.183E-05	0.673E-05	-0.426E-05	0.133E-04	-0.863E-05
	300000.	0.283E-04	-0.170E-05	0.753E-05	-0.474E-05	0.145E-04	-0.956E-05
	500000.	0.249E-04	-0.144E-05	0.839E-05	-0.526E-05	0.162E-04	-0.108E-04
P IV 3P 5D 429.5 Å C= 0.14E+17	50000.	0.691E-04	0.889E-05	0.939E-05	0.586E-05	0.188E-04	0.119E-04
	100000.	0.591E-04	0.823E-05	0.112E-04	0.700E-05	0.224E-04	0.142E-04
	150000.	0.541E-04	0.788E-05	0.123E-04	0.781E-05	0.245E-04	0.157E-04
	200000.	0.509E-04	0.760E-05	0.129E-04	0.832E-05	0.261E-04	0.169E-04
	300000.	0.469E-04	0.726E-05	0.139E-04	0.915E-05	0.275E-04	0.184E-04
	500000.	0.423E-04	0.637E-05	0.153E-04	0.101E-04	0.304E-04	0.206E-04
P IV 3P 6D 386.8 Å C= 0.36E+16	50000.	0.152E-03	0.248E-04	0.256E-04	0.197E-04	0.513E-04	0.400E-04
	100000.	0.136E-03	0.224E-04	0.308E-04	0.235E-04	0.613E-04	0.476E-04
	150000.	0.127E-03	0.214E-04	0.330E-04	0.255E-04	0.654E-04	0.512E-04
	200000.	0.120E-03	0.199E-04	0.353E-04	0.267E-04	0.701E-04	0.537E-04
	300000.	0.111E-03	0.175E-04	0.388E-04	0.287E-04	0.773E-04	0.583E-04
	500000.	0.101E-03	0.145E-04	0.427E-04	0.317E-04	0.824E-04	0.654E-04
P IV 3P 7D 367.7 Å C= 0.18E+16	50000.	0.262E-03	0.440E-04	0.511E-04	0.407E-04	0.103E-03	0.818E-04
	100000.	0.240E-03	0.402E-04	0.607E-04	0.468E-04	0.122E-03	0.955E-04
	150000.	0.226E-03	0.360E-04	0.642E-04	0.503E-04	0.129E-03	0.102E-03
	200000.	0.215E-03	0.327E-04	0.680E-04	0.530E-04	0.135E-03	0.107E-03
	300000.	0.199E-03	0.278E-04	0.739E-04	0.578E-04	0.145E-03	0.116E-03
	500000.	0.179E-03	0.233E-04	0.754E-04	0.622E-04	0.147E-03	0.125E-03
P IV 4P 4D 2645.1 Å C= 0.35E+18	50000.	0.164E-02	-0.772E-04	0.147E-03	-0.711E-04	0.292E-03	-0.143E-03
	100000.	0.131E-02	-0.626E-04	0.181E-03	-0.937E-04	0.359E-03	-0.190E-03
	150000.	0.116E-02	-0.667E-04	0.199E-03	-0.104E-03	0.395E-03	-0.211E-03
	200000.	0.108E-02	-0.681E-04	0.213E-03	-0.113E-03	0.420E-03	-0.228E-03
	300000.	0.976E-03	-0.616E-04	0.232E-03	-0.125E-03	0.456E-03	-0.253E-03
	500000.	0.868E-03	-0.545E-04	0.254E-03	-0.139E-03	0.482E-03	-0.282E-03
P IV 4P 5D 1242.0 Å C= 0.12E+18	50000.	0.652E-03	0.675E-04	0.830E-04	0.485E-04	0.166E-03	0.983E-04
	100000.	0.556E-03	0.642E-04	0.980E-04	0.580E-04	0.196E-03	0.118E-03
	150000.	0.509E-03	0.606E-04	0.108E-03	0.647E-04	0.214E-03	0.130E-03
	200000.	0.479E-03	0.583E-04	0.112E-03	0.688E-04	0.227E-03	0.140E-03
	300000.	0.442E-03	0.564E-04	0.121E-03	0.754E-04	0.239E-03	0.153E-03
	500000.	0.401E-03	0.491E-04	0.133E-03	0.841E-04	0.262E-03	0.172E-03
P IV 4P 6D 941.4 Å C= 0.21E+17	50000.	0.942E-03	0.143E-03	0.153E-03	0.117E-03	0.307E-03	0.237E-03
	100000.	0.838E-03	0.130E-03	0.184E-03	0.139E-03	0.366E-03	0.281E-03
	150000.	0.782E-03	0.124E-03	0.197E-03	0.151E-03	0.390E-03	0.302E-03
	200000.	0.742E-03	0.115E-03	0.211E-03	0.158E-03	0.419E-03	0.318E-03
	300000.	0.688E-03	0.101E-03	0.231E-03	0.170E-03	0.460E-03	0.345E-03
	500000.	0.621E-03	0.833E-04	0.254E-03	0.188E-03	0.489E-03	0.387E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 7D 835.7 Å C= 0.96E+16	50000.	0.138E-02	0.226E-03	0.265E-03	0.210E-03	0.532E-03	0.423E-03
	100000.	0.127E-02	0.206E-03	0.314E-03	0.242E-03	0.632E-03	0.493E-03
	150000.	0.119E-02	0.184E-03	0.333E-03	0.260E-03	0.669E-03	0.527E-03
	200000.	0.113E-02	0.167E-03	0.352E-03	0.274E-03	0.698E-03	0.552E-03
	300000.	0.105E-02	0.142E-03	0.383E-03	0.299E-03	0.750E-03	0.600E-03
	500000.	0.947E-03	0.119E-03	0.390E-03	0.321E-03	0.763E-03	0.644E-03
P IV 5P 5D 4728.8 Å C= 0.13E+19	50000.	0.128E-01	0.120E-02	0.156E-02	0.871E-03	0.311E-02	0.176E-02
	100000.	0.110E-01	0.106E-02	0.183E-02	0.104E-02	0.366E-02	0.212E-02
	150000.	0.101E-01	0.101E-02	0.198E-02	0.115E-02	0.399E-02	0.235E-02
	200000.	0.957E-02	0.983E-03	0.209E-02	0.124E-02	0.418E-02	0.252E-02
	300000.	0.885E-02	0.940E-03	0.223E-02	0.135E-02	0.434E-02	0.271E-02
	500000.	0.803E-02	0.795E-03	0.239E-02	0.149E-02	0.466E-02	0.301E-02
P IV 5P 6D 2133.8 Å C= 0.11E+18	50000.	0.547E-02	0.781E-03	0.826E-03	0.618E-03	0.167E-02	0.125E-02
	100000.	0.487E-02	0.697E-03	0.993E-03	0.734E-03	0.199E-02	0.150E-02
	150000.	0.454E-02	0.663E-03	0.109E-02	0.805E-03	0.212E-02	0.162E-02
	200000.	0.431E-02	0.617E-03	0.112E-02	0.834E-03	0.225E-02	0.170E-02
	300000.	0.400E-02	0.544E-03	0.122E-02	0.892E-03	0.245E-02	0.182E-02
	500000.	0.361E-02	0.445E-03	0.134E-02	0.988E-03	0.265E-02	0.202E-02
P IV 5P 7D 1658.6 Å C= 0.38E+17	50000.	0.581E-02	0.927E-03	0.107E-02	0.839E-03	0.213E-02	0.168E-02
	100000.	0.531E-02	0.833E-03	0.125E-02	0.956E-03	0.253E-02	0.196E-02
	150000.	0.499E-02	0.745E-03	0.133E-02	0.104E-02	0.268E-02	0.210E-02
	200000.	0.476E-02	0.676E-03	0.140E-02	0.109E-02	0.276E-02	0.220E-02
	300000.	0.441E-02	0.574E-03	0.154E-02	0.119E-02	0.299E-02	0.239E-02
	500000.	0.397E-02	0.477E-03	0.156E-02	0.129E-02	0.306E-02	0.257E-02
P IV 6P 6D 10507.4 Å C= 0.26E+19	50000.	0.156	0.141E-01	0.230E-01	0.141E-01	0.459E-01	0.283E-01
	100000.	0.142	0.129E-01	0.266E-01	0.167E-01	0.528E-01	0.337E-01
	150000.	0.134	0.123E-01	0.278E-01	0.179E-01	0.557E-01	0.361E-01
	200000.	0.128	0.113E-01	0.294E-01	0.189E-01	0.595E-01	0.390E-01
	300000.	0.120	0.973E-02	0.318E-01	0.206E-01	0.639E-01	0.424E-01
	500000.	0.109	0.771E-02	0.342E-01	0.228E-01	0.657E-01	0.461E-01
P IV 6P 7D 4358.2 Å C= 0.26E+18	50000.	0.439E-01	0.560E-02	0.763E-02	0.564E-02	0.154E-01	0.114E-01
	100000.	0.405E-01	0.507E-02	0.891E-02	0.652E-02	0.179E-01	0.133E-01
	150000.	0.383E-01	0.447E-02	0.942E-02	0.697E-02	0.189E-01	0.142E-01
	200000.	0.366E-01	0.403E-02	0.992E-02	0.741E-02	0.198E-01	0.149E-01
	300000.	0.341E-01	0.336E-02	0.107E-01	0.803E-02	0.210E-01	0.161E-01
	500000.	0.309E-01	0.277E-02	0.109E-01	0.858E-02	0.215E-01	0.172E-01
P IV 3D 4P 2606.3 Å C= 0.16E+19	50000.	0.101E-02	0.208E-05	0.764E-04	-0.244E-05	0.150E-03	-0.489E-05
	100000.	0.774E-03	-0.137E-05	0.100E-03	-0.434E-05	0.199E-03	-0.872E-05
	150000.	0.680E-03	0.121E-05	0.108E-03	-0.570E-05	0.214E-03	-0.115E-04
	200000.	0.626E-03	0.123E-05	0.113E-03	-0.651E-05	0.225E-03	-0.132E-04
	300000.	0.565E-03	-0.102E-05	0.121E-03	-0.793E-05	0.240E-03	-0.160E-04
	500000.	0.503E-03	-0.131E-06	0.128E-03	-0.935E-05	0.256E-03	-0.190E-04
P IV 3D 5P 1023.2 Å C= 0.60E+17	50000.	0.344E-03	-0.104E-04	0.388E-04	-0.153E-04	0.771E-04	-0.310E-04
	100000.	0.283E-03	-0.650E-05	0.448E-04	-0.193E-04	0.891E-04	-0.389E-04
	150000.	0.256E-03	-0.614E-05	0.485E-04	-0.215E-04	0.963E-04	-0.437E-04
	200000.	0.239E-03	-0.642E-05	0.512E-04	-0.231E-04	0.101E-03	-0.468E-04
	300000.	0.219E-03	-0.592E-05	0.545E-04	-0.255E-04	0.107E-03	-0.520E-04
	500000.	0.197E-03	-0.392E-05	0.586E-04	-0.283E-04	0.112E-03	-0.571E-04
P IV 3D 6P 740.3 Å C= 0.36E+17	50000.	0.336E-03	0.157E-04	0.575E-04	0.827E-05	0.114E-03	0.167E-04
	100000.	0.296E-03	0.156E-04	0.641E-04	0.104E-04	0.128E-03	0.210E-04
	150000.	0.277E-03	0.151E-04	0.669E-04	0.116E-04	0.134E-03	0.234E-04
	200000.	0.265E-03	0.145E-04	0.683E-04	0.124E-04	0.136E-03	0.252E-04
	300000.	0.249E-03	0.140E-04	0.697E-04	0.138E-04	0.139E-03	0.278E-04
	500000.	0.229E-03	0.131E-04	0.715E-04	0.154E-04	0.142E-03	0.309E-04
P IV 4D 5P 4638.3 Å C= 0.11E+19	50000.	0.869E-02	0.328E-04	0.882E-03	-0.138E-03	0.175E-02	-0.279E-03
	100000.	0.720E-02	0.711E-04	0.100E-02	-0.190E-03	0.199E-02	-0.384E-03
	150000.	0.652E-02	0.816E-04	0.108E-02	-0.211E-03	0.213E-02	-0.427E-03
	200000.	0.610E-02	0.793E-04	0.113E-02	-0.228E-03	0.222E-02	-0.462E-03
	300000.	0.558E-02	0.744E-04	0.119E-02	-0.253E-03	0.230E-02	-0.515E-03
	500000.	0.501E-02	0.891E-04	0.126E-02	-0.288E-03	0.237E-02	-0.579E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4D 6P 1697.6 Å C= 0.14E+18	50000.	0.197E-02	0.138E-03	0.314E-03	0.633E-04	0.625E-03	0.128E-03
	100000.	0.173E-02	0.121E-03	0.351E-03	0.769E-04	0.698E-03	0.156E-03
	150000.	0.162E-02	0.116E-03	0.368E-03	0.853E-04	0.730E-03	0.173E-03
	200000.	0.154E-02	0.111E-03	0.375E-03	0.923E-04	0.746E-03	0.186E-03
	300000.	0.144E-02	0.102E-03	0.384E-03	0.101E-03	0.760E-03	0.205E-03
	500000.	0.133E-02	0.934E-04	0.394E-03	0.112E-03	0.778E-03	0.226E-03
P IV 5D 6P 6173.0 Å C= 0.25E+19	50000.	0.310E-01	-0.605E-03	0.469E-02	-0.839E-03	0.934E-02	-0.170E-02
	100000.	0.280E-01	-0.514E-03	0.523E-02	-0.102E-02	0.104E-01	-0.207E-02
	150000.	0.264E-01	-0.465E-03	0.543E-02	-0.113E-02	0.108E-01	-0.230E-02
	200000.	0.253E-01	-0.447E-03	0.552E-02	-0.122E-02	0.111E-01	-0.247E-02
	300000.	0.237E-01	-0.423E-03	0.567E-02	-0.133E-02	0.113E-01	-0.272E-02
	500000.	0.219E-01	-0.301E-03	0.584E-02	-0.148E-02	0.114E-01	-0.299E-02
P IV 3D 4F 1405.0 Å C= 0.99E+17	50000.	0.287E-03	0.948E-05	0.188E-04	0.155E-04	0.372E-04	0.313E-04
	100000.	0.220E-03	0.910E-05	0.278E-04	0.211E-04	0.554E-04	0.427E-04
	150000.	0.192E-03	0.870E-05	0.317E-04	0.235E-04	0.627E-04	0.475E-04
	200000.	0.176E-03	0.804E-05	0.344E-04	0.253E-04	0.676E-04	0.512E-04
	300000.	0.157E-03	0.707E-05	0.388E-04	0.279E-04	0.755E-04	0.567E-04
	500000.	0.138E-03	0.603E-05	0.454E-04	0.315E-04	0.861E-04	0.645E-04
P IV 3D 5F 790.5 Å C= 0.10E+17	50000.	0.335E-03	-0.309E-04	0.452E-04	-0.384E-04	0.901E-04	-0.775E-04
	100000.	0.275E-03	-0.270E-04	0.561E-04	-0.457E-04	0.111E-03	-0.927E-04
	150000.	0.247E-03	-0.254E-04	0.630E-04	-0.504E-04	0.124E-03	-0.102E-03
	200000.	0.230E-03	-0.240E-04	0.684E-04	-0.536E-04	0.133E-03	-0.108E-03
	300000.	0.209E-03	-0.217E-04	0.777E-04	-0.578E-04	0.148E-03	-0.119E-03
	500000.	0.185E-03	-0.177E-04	0.846E-04	-0.631E-04	0.157E-03	-0.129E-03
P IV 4D 4F 19996.3 Å C= 0.20E+20	50000.	0.943E-01	0.608E-02	0.840E-02	0.632E-02	0.166E-01	0.128E-01
	100000.	0.748E-01	0.541E-02	0.109E-01	0.791E-02	0.217E-01	0.160E-01
	150000.	0.663E-01	0.545E-02	0.123E-01	0.882E-02	0.242E-01	0.179E-01
	200000.	0.612E-01	0.541E-02	0.134E-01	0.954E-02	0.260E-01	0.192E-01
	300000.	0.551E-01	0.498E-02	0.151E-01	0.106E-01	0.288E-01	0.213E-01
	500000.	0.487E-01	0.433E-02	0.172E-01	0.117E-01	0.321E-01	0.239E-01
P IV 4D 5F 1987.0 Å C= 0.65E+17	50000.	0.241E-02	-0.155E-03	0.284E-03	-0.225E-03	0.567E-03	-0.457E-03
	100000.	0.199E-02	-0.136E-03	0.352E-03	-0.271E-03	0.694E-03	-0.551E-03
	150000.	0.179E-02	-0.124E-03	0.398E-03	-0.298E-03	0.780E-03	-0.612E-03
	200000.	0.167E-02	-0.114E-03	0.424E-03	-0.318E-03	0.813E-03	-0.639E-03
	300000.	0.151E-02	-0.102E-03	0.471E-03	-0.345E-03	0.890E-03	-0.699E-03
	500000.	0.134E-02	-0.809E-04	0.536E-03	-0.372E-03	0.977E-03	-0.754E-03
P IV 5D 5F 13123.2 Å C= 0.28E+19	50000.	0.133	-0.167E-01	0.171E-01	-0.133E-01	0.341E-01	-0.269E-01
	100000.	0.113	-0.149E-01	0.210E-01	-0.159E-01	0.415E-01	-0.323E-01
	150000.	0.103	-0.140E-01	0.230E-01	-0.174E-01	0.457E-01	-0.351E-01
	200000.	0.970E-01	-0.132E-01	0.243E-01	-0.183E-01	0.476E-01	-0.369E-01
	300000.	0.889E-01	-0.123E-01	0.278E-01	-0.202E-01	0.531E-01	-0.412E-01
	500000.	0.797E-01	-0.104E-01	0.305E-01	-0.215E-01	0.589E-01	-0.441E-01
P IV 4F 5D 2096.1 Å C= 0.22E+18	50000.	0.187E-02	0.171E-03	0.223E-03	0.121E-03	0.445E-03	0.244E-03
	100000.	0.159E-02	0.161E-03	0.262E-03	0.145E-03	0.522E-03	0.293E-03
	150000.	0.145E-02	0.154E-03	0.285E-03	0.161E-03	0.571E-03	0.325E-03
	200000.	0.137E-02	0.149E-03	0.302E-03	0.173E-03	0.607E-03	0.353E-03
	300000.	0.126E-02	0.144E-03	0.320E-03	0.188E-03	0.630E-03	0.380E-03
	500000.	0.114E-02	0.126E-03	0.340E-03	0.206E-03	0.669E-03	0.418E-03
P IV 4F 6D 1361.9 Å C= 0.44E+17	50000.	0.198E-02	0.288E-03	0.316E-03	0.241E-03	0.633E-03	0.488E-03
	100000.	0.176E-02	0.262E-03	0.379E-03	0.287E-03	0.751E-03	0.578E-03
	150000.	0.164E-02	0.250E-03	0.402E-03	0.309E-03	0.810E-03	0.623E-03
	200000.	0.156E-02	0.233E-03	0.431E-03	0.324E-03	0.875E-03	0.659E-03
	300000.	0.144E-02	0.205E-03	0.476E-03	0.349E-03	0.956E-03	0.720E-03
	500000.	0.130E-02	0.169E-03	0.528E-03	0.392E-03	0.993E-03	0.785E-03
P IV 4F 7D 1151.4 Å C= 0.18E+17	50000.	0.264E-02	0.420E-03	0.500E-03	0.397E-03	0.101E-02	0.799E-03
	100000.	0.241E-02	0.384E-03	0.596E-03	0.458E-03	0.119E-02	0.931E-03
	150000.	0.226E-02	0.343E-03	0.629E-03	0.490E-03	0.126E-02	0.994E-03
	200000.	0.215E-02	0.311E-03	0.670E-03	0.520E-03	0.133E-02	0.104E-02
	300000.	0.200E-02	0.264E-03	0.722E-03	0.563E-03	0.142E-02	0.113E-02
	500000.	0.180E-02	0.221E-03	0.742E-03	0.605E-03	0.145E-02	0.121E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5F 6D 5525.9 Å C= 0.50E+18	50000.	0.427E-01	0.728E-02	0.626E-02	0.494E-02	0.125E-01	0.996E-02
	100000.	0.375E-01	0.593E-02	0.744E-02	0.583E-02	0.149E-01	0.118E-01
	150000.	0.348E-01	0.557E-02	0.815E-02	0.629E-02	0.163E-01	0.128E-01
	200000.	0.329E-01	0.517E-02	0.890E-02	0.664E-02	0.175E-01	0.137E-01
	300000.	0.304E-01	0.456E-02	0.937E-02	0.728E-02	0.180E-01	0.146E-01
	500000.	0.273E-01	0.374E-02	0.106E-01	0.766E-02	0.204E-01	0.157E-01
P IV 5F 7D 3172.1 Å C= 0.14E+18	50000.	0.231E-01	0.416E-02	0.412E-02	0.323E-02	0.831E-02	0.658E-02
	100000.	0.210E-01	0.346E-02	0.477E-02	0.372E-02	0.952E-02	0.756E-02
	150000.	0.197E-01	0.310E-02	0.524E-02	0.407E-02	0.103E-01	0.822E-02
	200000.	0.187E-01	0.281E-02	0.539E-02	0.429E-02	0.105E-01	0.862E-02
	300000.	0.173E-01	0.240E-02	0.609E-02	0.459E-02	0.116E-01	0.944E-02
	500000.	0.155E-01	0.199E-02	0.654E-02	0.528E-02	0.116E-01	0.105E-01
P IV 4S 4P 3356.9 Å C= 0.34E+19	50000.	0.191E-02	-0.527E-04	0.110E-03	-0.384E-04	0.217E-03	-0.771E-04
	100000.	0.147E-02	-0.621E-04	0.149E-03	-0.543E-04	0.296E-03	-0.110E-03
	150000.	0.129E-02	-0.659E-04	0.162E-03	-0.640E-04	0.322E-03	-0.130E-03
	200000.	0.119E-02	-0.582E-04	0.171E-03	-0.684E-04	0.341E-03	-0.139E-03
	300000.	0.107E-02	-0.586E-04	0.184E-03	-0.767E-04	0.368E-03	-0.155E-03
	500000.	0.951E-03	-0.553E-04	0.201E-03	-0.872E-04	0.400E-03	-0.177E-03
P IV 4S 5P 1046.1 Å C= 0.15E+18	50000.	0.369E-03	0.701E-05	0.434E-04	0.810E-05	0.864E-04	0.164E-04
	100000.	0.312E-03	0.100E-04	0.493E-04	0.111E-04	0.980E-04	0.224E-04
	150000.	0.286E-03	0.763E-05	0.527E-04	0.123E-04	0.105E-03	0.248E-04
	200000.	0.270E-03	0.799E-05	0.549E-04	0.133E-04	0.110E-03	0.269E-04
	300000.	0.250E-03	0.776E-05	0.570E-04	0.147E-04	0.114E-03	0.299E-04
	500000.	0.227E-03	0.745E-05	0.593E-04	0.166E-04	0.118E-03	0.336E-04
P IV 4S 6P 788.7 Å C= 0.45E+17	50000.	0.388E-03	0.161E-04	0.634E-04	0.113E-04	0.126E-03	0.228E-04
	100000.	0.342E-03	0.157E-04	0.708E-04	0.140E-04	0.141E-03	0.283E-04
	150000.	0.321E-03	0.151E-04	0.743E-04	0.155E-04	0.148E-03	0.315E-04
	200000.	0.306E-03	0.148E-04	0.755E-04	0.167E-04	0.151E-03	0.337E-04
	300000.	0.288E-03	0.144E-04	0.776E-04	0.185E-04	0.154E-03	0.372E-04
	500000.	0.265E-03	0.132E-04	0.800E-04	0.203E-04	0.158E-03	0.409E-04
P IV 4S 7P 691.7 Å C= 0.19E+17	50000.	0.561E-03	0.257E-04	0.105E-03	0.135E-04	0.210E-03	0.273E-04
	100000.	0.523E-03	0.220E-04	0.114E-03	0.162E-04	0.228E-03	0.329E-04
	150000.	0.502E-03	0.205E-04	0.118E-03	0.180E-04	0.234E-03	0.366E-04
	200000.	0.486E-03	0.200E-04	0.119E-03	0.192E-04	0.238E-03	0.393E-04
	300000.	0.462E-03	0.201E-04	0.121E-03	0.212E-04	0.242E-03	0.425E-04
	500000.	0.429E-03	0.172E-04	0.124E-03	0.231E-04	0.245E-03	0.467E-04
P IV 4S 8P 645.9 Å C= 0.73E+16	50000.	0.868E-03	-0.337E-04	0.173E-03	-0.635E-04	0.346E-03	-0.128E-03
	100000.	0.825E-03	-0.322E-04	0.186E-03	-0.747E-04	0.368E-03	-0.153E-03
	150000.	0.796E-03	-0.287E-04	0.192E-03	-0.807E-04	0.382E-03	-0.164E-03
	200000.	0.773E-03	-0.225E-04	0.200E-03	-0.875E-04	0.393E-03	-0.177E-03
	300000.	0.734E-03	-0.174E-04	0.206E-03	-0.919E-04	0.396E-03	-0.186E-03
	500000.	0.679E-03	-0.141E-04	0.208E-03	-0.101E-03	0.412E-03	-0.204E-03
P IV 5S 5P 7474.4 Å C= 0.75E+19	50000.	0.238E-01	-0.116E-02	0.227E-02	-0.817E-03	0.453E-02	-0.165E-02
	100000.	0.208E-01	-0.122E-02	0.261E-02	-0.103E-02	0.519E-02	-0.208E-02
	150000.	0.193E-01	-0.116E-02	0.281E-02	-0.115E-02	0.560E-02	-0.233E-02
	200000.	0.183E-01	-0.112E-02	0.295E-02	-0.123E-02	0.586E-02	-0.249E-02
	300000.	0.170E-01	-0.106E-02	0.309E-02	-0.136E-02	0.615E-02	-0.277E-02
	500000.	0.155E-01	-0.100E-02	0.328E-02	-0.151E-02	0.642E-02	-0.304E-02
P IV 5S 6P 2243.2 Å C= 0.36E+18	50000.	0.356E-02	-0.392E-05	0.511E-03	-0.121E-04	0.102E-02	-0.243E-04
	100000.	0.319E-02	-0.281E-04	0.569E-03	-0.177E-04	0.113E-02	-0.356E-04
	150000.	0.301E-02	-0.172E-04	0.595E-03	-0.214E-04	0.119E-02	-0.432E-04
	200000.	0.288E-02	-0.168E-04	0.606E-03	-0.233E-04	0.121E-02	-0.474E-04
	300000.	0.271E-02	-0.144E-04	0.620E-03	-0.260E-04	0.123E-02	-0.527E-04
	500000.	0.250E-02	-0.179E-04	0.635E-03	-0.297E-04	0.125E-02	-0.600E-04
P IV 5S 7P 1603.4 Å C= 0.10E+18	50000.	0.323E-02	0.669E-04	0.565E-03	0.358E-04	0.112E-02	0.723E-04
	100000.	0.303E-02	0.365E-04	0.613E-03	0.450E-04	0.122E-02	0.913E-04
	150000.	0.291E-02	0.378E-04	0.629E-03	0.505E-04	0.125E-02	0.102E-03
	200000.	0.282E-02	0.372E-04	0.638E-03	0.543E-04	0.127E-02	0.110E-03
	300000.	0.268E-02	0.411E-04	0.646E-03	0.600E-04	0.129E-02	0.121E-03
	500000.	0.248E-02	0.285E-04	0.663E-03	0.660E-04	0.130E-02	0.135E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5S 8P 1377.3 Å C= 0.33E+17	50000.	0.410E-02	-0.202E-03	0.790E-03	-0.301E-03	0.158E-02	-0.606E-03
	100000.	0.391E-02	-0.204E-03	0.859E-03	-0.353E-03	0.169E-02	-0.714E-03
	150000.	0.378E-02	-0.182E-03	0.883E-03	-0.382E-03	0.174E-02	-0.774E-03
	200000.	0.366E-02	-0.154E-03	0.901E-03	-0.410E-03	0.181E-02	-0.838E-03
	300000.	0.348E-02	-0.128E-03	0.944E-03	-0.439E-03	0.185E-02	-0.883E-03
	500000.	0.322E-02	-0.111E-03	0.946E-03	-0.470E-03	0.185E-02	-0.965E-03
P IV 6S 6P 13853.1 Å C= 0.14E+20	50000.	0.174	-0.152E-01	0.209E-01	-0.972E-02	0.416E-01	-0.197E-01
	100000.	0.160	-0.136E-01	0.238E-01	-0.117E-01	0.476E-01	-0.238E-01
	150000.	0.151	-0.127E-01	0.253E-01	-0.130E-01	0.508E-01	-0.262E-01
	200000.	0.146	-0.122E-01	0.263E-01	-0.139E-01	0.529E-01	-0.282E-01
	300000.	0.137	-0.117E-01	0.272E-01	-0.149E-01	0.552E-01	-0.305E-01
	500000.	0.126	-0.986E-02	0.293E-01	-0.165E-01	0.591E-01	-0.338E-01
P IV 6S 7P 3999.2 Å C= 0.63E+18	50000.	0.231E-01	-0.803E-03	0.353E-02	-0.699E-03	0.704E-02	-0.142E-02
	100000.	0.219E-01	-0.790E-03	0.385E-02	-0.840E-03	0.767E-02	-0.171E-02
	150000.	0.211E-01	-0.759E-03	0.397E-02	-0.934E-03	0.788E-02	-0.188E-02
	200000.	0.205E-01	-0.730E-03	0.400E-02	-0.997E-03	0.800E-02	-0.202E-02
	300000.	0.194E-01	-0.672E-03	0.410E-02	-1.07E-02	0.814E-02	-0.218E-02
	500000.	0.180E-01	-0.586E-03	0.421E-02	-0.119E-02	0.838E-02	-0.243E-02
P IV 6S 8P 2837.4 Å C= 0.14E+18	50000.	0.188E-01	-0.152E-02	0.343E-02	-0.144E-02	0.679E-02	-0.291E-02
	100000.	0.181E-01	-0.140E-02	0.367E-02	-0.169E-02	0.732E-02	-0.347E-02
	150000.	0.175E-01	-0.129E-02	0.381E-02	-0.183E-02	0.762E-02	-0.370E-02
	200000.	0.170E-01	-0.115E-02	0.394E-02	-0.192E-02	0.777E-02	-0.390E-02
	300000.	0.162E-01	-0.101E-02	0.413E-02	-0.209E-02	0.816E-02	-0.433E-02
	500000.	0.150E-01	-0.857E-03	0.435E-02	-0.232E-02	0.833E-02	-0.466E-02
P IV 7S 7P 25369.5 Å C= 0.25E+20	50000.	1.22	-0.187	0.163	-0.938E-01	0.328	-0.189
	100000.	1.16	-0.147	0.186	-0.111	0.372	-0.225
	150000.	1.12	-0.131	0.195	-0.120	0.397	-0.244
	200000.	1.09	-0.125	0.204	-0.129	0.397	-0.255
	300000.	1.03	-0.113	0.211	-0.136	0.420	-0.273
	500000.	0.950	-0.888E-01	0.236	-0.151	0.460	-0.307
P IV 7S 8P 7052.5 Å C= 0.87E+18	50000.	0.139	-0.228E-01	0.228E-01	-0.124E-01	0.454E-01	-0.251E-01
	100000.	0.134	-0.182E-01	0.248E-01	-0.143E-01	0.496E-01	-0.291E-01
	150000.	0.129	-0.164E-01	0.267E-01	-0.159E-01	0.530E-01	-0.322E-01
	200000.	0.126	-0.151E-01	0.280E-01	-0.167E-01	0.556E-01	-0.342E-01
	300000.	0.119	-0.130E-01	0.285E-01	-0.177E-01	0.578E-01	-0.364E-01
	500000.	0.110	-0.104E-01	0.310E-01	-0.188E-01	0.608E-01	-0.388E-01
P IV 3P 4S 630.8 Å C= 0.12E+18	50000.	0.355E-04	0.349E-05	0.110E-05	0.189E-05	0.217E-05	0.380E-05
	100000.	0.262E-04	0.358E-05	0.200E-05	0.262E-05	0.399E-05	0.528E-05
	150000.	0.224E-04	0.387E-05	0.274E-05	0.299E-05	0.552E-05	0.605E-05
	200000.	0.204E-04	0.367E-05	0.308E-05	0.323E-05	0.622E-05	0.655E-05
	300000.	0.180E-04	0.348E-05	0.362E-05	0.358E-05	0.728E-05	0.728E-05
	500000.	0.155E-04	0.328E-05	0.429E-05	0.405E-05	0.870E-05	0.829E-05
P IV 3P 5S 415.4 Å C= 0.23E+17	50000.	0.370E-04	0.860E-05	0.278E-05	0.375E-05	0.556E-05	0.759E-05
	100000.	0.298E-04	0.762E-05	0.427E-05	0.456E-05	0.864E-05	0.927E-05
	150000.	0.267E-04	0.701E-05	0.497E-05	0.507E-05	0.100E-04	0.103E-04
	200000.	0.246E-04	0.669E-05	0.544E-05	0.547E-05	0.110E-04	0.110E-04
	300000.	0.220E-04	0.622E-05	0.628E-05	0.596E-05	0.127E-04	0.122E-04
	500000.	0.193E-04	0.578E-05	0.714E-05	0.665E-05	0.145E-04	0.133E-04
P IV 3P 6S 359.6 Å C= 0.93E+16	50000.	0.602E-04	0.220E-04	0.707E-05	0.787E-05	0.143E-04	0.159E-04
	100000.	0.519E-04	0.179E-04	0.932E-05	0.940E-05	0.188E-04	0.190E-04
	150000.	0.472E-04	0.153E-04	0.106E-04	0.104E-04	0.216E-04	0.209E-04
	200000.	0.441E-04	0.140E-04	0.117E-04	0.110E-04	0.239E-04	0.224E-04
	300000.	0.402E-04	0.129E-04	0.133E-04	0.119E-04	0.265E-04	0.245E-04
	500000.	0.359E-04	0.111E-04	0.144E-04	0.129E-04	0.288E-04	0.263E-04
P IV 3P 7S 334.3 Å C= 0.44E+16	50000.	0.110E-03	0.472E-04	0.169E-04	0.174E-04	0.345E-04	0.353E-04
	100000.	0.977E-04	0.368E-04	0.214E-04	0.206E-04	0.439E-04	0.417E-04
	150000.	0.908E-04	0.323E-04	0.240E-04	0.223E-04	0.485E-04	0.449E-04
	200000.	0.858E-04	0.299E-04	0.264E-04	0.239E-04	0.522E-04	0.487E-04
	300000.	0.789E-04	0.262E-04	0.274E-04	0.255E-04	0.558E-04	0.512E-04
	500000.	0.707E-04	0.213E-04	0.325E-04	0.275E-04	0.651E-04	0.565E-04

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 5S 1907.5 Å C= 0.49E+18	50000.	0.101E-02	0.132E-03	0.702E-04	0.763E-04	0.140E-03	0.154E-03
	100000.	0.827E-03	0.140E-03	0.988E-04	0.933E-04	0.198E-03	0.189E-03
	150000.	0.748E-03	0.128E-03	0.113E-03	0.103E-03	0.225E-03	0.209E-03
	200000.	0.697E-03	0.122E-03	0.122E-03	0.111E-03	0.249E-03	0.225E-03
	300000.	0.633E-03	0.116E-03	0.140E-03	0.123E-03	0.279E-03	0.248E-03
	500000.	0.567E-03	0.109E-03	0.157E-03	0.134E-03	0.324E-03	0.275E-03
P IV 4P 6S 1113.8 Å C= 0.90E+17	50000.	0.648E-03	0.184E-03	0.690E-04	0.749E-04	0.139E-03	0.152E-03
	100000.	0.558E-03	0.159E-03	0.901E-04	0.895E-04	0.183E-03	0.181E-03
	150000.	0.512E-03	0.137E-03	0.102E-03	0.986E-04	0.210E-03	0.199E-03
	200000.	0.481E-03	0.126E-03	0.112E-03	0.105E-03	0.229E-03	0.214E-03
	300000.	0.442E-03	0.114E-03	0.129E-03	0.114E-03	0.253E-03	0.232E-03
	500000.	0.397E-03	0.101E-03	0.139E-03	0.123E-03	0.280E-03	0.249E-03
P IV 4P 7S 902.1 Å C= 0.32E+17	50000.	0.847E-03	0.338E-03	0.123E-03	0.127E-03	0.252E-03	0.257E-03
	100000.	0.750E-03	0.263E-03	0.156E-03	0.149E-03	0.320E-03	0.303E-03
	150000.	0.699E-03	0.229E-03	0.175E-03	0.162E-03	0.354E-03	0.326E-03
	200000.	0.662E-03	0.212E-03	0.192E-03	0.174E-03	0.380E-03	0.354E-03
	300000.	0.611E-03	0.187E-03	0.199E-03	0.185E-03	0.406E-03	0.372E-03
	500000.	0.550E-03	0.152E-03	0.237E-03	0.200E-03	0.472E-03	0.411E-03
P IV 5P 6S 4169.9 Å C= 0.13E+19	50000.	0.112E-01	0.204E-02	0.112E-02	0.982E-03	0.225E-02	0.199E-02
	100000.	0.101E-01	0.160E-02	0.140E-02	0.118E-02	0.279E-02	0.240E-02
	150000.	0.944E-02	0.150E-02	0.158E-02	0.131E-02	0.314E-02	0.266E-02
	200000.	0.900E-02	0.142E-02	0.166E-02	0.139E-02	0.337E-02	0.279E-02
	300000.	0.839E-02	0.135E-02	0.182E-02	0.150E-02	0.369E-02	0.305E-02
	500000.	0.765E-02	0.115E-02	0.203E-02	0.163E-02	0.408E-02	0.329E-02
P IV 5P 7S 2220.0 Å C= 0.19E+18	50000.	0.568E-02	0.186E-02	0.766E-03	0.755E-03	0.154E-02	0.153E-02
	100000.	0.516E-02	0.148E-02	0.957E-03	0.889E-03	0.195E-02	0.182E-02
	150000.	0.485E-02	0.126E-02	0.106E-02	0.964E-03	0.218E-02	0.195E-02
	200000.	0.463E-02	0.119E-02	0.116E-02	0.104E-02	0.232E-02	0.211E-02
	300000.	0.431E-02	0.106E-02	0.122E-02	0.110E-02	0.248E-02	0.221E-02
	500000.	0.391E-02	0.853E-03	0.145E-02	0.120E-02	0.285E-02	0.244E-02
P IV 6P 7S 7222.9 Å C= 0.21E+19	50000.	0.724E-01	0.178E-01	0.923E-02	0.782E-02	0.186E-01	0.158E-01
	100000.	0.669E-01	0.136E-01	0.113E-01	0.925E-02	0.226E-01	0.188E-01
	150000.	0.638E-01	0.120E-01	0.122E-01	0.991E-02	0.249E-01	0.203E-01
	200000.	0.613E-01	0.114E-01	0.129E-01	0.107E-01	0.256E-01	0.218E-01
	300000.	0.576E-01	0.102E-01	0.137E-01	0.113E-01	0.275E-01	0.229E-01
	500000.	0.526E-01	0.799E-02	0.157E-01	0.125E-01	0.318E-01	0.255E-01
P IV 3P 3D 826.3 Å C= 0.46E+18	50000.	0.337E-04	-0.517E-07	0.137E-05	0.864E-08	0.267E-05	0.173E-07
	100000.	0.245E-04	-0.978E-07	0.217E-05	0.173E-07	0.429E-05	0.345E-07
	150000.	0.206E-04	-0.575E-07	0.266E-05	0.257E-07	0.526E-05	0.515E-07
	200000.	0.184E-04	-0.564E-07	0.294E-05	0.338E-07	0.584E-05	0.677E-07
	300000.	0.159E-04	-0.963E-07	0.317E-05	0.481E-07	0.629E-05	0.965E-07
	500000.	0.136E-04	-0.114E-06	0.346E-05	0.697E-07	0.690E-05	0.140E-06
P IV 3P 4D 444.7 Å C= 0.21E+17	50000.	0.332E-04	0.206E-05	0.287E-05	0.184E-05	0.568E-05	0.370E-05
	100000.	0.267E-04	0.215E-05	0.378E-05	0.246E-05	0.756E-05	0.498E-05
	150000.	0.237E-04	0.211E-05	0.421E-05	0.274E-05	0.841E-05	0.554E-05
	200000.	0.219E-04	0.205E-05	0.451E-05	0.293E-05	0.907E-05	0.596E-05
	300000.	0.197E-04	0.196E-05	0.497E-05	0.325E-05	0.996E-05	0.662E-05
	500000.	0.175E-04	0.180E-05	0.561E-05	0.367E-05	0.111E-04	0.749E-05
P IV 3P 5D 371.8 Å C= 0.86E+16	50000.	0.551E-04	0.577E-05	0.697E-05	0.450E-05	0.139E-04	0.910E-05
	100000.	0.477E-04	0.510E-05	0.832E-05	0.537E-05	0.166E-04	0.109E-04
	150000.	0.438E-04	0.499E-05	0.912E-05	0.595E-05	0.184E-04	0.121E-04
	200000.	0.413E-04	0.480E-05	0.969E-05	0.639E-05	0.193E-04	0.129E-04
	300000.	0.380E-04	0.458E-05	0.105E-04	0.700E-05	0.209E-04	0.142E-04
	500000.	0.342E-04	0.388E-05	0.116E-04	0.768E-05	0.231E-04	0.158E-04
P IV 3P 6D 339.4 Å C= 0.28E+16	50000.	0.114E-03	0.174E-04	0.189E-04	0.146E-04	0.379E-04	0.295E-04
	100000.	0.101E-03	0.158E-04	0.226E-04	0.173E-04	0.452E-04	0.349E-04
	150000.	0.941E-04	0.151E-04	0.243E-04	0.186E-04	0.490E-04	0.376E-04
	200000.	0.892E-04	0.141E-04	0.263E-04	0.196E-04	0.533E-04	0.405E-04
	300000.	0.824E-04	0.124E-04	0.293E-04	0.215E-04	0.573E-04	0.439E-04
	500000.	0.742E-04	0.102E-04	0.308E-04	0.236E-04	0.602E-04	0.479E-04

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 7D 324.0 Å C= 0.15E+16	50000.	0.200E-03	0.400E-04	0.390E-04	0.309E-04	0.791E-04	0.626E-04
	100000.	0.185E-03	0.350E-04	0.465E-04	0.358E-04	0.929E-04	0.729E-04
	150000.	0.175E-03	0.315E-04	0.497E-04	0.385E-04	0.995E-04	0.782E-04
	200000.	0.168E-03	0.282E-04	0.515E-04	0.404E-04	0.104E-03	0.816E-04
	300000.	0.156E-03	0.240E-04	0.563E-04	0.439E-04	0.112E-03	0.890E-04
	500000.	0.141E-03	0.201E-04	0.587E-04	0.470E-04	0.115E-03	0.945E-04
P IV 4P 4D 2735.1 Å C= 0.78E+18	50000.	0.172E-02	0.524E-04	0.149E-03	0.617E-04	0.295E-03	0.125E-03
	100000.	0.138E-02	0.579E-04	0.181E-03	0.837E-04	0.361E-03	0.170E-03
	150000.	0.123E-02	0.523E-04	0.198E-03	0.930E-04	0.395E-03	0.189E-03
	200000.	0.114E-02	0.486E-04	0.210E-03	0.100E-03	0.417E-03	0.203E-03
	300000.	0.104E-02	0.487E-04	0.226E-03	0.112E-03	0.452E-03	0.225E-03
	500000.	0.927E-03	0.434E-04	0.243E-03	0.125E-03	0.477E-03	0.253E-03
P IV 4P 5D 1239.6 Å C= 0.96E+17	50000.	0.696E-03	0.579E-04	0.818E-04	0.490E-04	0.163E-03	0.993E-04
	100000.	0.598E-03	0.512E-04	0.967E-04	0.586E-04	0.194E-03	0.119E-03
	150000.	0.548E-03	0.495E-04	0.106E-03	0.653E-04	0.212E-03	0.132E-03
	200000.	0.516E-03	0.472E-04	0.112E-03	0.697E-04	0.224E-03	0.142E-03
	300000.	0.475E-03	0.455E-04	0.120E-03	0.766E-04	0.237E-03	0.154E-03
	500000.	0.429E-03	0.380E-04	0.132E-03	0.841E-04	0.261E-03	0.172E-03
P IV 4P 6D 940.2 Å C= 0.21E+17	50000.	0.919E-03	0.128E-03	0.147E-03	0.112E-03	0.293E-03	0.225E-03
	100000.	0.812E-03	0.118E-03	0.175E-03	0.133E-03	0.349E-03	0.267E-03
	150000.	0.755E-03	0.112E-03	0.188E-03	0.143E-03	0.378E-03	0.288E-03
	200000.	0.716E-03	0.104E-03	0.203E-03	0.150E-03	0.411E-03	0.311E-03
	300000.	0.662E-03	0.915E-04	0.225E-03	0.164E-03	0.442E-03	0.337E-03
	500000.	0.596E-03	0.752E-04	0.237E-03	0.180E-03	0.461E-03	0.365E-03
P IV 4P 7D 830.9 Å C= 0.10E+17	50000.	0.135E-02	0.261E-03	0.257E-03	0.203E-03	0.522E-03	0.411E-03
	100000.	0.125E-02	0.222E-03	0.306E-03	0.235E-03	0.612E-03	0.479E-03
	150000.	0.118E-02	0.200E-03	0.327E-03	0.253E-03	0.656E-03	0.514E-03
	200000.	0.113E-02	0.182E-03	0.339E-03	0.265E-03	0.686E-03	0.536E-03
	300000.	0.105E-02	0.155E-03	0.370E-03	0.288E-03	0.738E-03	0.586E-03
	500000.	0.948E-03	0.130E-03	0.387E-03	0.309E-03	0.759E-03	0.622E-03
P IV 5P 5D 6725.6 Å C= 0.28E+19	50000.	0.262E-01	0.119E-02	0.309E-02	0.122E-02	0.614E-02	0.247E-02
	100000.	0.232E-01	0.833E-03	0.353E-02	0.146E-02	0.707E-02	0.295E-02
	150000.	0.216E-01	0.872E-03	0.379E-02	0.163E-02	0.758E-02	0.328E-02
	200000.	0.205E-01	0.824E-03	0.392E-02	0.176E-02	0.789E-02	0.354E-02
	300000.	0.191E-01	0.784E-03	0.411E-02	0.189E-02	0.812E-02	0.384E-02
	500000.	0.174E-01	0.587E-03	0.427E-02	0.208E-02	0.842E-02	0.424E-02
P IV 5P 6D 2465.7 Å C= 0.15E+18	50000.	0.701E-02	0.792E-03	0.104E-02	0.751E-03	0.210E-02	0.152E-02
	100000.	0.628E-02	0.712E-03	0.124E-02	0.890E-03	0.248E-02	0.180E-02
	150000.	0.587E-02	0.690E-03	0.132E-02	0.956E-03	0.268E-02	0.195E-02
	200000.	0.558E-02	0.636E-03	0.144E-02	0.103E-02	0.286E-02	0.210E-02
	300000.	0.518E-02	0.552E-03	0.158E-02	0.112E-02	0.307E-02	0.229E-02
	500000.	0.469E-02	0.445E-03	0.166E-02	0.122E-02	0.320E-02	0.245E-02
P IV 5P 7D 1833.1 Å C= 0.49E+17	50000.	0.693E-02	0.113E-02	0.126E-02	0.980E-03	0.257E-02	0.199E-02
	100000.	0.644E-02	0.102E-02	0.150E-02	0.114E-02	0.299E-02	0.231E-02
	150000.	0.610E-02	0.921E-03	0.160E-02	0.122E-02	0.319E-02	0.248E-02
	200000.	0.584E-02	0.839E-03	0.166E-02	0.128E-02	0.338E-02	0.261E-02
	300000.	0.544E-02	0.712E-03	0.181E-02	0.139E-02	0.358E-02	0.283E-02
	500000.	0.493E-02	0.592E-03	0.190E-02	0.150E-02	0.371E-02	0.301E-02
P IV 6P 6D 10688.7 Å C= 0.27E+19	50000.	0.158	0.126E-01	0.228E-01	0.136E-01	0.458E-01	0.276E-01
	100000.	0.143	0.116E-01	0.262E-01	0.161E-01	0.529E-01	0.330E-01
	150000.	0.135	0.110E-01	0.278E-01	0.175E-01	0.566E-01	0.359E-01
	200000.	0.129	0.101E-01	0.298E-01	0.188E-01	0.582E-01	0.379E-01
	300000.	0.120	0.854E-02	0.319E-01	0.205E-01	0.614E-01	0.411E-01
	500000.	0.110	0.672E-02	0.333E-01	0.219E-01	0.653E-01	0.447E-01
P IV 6P 7D 4282.4 Å C= 0.27E+18	50000.	0.417E-01	0.576E-02	0.722E-02	0.530E-02	0.146E-01	0.108E-01
	100000.	0.389E-01	0.524E-02	0.847E-02	0.616E-02	0.169E-01	0.125E-01
	150000.	0.369E-01	0.468E-02	0.893E-02	0.658E-02	0.178E-01	0.133E-01
	200000.	0.354E-01	0.426E-02	0.935E-02	0.692E-02	0.188E-01	0.141E-01
	300000.	0.331E-01	0.359E-02	0.101E-01	0.751E-02	0.196E-01	0.151E-01
	500000.	0.301E-01	0.297E-02	0.104E-01	0.802E-02	0.205E-01	0.162E-01

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 7P 7D 17969.7 Å C= 0.47E+19	50000.	0.884	0.913E-01	0.144	0.925E-01	0.291	0.187
	100000.	0.839	0.854E-01	0.165	0.108	0.328	0.220
	150000.	0.804	0.763E-01	0.172	0.115	0.343	0.232
	200000.	0.775	0.691E-01	0.179	0.120	0.357	0.244
	300000.	0.729	0.570E-01	0.192	0.131	0.375	0.263
	500000.	0.667	0.475E-01	0.198	0.140	0.386	0.282
P IV 3D 4P 1486.1 Å C= 0.66E+18	50000.	0.289E-03	0.769E-05	0.231E-04	0.398E-05	0.456E-04	0.799E-05
	100000.	0.220E-03	0.720E-05	0.307E-04	0.597E-05	0.611E-04	0.121E-04
	150000.	0.192E-03	0.830E-05	0.332E-04	0.727E-05	0.659E-04	0.147E-04
	200000.	0.176E-03	0.874E-05	0.349E-04	0.814E-05	0.694E-04	0.165E-04
	300000.	0.158E-03	0.788E-05	0.373E-04	0.904E-05	0.743E-04	0.183E-04
	500000.	0.140E-03	0.762E-05	0.398E-04	0.103E-04	0.797E-04	0.209E-04
P IV 3D 5P 751.4 Å C= 0.76E+17	50000.	0.168E-03	0.900E-05	0.230E-04	0.597E-05	0.457E-04	0.120E-04
	100000.	0.144E-03	0.105E-04	0.262E-04	0.781E-05	0.521E-04	0.158E-04
	150000.	0.132E-03	0.966E-05	0.280E-04	0.868E-05	0.559E-04	0.176E-04
	200000.	0.125E-03	0.948E-05	0.293E-04	0.936E-05	0.585E-04	0.190E-04
	300000.	0.115E-03	0.906E-05	0.305E-04	0.103E-04	0.608E-04	0.211E-04
	500000.	0.105E-03	0.861E-05	0.317E-04	0.117E-04	0.630E-04	0.235E-04
P IV 3D 6P 608.7 Å C= 0.27E+17	50000.	0.217E-03	0.145E-04	0.381E-04	0.766E-05	0.759E-04	0.155E-04
	100000.	0.193E-03	0.137E-04	0.426E-04	0.937E-05	0.849E-04	0.190E-04
	150000.	0.181E-03	0.132E-04	0.445E-04	0.104E-04	0.889E-04	0.210E-04
	200000.	0.173E-03	0.127E-04	0.453E-04	0.111E-04	0.906E-04	0.226E-04
	300000.	0.163E-03	0.121E-04	0.466E-04	0.123E-04	0.936E-04	0.249E-04
	500000.	0.150E-03	0.111E-04	0.478E-04	0.135E-04	0.956E-04	0.278E-04
P IV 3D 7P 549.2 Å C= 0.12E+17	50000.	0.342E-03	0.205E-04	0.666E-04	0.914E-05	0.133E-03	0.185E-04
	100000.	0.321E-03	0.176E-04	0.723E-04	0.109E-04	0.144E-03	0.222E-04
	150000.	0.308E-03	0.165E-04	0.743E-04	0.121E-04	0.148E-03	0.245E-04
	200000.	0.299E-03	0.158E-04	0.752E-04	0.130E-04	0.150E-03	0.262E-04
	300000.	0.284E-03	0.156E-04	0.768E-04	0.142E-04	0.152E-03	0.287E-04
	500000.	0.264E-03	0.135E-04	0.782E-04	0.159E-04	0.155E-03	0.323E-04
P IV 3D 8P 520.0 Å C= 0.47E+16	50000.	0.552E-03	-0.188E-04	0.112E-03	-0.409E-04	0.224E-03	-0.828E-04
	100000.	0.526E-03	-0.179E-04	0.120E-03	-0.482E-04	0.238E-03	-0.985E-04
	150000.	0.509E-03	-0.156E-04	0.125E-03	-0.519E-04	0.248E-03	-0.106E-03
	200000.	0.494E-03	-0.119E-04	0.129E-03	-0.563E-04	0.254E-03	-0.114E-03
	300000.	0.469E-03	-0.869E-05	0.134E-03	-0.591E-04	0.256E-03	-0.120E-03
	500000.	0.434E-03	-0.679E-05	0.136E-03	-0.653E-04	0.268E-03	-0.132E-03
P IV 4D 5P 3419.9 Å C= 0.12E+19	50000.	0.445E-02	0.490E-04	0.529E-03	0.253E-04	0.105E-02	0.509E-04
	100000.	0.383E-02	0.815E-04	0.598E-03	0.373E-04	0.119E-02	0.752E-04
	150000.	0.353E-02	0.691E-04	0.637E-03	0.455E-04	0.127E-02	0.919E-04
	200000.	0.334E-02	0.701E-04	0.662E-03	0.500E-04	0.132E-02	0.101E-03
	300000.	0.309E-02	0.677E-04	0.683E-03	0.557E-04	0.136E-02	0.113E-03
	500000.	0.281E-02	0.692E-04	0.706E-03	0.632E-04	0.140E-02	0.129E-03
P IV 4D 6P 1654.5 Å C= 0.20E+18	50000.	0.181E-02	0.678E-04	0.290E-03	0.397E-04	0.579E-03	0.801E-04
	100000.	0.161E-02	0.650E-04	0.324E-03	0.498E-04	0.646E-03	0.101E-03
	150000.	0.151E-02	0.644E-04	0.338E-03	0.557E-04	0.675E-03	0.113E-03
	200000.	0.145E-02	0.624E-04	0.345E-03	0.598E-04	0.686E-03	0.121E-03
	300000.	0.136E-02	0.603E-04	0.353E-03	0.663E-04	0.704E-03	0.134E-03
	500000.	0.125E-02	0.558E-04	0.361E-03	0.732E-04	0.717E-03	0.148E-03
P IV 4D 7P 1278.3 Å C= 0.64E+17	50000.	0.198E-02	0.858E-04	0.366E-03	0.414E-04	0.728E-03	0.836E-04
	100000.	0.185E-02	0.726E-04	0.397E-03	0.496E-04	0.792E-03	0.101E-03
	150000.	0.177E-02	0.688E-04	0.407E-03	0.551E-04	0.811E-03	0.112E-03
	200000.	0.172E-02	0.668E-04	0.414E-03	0.591E-04	0.823E-03	0.120E-03
	300000.	0.163E-02	0.671E-04	0.420E-03	0.652E-04	0.839E-03	0.133E-03
	500000.	0.151E-02	0.573E-04	0.430E-03	0.709E-04	0.849E-03	0.146E-03
P IV 4D 8P 1130.4 Å C= 0.22E+17	50000.	0.270E-02	-0.105E-03	0.536E-03	-0.196E-03	0.107E-02	-0.396E-03
	100000.	0.257E-02	-0.101E-03	0.576E-03	-0.231E-03	0.114E-02	-0.471E-03
	150000.	0.248E-02	-0.888E-04	0.593E-03	-0.250E-03	0.118E-02	-0.505E-03
	200000.	0.241E-02	-0.703E-04	0.615E-03	-0.270E-03	0.122E-02	-0.546E-03
	300000.	0.229E-02	-0.546E-04	0.634E-03	-0.285E-03	0.123E-02	-0.574E-03
	500000.	0.212E-02	-0.442E-04	0.643E-03	-0.310E-03	0.127E-02	-0.632E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5D 6P 6123.1 Å C= 0.23E+19	50000.	0.315E-01	-0.267E-03	0.451E-02	-0.684E-03	0.898E-02	-0.138E-02
	100000.	0.285E-01	-0.969E-04	0.503E-02	-0.845E-03	0.100E-01	-0.171E-02
	150000.	0.268E-01	-0.826E-04	0.522E-02	-0.939E-03	0.104E-01	-0.191E-02
	200000.	0.257E-01	-0.661E-04	0.533E-02	-0.101E-02	0.106E-01	-0.204E-02
	300000.	0.241E-01	-0.474E-04	0.546E-02	-0.112E-02	0.109E-01	-0.226E-02
	500000.	0.222E-01	0.506E-04	0.559E-02	-0.123E-02	0.111E-01	-0.248E-02
P IV 5D 7P 2931.0 Å C= 0.34E+18	50000.	0.118E-01	0.171E-03	0.201E-02	-0.458E-04	0.400E-02	-0.923E-04
	100000.	0.111E-01	0.149E-03	0.218E-02	-0.632E-04	0.434E-02	-0.128E-03
	150000.	0.107E-01	0.138E-03	0.223E-02	-0.711E-04	0.446E-02	-0.144E-03
	200000.	0.103E-01	0.138E-03	0.227E-02	-0.773E-04	0.451E-02	-0.157E-03
	300000.	0.978E-02	0.151E-03	0.231E-02	-0.856E-04	0.456E-02	-0.173E-03
	500000.	0.906E-02	0.137E-03	0.236E-02	-0.968E-04	0.463E-02	-0.197E-03
P IV 5D 8P 2254.5 Å C= 0.89E+17	50000.	0.116E-01	-0.577E-03	0.218E-02	-0.829E-03	0.436E-02	-0.168E-02
	100000.	0.110E-01	-0.534E-03	0.235E-02	-0.984E-03	0.473E-02	-0.198E-02
	150000.	0.107E-01	-0.483E-03	0.242E-02	-0.106E-02	0.485E-02	-0.214E-02
	200000.	0.103E-01	-0.404E-03	0.245E-02	-0.112E-02	0.493E-02	-0.229E-02
	300000.	0.980E-02	-0.336E-03	0.263E-02	-0.122E-02	0.511E-02	-0.246E-02
	500000.	0.907E-02	-0.272E-03	0.259E-02	-0.128E-02	0.506E-02	-0.263E-02
P IV 6D 7P 11861.0 Å C= 0.34E+19	50000.	0.265	-0.116E-01	0.401E-01	-0.161E-01	0.801E-01	-0.326E-01
	100000.	0.248	-0.114E-01	0.437E-01	-0.193E-01	0.879E-01	-0.390E-01
	150000.	0.237	-0.110E-01	0.454E-01	-0.210E-01	0.914E-01	-0.424E-01
	200000.	0.228	-0.988E-02	0.478E-01	-0.221E-01	0.934E-01	-0.449E-01
	300000.	0.215	-0.785E-02	0.501E-01	-0.238E-01	0.961E-01	-0.479E-01
	500000.	0.198	-0.622E-02	0.518E-01	-0.257E-01	0.995E-01	-0.523E-01
P IV 6D 8P 5356.6 Å C= 0.50E+18	50000.	0.795E-01	-0.631E-02	0.138E-01	-0.647E-02	0.274E-01	-0.132E-01
	100000.	0.755E-01	-0.584E-02	0.150E-01	-0.760E-02	0.300E-01	-0.155E-01
	150000.	0.726E-01	-0.544E-02	0.153E-01	-0.812E-02	0.305E-01	-0.165E-01
	200000.	0.702E-01	-0.477E-02	0.159E-01	-0.858E-02	0.314E-01	-0.176E-01
	300000.	0.663E-01	-0.401E-02	0.171E-01	-0.948E-02	0.328E-01	-0.188E-01
	500000.	0.610E-01	-0.326E-02	0.186E-01	-0.102E-01	0.359E-01	-0.211E-01
P IV 7D 8P 21400.4 Å C= 0.66E+19	50000.	1.65	-0.198	0.281	-0.169	0.560	-0.341
	100000.	1.58	-0.178	0.310	-0.195	0.616	-0.394
	150000.	1.52	-0.161	0.326	-0.210	0.655	-0.429
	200000.	1.47	-0.143	0.348	-0.221	0.694	-0.455
	300000.	1.38	-0.120	0.370	-0.238	0.718	-0.481
	500000.	1.27	-0.993E-01	0.403	-0.262	0.783	-0.535
P IV 3D 4F 875.1 Å C= 0.80E+17	50000.	0.120E-03	-0.845E-05	0.838E-05	-0.372E-05	0.165E-04	-0.749E-05
	100000.	0.920E-04	-0.123E-05	0.113E-04	-0.516E-05	0.225E-04	-0.104E-04
	150000.	0.807E-04	-0.283E-06	0.124E-04	-0.586E-05	0.246E-04	-0.119E-04
	200000.	0.740E-04	-0.225E-07	0.131E-04	-0.636E-05	0.261E-04	-0.129E-04
	300000.	0.664E-04	-0.307E-06	0.143E-04	-0.702E-05	0.283E-04	-0.143E-04
	500000.	0.587E-04	-0.629E-07	0.158E-04	-0.795E-05	0.309E-04	-0.162E-04
P IV 3D 5F 648.5 Å C= 0.17E+16	50000.	0.264E-03	0.132E-04	0.652E-04	0.611E-04	0.125E-03	0.123E-03
	100000.	0.215E-03	0.113E-04	0.855E-04	0.724E-04	0.157E-03	0.146E-03
	150000.	0.191E-03	0.933E-05	0.101E-03	0.780E-04	0.178E-03	0.159E-03
	200000.	0.176E-03	0.803E-05	0.107E-03	0.836E-04	0.185E-03	0.166E-03
	300000.	0.158E-03	0.648E-05	0.125E-03	0.881E-04	0.209E-03	0.178E-03
	500000.	0.137E-03	0.537E-05	0.156E-03	0.983E-04	0.233E-03	0.200E-03
P IV 4D 4F 9599.5 Å C= 0.96E+19	50000.	0.236E-01	-0.108E-02	0.195E-02	-0.115E-02	0.386E-02	-0.232E-02
	100000.	0.189E-01	-0.117E-02	0.243E-02	-0.146E-02	0.485E-02	-0.297E-02
	150000.	0.169E-01	-0.103E-02	0.268E-02	-0.164E-02	0.535E-02	-0.332E-02
	200000.	0.157E-01	-0.970E-03	0.285E-02	-0.176E-02	0.572E-02	-0.357E-02
	300000.	0.142E-01	-0.968E-03	0.317E-02	-0.196E-02	0.628E-02	-0.397E-02
	500000.	0.126E-01	-0.862E-03	0.348E-02	-0.219E-02	0.681E-02	-0.446E-02
P IV 4D 5F 1985.9 Å C= 0.16E+17	50000.	0.281E-02	0.827E-04	0.604E-03	0.562E-03	0.117E-02	0.114E-02
	100000.	0.231E-02	0.624E-04	0.798E-03	0.666E-03	0.147E-02	0.134E-02
	150000.	0.207E-02	0.452E-04	0.937E-03	0.721E-03	0.166E-02	0.147E-02
	200000.	0.191E-02	0.341E-04	0.997E-03	0.760E-03	0.175E-02	0.153E-02
	300000.	0.172E-02	0.211E-04	0.118E-02	0.809E-03	0.193E-02	0.165E-02
	500000.	0.150E-02	0.138E-04	0.143E-02	0.915E-03	0.217E-02	0.184E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5D 5F 16012.6 Å C= 0.10E+19	50000.	0.234	-0.256E-02	0.391E-01	0.340E-01	0.751E-01	0.690E-01
	100000.	0.198	-0.259E-02	0.512E-01	0.405E-01	0.923E-01	0.821E-01
	150000.	0.179	-0.356E-02	0.582E-01	0.441E-01	0.102	0.883E-01
	200000.	0.167	-0.400E-02	0.652E-01	0.460E-01	0.111	0.927E-01
	300000.	0.152	-0.456E-02	0.760E-01	0.492E-01	0.125	0.100
	500000.	0.134	-0.396E-02	0.911E-01	0.544E-01	0.137	0.113
P IV 4F 5D 2968.1 Å C= 0.55E+18	50000.	0.423E-02	0.377E-03	0.479E-03	0.303E-03	0.958E-03	0.615E-03
	100000.	0.361E-02	0.339E-03	0.570E-03	0.363E-03	0.115E-02	0.737E-03
	150000.	0.330E-02	0.322E-03	0.625E-03	0.402E-03	0.125E-02	0.815E-03
	200000.	0.311E-02	0.307E-03	0.667E-03	0.431E-03	0.135E-02	0.883E-03
	300000.	0.286E-02	0.297E-03	0.720E-03	0.470E-03	0.143E-02	0.954E-03
	500000.	0.257E-02	0.249E-03	0.771E-03	0.515E-03	0.153E-02	0.103E-02
P IV 4F 6D 1684.1 Å C= 0.68E+17	50000.	0.302E-02	0.431E-03	0.474E-03	0.363E-03	0.947E-03	0.733E-03
	100000.	0.266E-02	0.394E-03	0.566E-03	0.431E-03	0.113E-02	0.869E-03
	150000.	0.247E-02	0.374E-03	0.606E-03	0.463E-03	0.121E-02	0.933E-03
	200000.	0.234E-02	0.347E-03	0.652E-03	0.487E-03	0.133E-02	0.100E-02
	300000.	0.217E-02	0.305E-03	0.724E-03	0.528E-03	0.145E-02	0.109E-02
	500000.	0.195E-02	0.251E-03	0.783E-03	0.592E-03	0.151E-02	0.119E-02
P IV 4F 7D 1362.9 Å C= 0.27E+17	50000.	0.367E-02	0.723E-03	0.695E-03	0.549E-03	0.141E-02	0.111E-02
	100000.	0.339E-02	0.627E-03	0.826E-03	0.635E-03	0.165E-02	0.129E-02
	150000.	0.321E-02	0.565E-03	0.884E-03	0.681E-03	0.177E-02	0.138E-02
	200000.	0.306E-02	0.499E-03	0.919E-03	0.719E-03	0.184E-02	0.145E-02
	300000.	0.285E-02	0.426E-03	0.997E-03	0.778E-03	0.199E-02	0.157E-02
	500000.	0.257E-02	0.357E-03	0.104E-02	0.833E-03	0.203E-02	0.168E-02
P IV 5F 6D 5143.5 Å C= 0.11E+18	50000.	0.392E-01	0.315E-02	0.369E-02	-0.112E-02	0.697E-02	-0.227E-02
	100000.	0.341E-01	0.294E-02	0.447E-02	-0.135E-02	0.786E-02	-0.274E-02
	150000.	0.314E-01	0.289E-02	0.497E-02	-0.149E-02	0.831E-02	-0.303E-02
	200000.	0.295E-01	0.272E-02	0.536E-02	-0.160E-02	0.852E-02	-0.323E-02
	300000.	0.270E-01	0.243E-02	0.611E-02	-0.173E-02	0.883E-02	-0.352E-02
	500000.	0.241E-01	0.201E-02	0.728E-02	-0.193E-02	0.943E-02	-0.387E-02
P IV 5F 7D 2990.6 Å C= 0.36E+17	50000.	0.213E-01	0.322E-02	0.293E-02	0.193E-02	0.570E-02	0.388E-02
	100000.	0.194E-01	0.269E-02	0.343E-02	0.225E-02	0.657E-02	0.457E-02
	150000.	0.182E-01	0.244E-02	0.380E-02	0.241E-02	0.704E-02	0.489E-02
	200000.	0.173E-01	0.223E-02	0.412E-02	0.259E-02	0.729E-02	0.523E-02
	300000.	0.160E-01	0.191E-02	0.443E-02	0.275E-02	0.771E-02	0.553E-02
	500000.	0.143E-01	0.160E-02	0.536E-02	0.308E-02	0.872E-02	0.624E-02
PERTURBER DENSITY = 1.E+16cm-3							
P IV 3S 3P 950.7 Å C= 0.81E+19	50000.	0.438E-03	-0.207E-05	0.101E-04	-0.283E-06	0.197E-04	-0.566E-06
	100000.	0.316E-03	-0.214E-05	0.178E-04	-0.563E-06	0.350E-04	-0.113E-05
	150000.	0.264E-03	-0.172E-05	0.218E-04	-0.825E-06	0.430E-04	-0.165E-05
	200000.	0.236E-03	-0.161E-05	0.251E-04	-0.106E-05	0.496E-04	-0.213E-05
	300000.	0.203E-03	-0.190E-05	0.280E-04	-0.143E-05	0.558E-04	-0.287E-05
	500000.	0.173E-03	-0.228E-05	0.308E-04	-0.192E-05	0.612E-04	-0.389E-05
P IV 3S 4P 388.3 Å C= 0.35E+18	50000.	0.193E-03	0.392E-05	0.146E-04	0.128E-05	0.288E-04	0.257E-05
	100000.	0.148E-03	0.266E-05	0.196E-04	0.212E-05	0.389E-04	0.427E-05
	150000.	0.130E-03	0.386E-05	0.211E-04	0.256E-05	0.419E-04	0.517E-05
	200000.	0.119E-03	0.419E-05	0.222E-04	0.296E-05	0.442E-04	0.598E-05
	300000.	0.107E-03	0.348E-05	0.237E-04	0.345E-05	0.472E-04	0.699E-05
	500000.	0.943E-04	0.342E-05	0.254E-04	0.393E-05	0.506E-04	0.796E-05
P IV 3S 5P 315.6 Å C= 0.57E+17	50000.	0.310E-03	-0.764E-05	0.356E-04	-0.140E-04	0.708E-04	-0.283E-04
	100000.	0.256E-03	-0.414E-05	0.411E-04	-0.177E-04	0.819E-04	-0.357E-04
	150000.	0.231E-03	-0.339E-05	0.445E-04	-0.198E-04	0.887E-04	-0.401E-04
	200000.	0.216E-03	-0.345E-05	0.470E-04	-0.212E-04	0.931E-04	-0.432E-04
	300000.	0.197E-03	-0.315E-05	0.500E-04	-0.236E-04	0.986E-04	-0.475E-04
	500000.	0.177E-03	-0.144E-05	0.530E-04	-0.258E-04	0.103E-03	-0.526E-04
P IV 3S 6P 282.3 Å C= 0.53E+17	50000.	0.475E-03	0.261E-04	0.827E-04	0.124E-04	0.165E-03	0.251E-04
	100000.	0.420E-03	0.252E-04	0.924E-04	0.156E-04	0.184E-03	0.315E-04
	150000.	0.393E-03	0.245E-04	0.965E-04	0.174E-04	0.193E-03	0.352E-04
	200000.	0.376E-03	0.237E-04	0.986E-04	0.188E-04	0.196E-03	0.379E-04
	300000.	0.353E-03	0.225E-04	0.100E-03	0.209E-04	0.201E-03	0.419E-04
	500000.	0.326E-03	0.211E-04	0.103E-03	0.231E-04	0.204E-03	0.469E-04

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4S 4P 4250.9 Å C= 0.43E+20	50000.	0.334E-01	-0.114E-02	0.187E-02	-0.102E-02	0.368E-02	-0.205E-02
	100000.	0.260E-01	-0.161E-02	0.257E-02	-0.140E-02	0.514E-02	-0.283E-02
	150000.	0.229E-01	-0.154E-02	0.283E-02	-0.157E-02	0.566E-02	-0.319E-02
	200000.	0.211E-01	-0.140E-02	0.302E-02	-0.170E-02	0.603E-02	-0.346E-02
	300000.	0.190E-01	-0.142E-02	0.329E-02	-0.189E-02	0.660E-02	-0.383E-02
	500000.	0.169E-01	-0.133E-02	0.367E-02	-0.216E-02	0.726E-02	-0.435E-02
P IV 4S 5P 1206.4 Å C= 0.83E+18	50000.	0.531E-02	-0.239E-03	0.536E-03	-0.259E-03	0.107E-02	-0.521E-03
	100000.	0.437E-02	-0.216E-03	0.624E-03	-0.322E-03	0.125E-02	-0.649E-03
	150000.	0.395E-02	-0.211E-03	0.683E-03	-0.358E-03	0.136E-02	-0.722E-03
	200000.	0.369E-02	-0.203E-03	0.725E-03	-0.382E-03	0.143E-02	-0.777E-03
	300000.	0.338E-02	-0.194E-03	0.777E-03	-0.424E-03	0.152E-02	-0.856E-03
	500000.	0.303E-02	-0.161E-03	0.837E-03	-0.466E-03	0.162E-02	-0.944E-03
P IV 4S 6P 831.7 Å C= 0.46E+18	50000.	0.449E-02	0.135E-03	0.717E-03	0.813E-04	0.143E-02	0.164E-03
	100000.	0.394E-02	0.127E-03	0.800E-03	0.105E-03	0.159E-02	0.212E-03
	150000.	0.369E-02	0.125E-03	0.835E-03	0.116E-03	0.167E-02	0.236E-03
	200000.	0.352E-02	0.125E-03	0.851E-03	0.126E-03	0.170E-02	0.255E-03
	300000.	0.330E-02	0.121E-03	0.870E-03	0.139E-03	0.174E-02	0.282E-03
	500000.	0.304E-02	0.114E-03	0.894E-03	0.155E-03	0.177E-02	0.316E-03
P IV 5S 5P 17528.3 Å C= 0.18E+21	50000.	1.79	-0.205	0.168	-0.149	0.339	-0.301
	100000.	1.50	-0.179	0.212	-0.180	0.427	-0.364
	150000.	1.35	-0.169	0.237	-0.198	0.480	-0.401
	200000.	1.26	-0.163	0.259	-0.214	0.510	-0.429
	300000.	1.14	-0.154	0.284	-0.231	0.560	-0.464
	500000.	1.01	-0.127	0.326	-0.258	0.611	-0.518
P IV 5S 6P 2322.8 Å C= 0.31E+19	50000.	0.457E-01	-0.153E-02	0.571E-02	-0.184E-02	0.114E-01	-0.373E-02
	100000.	0.403E-01	-0.127E-02	0.645E-02	-0.221E-02	0.128E-01	-0.447E-02
	150000.	0.375E-01	-0.116E-02	0.682E-02	-0.245E-02	0.135E-01	-0.495E-02
	200000.	0.357E-01	-0.112E-02	0.695E-02	-0.263E-02	0.138E-01	-0.535E-02
	300000.	0.332E-01	-0.102E-02	0.714E-02	-0.287E-02	0.142E-01	-0.581E-02
	500000.	0.302E-01	-0.745E-03	0.754E-02	-0.312E-02	0.146E-01	-0.633E-02
P IV 3P 4S 776.4 Å C= 0.14E+19	50000.	0.677E-03	0.596E-04	0.241E-04	0.370E-04	0.479E-04	0.748E-04
	100000.	0.507E-03	0.686E-04	0.417E-04	0.509E-04	0.835E-04	0.103E-03
	150000.	0.438E-03	0.697E-04	0.533E-04	0.567E-04	0.108E-03	0.115E-03
	200000.	0.399E-03	0.659E-04	0.604E-04	0.613E-04	0.123E-03	0.125E-03
	300000.	0.353E-03	0.634E-04	0.699E-04	0.685E-04	0.141E-03	0.139E-03
	500000.	0.305E-03	0.601E-04	0.823E-04	0.770E-04	0.168E-03	0.157E-03
P IV 3P 5S 485.5 Å C= 0.13E+18	50000.	0.786E-03	0.142E-03	0.874E-04	0.989E-04	0.177E-03	0.200E-03
	100000.	0.647E-03	0.129E-03	0.115E-03	0.119E-03	0.234E-03	0.241E-03
	150000.	0.573E-03	0.122E-03	0.133E-03	0.132E-03	0.268E-03	0.268E-03
	200000.	0.527E-03	0.118E-03	0.147E-03	0.141E-03	0.296E-03	0.285E-03
	300000.	0.470E-03	0.111E-03	0.168E-03	0.153E-03	0.337E-03	0.311E-03
	500000.	0.407E-03	0.951E-04	0.189E-03	0.170E-03	0.374E-03	0.340E-03
P IV 3P 6S 412.5 Å C= 0.11E+18	50000.	0.870E-03	0.347E-03	0.107E-03	0.116E-03	0.215E-03	0.235E-03
	100000.	0.735E-03	0.279E-03	0.137E-03	0.139E-03	0.281E-03	0.280E-03
	150000.	0.664E-03	0.241E-03	0.158E-03	0.152E-03	0.323E-03	0.310E-03
	200000.	0.619E-03	0.221E-03	0.174E-03	0.163E-03	0.352E-03	0.331E-03
	300000.	0.560E-03	0.201E-03	0.188E-03	0.173E-03	0.385E-03	0.351E-03
	500000.	0.495E-03	0.169E-03	0.215E-03	0.198E-03	0.424E-03	0.397E-03
P IV 3P 7S 380.2 Å C= 0.48E+17	50000.	0.160E-02	0.656E-03	0.258E-03	0.263E-03	0.525E-03	0.532E-03
	100000.	0.142E-02	0.516E-03	0.328E-03	0.308E-03	0.680E-03	0.627E-03
	150000.	0.132E-02	0.457E-03	0.360E-03	0.337E-03	0.740E-03	0.678E-03
	200000.	0.125E-02	0.422E-03	0.385E-03	0.353E-03	0.788E-03	0.714E-03
	300000.	0.115E-02	0.367E-03	0.449E-03	0.380E-03	0.907E-03	0.781E-03
	500000.	0.102E-02	0.297E-03	0.467E-03	0.426E-03	0.925E-03	0.856E-03
P IV 4P 5S 1863.6 Å C= 0.20E+19	50000.	0.141E-01	0.196E-02	0.135E-02	0.145E-02	0.272E-02	0.293E-02
	100000.	0.116E-01	0.181E-02	0.176E-02	0.174E-02	0.355E-02	0.353E-02
	150000.	0.103E-01	0.170E-02	0.202E-02	0.193E-02	0.405E-02	0.392E-02
	200000.	0.954E-02	0.163E-02	0.222E-02	0.207E-02	0.447E-02	0.417E-02
	300000.	0.855E-02	0.155E-02	0.253E-02	0.224E-02	0.506E-02	0.456E-02
	500000.	0.748E-02	0.131E-02	0.282E-02	0.249E-02	0.559E-02	0.498E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 6S 1110.1 Å C= 0.82E+18	50000.	0.692E-02	0.240E-02	0.788E-03	0.840E-03	0.158E-02	0.170E-02
	100000.	0.588E-02	0.193E-02	0.100E-02	0.100E-02	0.206E-02	0.203E-02
	150000.	0.535E-02	0.168E-02	0.115E-02	0.110E-02	0.236E-02	0.224E-02
	200000.	0.501E-02	0.153E-02	0.127E-02	0.117E-02	0.257E-02	0.239E-02
	300000.	0.457E-02	0.139E-02	0.138E-02	0.125E-02	0.282E-02	0.253E-02
	500000.	0.407E-02	0.119E-02	0.156E-02	0.143E-02	0.308E-02	0.287E-02
P IV 4P 7S 903.2 Å C= 0.27E+18	50000.	0.943E-02	0.367E-02	0.146E-02	0.149E-02	0.297E-02	0.300E-02
	100000.	0.840E-02	0.288E-02	0.185E-02	0.174E-02	0.384E-02	0.354E-02
	150000.	0.783E-02	0.253E-02	0.203E-02	0.190E-02	0.419E-02	0.382E-02
	200000.	0.740E-02	0.235E-02	0.217E-02	0.199E-02	0.446E-02	0.402E-02
	300000.	0.682E-02	0.204E-02	0.254E-02	0.215E-02	0.512E-02	0.442E-02
	500000.	0.609E-02	0.165E-02	0.263E-02	0.240E-02	0.523E-02	0.483E-02
P IV 5P 6S 3255.8 Å C= 0.60E+19	50000.	0.762E-01	0.211E-01	0.819E-02	0.780E-02	0.165E-01	0.158E-01
	100000.	0.658E-01	0.171E-01	0.101E-01	0.933E-02	0.206E-01	0.188E-01
	150000.	0.603E-01	0.148E-01	0.117E-01	0.103E-01	0.233E-01	0.209E-01
	200000.	0.568E-01	0.134E-01	0.125E-01	0.107E-01	0.255E-01	0.219E-01
	300000.	0.523E-01	0.124E-01	0.136E-01	0.119E-01	0.269E-01	0.242E-01
	500000.	0.470E-01	0.106E-01	0.160E-01	0.129E-01	0.317E-01	0.265E-01
P IV 5P 7S 1947.3 Å C= 0.13E+19	50000.	0.496E-01	0.175E-01	0.705E-02	0.708E-02	0.143E-01	0.142E-01
	100000.	0.444E-01	0.137E-01	0.888E-02	0.824E-02	0.182E-01	0.167E-01
	150000.	0.415E-01	0.119E-01	0.988E-02	0.901E-02	0.199E-01	0.182E-01
	200000.	0.393E-01	0.111E-01	0.105E-01	0.952E-02	0.211E-01	0.191E-01
	300000.	0.363E-01	0.970E-02	0.120E-01	0.100E-01	0.244E-01	0.208E-01
	500000.	0.326E-01	0.783E-02	0.128E-01	0.114E-01	0.249E-01	0.230E-01
P IV 6P 7S 7139.8 Å C= 0.17E+20	50000.	0.775	0.196	0.103	0.908E-01	0.208	0.183
	100000.	0.715	0.152	0.128	0.107	0.259	0.219
	150000.	0.678	0.135	0.138	0.115	0.282	0.234
	200000.	0.650	0.127	0.147	0.121	0.297	0.247
	300000.	0.608	0.112	0.166	0.132	0.333	0.273
	500000.	0.552	0.876E-01	0.171	0.147	0.337	0.294
P IV 3P 3D 877.5 Å C= 0.30E+19	50000.	0.607E-03	0.194E-04	0.265E-04	0.918E-05	0.519E-04	0.184E-04
	100000.	0.446E-03	0.173E-04	0.397E-04	0.146E-04	0.782E-04	0.294E-04
	150000.	0.380E-03	0.200E-04	0.473E-04	0.177E-04	0.940E-04	0.356E-04
	200000.	0.344E-03	0.215E-04	0.503E-04	0.201E-04	0.100E-03	0.407E-04
	300000.	0.302E-03	0.207E-04	0.548E-04	0.226E-04	0.109E-03	0.459E-04
	500000.	0.263E-03	0.196E-04	0.604E-04	0.260E-04	0.120E-03	0.528E-04
P IV 3P 4D 525.9 Å C= 0.14E+18	50000.	0.496E-03	-0.214E-04	0.429E-04	-0.268E-04	0.847E-04	-0.539E-04
	100000.	0.390E-03	-0.183E-04	0.559E-04	-0.356E-04	0.111E-03	-0.721E-04
	150000.	0.344E-03	-0.182E-04	0.624E-04	-0.396E-04	0.124E-03	-0.804E-04
	200000.	0.316E-03	-0.183E-04	0.673E-04	-0.426E-04	0.133E-03	-0.863E-04
	300000.	0.283E-03	-0.170E-04	0.753E-04	-0.474E-04	0.145E-03	-0.956E-04
	500000.	0.249E-03	-0.144E-04	0.839E-04	-0.526E-04	0.162E-03	-0.108E-03
P IV 3P 5D 429.5 Å C= 0.14E+18	50000.	0.691E-03	0.886E-04	0.939E-04	0.585E-04	0.188E-03	0.118E-03
	100000.	0.591E-03	0.822E-04	0.112E-03	0.700E-04	0.224E-03	0.142E-03
	150000.	0.541E-03	0.787E-04	0.123E-03	0.781E-04	0.245E-03	0.157E-03
	200000.	0.509E-03	0.759E-04	0.129E-03	0.832E-04	0.261E-03	0.169E-03
	300000.	0.469E-03	0.726E-04	0.139E-03	0.915E-04	0.275E-03	0.184E-03
	500000.	0.423E-03	0.637E-04	0.153E-03	0.101E-03	0.304E-03	0.206E-03
P IV 3P 6D 386.8 Å C= 0.36E+17	50000.	0.152E-02	0.247E-03	0.256E-03	0.197E-03	0.513E-03	0.399E-03
	100000.	0.136E-02	0.224E-03	0.308E-03	0.235E-03	0.613E-03	0.474E-03
	150000.	0.127E-02	0.214E-03	0.330E-03	0.255E-03	0.654E-03	0.512E-03
	200000.	0.120E-02	0.199E-03	0.353E-03	0.267E-03	0.701E-03	0.537E-03
	300000.	0.111E-02	0.175E-03	0.388E-03	0.287E-03	0.773E-03	0.583E-03
	500000.	0.101E-02	0.145E-03	0.427E-03	0.317E-03	0.824E-03	0.654E-03
P IV 3P 7D 367.7 Å C= 0.18E+17	50000.	0.262E-02	0.435E-03	0.511E-03	0.405E-03	*0.103E-02	*0.814E-03
	100000.	0.240E-02	0.401E-03	0.607E-03	0.468E-03	*0.122E-02	*0.950E-03
	150000.	0.226E-02	0.359E-03	0.642E-03	0.503E-03	*0.129E-02	*0.102E-02
	200000.	0.215E-02	0.326E-03	0.680E-03	0.530E-03	*0.135E-02	*0.107E-02
	300000.	0.199E-02	0.278E-03	0.739E-03	0.578E-03	*0.145E-02	*0.116E-02
	500000.	0.179E-02	0.233E-03	0.754E-03	0.622E-03	0.147E-02	0.125E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 4D 2645.1 Å C= 0.35E+19	50000.	0.164E-01	-0.764E-03	0.147E-02	-0.710E-03	0.292E-02	-0.143E-02
	100000.	0.131E-01	-0.626E-03	0.181E-02	-0.937E-03	0.359E-02	-0.190E-02
	150000.	0.116E-01	-0.667E-03	0.199E-02	-0.104E-02	0.395E-02	-0.211E-02
	200000.	0.108E-01	-0.681E-03	0.213E-02	-0.113E-02	0.420E-02	-0.228E-02
	300000.	0.976E-02	-0.616E-03	0.232E-02	-0.125E-02	0.456E-02	-0.253E-02
	500000.	0.868E-02	-0.545E-03	0.254E-02	-0.139E-02	0.482E-02	-0.282E-02
P IV 4P 5D 1242.0 Å C= 0.12E+19	50000.	0.652E-02	0.674E-03	0.830E-03	0.485E-03	0.166E-02	0.981E-03
	100000.	0.556E-02	0.642E-03	0.980E-03	0.580E-03	0.196E-02	0.118E-02
	150000.	0.509E-02	0.606E-03	0.108E-02	0.647E-03	0.214E-02	0.130E-02
	200000.	0.479E-02	0.583E-03	0.112E-02	0.688E-03	0.227E-02	0.140E-02
	300000.	0.442E-02	0.564E-03	0.121E-02	0.754E-03	0.239E-02	0.153E-02
	500000.	0.401E-02	0.491E-03	0.133E-02	0.841E-03	0.262E-02	0.172E-02
P IV 4P 6D 941.4 Å C= 0.21E+18	50000.	0.942E-02	0.142E-02	0.153E-02	0.116E-02	0.307E-02	0.236E-02
	100000.	0.838E-02	0.130E-02	0.184E-02	0.139E-02	0.366E-02	0.280E-02
	150000.	0.782E-02	0.123E-02	0.197E-02	0.151E-02	0.390E-02	0.302E-02
	200000.	0.742E-02	0.115E-02	0.211E-02	0.158E-02	0.419E-02	0.318E-02
	300000.	0.688E-02	0.101E-02	0.231E-02	0.170E-02	0.460E-02	0.345E-02
	500000.	0.621E-02	0.833E-03	0.254E-02	0.188E-02	0.489E-02	0.387E-02
P IV 4P 7D 835.7 Å C= 0.96E+17	50000.	0.138E-01	0.223E-02	0.265E-02	0.209E-02	*0.532E-02	*0.420E-02
	100000.	0.127E-01	0.206E-02	0.314E-02	0.242E-02	*0.632E-02	*0.491E-02
	150000.	0.119E-01	0.184E-02	0.333E-02	0.260E-02	*0.669E-02	*0.527E-02
	200000.	0.113E-01	0.167E-02	0.352E-02	0.274E-02	*0.698E-02	*0.552E-02
	300000.	0.105E-01	0.142E-02	0.383E-02	0.299E-02	*0.750E-02	*0.600E-02
	500000.	0.947E-02	0.119E-02	0.390E-02	0.321E-02	0.763E-02	0.644E-02
P IV 5P 5D 4728.8 Å C= 0.13E+20	50000.	0.128	0.120E-01	0.156E-01	0.869E-02	0.311E-01	0.176E-01
	100000.	0.110	0.106E-01	0.183E-01	0.104E-01	0.366E-01	0.212E-01
	150000.	0.101	0.101E-01	0.198E-01	0.115E-01	0.399E-01	0.235E-01
	200000.	0.957E-01	0.982E-02	0.209E-01	0.124E-01	0.418E-01	0.252E-01
	300000.	0.885E-01	0.940E-02	0.223E-01	0.135E-01	0.434E-01	0.271E-01
	500000.	0.803E-01	0.795E-02	0.239E-01	0.149E-01	0.466E-01	0.301E-01
P IV 5P 6D 2133.8 Å C= 0.11E+19	50000.	0.547E-01	0.776E-02	0.826E-02	0.616E-02	0.167E-01	0.125E-01
	100000.	0.487E-01	0.696E-02	0.993E-02	0.734E-02	0.199E-01	0.149E-01
	150000.	0.454E-01	0.662E-02	0.109E-01	0.805E-02	0.212E-01	0.162E-01
	200000.	0.431E-01	0.616E-02	0.112E-01	0.834E-02	0.225E-01	0.170E-01
	300000.	0.400E-01	0.544E-02	0.122E-01	0.892E-02	0.245E-01	0.182E-01
	500000.	0.361E-01	0.445E-02	0.134E-01	0.988E-02	0.265E-01	0.202E-01
P IV 5P 7D 1658.6 Å C= 0.38E+18	50000.	0.581E-01	0.916E-02	0.107E-01	0.835E-02	*0.213E-01	*0.167E-01
	100000.	0.531E-01	0.832E-02	0.125E-01	0.956E-02	*0.253E-01	*0.195E-01
	150000.	0.499E-01	0.743E-02	0.133E-01	0.104E-01	*0.268E-01	*0.210E-01
	200000.	0.476E-01	0.674E-02	0.140E-01	0.109E-01	*0.276E-01	*0.220E-01
	300000.	0.441E-01	0.574E-02	0.154E-01	0.119E-01	*0.299E-01	*0.239E-01
	500000.	0.397E-01	0.477E-02	0.156E-01	0.129E-01	0.306E-01	0.257E-01
P IV 6P 6D 10507.4 Å C= 0.26E+20	50000.	1.56	0.140	0.230	0.140	0.459	0.282
	100000.	1.42	0.129	0.266	0.167	0.528	0.335
	150000.	1.34	0.123	0.278	0.179	0.557	0.361
	200000.	1.28	0.113	0.294	0.189	0.595	0.390
	300000.	1.20	0.973E-01	0.318	0.206	0.639	0.424
	500000.	1.09	0.771E-01	0.342	0.228	0.657	0.461
P IV 6P 7D 4358.2 Å C= 0.26E+19	50000.	0.439	0.553E-01	0.763E-01	0.562E-01	*0.154	*0.113
	100000.	0.405	0.506E-01	0.891E-01	0.652E-01	*0.179	*0.132
	150000.	0.383	0.446E-01	0.942E-01	0.697E-01	*0.189	*0.142
	200000.	0.366	0.402E-01	0.992E-01	0.741E-01	*0.198	*0.149
	300000.	0.341	0.336E-01	0.107	0.803E-01	*0.210	*0.161
	500000.	0.309	0.277E-01	0.109	0.858E-01	0.215	0.172
P IV 3D 4P 2606.3 Å C= 0.16E+20	50000.	0.101E-01	0.146E-04	0.764E-03	-0.244E-04	0.150E-02	-0.489E-04
	100000.	0.774E-02	-0.137E-04	0.100E-02	-0.434E-04	0.199E-02	-0.872E-04
	150000.	0.680E-02	0.121E-04	0.108E-02	-0.570E-04	0.214E-02	-0.115E-03
	200000.	0.626E-02	0.123E-04	0.113E-02	-0.651E-04	0.225E-02	-0.132E-03
	300000.	0.565E-02	-0.102E-04	0.121E-02	-0.793E-04	0.240E-02	-0.160E-03
	500000.	0.503E-02	-0.131E-05	0.128E-02	-0.935E-04	0.256E-02	-0.190E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3D 5P 1023.2 Å C= 0.60E+18	50000.	0.344E-02	-0.104E-03	0.388E-03	-0.153E-03	0.771E-03	-0.309E-03
	100000.	0.283E-02	-0.649E-04	0.448E-03	-0.193E-03	0.891E-03	-0.389E-03
	150000.	0.256E-02	-0.613E-04	0.485E-03	-0.215E-03	0.963E-03	-0.437E-03
	200000.	0.239E-02	-0.641E-04	0.512E-03	-0.231E-03	0.101E-02	-0.468E-03
	300000.	0.219E-02	-0.592E-04	0.545E-03	-0.255E-03	0.107E-02	-0.520E-03
	500000.	0.197E-02	-0.392E-04	0.586E-03	-0.283E-03	0.112E-02	-0.571E-03
P IV 3D 6P 740.3 Å C= 0.36E+18	50000.	0.336E-02	0.155E-03	0.575E-03	0.826E-04	0.114E-02	0.167E-03
	100000.	0.296E-02	0.156E-03	0.641E-03	0.104E-03	0.128E-02	0.210E-03
	150000.	0.277E-02	0.151E-03	0.669E-03	0.116E-03	0.134E-02	0.234E-03
	200000.	0.265E-02	0.145E-03	0.683E-03	0.124E-03	0.136E-02	0.252E-03
	300000.	0.249E-02	0.140E-03	0.697E-03	0.138E-03	0.139E-02	0.278E-03
	500000.	0.229E-02	0.131E-03	0.715E-03	0.154E-03	0.142E-02	0.309E-03
P IV 4D 5P 4638.3 Å C= 0.11E+20	50000.	0.869E-01	0.289E-03	0.882E-02	-0.138E-02	0.175E-01	-0.279E-02
	100000.	0.720E-01	0.712E-03	0.100E-01	-0.190E-02	0.199E-01	-0.383E-02
	150000.	0.652E-01	0.817E-03	0.108E-01	-0.211E-02	0.213E-01	-0.427E-02
	200000.	0.610E-01	0.793E-03	0.113E-01	-0.228E-02	0.222E-01	-0.462E-02
	300000.	0.558E-01	0.744E-03	0.119E-01	-0.253E-02	0.230E-01	-0.515E-02
	500000.	0.501E-01	0.891E-03	0.126E-01	-0.288E-02	0.237E-01	-0.579E-02
P IV 4D 6P 1697.6 Å C= 0.14E+19	50000.	0.197E-01	0.138E-02	0.314E-02	0.633E-03	0.624E-02	0.128E-02
	100000.	0.173E-01	0.121E-02	0.351E-02	0.769E-03	0.698E-02	0.156E-02
	150000.	0.162E-01	0.116E-02	0.368E-02	0.853E-03	0.730E-02	0.173E-02
	200000.	0.154E-01	0.111E-02	0.375E-02	0.923E-03	0.746E-02	0.186E-02
	300000.	0.144E-01	0.102E-02	0.384E-02	0.101E-02	0.760E-02	0.205E-02
	500000.	0.133E-01	0.934E-03	0.394E-02	0.112E-02	0.778E-02	0.226E-02
P IV 5D 6P 6173.0 Å C= 0.25E+20	50000.	0.310	-0.614E-02	0.469E-01	-0.838E-02	0.933E-01	-0.169E-01
	100000.	0.280	-0.513E-02	0.523E-01	-0.102E-01	0.104	-0.207E-01
	150000.	0.264	-0.465E-02	0.543E-01	-0.113E-01	0.108	-0.230E-01
	200000.	0.253	-0.446E-02	0.552E-01	-0.122E-01	0.111	-0.247E-01
	300000.	0.237	-0.423E-02	0.567E-01	-0.133E-01	0.113	-0.272E-01
	500000.	0.219	-0.301E-02	0.584E-01	-0.148E-01	0.114	-0.299E-01
P IV 3D 4F 1405.0 Å C= 0.99E+18	50000.	0.287E-02	0.948E-04	0.188E-03	0.155E-03	0.372E-03	0.313E-03
	100000.	0.220E-02	0.909E-04	0.278E-03	0.211E-03	0.554E-03	0.427E-03
	150000.	0.192E-02	0.870E-04	0.317E-03	0.235E-03	0.627E-03	0.475E-03
	200000.	0.176E-02	0.803E-04	0.344E-03	0.253E-03	0.676E-03	0.512E-03
	300000.	0.157E-02	0.707E-04	0.388E-03	0.279E-03	0.755E-03	0.567E-03
	500000.	0.138E-02	0.603E-04	0.454E-03	0.315E-03	0.861E-03	0.645E-03
P IV 3D 5F 790.5 Å C= 0.10E+18	50000.	0.335E-02	-0.309E-03	0.452E-03	-0.383E-03	0.901E-03	-0.773E-03
	100000.	0.275E-02	-0.269E-03	0.561E-03	-0.457E-03	0.111E-02	-0.925E-03
	150000.	0.247E-02	-0.254E-03	0.630E-03	-0.504E-03	0.124E-02	-0.102E-02
	200000.	0.230E-02	-0.240E-03	0.684E-03	-0.536E-03	0.133E-02	-0.108E-02
	300000.	0.209E-02	-0.217E-03	0.777E-03	-0.578E-03	0.148E-02	-0.119E-02
	500000.	0.185E-02	-0.177E-03	0.846E-03	-0.631E-03	0.157E-02	-0.129E-02
P IV 4D 4F 19996.3 Å C= 0.20E+21	50000.	0.943	0.608E-01	0.840E-01	0.632E-01	0.166	0.128
	100000.	0.748	0.541E-01	0.109	0.791E-01	0.217	0.160
	150000.	0.663	0.544E-01	0.123	0.882E-01	0.242	0.179
	200000.	0.612	0.540E-01	0.134	0.954E-01	0.260	0.192
	300000.	0.551	0.498E-01	0.151	0.106	0.288	0.213
	500000.	0.487	0.433E-01	0.172	0.117	0.321	0.239
P IV 4D 5F 1987.0 Å C= 0.65E+18	50000.	0.241E-01	-0.155E-02	0.284E-02	-0.225E-02	0.567E-02	-0.455E-02
	100000.	0.199E-01	-0.135E-02	0.352E-02	-0.271E-02	0.694E-02	-0.550E-02
	150000.	0.179E-01	-0.124E-02	0.398E-02	-0.298E-02	0.780E-02	-0.612E-02
	200000.	0.167E-01	-0.114E-02	0.424E-02	-0.318E-02	0.813E-02	-0.639E-02
	300000.	0.151E-01	-0.102E-02	0.471E-02	-0.345E-02	0.890E-02	-0.699E-02
	500000.	0.134E-01	-0.809E-03	0.536E-02	-0.372E-02	0.977E-02	-0.754E-02
P IV 5D 5F 13123.2 Å C= 0.28E+20	50000.	1.33	-0.167	0.171	-0.133	0.341	-0.268
	100000.	1.13	-0.149	0.210	-0.159	0.415	-0.322
	150000.	1.03	-0.140	0.230	-0.174	0.457	-0.351
	200000.	0.970	-0.132	0.243	-0.183	0.476	-0.369
	300000.	0.889	-0.123	0.278	-0.202	0.531	-0.412
	500000.	0.797	-0.104	0.305	-0.215	0.589	-0.441

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4F 5D 2096.1 Å C= 0.22E+19	50000.	0.187E-01	0.170E-02	0.223E-02	0.120E-02	0.445E-02	0.244E-02
	100000.	0.159E-01	0.161E-02	0.262E-02	0.145E-02	0.522E-02	0.293E-02
	150000.	0.145E-01	0.154E-02	0.285E-02	0.161E-02	0.571E-02	0.325E-02
	200000.	0.137E-01	0.149E-02	0.302E-02	0.173E-02	0.607E-02	0.353E-02
	300000.	0.126E-01	0.144E-02	0.320E-02	0.188E-02	0.630E-02	0.380E-02
	500000.	0.114E-01	0.126E-02	0.340E-02	0.206E-02	0.669E-02	0.418E-02
P IV 4F 6D 1361.9 Å C= 0.44E+18	50000.	0.198E-01	0.285E-02	0.316E-02	0.240E-02	0.633E-02	0.486E-02
	100000.	0.176E-01	0.262E-02	0.379E-02	0.287E-02	0.751E-02	0.576E-02
	150000.	0.164E-01	0.250E-02	0.402E-02	0.309E-02	0.810E-02	0.623E-02
	200000.	0.156E-01	0.232E-02	0.431E-02	0.324E-02	0.875E-02	0.659E-02
	300000.	0.144E-01	0.205E-02	0.476E-02	0.349E-02	0.956E-02	0.720E-02
	500000.	0.130E-01	0.169E-02	0.528E-02	0.392E-02	0.993E-02	0.785E-02
P IV 4F 7D 1151.4 Å C= 0.18E+18	50000.	0.264E-01	0.414E-02	0.500E-02	0.395E-02	*0.101E-01	*0.795E-02
	100000.	0.241E-01	0.383E-02	0.596E-02	0.458E-02	*0.119E-01	*0.926E-02
	150000.	0.226E-01	0.343E-02	0.629E-02	0.490E-02	*0.126E-01	*0.994E-02
	200000.	0.215E-01	0.310E-02	0.670E-02	0.520E-02	*0.133E-01	*0.104E-01
	300000.	0.200E-01	0.264E-02	0.722E-02	0.563E-02	*0.142E-01	*0.113E-01
	500000.	0.180E-01	0.221E-02	0.742E-02	0.605E-02	0.145E-01	0.121E-01
P IV 5F 6D 5525.9 Å C= 0.50E+19	50000.	0.427	0.722E-01	0.626E-01	0.492E-01	0.125	0.992E-01
	100000.	0.375	0.592E-01	0.744E-01	0.583E-01	0.149	0.117
	150000.	0.348	0.557E-01	0.815E-01	0.629E-01	0.163	0.128
	200000.	0.329	0.516E-01	0.890E-01	0.664E-01	0.175	0.137
	300000.	0.304	0.456E-01	0.937E-01	0.728E-01	0.180	0.146
	500000.	0.273	0.374E-01	0.106	0.766E-01	0.204	0.157
P IV 5F 7D 3172.1 Å C= 0.14E+19	50000.	0.231	0.412E-01	0.412E-01	0.322E-01	*0.830E-01	*0.654E-01
	100000.	0.210	0.345E-01	0.477E-01	0.372E-01	*0.952E-01	*0.752E-01
	150000.	0.197	0.309E-01	0.524E-01	0.407E-01	*0.103	*0.822E-01
	200000.	0.187	0.280E-01	0.539E-01	0.429E-01	*0.105	*0.862E-01
	300000.	0.173	0.240E-01	0.609E-01	0.459E-01	*0.116	*0.944E-01
	500000.	0.155	0.199E-01	0.654E-01	0.528E-01	0.116	0.105
P IV 4S 4P 3356.9 Å C= 0.34E+20	50000.	0.191E-01	-0.516E-03	0.110E-02	-0.383E-03	0.217E-02	-0.770E-03
	100000.	0.147E-01	-0.621E-03	0.149E-02	-0.543E-03	0.296E-02	-0.110E-02
	150000.	0.129E-01	-0.659E-03	0.162E-02	-0.640E-03	0.322E-02	-0.130E-02
	200000.	0.119E-01	-0.582E-03	0.171E-02	-0.684E-03	0.341E-02	-0.139E-02
	300000.	0.107E-01	-0.586E-03	0.184E-02	-0.767E-03	0.368E-02	-0.155E-02
	500000.	0.951E-02	-0.553E-03	0.201E-02	-0.872E-03	0.400E-02	-0.177E-02
P IV 4S 5P 1046.1 Å C= 0.15E+19	50000.	0.369E-02	0.676E-04	0.434E-03	0.810E-04	0.864E-03	0.163E-03
	100000.	0.312E-02	0.100E-03	0.493E-03	0.111E-03	0.980E-03	0.224E-03
	150000.	0.286E-02	0.763E-04	0.527E-03	0.123E-03	0.105E-02	0.248E-03
	200000.	0.270E-02	0.799E-04	0.549E-03	0.133E-03	0.110E-02	0.269E-03
	300000.	0.250E-02	0.776E-04	0.570E-03	0.147E-03	0.114E-02	0.299E-03
	500000.	0.227E-02	0.745E-04	0.593E-03	0.166E-03	0.118E-02	0.336E-03
P IV 4S 6P 788.7 Å C= 0.45E+18	50000.	0.388E-02	0.160E-03	0.634E-03	0.113E-03	0.126E-02	0.227E-03
	100000.	0.342E-02	0.157E-03	0.708E-03	0.140E-03	0.141E-02	0.283E-03
	150000.	0.321E-02	0.151E-03	0.743E-03	0.155E-03	0.148E-02	0.315E-03
	200000.	0.306E-02	0.148E-03	0.755E-03	0.167E-03	0.151E-02	0.337E-03
	300000.	0.288E-02	0.144E-03	0.776E-03	0.185E-03	0.154E-02	0.372E-03
	500000.	0.265E-02	0.132E-03	0.800E-03	0.203E-03	0.158E-02	0.409E-03
P IV 4S 7P 691.7 Å C= 0.19E+18	50000.	0.561E-02	0.257E-03	0.105E-02	0.135E-03	*0.209E-02	*0.273E-03
	100000.	0.523E-02	0.220E-03	0.114E-02	0.162E-03	0.228E-02	0.328E-03
	150000.	0.502E-02	0.205E-03	0.118E-02	0.180E-03	0.234E-02	0.366E-03
	200000.	0.486E-02	0.200E-03	0.119E-02	0.192E-03	0.238E-02	0.393E-03
	300000.	0.462E-02	0.201E-03	0.121E-02	0.212E-03	0.242E-02	0.425E-03
	500000.	0.429E-02	0.172E-03	0.124E-02	0.231E-03	0.245E-02	0.467E-03
P IV 4S 8P 645.9 Å C= 0.73E+17	50000.	0.868E-02	-0.329E-03	0.173E-02	-0.633E-03	*0.345E-02	-0.128E-02
	100000.	0.825E-02	-0.321E-03	0.186E-02	-0.747E-03	*0.368E-02	-0.152E-02
	150000.	0.796E-02	-0.285E-03	0.192E-02	-0.807E-03	*0.382E-02	-0.164E-02
	200000.	0.773E-02	-0.224E-03	0.200E-02	-0.875E-03	*0.393E-02	-0.177E-02
	300000.	0.734E-02	-0.174E-03	0.206E-02	-0.919E-03	0.396E-02	-0.186E-02
	500000.	0.679E-02	-0.141E-03	0.208E-02	-0.101E-02	0.412E-02	-0.204E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5S 5P 7474.4 Å C= 0.75E+20	50000.	0.238	-0.113E-01	0.227E-01	-0.816E-02	0.453E-01	-0.165E-01
	100000.	0.208	-0.122E-01	0.261E-01	-0.103E-01	0.519E-01	-0.207E-01
	150000.	0.193	-0.116E-01	0.281E-01	-0.115E-01	0.560E-01	-0.233E-01
	200000.	0.183	-0.112E-01	0.295E-01	-0.123E-01	0.586E-01	-0.249E-01
	300000.	0.170	-0.106E-01	0.309E-01	-0.136E-01	0.615E-01	-0.277E-01
	500000.	0.155	-0.100E-01	0.328E-01	-0.151E-01	0.642E-01	-0.304E-01
P IV 5S 6P 2243.2 Å C= 0.36E+19	50000.	0.356E-01	-0.392E-04	0.511E-02	-0.121E-03	0.102E-01	-0.243E-03
	100000.	0.319E-01	-0.281E-03	0.569E-02	-0.177E-03	0.113E-01	-0.356E-03
	150000.	0.301E-01	-0.172E-03	0.595E-02	-0.214E-03	0.119E-01	-0.432E-03
	200000.	0.288E-01	-0.168E-03	0.606E-02	-0.233E-03	0.121E-01	-0.474E-03
	300000.	0.271E-01	-0.144E-03	0.620E-02	-0.260E-03	0.123E-01	-0.527E-03
	500000.	0.250E-01	-0.179E-03	0.635E-02	-0.297E-03	0.125E-01	-0.600E-03
P IV 5S 7P 1603.4 Å C= 0.10E+19	50000.	0.323E-01	0.669E-03	0.565E-02	0.358E-03	*0.112E-01	*0.722E-03
	100000.	0.303E-01	0.365E-03	0.613E-02	0.450E-03	0.122E-01	0.912E-03
	150000.	0.291E-01	0.378E-03	0.629E-02	0.505E-03	0.125E-01	0.102E-02
	200000.	0.282E-01	0.371E-03	0.638E-02	0.543E-03	0.127E-01	0.110E-02
	300000.	0.268E-01	0.411E-03	0.646E-02	0.600E-03	0.129E-01	0.121E-02
	500000.	0.248E-01	0.285E-03	0.663E-02	0.660E-03	0.130E-01	0.135E-02
P IV 5S 8P 1377.3 Å C= 0.33E+18	50000.	0.410E-01	-0.197E-02	0.790E-02	-0.300E-02	*0.158E-01	-0.603E-02
	100000.	0.391E-01	-0.204E-02	0.859E-02	-0.353E-02	*0.169E-01	-0.711E-02
	150000.	0.378E-01	-0.182E-02	0.883E-02	-0.382E-02	*0.174E-01	-0.774E-02
	200000.	0.366E-01	-0.153E-02	0.901E-02	-0.410E-02	*0.181E-01	-0.838E-02
	300000.	0.348E-01	-0.128E-02	0.944E-02	-0.439E-02	0.185E-01	-0.883E-02
	500000.	0.322E-01	-0.111E-02	0.946E-02	-0.470E-02	0.185E-01	-0.965E-02
P IV 6S 6P 13853.1 Å C= 0.14E+21	50000.	1.74	-0.152	0.209	-0.970E-01	0.416	-0.196
	100000.	1.60	-0.136	0.238	-0.117	0.476	-0.237
	150000.	1.51	-0.127	0.253	-0.130	0.508	-0.262
	200000.	1.46	-0.122	0.263	-0.139	0.529	-0.282
	300000.	1.37	-0.117	0.272	-0.149	0.552	-0.305
	500000.	1.26	-0.986E-01	0.293	-0.165	0.591	-0.338
P IV 6S 7P 3999.2 Å C= 0.63E+19	50000.	0.231	-0.801E-02	0.353E-01	-0.697E-02	*0.704E-01	-0.141E-01
	100000.	0.219	-0.790E-02	0.385E-01	-0.840E-02	0.766E-01	-0.171E-01
	150000.	0.211	-0.758E-02	0.397E-01	-0.934E-02	0.788E-01	-0.188E-01
	200000.	0.205	-0.729E-02	0.400E-01	-0.997E-02	0.800E-01	-0.202E-01
	300000.	0.194	-0.672E-02	0.410E-01	-0.107E-01	0.814E-01	-0.218E-01
	500000.	0.180	-0.586E-02	0.421E-01	-0.119E-01	0.838E-01	-0.243E-01
P IV 6S 8P 2837.4 Å C= 0.14E+19	50000.	0.188	-0.150E-01	0.342E-01	-0.144E-01	*0.679E-01	-0.290E-01
	100000.	0.181	-0.140E-01	0.367E-01	-0.169E-01	*0.732E-01	-0.346E-01
	150000.	0.175	-0.129E-01	0.381E-01	-0.183E-01	*0.762E-01	-0.370E-01
	200000.	0.170	-0.114E-01	0.394E-01	-0.192E-01	*0.777E-01	-0.390E-01
	300000.	0.162	-0.101E-01	0.413E-01	-0.209E-01	0.816E-01	-0.433E-01
	500000.	0.150	-0.857E-02	0.435E-01	-0.232E-01	0.833E-01	-0.466E-01
P IV 7S 7P 25369.5 Å C= 0.25E+21	50000.	12.2	-1.86	1.63	-0.935	*3.28	-1.89
	100000.	11.6	-1.47	1.86	-1.11	3.72	-2.24
	150000.	11.2	-1.31	1.95	-1.20	3.97	-2.44
	200000.	10.9	-1.24	2.04	-1.29	3.97	-2.55
	300000.	10.3	-1.13	2.11	-1.36	4.20	-2.73
	500000.	9.50	-0.888	2.36	-1.51	4.60	-3.07
P IV 7S 8P 7052.5 Å C= 0.87E+19	50000.	1.39	-0.226	0.228	-0.124	*0.453	-0.249
	100000.	1.34	-0.182	0.248	-0.143	*0.496	-0.290
	150000.	1.29	-0.163	0.267	-0.159	*0.530	-0.322
	200000.	1.26	-0.151	0.280	-0.167	*0.556	-0.342
	300000.	1.19	-0.129	0.285	-0.177	*0.578	-0.364
	500000.	1.10	-0.104	0.310	-0.188	0.608	-0.388
P IV 3P 4S 630.8 Å C= 0.12E+19	50000.	0.354E-03	0.342E-04	0.110E-04	0.188E-04	0.217E-04	0.380E-04
	100000.	0.262E-03	0.358E-04	0.200E-04	0.262E-04	0.399E-04	0.528E-04
	150000.	0.224E-03	0.387E-04	0.274E-04	0.299E-04	0.552E-04	0.605E-04
	200000.	0.204E-03	0.367E-04	0.308E-04	0.323E-04	0.622E-04	0.655E-04
	300000.	0.180E-03	0.348E-04	0.362E-04	0.358E-04	0.728E-04	0.728E-04
	500000.	0.155E-03	0.328E-04	0.429E-04	0.405E-04	0.870E-04	0.829E-04

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 5S 415.4 Å C= 0.23E+18	50000.	0.370E-03	0.860E-04	0.278E-04	0.375E-04	0.556E-04	0.757E-04
	100000.	0.298E-03	0.762E-04	0.427E-04	0.456E-04	0.864E-04	0.926E-04
	150000.	0.267E-03	0.701E-04	0.497E-04	0.507E-04	0.100E-03	0.103E-03
	200000.	0.246E-03	0.669E-04	0.544E-04	0.547E-04	0.110E-03	0.110E-03
	300000.	0.220E-03	0.622E-04	0.628E-04	0.596E-04	0.127E-03	0.122E-03
	500000.	0.193E-03	0.578E-04	0.714E-04	0.665E-04	0.145E-03	0.133E-03
P IV 3P 6S 359.6 Å C= 0.93E+17	50000.	0.601E-03	0.219E-03	0.707E-04	0.786E-04	0.143E-03	0.159E-03
	100000.	0.519E-03	0.178E-03	0.932E-04	0.940E-04	0.188E-03	0.190E-03
	150000.	0.472E-03	0.153E-03	0.106E-03	0.104E-03	0.216E-03	0.209E-03
	200000.	0.441E-03	0.140E-03	0.117E-03	0.110E-03	0.239E-03	0.224E-03
	300000.	0.402E-03	0.129E-03	0.133E-03	0.119E-03	0.265E-03	0.245E-03
	500000.	0.359E-03	0.111E-03	0.144E-03	0.129E-03	0.288E-03	0.263E-03
P IV 3P 7S 334.3 Å C= 0.44E+17	50000.	0.110E-02	0.469E-03	0.169E-03	0.174E-03	0.345E-03	0.352E-03
	100000.	0.977E-03	0.367E-03	0.214E-03	0.206E-03	0.439E-03	0.416E-03
	150000.	0.908E-03	0.323E-03	0.240E-03	0.223E-03	0.485E-03	0.449E-03
	200000.	0.858E-03	0.299E-03	0.264E-03	0.239E-03	0.522E-03	0.487E-03
	300000.	0.789E-03	0.261E-03	0.274E-03	0.255E-03	0.558E-03	0.512E-03
	500000.	0.707E-03	0.213E-03	0.325E-03	0.275E-03	0.651E-03	0.565E-03
P IV 4P 5S 1907.5 Å C= 0.49E+19	50000.	0.101E-01	0.130E-02	0.702E-03	0.762E-03	0.140E-02	0.154E-02
	100000.	0.827E-02	0.140E-02	0.988E-03	0.933E-03	0.198E-02	0.189E-02
	150000.	0.748E-02	0.128E-02	0.113E-02	0.103E-02	0.225E-02	0.209E-02
	200000.	0.697E-02	0.122E-02	0.122E-02	0.111E-02	0.249E-02	0.225E-02
	300000.	0.633E-02	0.116E-02	0.140E-02	0.123E-02	0.279E-02	0.248E-02
P IV 4P 6S 1113.8 Å C= 0.90E+18	50000.	0.648E-02	0.184E-02	0.690E-03	0.747E-03	0.139E-02	0.151E-02
	100000.	0.558E-02	0.158E-02	0.901E-03	0.895E-03	0.183E-02	0.181E-02
	150000.	0.512E-02	0.137E-02	0.102E-02	0.986E-03	0.210E-02	0.199E-02
	200000.	0.481E-02	0.126E-02	0.112E-02	0.105E-02	0.229E-02	0.214E-02
	300000.	0.442E-02	0.114E-02	0.129E-02	0.114E-02	0.253E-02	0.232E-02
	500000.	0.397E-02	0.101E-02	0.139E-02	0.123E-02	0.280E-02	0.249E-02
P IV 4P 7S 902.1 Å C= 0.32E+18	50000.	0.847E-02	0.336E-02	0.123E-02	0.126E-02	0.252E-02	0.256E-02
	100000.	0.750E-02	0.262E-02	0.156E-02	0.149E-02	0.320E-02	0.302E-02
	150000.	0.699E-02	0.229E-02	0.175E-02	0.162E-02	0.354E-02	0.326E-02
	200000.	0.662E-02	0.212E-02	0.192E-02	0.174E-02	0.380E-02	0.354E-02
	300000.	0.611E-02	0.187E-02	0.199E-02	0.185E-02	0.406E-02	0.372E-02
	500000.	0.550E-02	0.152E-02	0.237E-02	0.200E-02	0.472E-02	0.411E-02
P IV 5P 6S 4169.9 Å C= 0.13E+20	50000.	0.112	0.204E-01	0.112E-01	0.980E-02	0.225E-01	0.199E-01
	100000.	0.101	0.160E-01	0.140E-01	0.118E-01	0.279E-01	0.239E-01
	150000.	0.944E-01	0.150E-01	0.158E-01	0.131E-01	0.314E-01	0.266E-01
	200000.	0.900E-01	0.142E-01	0.166E-01	0.139E-01	0.337E-01	0.279E-01
	300000.	0.839E-01	0.135E-01	0.182E-01	0.150E-01	0.369E-01	0.305E-01
	500000.	0.765E-01	0.115E-01	0.203E-01	0.163E-01	0.408E-01	0.329E-01
P IV 5P 7S 2220.0 Å C= 0.19E+19	50000.	0.568E-01	0.185E-01	0.766E-02	0.753E-02	0.154E-01	0.152E-01
	100000.	0.516E-01	0.147E-01	0.957E-02	0.889E-02	0.195E-01	0.181E-01
	150000.	0.485E-01	0.126E-01	0.106E-01	0.964E-02	0.218E-01	0.195E-01
	200000.	0.463E-01	0.119E-01	0.116E-01	0.104E-01	0.232E-01	0.211E-01
	300000.	0.431E-01	0.106E-01	0.122E-01	0.110E-01	0.248E-01	0.221E-01
	500000.	0.391E-01	0.853E-02	0.145E-01	0.120E-01	0.285E-01	0.244E-01
P IV 6P 7S 7222.9 Å C= 0.21E+20	50000.	0.724	0.177	0.923E-01	0.780E-01	0.186	0.158
	100000.	0.669	0.136	0.113	0.925E-01	0.226	0.188
	150000.	0.638	0.119	0.122	0.991E-01	0.249	0.203
	200000.	0.613	0.113	0.129	0.107	0.256	0.218
	300000.	0.576	0.102	0.137	0.113	0.275	0.229
	500000.	0.526	0.799E-01	0.157	0.125	0.318	0.255
P IV 3P 3D 826.3 Å C= 0.46E+19	50000.	0.337E-03	-0.517E-06	0.137E-04	0.864E-07	0.267E-04	0.173E-06
	100000.	0.245E-03	-0.978E-06	0.217E-04	0.173E-06	0.429E-04	0.345E-06
	150000.	0.206E-03	-0.575E-06	0.266E-04	0.257E-06	0.526E-04	0.515E-06
	200000.	0.184E-03	-0.564E-06	0.294E-04	0.338E-06	0.584E-04	0.677E-06
	300000.	0.159E-03	-0.963E-06	0.317E-04	0.481E-06	0.629E-04	0.965E-06
	500000.	0.136E-03	-0.114E-05	0.346E-04	0.697E-06	0.690E-04	0.140E-05

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 4D 444.7 Å C= 0.21E+18	50000.	0.332E-03	0.205E-04	0.287E-04	0.184E-04	0.567E-04	0.370E-04
	100000.	0.267E-03	0.215E-04	0.378E-04	0.246E-04	0.756E-04	0.498E-04
	150000.	0.237E-03	0.210E-04	0.421E-04	0.274E-04	0.841E-04	0.554E-04
	200000.	0.219E-03	0.205E-04	0.451E-04	0.293E-04	0.907E-04	0.596E-04
	300000.	0.197E-03	0.196E-04	0.497E-04	0.325E-04	0.996E-04	0.662E-04
	500000.	0.175E-03	0.180E-04	0.561E-04	0.367E-04	0.111E-03	0.749E-04
P IV 3P 5D 371.8 Å C= 0.86E+17	50000.	0.551E-03	0.577E-04	0.697E-04	0.449E-04	0.139E-03	0.908E-04
	100000.	0.477E-03	0.509E-04	0.832E-04	0.537E-04	0.166E-03	0.109E-03
	150000.	0.438E-03	0.499E-04	0.912E-04	0.595E-04	0.184E-03	0.121E-03
	200000.	0.413E-03	0.480E-04	0.969E-04	0.639E-04	0.193E-03	0.129E-03
	300000.	0.380E-03	0.458E-04	0.105E-03	0.700E-04	0.209E-03	0.142E-03
	500000.	0.342E-03	0.388E-04	0.116E-03	0.768E-04	0.231E-03	0.158E-03
P IV 3P 6D 339.4 Å C= 0.28E+17	50000.	0.114E-02	0.172E-03	0.189E-03	0.146E-03	0.379E-03	0.294E-03
	100000.	0.101E-02	0.158E-03	0.226E-03	0.173E-03	0.452E-03	0.348E-03
	150000.	0.941E-03	0.151E-03	0.243E-03	0.186E-03	0.490E-03	0.376E-03
	200000.	0.892E-03	0.141E-03	0.263E-03	0.196E-03	0.533E-03	0.405E-03
	300000.	0.824E-03	0.124E-03	0.293E-03	0.215E-03	0.573E-03	0.439E-03
	500000.	0.742E-03	0.102E-03	0.308E-03	0.236E-03	0.602E-03	0.479E-03
P IV 3P 7D 324.0 Å C= 0.15E+17	50000.	0.200E-02	0.395E-03	0.390E-03	0.308E-03	*0.791E-03	*0.622E-03
	100000.	0.185E-02	0.349E-03	0.465E-03	0.358E-03	*0.929E-03	*0.725E-03
	150000.	0.175E-02	0.315E-03	0.497E-03	0.385E-03	*0.995E-03	*0.782E-03
	200000.	0.168E-02	0.281E-03	0.515E-03	0.404E-03	*0.104E-02	*0.816E-03
	300000.	0.156E-02	0.240E-03	0.563E-03	0.439E-03	*0.112E-02	*0.890E-03
	500000.	0.141E-02	0.201E-03	0.587E-03	0.470E-03	0.115E-02	0.945E-03
P IV 4P 4D 2735.1 Å C= 0.78E+19	50000.	0.172E-01	0.524E-03	0.149E-02	0.616E-03	0.295E-02	0.124E-02
	100000.	0.138E-01	0.579E-03	0.181E-02	0.837E-03	0.361E-02	0.170E-02
	150000.	0.123E-01	0.522E-03	0.198E-02	0.930E-03	0.395E-02	0.189E-02
	200000.	0.114E-01	0.486E-03	0.210E-02	0.100E-02	0.417E-02	0.203E-02
	300000.	0.104E-01	0.487E-03	0.226E-02	0.112E-02	0.452E-02	0.225E-02
	500000.	0.927E-02	0.434E-03	0.243E-02	0.125E-02	0.477E-02	0.253E-02
P IV 4P 5D 1239.6 Å C= 0.96E+18	50000.	0.696E-02	0.579E-03	0.818E-03	0.489E-03	0.163E-02	0.991E-03
	100000.	0.598E-02	0.512E-03	0.967E-03	0.586E-03	0.194E-02	0.119E-02
	150000.	0.548E-02	0.494E-03	0.106E-02	0.653E-03	0.212E-02	0.132E-02
	200000.	0.516E-02	0.472E-03	0.112E-02	0.697E-03	0.224E-02	0.142E-02
	300000.	0.475E-02	0.455E-03	0.120E-02	0.766E-03	0.237E-02	0.154E-02
	500000.	0.429E-02	0.380E-03	0.132E-02	0.841E-03	0.261E-02	0.172E-02
P IV 4P 6D 940.2 Å C= 0.21E+18	50000.	0.919E-02	0.127E-02	0.147E-02	0.112E-02	0.293E-02	0.225E-02
	100000.	0.812E-02	0.118E-02	0.175E-02	0.133E-02	0.349E-02	0.266E-02
	150000.	0.755E-02	0.112E-02	0.188E-02	0.143E-02	0.378E-02	0.288E-02
	200000.	0.716E-02	0.104E-02	0.203E-02	0.150E-02	0.411E-02	0.311E-02
	300000.	0.662E-02	0.915E-03	0.225E-02	0.164E-02	0.442E-02	0.337E-02
	500000.	0.596E-02	0.752E-03	0.237E-02	0.180E-02	0.461E-02	0.365E-02
P IV 4P 7D 830.9 Å C= 0.10E+18	50000.	0.135E-01	0.258E-02	0.257E-02	0.202E-02	*0.522E-02	*0.409E-02
	100000.	0.125E-01	0.221E-02	0.306E-02	0.235E-02	*0.612E-02	*0.477E-02
	150000.	0.118E-01	0.199E-02	0.327E-02	0.253E-02	*0.656E-02	*0.514E-02
	200000.	0.113E-01	0.182E-02	0.339E-02	0.265E-02	*0.686E-02	*0.536E-02
	300000.	0.105E-01	0.155E-02	0.370E-02	0.288E-02	*0.738E-02	*0.586E-02
	500000.	0.948E-02	0.130E-02	0.387E-02	0.309E-02	0.759E-02	0.622E-02
P IV 5P 5D 6725.6 Å C= 0.28E+20	50000.	0.262	0.119E-01	0.309E-01	0.122E-01	0.614E-01	0.246E-01
	100000.	0.232	0.832E-02	0.353E-01	0.146E-01	0.706E-01	0.295E-01
	150000.	0.216	0.871E-02	0.379E-01	0.163E-01	0.758E-01	0.328E-01
	200000.	0.205	0.823E-02	0.392E-01	0.176E-01	0.789E-01	0.354E-01
	300000.	0.191	0.784E-02	0.411E-01	0.189E-01	0.812E-01	0.384E-01
	500000.	0.174	0.587E-02	0.427E-01	0.208E-01	0.842E-01	0.424E-01
P IV 5P 6D 2465.7 Å C= 0.15E+19	50000.	0.701E-01	0.786E-02	0.104E-01	0.749E-02	0.210E-01	0.151E-01
	100000.	0.628E-01	0.711E-02	0.124E-01	0.890E-02	0.248E-01	0.179E-01
	150000.	0.587E-01	0.689E-02	0.132E-01	0.956E-02	0.268E-01	0.195E-01
	200000.	0.558E-01	0.635E-02	0.144E-01	0.103E-01	0.286E-01	0.210E-01
	300000.	0.518E-01	0.552E-02	0.158E-01	0.112E-01	0.307E-01	0.229E-01
	500000.	0.469E-01	0.445E-02	0.166E-01	0.122E-01	0.320E-01	0.245E-01

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4D 6P 1654.5 Å C= 0.20E+19	50000.	0.181E-01	0.671E-03	0.290E-02	0.396E-03	0.578E-02	0.800E-03
	100000.	0.161E-01	0.650E-03	0.324E-02	0.498E-03	0.646E-02	0.101E-02
	150000.	0.151E-01	0.644E-03	0.338E-02	0.557E-03	0.675E-02	0.113E-02
	200000.	0.145E-01	0.624E-03	0.345E-02	0.598E-03	0.686E-02	0.121E-02
	300000.	0.136E-01	0.603E-03	0.353E-02	0.663E-03	0.704E-02	0.134E-02
	500000.	0.125E-01	0.558E-03	0.361E-02	0.732E-03	0.717E-02	0.148E-02
P IV 4D 7P 1278.3 Å C= 0.64E+18	50000.	0.198E-01	0.858E-03	0.366E-02	0.413E-03	*0.728E-02	*0.834E-03
	100000.	0.185E-01	0.725E-03	0.397E-02	0.496E-03	0.791E-02	0.100E-02
	150000.	0.177E-01	0.688E-03	0.407E-02	0.551E-03	0.811E-02	0.112E-02
	200000.	0.172E-01	0.668E-03	0.414E-02	0.591E-03	0.823E-02	0.120E-02
	300000.	0.163E-01	0.671E-03	0.420E-02	0.652E-03	0.839E-02	0.133E-02
	500000.	0.151E-01	0.573E-03	0.430E-02	0.709E-03	0.849E-02	0.146E-02
P IV 4D 8P 1130.4 Å C= 0.22E+18	50000.	0.270E-01	-0.103E-02	0.536E-02	-0.195E-02	*0.107E-01	-0.395E-02
	100000.	0.257E-01	-0.101E-02	0.576E-02	-0.231E-02	*0.114E-01	-0.470E-02
	150000.	0.248E-01	-0.885E-03	0.593E-02	-0.250E-02	*0.118E-01	-0.505E-02
	200000.	0.241E-01	-0.700E-03	0.615E-02	-0.270E-02	*0.122E-01	-0.546E-02
	300000.	0.229E-01	-0.546E-03	0.634E-02	-0.285E-02	0.123E-01	-0.574E-02
	500000.	0.212E-01	-0.442E-03	0.643E-02	-0.310E-02	0.127E-01	-0.632E-02
P IV 5D 6P 6123.1 Å C= 0.23E+20	50000.	0.315	-0.267E-02	0.451E-01	-0.683E-02	0.898E-01	-0.138E-01
	100000.	0.285	-0.965E-03	0.503E-01	-0.845E-02	0.100	-0.171E-01
	150000.	0.268	-0.821E-03	0.522E-01	-0.939E-02	0.104	-0.191E-01
	200000.	0.257	-0.657E-03	0.533E-01	-0.101E-01	0.106	-0.204E-01
	300000.	0.241	-0.474E-03	0.546E-01	-0.112E-01	0.109	-0.226E-01
	500000.	0.222	0.506E-03	0.559E-01	-0.123E-01	0.111	-0.248E-01
P IV 5D 7P 2931.0 Å C= 0.34E+19	50000.	0.118	0.171E-02	0.201E-01	-0.457E-03	*0.400E-01	-0.922E-03
	100000.	0.111	0.149E-02	0.218E-01	-0.632E-03	0.434E-01	-0.128E-02
	150000.	0.107	0.138E-02	0.223E-01	-0.711E-03	0.446E-01	-0.144E-02
	200000.	0.103	0.138E-02	0.227E-01	-0.773E-03	0.451E-01	-0.157E-02
	300000.	0.978E-01	0.151E-02	0.231E-01	-0.856E-03	0.456E-01	-0.173E-02
	500000.	0.906E-01	0.137E-02	0.236E-01	-0.968E-03	0.463E-01	-0.197E-02
P IV 5D 8P 2254.5 Å C= 0.89E+18	50000.	0.116	-0.568E-02	0.218E-01	-0.826E-02	*0.436E-01	-0.167E-01
	100000.	0.110	-0.532E-02	0.235E-01	-0.984E-02	*0.473E-01	-0.197E-01
	150000.	0.107	-0.481E-02	0.242E-01	-0.106E-01	*0.485E-01	-0.214E-01
	200000.	0.103	-0.402E-02	0.245E-01	-0.112E-01	*0.493E-01	-0.229E-01
	300000.	0.980E-01	-0.336E-02	0.263E-01	-0.122E-01	0.511E-01	-0.246E-01
	500000.	0.907E-01	-0.272E-02	0.259E-01	-0.128E-01	0.506E-01	-0.263E-01
P IV 6D 7P 11861.0 Å C= 0.34E+20	50000.	2.65	-0.114	0.401	-0.161	*0.800	-0.325
	100000.	2.48	-0.114	0.437	-0.193	*0.879	-0.389
	150000.	2.37	-0.110	0.454	-0.210	0.914	-0.424
	200000.	2.28	-0.986E-01	0.478	-0.221	0.934	-0.449
	300000.	2.15	-0.785E-01	0.501	-0.238	0.961	-0.479
	500000.	1.98	-0.622E-01	0.518	-0.257	0.995	-0.523
P IV 6D 8P 5356.6 Å C= 0.50E+19	50000.	0.795	-0.622E-01	0.138	-0.645E-01	*0.274	-0.131
	100000.	0.755	-0.583E-01	0.150	-0.760E-01	*0.300	-0.154
	150000.	0.726	-0.543E-01	0.153	-0.812E-01	*0.305	-0.165
	200000.	0.702	-0.476E-01	0.159	-0.858E-01	*0.314	-0.176
	300000.	0.663	-0.401E-01	0.171	-0.948E-01	*0.328	-0.188
	500000.	0.610	-0.326E-01	0.186	-0.102	0.359	-0.211
P IV 7D 8P 21400.4 Å C= 0.66E+20	50000.	16.5	-1.95	2.81	-1.69	*5.59	-3.39
	100000.	15.8	-1.78	3.10	-1.95	*6.16	-3.92
	150000.	15.2	-1.60	3.26	-2.10	*6.55	-4.29
	200000.	14.7	-1.42	3.48	-2.21	*6.94	-4.55
	300000.	13.8	-1.20	3.70	-2.38	*7.18	-4.81
	500000.	12.7	-0.993	4.03	-2.62	*7.83	-5.35
P IV 3D 4F 875.1 Å C= 0.80E+18	50000.	0.120E-02	-0.845E-05	0.838E-04	-0.371E-04	0.165E-03	-0.748E-04
	100000.	0.920E-03	-0.123E-04	0.113E-03	-0.516E-04	0.225E-03	-0.104E-03
	150000.	0.807E-03	-0.281E-05	0.124E-03	-0.586E-04	0.246E-03	-0.119E-03
	200000.	0.740E-03	-0.208E-06	0.131E-03	-0.636E-04	0.261E-03	-0.129E-03
	300000.	0.664E-03	-0.307E-05	0.143E-03	-0.702E-04	0.283E-03	-0.143E-03
	500000.	0.587E-03	-0.629E-06	0.158E-03	-0.795E-04	0.309E-03	-0.162E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3D 5F 648.5 Å C= 0.17E+17	50000.	0.264E-02	0.124E-03	0.652E-03	0.609E-03	0.125E-02	0.123E-02
	100000.	0.215E-02	0.112E-03	0.855E-03	0.724E-03	0.157E-02	0.146E-02
	150000.	0.191E-02	0.923E-04	0.101E-02	0.780E-03	0.178E-02	0.159E-02
	200000.	0.176E-02	0.794E-04	0.107E-02	0.836E-03	0.185E-02	0.166E-02
	300000.	0.158E-02	0.648E-04	0.125E-02	0.881E-03	0.209E-02	0.178E-02
	500000.	0.137E-02	0.537E-04	0.156E-02	0.983E-03	0.233E-02	0.200E-02
P IV 4D 4F 9599.5 Å C= 0.96E+20	50000.	0.236	-0.108E-01	0.195E-01	-0.115E-01	0.386E-01	-0.232E-01
	100000.	0.189	-0.117E-01	0.243E-01	-0.146E-01	0.485E-01	-0.297E-01
	150000.	0.169	-0.103E-01	0.268E-01	-0.164E-01	0.535E-01	-0.332E-01
	200000.	0.157	-0.969E-02	0.285E-01	-0.176E-01	0.572E-01	-0.357E-01
	300000.	0.142	-0.968E-02	0.317E-01	-0.196E-01	0.628E-01	-0.397E-01
	500000.	0.126	-0.862E-02	0.348E-01	-0.219E-01	0.681E-01	-0.446E-01
P IV 4D 5F 1985.9 Å C= 0.16E+18	50000.	0.281E-01	0.755E-03	0.604E-02	0.560E-02	0.117E-01	0.113E-01
	100000.	0.231E-01	0.616E-03	0.798E-02	0.666E-02	0.147E-01	0.134E-01
	150000.	0.207E-01	0.443E-03	0.937E-02	0.721E-02	0.166E-01	0.147E-01
	200000.	0.191E-01	0.332E-03	0.997E-02	0.760E-02	0.175E-01	0.153E-01
	300000.	0.172E-01	0.211E-03	0.118E-01	0.809E-02	0.193E-01	0.165E-01
	500000.	0.150E-01	0.138E-03	0.143E-01	0.915E-02	0.217E-01	0.184E-01
P IV 5D 5F 16012.6 Å C= 0.10E+20	50000.	2.34	-0.306E-01	0.391	0.339	0.751	0.687
	100000.	1.98	-0.263E-01	0.512	0.405	0.923	0.819
	150000.	1.79	-0.361E-01	0.582	0.441	1.02	0.883
	200000.	1.67	-0.405E-01	0.652	0.460	1.11	0.927
	300000.	1.52	-0.456E-01	0.760	0.492	1.25	1.00
	500000.	1.34	-0.396E-01	0.911	0.544	1.37	1.13
P IV 4F 5D 2968.1 Å C= 0.55E+19	50000.	0.423E-01	0.377E-02	0.479E-02	0.303E-02	0.958E-02	0.613E-02
	100000.	0.361E-01	0.339E-02	0.570E-02	0.363E-02	0.115E-01	0.735E-02
	150000.	0.330E-01	0.321E-02	0.625E-02	0.402E-02	0.125E-01	0.815E-02
	200000.	0.311E-01	0.306E-02	0.667E-02	0.431E-02	0.135E-01	0.883E-02
	300000.	0.286E-01	0.297E-02	0.720E-02	0.470E-02	0.143E-01	0.954E-02
	500000.	0.257E-01	0.249E-02	0.771E-02	0.515E-02	0.153E-01	0.103E-01
P IV 4F 6D 1684.1 Å C= 0.68E+18	50000.	0.302E-01	0.427E-02	0.474E-02	0.362E-02	0.947E-02	0.730E-02
	100000.	0.266E-01	0.394E-02	0.566E-02	0.431E-02	0.113E-01	0.867E-02
	150000.	0.247E-01	0.373E-02	0.606E-02	0.463E-02	0.121E-01	0.933E-02
	200000.	0.234E-01	0.346E-02	0.652E-02	0.487E-02	0.133E-01	0.100E-01
	300000.	0.217E-01	0.305E-02	0.724E-02	0.528E-02	0.145E-01	0.109E-01
	500000.	0.195E-01	0.251E-02	0.783E-02	0.592E-02	0.151E-01	0.119E-01
P IV 4F 7D 1362.9 Å C= 0.27E+18	50000.	0.367E-01	0.715E-02	0.695E-02	0.547E-02	*0.141E-01	*0.110E-01
	100000.	0.339E-01	0.626E-02	0.826E-02	0.635E-02	*0.165E-01	*0.129E-01
	150000.	0.321E-01	0.564E-02	0.884E-02	0.681E-02	*0.177E-01	*0.138E-01
	200000.	0.306E-01	0.498E-02	0.919E-02	0.719E-02	*0.184E-01	*0.145E-01
	300000.	0.285E-01	0.426E-02	0.997E-02	0.778E-02	*0.199E-01	*0.157E-01
	500000.	0.257E-01	0.357E-02	0.104E-01	0.833E-02	0.203E-01	0.168E-01
P IV 5F 6D 5143.5 Å C= 0.11E+19	50000.	0.392	0.317E-01	0.369E-01	-0.112E-01	0.697E-01	-0.227E-01
	100000.	0.341	0.294E-01	0.447E-01	-0.135E-01	0.786E-01	-0.273E-01
	150000.	0.314	0.289E-01	0.497E-01	-0.149E-01	0.831E-01	-0.303E-01
	200000.	0.295	0.273E-01	0.536E-01	-0.160E-01	0.852E-01	-0.323E-01
	300000.	0.270	0.243E-01	0.611E-01	-0.173E-01	0.883E-01	-0.352E-01
	500000.	0.241	0.201E-01	0.728E-01	-0.193E-01	0.943E-01	-0.387E-01
P IV 5F 7D 2990.6 Å C= 0.36E+18	50000.	0.213	0.319E-01	0.293E-01	0.192E-01	*0.569E-01	*0.386E-01
	100000.	0.194	0.269E-01	0.343E-01	0.225E-01	*0.657E-01	*0.455E-01
	150000.	0.182	0.244E-01	0.380E-01	0.241E-01	*0.704E-01	*0.489E-01
	200000.	0.173	0.223E-01	0.412E-01	0.259E-01	0.729E-01	0.523E-01
	300000.	0.160	0.191E-01	0.443E-01	0.275E-01	0.771E-01	0.553E-01
	500000.	0.143	0.160E-01	0.536E-01	0.308E-01	0.872E-01	0.624E-01
PERTURBER DENSITY = 1.E+17cm-3							
P IV 3S 3P 950.7 Å C= 0.81E+20	50000.	0.438E-02	-0.181E-04	0.101E-03	-0.281E-05	0.197E-03	-0.551E-05
	100000.	0.316E-02	-0.212E-04	0.178E-03	-0.563E-05	0.350E-03	-0.112E-04
	150000.	0.264E-02	-0.183E-04	0.218E-03	-0.825E-05	0.430E-03	-0.165E-04
	200000.	0.236E-02	-0.161E-04	0.251E-03	-0.106E-04	0.496E-03	-0.212E-04
	300000.	0.203E-02	-0.190E-04	0.280E-03	-0.143E-04	0.558E-03	-0.287E-04
	500000.	0.173E-02	-0.228E-04	0.308E-03	-0.192E-04	0.612E-03	-0.389E-04

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3S 4P 388.3 Å C= 0.35E+19	50000.	0.193E-02	0.392E-04	0.146E-03	0.127E-04	0.288E-03	0.250E-04
	100000.	0.148E-02	0.266E-04	0.196E-03	0.212E-04	0.389E-03	0.424E-04
	150000.	0.130E-02	0.386E-04	0.211E-03	0.256E-04	0.419E-03	0.516E-04
	200000.	0.119E-02	0.418E-04	0.222E-03	0.296E-04	0.442E-03	0.597E-04
	300000.	0.107E-02	0.348E-04	0.237E-03	0.345E-04	0.472E-03	0.699E-04
	500000.	0.943E-03	0.342E-04	0.254E-03	0.393E-04	0.506E-03	0.796E-04
P IV 3S 5P 315.6 Å C= 0.57E+18	50000.	0.310E-02	-0.718E-04	0.356E-03	-0.138E-03	0.706E-03	-0.270E-03
	100000.	0.256E-02	-0.398E-04	0.411E-03	-0.176E-03	0.818E-03	-0.352E-03
	150000.	0.231E-02	-0.325E-04	0.445E-03	-0.198E-03	0.887E-03	-0.400E-03
	200000.	0.216E-02	-0.343E-04	0.470E-03	-0.212E-03	0.931E-03	-0.431E-03
	300000.	0.197E-02	-0.313E-04	0.500E-03	-0.236E-03	0.986E-03	-0.475E-03
	500000.	0.177E-02	-0.142E-04	0.530E-03	-0.258E-03	0.103E-02	-0.526E-03
P IV 3S 6P 282.3 Å C= 0.53E+18	50000.	0.475E-02	0.260E-03	0.826E-03	0.123E-03	*0.164E-02	*0.239E-03
	100000.	0.420E-02	0.250E-03	0.924E-03	0.156E-03	*0.184E-02	*0.310E-03
	150000.	0.393E-02	0.244E-03	0.965E-03	0.174E-03	*0.193E-02	*0.351E-03
	200000.	0.376E-02	0.236E-03	0.986E-03	0.188E-03	*0.196E-02	*0.378E-03
	300000.	0.353E-02	0.225E-03	0.100E-02	0.209E-03	*0.201E-02	*0.418E-03
	500000.	0.326E-02	0.211E-03	0.103E-02	0.231E-03	0.204E-02	0.469E-03
P IV 4S 4P 4250.9 Å C= 0.43E+21	50000.	0.334	-0.111E-01	0.186E-01	-0.101E-01	0.368E-01	-0.198E-01
	100000.	0.260	-0.161E-01	0.257E-01	-0.140E-01	0.514E-01	-0.280E-01
	150000.	0.229	-0.152E-01	0.283E-01	-0.157E-01	0.566E-01	-0.318E-01
	200000.	0.211	-0.140E-01	0.302E-01	-0.170E-01	0.603E-01	-0.345E-01
	300000.	0.190	-0.141E-01	0.329E-01	-0.189E-01	0.660E-01	-0.383E-01
	500000.	0.169	-0.133E-01	0.367E-01	-0.216E-01	0.726E-01	-0.435E-01
P IV 4S 5P 1206.4 Å C= 0.83E+19	50000.	0.531E-01	-0.232E-02	0.535E-02	-0.255E-02	0.106E-01	-0.496E-02
	100000.	0.437E-01	-0.212E-02	0.624E-02	-0.321E-02	0.125E-01	-0.639E-02
	150000.	0.395E-01	-0.208E-02	0.683E-02	-0.357E-02	0.136E-01	-0.720E-02
	200000.	0.369E-01	-0.203E-02	0.725E-02	-0.382E-02	0.143E-01	-0.775E-02
	300000.	0.338E-01	-0.193E-02	0.777E-02	-0.424E-02	0.152E-01	-0.854E-02
	500000.	0.303E-01	-0.161E-02	0.837E-02	-0.466E-02	0.162E-01	-0.944E-02
P IV 4S 6P 831.7 Å C= 0.46E+19	50000.	0.449E-01	0.135E-02	0.716E-02	0.803E-03	*0.142E-01	*0.157E-02
	100000.	0.394E-01	0.127E-02	0.800E-02	0.104E-02	*0.159E-01	*0.209E-02
	150000.	0.369E-01	0.125E-02	0.835E-02	0.116E-02	*0.167E-01	*0.236E-02
	200000.	0.352E-01	0.125E-02	0.851E-02	0.126E-02	*0.170E-01	*0.254E-02
	300000.	0.330E-01	0.121E-02	0.870E-02	0.139E-02	*0.174E-01	*0.281E-02
	500000.	0.304E-01	0.114E-02	0.894E-02	0.155E-02	0.177E-01	0.316E-02
P IV 5S 5P 17528.3 Å C= 0.18E+22	50000.	17.9	-1.99	1.68	-1.45	*3.37	-2.79
	100000.	15.0	-1.75	2.12	-1.79	*4.26	-3.55
	150000.	13.5	-1.67	2.37	-1.97	4.80	-3.99
	200000.	12.6	-1.63	2.59	-2.14	5.10	-4.27
	300000.	11.4	-1.53	2.84	-2.31	5.60	-4.63
	500000.	10.1	-1.27	3.26	-2.58	6.11	-5.18
P IV 5S 6P 2322.8 Å C= 0.31E+20	50000.	0.457	-0.145E-01	0.571E-01	-0.181E-01	*0.113	-0.350E-01
	100000.	0.403	-0.123E-01	0.645E-01	-0.220E-01	*0.128	-0.437E-01
	150000.	0.375	-0.115E-01	0.682E-01	-0.245E-01	*0.135	-0.493E-01
	200000.	0.357	-0.112E-01	0.695E-01	-0.263E-01	*0.138	-0.534E-01
	300000.	0.332	-0.102E-01	0.714E-01	-0.287E-01	*0.142	-0.579E-01
	500000.	0.302	-0.743E-02	0.754E-01	-0.312E-01	0.146	-0.633E-01
P IV 6S 6P 15077.5 Å C= 0.15E+22	50000.	21.7	-2.65	2.61	-1.37	*5.19	-2.61
	100000.	19.6	-2.21	3.02	-1.67	*6.02	-3.30
	150000.	18.5	-2.02	3.24	-1.85	*6.45	-3.72
	200000.	17.7	-1.92	3.33	-1.97	*6.69	-3.96
	300000.	16.6	-1.83	3.51	-2.10	*7.16	-4.33
	500000.	15.2	-1.53	3.67	-2.32	*7.33	-4.71
P IV 3P 4S 776.4 Å C= 0.14E+20	50000.	0.677E-02	0.591E-03	0.241E-03	0.366E-03	0.479E-03	0.719E-03
	100000.	0.507E-02	0.677E-03	0.417E-03	0.508E-03	0.836E-03	0.102E-02
	150000.	0.438E-02	0.696E-03	0.533E-03	0.566E-03	0.108E-02	0.115E-02
	200000.	0.399E-02	0.659E-03	0.604E-03	0.613E-03	0.123E-02	0.124E-02
	300000.	0.353E-02	0.634E-03	0.699E-03	0.685E-03	0.141E-02	0.138E-02
	500000.	0.305E-02	0.600E-03	0.823E-03	0.770E-03	0.168E-02	0.157E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 5S 485.5 Å C= 0.13E+19	50000.	0.786E-02	0.138E-02	0.874E-03	0.969E-03	0.177E-02	0.187E-02
	100000.	0.647E-02	0.126E-02	0.115E-02	0.119E-02	0.234E-02	0.235E-02
	150000.	0.573E-02	0.121E-02	0.133E-02	0.131E-02	0.268E-02	0.267E-02
	200000.	0.527E-02	0.118E-02	0.147E-02	0.141E-02	0.296E-02	0.284E-02
	300000.	0.470E-02	0.111E-02	0.168E-02	0.153E-02	0.337E-02	0.310E-02
	500000.	0.407E-02	0.950E-03	0.189E-02	0.170E-02	0.374E-02	0.340E-02
P IV 3P 6S 412.5 Å C= 0.11E+19	50000.	0.870E-02	0.342E-02	0.107E-02	0.113E-02	*0.214E-02	*0.215E-02
	100000.	0.735E-02	0.276E-02	0.137E-02	0.138E-02	*0.281E-02	*0.272E-02
	150000.	0.664E-02	0.239E-02	0.158E-02	0.152E-02	*0.323E-02	*0.309E-02
	200000.	0.619E-02	0.220E-02	0.174E-02	0.163E-02	*0.352E-02	*0.329E-02
	300000.	0.560E-02	0.200E-02	0.188E-02	0.173E-02	*0.385E-02	*0.350E-02
	500000.	0.495E-02	0.169E-02	0.215E-02	0.198E-02	0.424E-02	0.397E-02
P IV 3P 7S 380.2 Å C= 0.48E+18	50000.	0.160E-01	0.642E-02	*0.258E-02	*0.254E-02		
	100000.	0.142E-01	0.506E-02	0.328E-02	0.307E-02		
	150000.	0.132E-01	0.451E-02	0.360E-02	0.335E-02		
	200000.	0.125E-01	0.421E-02	0.385E-02	0.353E-02		
	300000.	0.115E-01	0.366E-02	0.449E-02	0.380E-02	*0.907E-02	*0.777E-02
	500000.	0.102E-01	0.296E-02	0.467E-02	0.426E-02	*0.925E-02	*0.856E-02
P IV 4P 5S 1863.6 Å C= 0.20E+20	50000.	0.141	0.190E-01	0.135E-01	0.142E-01	0.272E-01	0.274E-01
	100000.	0.116	0.178E-01	0.176E-01	0.174E-01	0.355E-01	0.344E-01
	150000.	0.103	0.168E-01	0.202E-01	0.192E-01	0.405E-01	0.391E-01
	200000.	0.954E-01	0.163E-01	0.222E-01	0.207E-01	0.447E-01	0.415E-01
	300000.	0.855E-01	0.154E-01	0.253E-01	0.224E-01	0.506E-01	0.455E-01
	500000.	0.748E-01	0.131E-01	0.282E-01	0.249E-01	0.559E-01	0.498E-01
P IV 4P 6S 1110.1 Å C= 0.82E+19	50000.	0.692E-01	0.237E-01	0.788E-02	0.819E-02	*0.157E-01	*0.155E-01
	100000.	0.588E-01	0.191E-01	0.100E-01	0.997E-02	*0.206E-01	*0.197E-01
	150000.	0.535E-01	0.166E-01	0.115E-01	0.110E-01	*0.236E-01	*0.223E-01
	200000.	0.501E-01	0.152E-01	0.127E-01	0.117E-01	*0.257E-01	*0.238E-01
	300000.	0.457E-01	0.139E-01	0.138E-01	0.125E-01	*0.281E-01	*0.252E-01
	500000.	0.407E-01	0.118E-01	0.156E-01	0.143E-01	0.308E-01	0.287E-01
P IV 4P 7S 903.2 Å C= 0.27E+19	50000.	0.942E-01	0.359E-01	*0.146E-01	*0.143E-01		
	100000.	0.840E-01	0.283E-01	0.185E-01	0.173E-01		
	150000.	0.783E-01	0.250E-01	0.203E-01	0.189E-01		
	200000.	0.740E-01	0.234E-01	0.217E-01	0.199E-01		
	300000.	0.682E-01	0.204E-01	0.254E-01	0.215E-01	*0.512E-01	*0.439E-01
	500000.	0.609E-01	0.165E-01	0.263E-01	0.240E-01	*0.523E-01	*0.483E-01
P IV 5P 6S 3255.8 Å C= 0.60E+20	50000.	0.762	0.208	0.819E-01	0.760E-01	*0.166	*0.145
	100000.	0.658	0.169	0.101	0.929E-01	*0.205	*0.182
	150000.	0.603	0.147	0.117	0.102	*0.233	*0.208
	200000.	0.568	0.135	0.125	0.107	*0.255	*0.218
	300000.	0.523	0.124	0.136	0.119	*0.269	*0.241
	500000.	0.470	0.105	0.160	0.129	*0.317	*0.265
P IV 5P 7S 1947.3 Å C= 0.13E+20	50000.	0.496	0.171	*0.705E-01	*0.682E-01		
	100000.	0.444	0.135	0.888E-01	0.819E-01		
	150000.	0.415	0.118	0.988E-01	0.896E-01		
	200000.	0.393	0.111	0.105	0.952E-01		
	300000.	0.363	0.968E-01	0.120	0.100	*0.244	*0.207
	500000.	0.326	0.780E-01	0.128	0.114	*0.249	*0.230
P IV 6P 7S 7139.8 Å C= 0.17E+21	50000.	7.75	1.90	*1.03	*0.874		
	100000.	7.15	1.48	*1.28	*1.06		
	150000.	6.78	1.33	1.38	1.15		
	200000.	6.50	1.27	1.47	1.21		
	300000.	6.08	1.12	1.66	1.32	*3.33	*2.72
	500000.	5.52	0.873	1.71	1.47	*3.37	*2.94
P IV 3P 3D 877.5 Å C= 0.30E+20	50000.	0.607E-02	0.193E-03	0.265E-03	0.911E-04	0.518E-03	0.179E-03
	100000.	0.446E-02	0.172E-03	0.397E-03	0.146E-03	0.782E-03	0.292E-03
	150000.	0.380E-02	0.197E-03	0.473E-03	0.177E-03	0.940E-03	0.356E-03
	200000.	0.344E-02	0.215E-03	0.503E-03	0.201E-03	0.100E-02	0.407E-03
	300000.	0.302E-02	0.207E-03	0.548E-03	0.226E-03	0.109E-02	0.459E-03
	500000.	0.263E-02	0.196E-03	0.604E-03	0.260E-03	0.120E-02	0.528E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 4D 525.9 Å C= 0.14E+19	50000.	0.496E-02	-0.209E-03	0.429E-03	-0.264E-03	0.846E-03	-0.517E-03
	100000.	0.390E-02	-0.178E-03	0.559E-03	-0.355E-03	0.111E-02	-0.712E-03
	150000.	0.344E-02	-0.180E-03	0.624E-03	-0.395E-03	0.124E-02	-0.802E-03
	200000.	0.316E-02	-0.183E-03	0.673E-03	-0.426E-03	0.133E-02	-0.861E-03
	300000.	0.283E-02	-0.170E-03	0.753E-03	-0.474E-03	0.145E-02	-0.954E-03
	500000.	0.249E-02	-0.144E-03	0.839E-03	-0.526E-03	0.162E-02	-0.108E-02
P IV 3P 5D 429.5 Å C= 0.14E+19	50000.	0.691E-02	0.870E-03	0.939E-03	0.575E-03	*0.187E-02	*0.111E-02
	100000.	0.591E-02	0.810E-03	0.112E-02	0.698E-03	0.224E-02	0.139E-02
	150000.	0.541E-02	0.781E-03	0.123E-02	0.779E-03	0.245E-02	0.157E-02
	200000.	0.509E-02	0.758E-03	0.129E-02	0.832E-03	0.261E-02	0.169E-02
	300000.	0.469E-02	0.725E-03	0.139E-02	0.915E-03	0.275E-02	0.184E-02
	500000.	0.423E-02	0.636E-03	0.153E-02	0.101E-02	0.304E-02	0.206E-02
P IV 3P 6D 386.8 Å C= 0.36E+18	50000.	0.152E-01	0.236E-02	0.256E-02	0.190E-02		
	100000.	0.136E-01	0.216E-02	0.308E-02	0.234E-02		
	150000.	0.127E-01	0.210E-02	0.330E-02	0.254E-02	*0.654E-02	*0.508E-02
	200000.	0.120E-01	0.198E-02	0.353E-02	0.267E-02	*0.701E-02	*0.534E-02
	300000.	0.111E-01	0.174E-02	0.388E-02	0.287E-02	*0.773E-02	*0.580E-02
	500000.	0.101E-01	0.144E-02	0.427E-02	0.317E-02	*0.824E-02	*0.654E-02
P IV 3P 7D 367.7 Å C= 0.18E+18	50000.	0.262E-01	0.400E-02	*0.513E-02	*0.388E-02		
	100000.	0.240E-01	0.378E-02	*0.607E-02	*0.464E-02		
	150000.	0.226E-01	0.349E-02	*0.642E-02	*0.500E-02		
	200000.	0.215E-01	0.325E-02	*0.680E-02	*0.530E-02		
	300000.	0.199E-01	0.276E-02	*0.739E-02	*0.578E-02		
	500000.	0.179E-01	0.231E-02	*0.754E-02	*0.622E-02		
P IV 4P 4D 2645.1 Å C= 0.35E+20	50000.	0.164	-0.757E-02	0.147E-01	-0.701E-02	0.291E-01	-0.137E-01
	100000.	0.131	-0.605E-02	0.181E-01	-0.935E-02	0.359E-01	-0.187E-01
	150000.	0.116	-0.668E-02	0.199E-01	-0.104E-01	0.395E-01	-0.211E-01
	200000.	0.108	-0.680E-02	0.213E-01	-0.113E-01	0.420E-01	-0.227E-01
	300000.	0.976E-01	-0.615E-02	0.232E-01	-0.125E-01	0.456E-01	-0.253E-01
	500000.	0.868E-01	-0.544E-02	0.254E-01	-0.139E-01	0.482E-01	-0.282E-01
P IV 4P 5D 1242.0 Å C= 0.12E+20	50000.	0.652E-01	0.659E-02	0.830E-02	0.476E-02	*0.166E-01	*0.924E-02
	100000.	0.556E-01	0.633E-02	0.980E-02	0.579E-02	0.196E-01	0.115E-01
	150000.	0.509E-01	0.601E-02	0.108E-01	0.645E-02	0.214E-01	0.129E-01
	200000.	0.479E-01	0.582E-02	0.112E-01	0.688E-02	0.227E-01	0.140E-01
	300000.	0.442E-01	0.563E-02	0.121E-01	0.754E-02	0.239E-01	0.153E-01
	500000.	0.401E-01	0.490E-02	0.133E-01	0.841E-02	0.262E-01	0.172E-01
P IV 4P 6D 941.4 Å C= 0.21E+19	50000.	0.942E-01	0.135E-01	0.153E-01	0.113E-01		
	100000.	0.838E-01	0.126E-01	0.184E-01	0.138E-01		
	150000.	0.782E-01	0.121E-01	0.197E-01	0.150E-01	*0.390E-01	*0.300E-01
	200000.	0.742E-01	0.114E-01	0.211E-01	0.158E-01	*0.419E-01	*0.316E-01
	300000.	0.688E-01	0.101E-01	0.231E-01	0.170E-01	*0.460E-01	*0.343E-01
	500000.	0.621E-01	0.829E-02	0.254E-01	0.188E-01	*0.489E-01	*0.387E-01
P IV 4P 7D 835.7 Å C= 0.96E+18	50000.	0.138	0.206E-01	*0.266E-01	*0.200E-01		
	100000.	0.127	0.194E-01	*0.314E-01	*0.240E-01		
	150000.	0.119	0.178E-01	*0.332E-01	*0.258E-01		
	200000.	0.113	0.166E-01	*0.352E-01	*0.274E-01		
	300000.	0.105	0.141E-01	*0.383E-01	*0.299E-01		
	500000.	0.947E-01	0.118E-01	*0.390E-01	*0.321E-01		
P IV 5P 5D 4728.8 Å C= 0.13E+21	50000.	1.28	0.117	0.156	0.853E-01	*0.310	*0.165
	100000.	1.10	0.104	0.183	0.104	*0.366	*0.207
	150000.	1.01	0.100E+00	0.198	0.115	*0.398	*0.234
	200000.	0.957	0.981E-01	0.209	0.124	*0.418	*0.251
	300000.	0.885	0.938E-01	0.223	0.135	0.434	0.271
	500000.	0.803	0.793E-01	0.239	0.149	0.466	0.301
P IV 5P 6D 2133.8 Å C= 0.11E+20	50000.	0.547	0.740E-01	*0.825E-01	*0.596E-01		
	100000.	0.487	0.672E-01	0.992E-01	0.730E-01		
	150000.	0.454	0.650E-01	0.109	0.801E-01	*0.212	*0.161
	200000.	0.431	0.615E-01	0.112	0.834E-01	*0.225	*0.169
	300000.	0.400	0.542E-01	0.122	0.892E-01	*0.245	*0.182
	500000.	0.361	0.443E-01	0.134	0.988E-01	*0.265	*0.202

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5P 7D 1658.6 Å C= 0.38E+19	50000.	0.581	0.845E-01	*0.107	*0.800E-01		
	100000.	0.531	0.785E-01	*0.125	*0.949E-01		
	150000.	0.499	0.720E-01	*0.133	*0.103		
	200000.	0.476	0.671E-01	*0.140	*0.109		
	300000.	0.441	0.569E-01	*0.154	*0.119		
	500000.	0.397	0.474E-01	*0.156	*0.129		
P IV 6P 7D 4358.2 Å C= 0.26E+20	50000.	4.39	0.505	*0.765	*0.537		
	100000.	4.05	0.475	*0.891	*0.647		
	150000.	3.83	0.431	*0.942	*0.693		
	200000.	3.66	0.400	*0.992	*0.741		
	300000.	3.41	0.333	*1.07	*0.803		
	500000.	3.09	0.274	*1.09	*0.858		
P IV 3D 4P 2606.3 Å C= 0.16E+21	50000.	0.101	0.211E-03	0.763E-02	-0.242E-03	0.150E-01	-0.476E-03
	100000.	0.774E-01	-0.218E-03	0.100E-01	-0.433E-03	0.199E-01	-0.867E-03
	150000.	0.680E-01	0.196E-03	0.108E-01	-0.570E-03	0.214E-01	-0.115E-02
	200000.	0.626E-01	0.123E-03	0.113E-01	-0.651E-03	0.225E-01	-0.131E-02
	300000.	0.565E-01	-0.102E-03	0.121E-01	-0.793E-03	0.240E-01	-0.160E-02
	500000.	0.503E-01	-0.129E-04	0.128E-01	-0.935E-03	0.256E-01	-0.190E-02
P IV 3D 5P 1023.2 Å C= 0.60E+19	50000.	0.344E-01	-0.101E-02	0.387E-02	-0.151E-02	0.769E-02	-0.294E-02
	100000.	0.283E-01	-0.632E-03	0.448E-02	-0.192E-02	0.890E-02	-0.383E-02
	150000.	0.256E-01	-0.592E-03	0.485E-02	-0.214E-02	0.962E-02	-0.436E-02
	200000.	0.239E-01	-0.639E-03	0.512E-02	-0.231E-02	0.101E-01	-0.466E-02
	300000.	0.219E-01	-0.590E-03	0.545E-02	-0.255E-02	0.107E-01	-0.519E-02
	500000.	0.197E-01	-0.390E-03	0.586E-02	-0.283E-02	0.112E-01	-0.571E-02
P IV 3D 6P 740.3 Å C= 0.36E+19	50000.	0.336E-01	0.155E-02	0.574E-02	0.814E-03	*0.114E-01	*0.159E-02
	100000.	0.296E-01	0.154E-02	0.641E-02	0.103E-02	*0.128E-01	*0.206E-02
	150000.	0.277E-01	0.151E-02	0.669E-02	0.115E-02	*0.134E-01	*0.234E-02
	200000.	0.265E-01	0.145E-02	0.683E-02	0.124E-02	*0.136E-01	*0.252E-02
	300000.	0.249E-01	0.139E-02	0.697E-02	0.138E-02	*0.139E-01	*0.278E-02
	500000.	0.229E-01	0.131E-02	0.715E-02	0.154E-02	0.142E-01	0.309E-02
P IV 4D 5P 4638.3 Å C= 0.11E+21	50000.	0.869	0.345E-02	0.882E-01	-0.136E-01	0.175	-0.268E-01
	100000.	0.720	0.710E-02	0.100	-0.190E-01	0.199	-0.379E-01
	150000.	0.652	0.839E-02	0.108	-0.210E-01	0.213	-0.426E-01
	200000.	0.610	0.795E-02	0.113	-0.228E-01	0.222	-0.461E-01
	300000.	0.558	0.746E-02	0.119	-0.253E-01	0.230	-0.515E-01
	500000.	0.501	0.892E-02	0.126	-0.288E-01	0.237	-0.579E-01
P IV 4D 6P 1697.6 Å C= 0.14E+20	50000.	0.197	0.137E-01	0.313E-01	0.623E-02	*0.621E-01	*0.121E-01
	100000.	0.173	0.120E-01	0.351E-01	0.767E-02	*0.697E-01	*0.153E-01
	150000.	0.162	0.115E-01	0.368E-01	0.852E-02	*0.729E-01	*0.173E-01
	200000.	0.154	0.111E-01	0.375E-01	0.923E-02	*0.746E-01	*0.186E-01
	300000.	0.144	0.102E-01	0.384E-01	0.101E-01	*0.760E-01	*0.205E-01
	500000.	0.133	0.933E-02	0.394E-01	0.112E-01	0.778E-01	0.226E-01
P IV 5D 6P 6173.0 Å C= 0.25E+21	50000.	3.10	-0.583E-01	0.468	-0.825E-01	*0.927	-0.160
	100000.	2.80	-0.498E-01	0.522	-0.102	*1.04	-0.203
	150000.	2.64	-0.457E-01	0.543	-0.113	*1.08	-0.229
	200000.	2.53	-0.445E-01	0.552	-0.122	*1.10	-0.246
	300000.	2.37	-0.422E-01	0.567	-0.133	*1.13	-0.271
	500000.	2.19	-0.300E-01	0.584	-0.148	*1.14	-0.299
P IV 3D 4F 1405.0 Å C= 0.99E+19	50000.	0.287E-01	0.917E-03	0.188E-02	0.153E-02	0.372E-02	0.300E-02
	100000.	0.220E-01	0.876E-03	0.278E-02	0.211E-02	0.554E-02	0.422E-02
	150000.	0.192E-01	0.870E-03	0.317E-02	0.235E-02	0.627E-02	0.474E-02
	200000.	0.176E-01	0.802E-03	0.344E-02	0.253E-02	0.676E-02	0.511E-02
	300000.	0.157E-01	0.704E-03	0.388E-02	0.279E-02	0.755E-02	0.566E-02
	500000.	0.138E-01	0.601E-03	0.454E-02	0.315E-02	0.861E-02	0.645E-02
P IV 3D 5F 790.5 Å C= 0.10E+19	50000.	0.335E-01	-0.292E-02	0.451E-02	-0.374E-02	*0.896E-02	-0.712E-02
	100000.	0.275E-01	-0.259E-02	0.561E-02	-0.455E-02	*0.111E-01	-0.899E-02
	150000.	0.247E-01	-0.248E-02	0.630E-02	-0.503E-02	*0.124E-01	-0.101E-01
	200000.	0.230E-01	-0.239E-02	0.684E-02	-0.536E-02	*0.133E-01	-0.108E-01
	300000.	0.209E-01	-0.216E-02	0.777E-02	-0.578E-02	*0.148E-01	-0.118E-01
	500000.	0.185E-01	-0.176E-02	0.846E-02	-0.631E-02	0.157E-01	-0.129E-01

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4D 4F 1996.3 Å C= 0.20E+22	50000.	9.43	0.593	0.840	0.623	1.66	1.21
	100000.	7.48	0.527	1.09	0.789	2.17	1.57
	150000.	6.63	0.541	1.23	0.881	2.42	1.78
	200000.	6.12	0.540	1.34	0.954	2.60	1.92
	300000.	5.51	0.497	1.51	1.06	2.88	2.13
	500000.	4.87	0.432	1.72	1.17	3.21	2.39
P IV 4D 5F 1987.0 Å C= 0.65E+19	50000.	0.241	-0.146E-01	0.283E-01	-0.220E-01	*0.566E-01	-0.422E-01
	100000.	0.199	-0.130E-01	0.352E-01	-0.270E-01	*0.694E-01	-0.535E-01
	150000.	0.179	-0.121E-01	0.398E-01	-0.298E-01	*0.780E-01	-0.609E-01
	200000.	0.167	-0.114E-01	0.424E-01	-0.318E-01	*0.813E-01	-0.636E-01
	300000.	0.151	-0.102E-01	0.471E-01	-0.345E-01	*0.889E-01	-0.697E-01
	500000.	0.134	-0.804E-02	0.536E-01	-0.372E-01	0.977E-01	-0.754E-01
P IV 5D 5F 13123.2 Å C= 0.28E+21	50000.	13.3	-1.61	1.71	-1.29	*3.38	-2.44
	100000.	11.3	-1.45	2.10	-1.58	*4.17	-3.13
	150000.	10.3	-1.38	2.30	-1.73	*4.57	-3.49
	200000.	9.70	-1.32	2.43	-1.83	*4.76	-3.67
	300000.	8.89	-1.23	2.78	-2.02	*5.31	-4.11
	500000.	7.97	-1.04	3.05	-2.15	*5.89	-4.41
P IV 4F 5D 2096.1 Å C= 0.22E+20	50000.	0.187	0.167E-01	0.223E-01	0.118E-01	*0.444E-01	*0.230E-01
	100000.	0.159	0.159E-01	0.262E-01	0.145E-01	0.522E-01	0.287E-01
	150000.	0.145	0.153E-01	0.285E-01	0.161E-01	0.571E-01	0.324E-01
	200000.	0.137	0.149E-01	0.302E-01	0.173E-01	0.607E-01	0.351E-01
	300000.	0.126	0.144E-01	0.320E-01	0.188E-01	0.630E-01	0.379E-01
	500000.	0.114	0.126E-01	0.340E-01	0.206E-01	0.669E-01	0.418E-01
P IV 4F 6D 1361.9 Å C= 0.44E+19	50000.	0.198	0.272E-01	0.316E-01	0.233E-01		
	100000.	0.176	0.253E-01	0.379E-01	0.285E-01		
	150000.	0.164	0.246E-01	0.402E-01	0.307E-01	*0.810E-01	*0.618E-01
	200000.	0.156	0.232E-01	0.431E-01	0.324E-01	*0.875E-01	*0.655E-01
	300000.	0.144	0.204E-01	0.476E-01	0.349E-01	*0.955E-01	*0.717E-01
	500000.	0.130	0.168E-01	0.528E-01	0.392E-01	*0.993E-01	*0.785E-01
P IV 4F 7D 1151.4 Å C= 0.18E+19	50000.	0.264	0.381E-01	*0.502E-01	*0.378E-01		
	100000.	0.241	0.361E-01	*0.596E-01	*0.455E-01		
	150000.	0.226	0.332E-01	*0.629E-01	*0.487E-01		
	200000.	0.215	0.309E-01	*0.670E-01	*0.520E-01		
	300000.	0.200	0.262E-01	*0.722E-01	*0.563E-01		
	500000.	0.180	0.219E-01	*0.742E-01	*0.605E-01		
P IV 5F 6D 5525.9 Å C= 0.50E+20	50000.	4.27	0.692	*0.626	*0.475		
	100000.	3.75	0.571	0.744	0.580		
	150000.	3.48	0.547	0.815	0.627		
	200000.	3.29	0.515	0.890	0.664		
	300000.	3.04	0.454	0.937	0.728	*1.80	*1.45
	500000.	2.73	0.373	1.06	0.766	*2.04	*1.57
P IV 5F 7D 3172.1 Å C= 0.14E+20	50000.	2.31	0.383	*0.409	*0.306		
	100000.	2.10	0.326	*0.477	*0.369		
	150000.	1.97	0.301	*0.524	*0.405		
	200000.	1.87	0.279	*0.539	*0.429		
	300000.	1.73	0.238	*0.609	*0.459		
	500000.	1.55	0.198	*0.654	*0.528		
P IV 4S 4P 3356.9 Å C= 0.34E+21	50000.	0.191	-0.501E-02	0.110E-01	-0.380E-02	0.216E-01	-0.745E-02
	100000.	0.147	-0.615E-02	0.149E-01	-0.543E-02	0.296E-01	-0.109E-01
	150000.	0.129	-0.653E-02	0.162E-01	-0.640E-02	0.322E-01	-0.129E-01
	200000.	0.119	-0.581E-02	0.171E-01	-0.684E-02	0.341E-01	-0.139E-01
	300000.	0.107	-0.585E-02	0.184E-01	-0.767E-02	0.368E-01	-0.155E-01
	500000.	0.951E-01	-0.552E-02	0.201E-01	-0.872E-02	0.400E-01	-0.177E-01
P IV 4S 5P 1046.1 Å C= 0.15E+20	50000.	0.369E-01	0.678E-03	0.434E-02	0.800E-03	0.861E-02	0.157E-02
	100000.	0.312E-01	0.101E-02	0.493E-02	0.111E-02	0.980E-02	0.221E-02
	150000.	0.286E-01	0.757E-03	0.527E-02	0.123E-02	0.105E-01	0.248E-02
	200000.	0.270E-01	0.798E-03	0.549E-02	0.133E-02	0.110E-01	0.269E-02
	300000.	0.250E-01	0.775E-03	0.570E-02	0.147E-02	0.114E-01	0.299E-02
	500000.	0.227E-01	0.744E-03	0.593E-02	0.166E-02	0.118E-01	0.336E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4S 6P 788.7 Å C= 0.45E+19	50000.	0.388E-01	0.159E-02	0.633E-02	0.111E-02	*0.126E-01	*0.216E-02
	100000.	0.342E-01	0.156E-02	0.708E-02	0.139E-02	*0.141E-01	*0.278E-02
	150000.	0.321E-01	0.150E-02	0.743E-02	0.155E-02	*0.148E-01	*0.314E-02
	200000.	0.306E-01	0.148E-02	0.755E-02	0.167E-02	*0.151E-01	*0.336E-02
	300000.	0.288E-01	0.144E-02	0.776E-02	0.185E-02	*0.154E-01	*0.371E-02
	500000.	0.265E-01	0.131E-02	0.800E-02	0.203E-02	0.158E-01	0.409E-02
P IV 4S 7P 691.7 Å C= 0.19E+19	50000.	0.561E-01	0.251E-02	*0.105E-01	*0.133E-02		
	100000.	0.523E-01	0.218E-02	0.114E-01	0.162E-02		
	150000.	0.502E-01	0.203E-02	0.118E-01	0.179E-02		
	200000.	0.486E-01	0.200E-02	0.119E-01	0.192E-02	*0.238E-01	*0.392E-02
	300000.	0.462E-01	0.201E-02	0.121E-01	0.212E-02	*0.242E-01	*0.423E-02
	500000.	0.429E-01	0.171E-02	0.124E-01	0.231E-02	*0.245E-01	*0.467E-02
P IV 4S 8P 645.9 Å C= 0.73E+18	50000.	0.868E-01	-0.287E-02	*0.173E-01	-0.611E-02		
	100000.	0.825E-01	-0.294E-02	*0.186E-01	-0.742E-02		
	150000.	0.796E-01	-0.273E-02	*0.192E-01	-0.804E-02		
	200000.	0.773E-01	-0.222E-02	*0.200E-01	-0.875E-02		
	300000.	0.734E-01	-0.171E-02	*0.206E-01	-0.919E-02		
	500000.	0.679E-01	-0.139E-02	0.208E-01	-0.101E-01		
P IV 5S 5P 7474.4 Å C= 0.75E+21	50000.	2.38	-0.112	0.227	-0.805E-01	0.451	-0.157
	100000.	2.08	-0.120	0.261	-0.102	0.519	-0.204
	150000.	1.93	-0.115	0.281	-0.114	0.560	-0.232
	200000.	1.83	-0.111	0.295	-0.123	0.586	-0.249
	300000.	1.70	-0.106	0.309	-0.136	0.615	-0.277
	500000.	1.55	-0.100E+00	0.328	-0.151	0.642	-0.304
P IV 5S 6P 2243.2 Å C= 0.36E+20	50000.	0.356	-0.203E-03	0.510E-01	-0.120E-02	*0.101	-0.235E-02
	100000.	0.319	-0.280E-02	0.569E-01	-0.176E-02	*0.113	-0.353E-02
	150000.	0.301	-0.172E-02	0.595E-01	-0.214E-02	*0.119	-0.432E-02
	200000.	0.288	-0.168E-02	0.606E-01	-0.233E-02	*0.121	-0.473E-02
	300000.	0.271	-0.144E-02	0.620E-01	-0.260E-02	*0.123	-0.526E-02
	500000.	0.250	-0.178E-02	0.635E-01	-0.297E-02	0.125	-0.600E-02
P IV 5S 7P 1603.4 Å C= 0.10E+20	50000.	0.323	0.659E-02	*0.563E-01	*0.353E-02		
	100000.	0.303	0.358E-02	0.613E-01	0.450E-02		
	150000.	0.291	0.374E-02	0.629E-01	0.505E-02		
	200000.	0.282	0.371E-02	0.638E-01	0.543E-02	*0.127	*0.110E-01
	300000.	0.268	0.411E-02	0.646E-01	0.600E-02	*0.129	*0.121E-01
	500000.	0.248	0.285E-02	0.663E-01	0.660E-02	*0.130	*0.135E-01
P IV 5S 8P 1377.3 Å C= 0.33E+19	50000.	0.410	-0.178E-01	*0.787E-01	-0.289E-01		
	100000.	0.391	-0.191E-01	*0.859E-01	-0.351E-01		
	150000.	0.378	-0.176E-01	*0.882E-01	-0.380E-01		
	200000.	0.366	-0.152E-01	*0.901E-01	-0.410E-01		
	300000.	0.348	-0.127E-01	*0.944E-01	-0.439E-01		
	500000.	0.322	-0.110E-01	0.946E-01	-0.470E-01		
P IV 6S 6P 13853.1 Å C= 0.14E+22	50000.	17.4	-1.49	2.08	-0.949	*4.16	-1.82
	100000.	16.0	-1.33	2.38	-1.16	*4.75	-2.31
	150000.	15.1	-1.26	2.53	-1.30	*5.08	-2.61
	200000.	14.6	-1.22	2.63	-1.39	*5.29	-2.81
	300000.	13.7	-1.17	2.72	-1.49	*5.52	-3.04
	500000.	12.6	-0.984	2.93	-1.65	*5.91	-3.38
P IV 6S 7P 3999.2 Å C= 0.63E+20	50000.	2.31	-0.787E-01	*0.353	-0.683E-01		
	100000.	2.19	-0.774E-01	0.385	-0.837E-01		
	150000.	2.11	-0.750E-01	0.397	-0.932E-01		
	200000.	2.05	-0.728E-01	0.400	-0.997E-01	*0.800	-0.201
	300000.	1.94	-0.671E-01	0.410	-0.107	*0.813	-0.218
	500000.	1.80	-0.584E-01	0.421	-0.119	*0.838	-0.243
P IV 6S 8P 2837.4 Å C= 0.14E+20	50000.	1.88	-0.140	*0.341	-0.138		
	100000.	1.81	-0.133	*0.367	-0.168		
	150000.	1.75	-0.126	*0.381	-0.182		
	200000.	1.70	-0.114	*0.394	-0.192		
	300000.	1.62	-0.101	*0.413	-0.209		
	500000.	1.50	-0.852E-01	0.435	-0.232		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 7S 8P 7052.5 Å C= 0.87E+20	50000.	13.9	-2.18	*2.28	-1.19		
	100000.	13.4	-1.76	*2.48	-1.42		
	150000.	12.9	-1.60	*2.66	-1.58		
	200000.	12.6	-1.50	*2.80	-1.67		
	300000.	11.9	-1.29	*2.85	-1.77		
	500000.	11.0	-1.03	*3.10	-1.88		
P IV 3P 4S 630.8 Å C= 0.12E+20	50000.	0.355E-02	0.341E-03	0.110E-03	0.186E-03	0.218E-03	0.366E-03
	100000.	0.262E-02	0.351E-03	0.200E-03	0.262E-03	0.399E-03	0.523E-03
	150000.	0.224E-02	0.386E-03	0.274E-03	0.298E-03	0.552E-03	0.604E-03
	200000.	0.204E-02	0.367E-03	0.308E-03	0.323E-03	0.622E-03	0.654E-03
	300000.	0.180E-02	0.348E-03	0.362E-03	0.358E-03	0.728E-03	0.727E-03
	500000.	0.155E-02	0.328E-03	0.429E-03	0.405E-03	0.870E-03	0.829E-03
P IV 3P 5S 415.4 Å C= 0.23E+19	50000.	0.370E-02	0.852E-03	0.277E-03	0.369E-03	0.556E-03	0.717E-03
	100000.	0.298E-02	0.755E-03	0.427E-03	0.455E-03	0.864E-03	0.909E-03
	150000.	0.267E-02	0.698E-03	0.497E-03	0.506E-03	0.100E-02	0.102E-02
	200000.	0.246E-02	0.668E-03	0.544E-03	0.547E-03	0.110E-02	0.110E-02
	300000.	0.220E-02	0.621E-03	0.628E-03	0.596E-03	0.127E-02	0.122E-02
	500000.	0.193E-02	0.577E-03	0.714E-03	0.665E-03	0.145E-02	0.133E-02
P IV 3P 6S 359.6 Å C= 0.93E+18	50000.	0.602E-02	0.217E-02	0.707E-03	0.767E-03	*0.142E-02	*0.146E-02
	100000.	0.519E-02	0.176E-02	0.932E-03	0.937E-03	*0.188E-02	*0.185E-02
	150000.	0.472E-02	0.151E-02	0.106E-02	0.103E-02	*0.216E-02	*0.208E-02
	200000.	0.441E-02	0.140E-02	0.117E-02	0.110E-02	*0.239E-02	*0.223E-02
	300000.	0.402E-02	0.129E-02	0.133E-02	0.119E-02	0.265E-02	0.244E-02
	500000.	0.359E-02	0.111E-02	0.144E-02	0.129E-02	0.288E-02	0.263E-02
P IV 3P 7S 334.3 Å C= 0.44E+18	50000.	0.110E-01	0.460E-02	0.169E-02	0.168E-02		
	100000.	0.977E-02	0.361E-02	0.214E-02	0.204E-02		
	150000.	0.908E-02	0.320E-02	0.240E-02	0.222E-02	*0.485E-02	*0.445E-02
	200000.	0.858E-02	0.296E-02	0.264E-02	0.239E-02	*0.522E-02	*0.484E-02
	300000.	0.789E-02	0.261E-02	0.274E-02	0.255E-02	*0.558E-02	*0.509E-02
	500000.	0.707E-02	0.212E-02	0.325E-02	0.275E-02	*0.651E-02	*0.565E-02
P IV 4P 5S 1907.5 Å C= 0.49E+20	50000.	0.101	0.129E-01	0.701E-02	0.751E-02	0.140E-01	0.146E-01
	100000.	0.827E-01	0.139E-01	0.988E-02	0.931E-02	0.198E-01	0.185E-01
	150000.	0.748E-01	0.127E-01	0.113E-01	0.103E-01	0.225E-01	0.209E-01
	200000.	0.697E-01	0.122E-01	0.122E-01	0.111E-01	0.249E-01	0.225E-01
	300000.	0.633E-01	0.116E-01	0.140E-01	0.123E-01	0.279E-01	0.247E-01
	500000.	0.567E-01	0.109E-01	0.157E-01	0.134E-01	0.324E-01	0.275E-01
P IV 4P 6S 1113.8 Å C= 0.90E+19	50000.	0.648E-01	0.181E-01	0.690E-02	0.730E-02	*0.138E-01	*0.139E-01
	100000.	0.558E-01	0.156E-01	0.901E-02	0.892E-02	*0.183E-01	*0.176E-01
	150000.	0.512E-01	0.136E-01	0.102E-01	0.983E-02	*0.210E-01	*0.198E-01
	200000.	0.481E-01	0.125E-01	0.112E-01	0.105E-01	*0.229E-01	*0.213E-01
	300000.	0.442E-01	0.114E-01	0.129E-01	0.114E-01	0.253E-01	0.232E-01
	500000.	0.397E-01	0.101E-01	0.139E-01	0.123E-01	0.280E-01	0.249E-01
P IV 4P 7S 902.1 Å C= 0.32E+19	50000.	0.846E-01	0.329E-01	0.123E-01	0.122E-01		
	100000.	0.750E-01	0.258E-01	0.156E-01	0.149E-01		
	150000.	0.699E-01	0.226E-01	0.175E-01	0.161E-01	*0.354E-01	*0.324E-01
	200000.	0.662E-01	0.211E-01	0.192E-01	0.174E-01	*0.380E-01	*0.352E-01
	300000.	0.611E-01	0.186E-01	0.199E-01	0.185E-01	*0.406E-01	*0.370E-01
	500000.	0.550E-01	0.151E-01	0.237E-01	0.200E-01	*0.472E-01	*0.411E-01
P IV 5P 6S 4169.9 Å C= 0.13E+21	50000.	1.12	0.200	0.112	0.958E-01	*0.226	*0.184
	100000.	1.01	0.157	0.140	0.118	*0.279	*0.233
	150000.	0.944	0.148	0.158	0.130	*0.314	*0.265
	200000.	0.900	0.142	0.166	0.139	*0.337	*0.277
	300000.	0.839	0.135	0.182	0.150	0.369	0.304
	500000.	0.765	0.115	0.203	0.163	0.408	0.329
P IV 5P 7S 2220.0 Å C= 0.19E+20	50000.	0.568	0.181	0.766E-01	0.727E-01		
	100000.	0.516	0.145	0.957E-01	0.884E-01		
	150000.	0.485	0.125	0.106	0.960E-01	*0.218	*0.193
	200000.	0.463	0.118	0.116	0.104	*0.232	*0.209
	300000.	0.431	0.105	0.122	0.110	*0.248	*0.220
	500000.	0.391	0.851E-01	0.145	0.120	*0.285	*0.244

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 6P 7S 7222.9 Å C= 0.21E+21	50000.	7.24	1.72	*0.922	*0.753		
	100000.	6.69	1.33	1.13	0.920		
	150000.	6.37	1.18	1.22	0.986		
	200000.	6.13	1.13	1.29	1.07	*2.56	*2.16
	300000.	5.76	1.02	1.37	1.13	*2.75	*2.28
	500000.	5.26	0.797	1.57	1.25	*3.18	*2.55
P IV 3P 3D 826.3 Å C= 0.46E+20	50000.	0.337E-02	-0.624E-05	0.137E-03	0.857E-06	0.267E-03	0.168E-05
	100000.	0.245E-02	-0.105E-04	0.217E-03	0.172E-05	0.429E-03	0.343E-05
	150000.	0.206E-02	-0.715E-05	0.266E-03	0.257E-05	0.526E-03	0.514E-05
	200000.	0.184E-02	-0.564E-05	0.294E-03	0.338E-05	0.584E-03	0.676E-05
	300000.	0.159E-02	-0.963E-05	0.317E-03	0.481E-05	0.629E-03	0.965E-05
	500000.	0.136E-02	-0.114E-04	0.346E-03	0.697E-05	0.690E-03	0.140E-04
P IV 3P 4D 444.7 Å C= 0.21E+19	50000.	0.332E-02	0.200E-03	0.287E-03	0.181E-03	0.567E-03	0.355E-03
	100000.	0.267E-02	0.212E-03	0.378E-03	0.245E-03	0.756E-03	0.491E-03
	150000.	0.237E-02	0.208E-03	0.421E-03	0.273E-03	0.841E-03	0.553E-03
	200000.	0.219E-02	0.205E-03	0.451E-03	0.293E-03	0.907E-03	0.595E-03
	300000.	0.197E-02	0.196E-03	0.497E-03	0.325E-03	0.996E-03	0.661E-03
	500000.	0.175E-02	0.180E-03	0.561E-03	0.367E-03	0.111E-02	0.749E-03
P IV 3P 5D 371.8 Å C= 0.86E+18	50000.	0.551E-02	0.563E-03	0.697E-03	0.441E-03	*0.139E-02	*0.854E-03
	100000.	0.477E-02	0.499E-03	0.832E-03	0.535E-03	0.166E-02	0.106E-02
	150000.	0.438E-02	0.494E-03	0.912E-03	0.594E-03	0.184E-02	0.121E-02
	200000.	0.413E-02	0.479E-03	0.969E-03	0.639E-03	0.193E-02	0.129E-02
	300000.	0.380E-02	0.458E-03	0.105E-02	0.700E-03	0.209E-02	0.141E-02
	500000.	0.342E-02	0.387E-03	0.116E-02	0.768E-03	0.231E-02	0.158E-02
P IV 3P 6D 339.4 Å C= 0.28E+18	50000.	0.114E-01	0.164E-02	0.189E-02	0.141E-02		
	100000.	0.101E-01	0.153E-02	0.226E-02	0.172E-02		
	150000.	0.941E-02	0.149E-02	0.243E-02	0.185E-02	*0.489E-02	*0.373E-02
	200000.	0.892E-02	0.140E-02	0.263E-02	0.196E-02	*0.533E-02	*0.403E-02
	300000.	0.824E-02	0.123E-02	0.293E-02	0.215E-02	*0.573E-02	*0.437E-02
	500000.	0.742E-02	0.102E-02	0.308E-02	0.236E-02	*0.602E-02	*0.479E-02
P IV 3P 7D 324.0 Å C= 0.15E+18	50000.	0.200E-01	0.369E-02	*0.391E-02	*0.294E-02		
	100000.	0.185E-01	0.332E-02	*0.465E-02	*0.355E-02		
	150000.	0.175E-01	0.307E-02	*0.497E-02	*0.382E-02		
	200000.	0.168E-01	0.280E-02	*0.515E-02	*0.404E-02		
	300000.	0.156E-01	0.239E-02	*0.563E-02	*0.439E-02		
	500000.	0.141E-01	0.200E-02	*0.587E-02	*0.470E-02		
P IV 4P 4D 2735.1 Å C= 0.78E+20	50000.	0.172	0.504E-02	0.149E-01	0.609E-02	0.294E-01	0.119E-01
	100000.	0.138	0.580E-02	0.181E-01	0.836E-02	0.361E-01	0.167E-01
	150000.	0.123	0.510E-02	0.198E-01	0.929E-02	0.395E-01	0.188E-01
	200000.	0.114	0.485E-02	0.210E-01	0.100E-01	0.417E-01	0.203E-01
	300000.	0.104	0.486E-02	0.226E-01	0.112E-01	0.452E-01	0.224E-01
	500000.	0.927E-01	0.434E-02	0.243E-01	0.125E-01	0.477E-01	0.253E-01
P IV 4P 5D 1239.6 Å C= 0.96E+19	50000.	0.696E-01	0.563E-02	0.817E-02	0.481E-02	*0.163E-01	*0.932E-02
	100000.	0.598E-01	0.502E-02	0.967E-02	0.584E-02	0.194E-01	0.116E-01
	150000.	0.548E-01	0.489E-02	0.106E-01	0.651E-02	0.212E-01	0.131E-01
	200000.	0.516E-01	0.471E-02	0.112E-01	0.697E-02	0.224E-01	0.141E-01
	300000.	0.475E-01	0.454E-02	0.120E-01	0.766E-02	0.237E-01	0.153E-01
	500000.	0.429E-01	0.379E-02	0.132E-01	0.841E-02	0.261E-01	0.172E-01
P IV 4P 6D 940.2 Å C= 0.21E+19	50000.	0.919E-01	0.121E-01	0.147E-01	0.108E-01		
	100000.	0.812E-01	0.113E-01	0.175E-01	0.132E-01		
	150000.	0.755E-01	0.110E-01	0.188E-01	0.142E-01	*0.378E-01	*0.286E-01
	200000.	0.716E-01	0.104E-01	0.203E-01	0.150E-01	*0.411E-01	*0.309E-01
	300000.	0.662E-01	0.911E-02	0.225E-01	0.164E-01	*0.442E-01	*0.335E-01
	500000.	0.596E-01	0.749E-02	0.237E-01	0.180E-01	*0.461E-01	*0.365E-01
P IV 4P 7D 830.9 Å C= 0.10E+19	50000.	0.135	0.241E-01	*0.258E-01	*0.193E-01		
	100000.	0.125	0.210E-01	*0.306E-01	*0.233E-01		
	150000.	0.118	0.194E-01	*0.327E-01	*0.251E-01		
	200000.	0.113	0.181E-01	*0.339E-01	*0.265E-01		
	300000.	0.105	0.154E-01	*0.370E-01	*0.288E-01		
	500000.	0.948E-01	0.129E-01	*0.387E-01	*0.309E-01		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5P 5D 6725.6 Å C= 0.28E+21	50000.	2.62	0.116	0.309	0.120	*0.612	*0.232
	100000.	2.32	0.806E-01	0.353	0.146	*0.706	*0.289
	150000.	2.16	0.860E-01	0.379	0.162	*0.758	*0.327
	200000.	2.05	0.821E-01	0.392	0.176	0.789	0.353
	300000.	1.91	0.781E-01	0.411	0.189	0.812	0.383
	500000.	1.74	0.585E-01	0.427	0.208	0.842	0.424
P IV 5P 6D 2465.7 Å C= 0.15E+20	50000.	0.701	0.744E-01	0.104	0.726E-01		
	100000.	0.628	0.683E-01	0.123	0.886E-01		
	150000.	0.587	0.675E-01	0.132	0.952E-01	*0.268	*0.193
	200000.	0.558	0.633E-01	0.144	0.103	*0.286	*0.209
	300000.	0.518	0.550E-01	0.158	0.112	*0.307	*0.227
	500000.	0.469	0.443E-01	0.166	0.122	*0.320	*0.245
P IV 5P 7D 1833.1 Å C= 0.49E+19	50000.	0.693	0.104	*0.126	*0.930E-01		
	100000.	0.644	0.964E-01	*0.150	*0.113		
	150000.	0.610	0.893E-01	*0.160	*0.121		
	200000.	0.584	0.833E-01	*0.166	*0.128		
	300000.	0.544	0.707E-01	*0.181	*0.139		
	500000.	0.493	0.589E-01	*0.190	*0.150		
P IV 6P 6D 10688.7 Å C= 0.27E+21	50000.	15.8	1.17	*2.28	*1.32		
	100000.	14.3	1.10	2.62	1.60		
	150000.	13.5	1.07	2.78	1.74		
	200000.	12.9	1.00	2.98	1.88	*5.82	*3.76
	300000.	12.0	0.849	3.19	2.05	*6.14	*4.10
	500000.	11.0	0.669	3.33	2.19	*6.53	*4.47
P IV 6P 7D 4282.4 Å C= 0.27E+20	50000.	4.17	0.524	*0.722	*0.502		
	100000.	3.89	0.494	*0.847	*0.612		
	150000.	3.69	0.453	*0.893	*0.654		
	200000.	3.54	0.423	*0.935	*0.692		
	300000.	3.31	0.356	*1.01	*0.751		
	500000.	3.01	0.295	*1.04	*0.802		
P IV 3D 4P 1486.1 Å C= 0.66E+20	50000.	0.289E-01	0.769E-03	0.231E-02	0.394E-03	0.456E-02	0.775E-03
	100000.	0.220E-01	0.694E-03	0.307E-02	0.596E-03	0.611E-02	0.120E-02
	150000.	0.192E-01	0.841E-03	0.332E-02	0.726E-03	0.659E-02	0.146E-02
	200000.	0.176E-01	0.873E-03	0.349E-02	0.814E-03	0.694E-02	0.165E-02
	300000.	0.158E-01	0.788E-03	0.373E-02	0.904E-03	0.743E-02	0.183E-02
	500000.	0.140E-01	0.762E-03	0.398E-02	0.103E-02	0.797E-02	0.209E-02
P IV 3D 5P 751.4 Å C= 0.76E+19	50000.	0.168E-01	0.875E-03	0.230E-02	0.588E-03	0.456E-02	0.115E-02
	100000.	0.144E-01	0.104E-02	0.262E-02	0.780E-03	0.521E-02	0.156E-02
	150000.	0.132E-01	0.963E-03	0.280E-02	0.867E-03	0.559E-02	0.176E-02
	200000.	0.125E-01	0.946E-03	0.293E-02	0.936E-03	0.585E-02	0.190E-02
	300000.	0.115E-01	0.905E-03	0.305E-02	0.103E-02	0.608E-02	0.211E-02
	500000.	0.105E-01	0.860E-03	0.317E-02	0.117E-02	0.630E-02	0.235E-02
P IV 3D 6P 608.7 Å C= 0.27E+19	50000.	0.217E-01	0.143E-02	0.380E-02	0.754E-03	*0.754E-02	*0.147E-02
	100000.	0.193E-01	0.136E-02	0.425E-02	0.935E-03	*0.848E-02	*0.186E-02
	150000.	0.181E-01	0.131E-02	0.445E-02	0.104E-02	*0.888E-02	*0.210E-02
	200000.	0.173E-01	0.127E-02	0.453E-02	0.111E-02	*0.906E-02	*0.226E-02
	300000.	0.163E-01	0.121E-02	0.466E-02	0.123E-02	*0.936E-02	*0.248E-02
	500000.	0.150E-01	0.111E-02	0.478E-02	0.135E-02	*0.956E-02	*0.278E-02
P IV 3D 7P 549.2 Å C= 0.12E+19	50000.	0.342E-01	0.201E-02	*0.664E-02	*0.897E-03		
	100000.	0.321E-01	0.174E-02	0.722E-02	0.109E-02		
	150000.	0.308E-01	0.164E-02	0.743E-02	0.121E-02		
	200000.	0.299E-01	0.158E-02	0.752E-02	0.130E-02	*0.150E-01	*0.262E-02
	300000.	0.284E-01	0.156E-02	0.768E-02	0.142E-02	*0.152E-01	*0.287E-02
	500000.	0.264E-01	0.135E-02	0.782E-02	0.159E-02	*0.155E-01	*0.323E-02
P IV 3D 8P 520.0 Å C= 0.47E+18	50000.	0.552E-01	-0.156E-02	*0.112E-01	-0.394E-02		
	100000.	0.526E-01	-0.162E-02	*0.120E-01	-0.480E-02		
	150000.	0.509E-01	-0.148E-02	*0.125E-01	-0.517E-02		
	200000.	0.494E-01	-0.117E-02	*0.129E-01	-0.563E-02		
	300000.	0.469E-01	-0.854E-03	*0.134E-01	-0.591E-02		
	500000.	0.434E-01	-0.667E-03	0.136E-01	-0.653E-02		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4D 5P 3419.9 Å C= 0.12E+21	50000.	0.445	0.468E-02	0.529E-01	0.251E-02	0.105	0.493E-02
	100000.	0.383	0.811E-02	0.598E-01	0.372E-02	0.119	0.745E-02
	150000.	0.353	0.697E-02	0.637E-01	0.454E-02	0.127	0.918E-02
	200000.	0.334	0.701E-02	0.662E-01	0.500E-02	0.132	0.101E-01
	300000.	0.309	0.677E-02	0.683E-01	0.557E-02	0.136	0.113E-01
	500000.	0.281	0.691E-02	0.706E-01	0.632E-02	0.140	0.129E-01
P IV 4D 6P 1654.5 Å C= 0.20E+20	50000.	0.181	0.667E-02	0.290E-01	0.391E-02	*0.575E-01	*0.762E-02
	100000.	0.161	0.643E-02	0.324E-01	0.497E-02	*0.645E-01	*0.992E-02
	150000.	0.151	0.642E-02	0.338E-01	0.556E-02	*0.675E-01	*0.113E-01
	200000.	0.145	0.623E-02	0.345E-01	0.598E-02	*0.686E-01	*0.121E-01
	300000.	0.136	0.603E-02	0.353E-01	0.663E-02	*0.704E-01	*0.134E-01
	500000.	0.125	0.557E-02	0.361E-01	0.732E-02	0.717E-01	0.148E-01
P IV 4D 7P 1278.3 Å C= 0.64E+19	50000.	0.198	0.841E-02	*0.365E-01	*0.406E-02		
	100000.	0.185	0.717E-02	0.396E-01	0.495E-02		
	150000.	0.177	0.684E-02	0.407E-01	0.550E-02		
	200000.	0.172	0.667E-02	0.414E-01	0.591E-02	*0.822E-01	*0.120E-01
	300000.	0.163	0.670E-02	0.420E-01	0.652E-02	*0.839E-01	*0.133E-01
	500000.	0.151	0.572E-02	0.430E-01	0.709E-02	*0.849E-01	*0.146E-01
P IV 4D 8P 1130.4 Å C= 0.22E+19	50000.	0.270	-0.900E-02	*0.534E-01	-0.188E-01		
	100000.	0.257	-0.925E-02	*0.576E-01	-0.229E-01		
	150000.	0.248	-0.845E-02	*0.593E-01	-0.249E-01		
	200000.	0.241	-0.694E-02	*0.615E-01	-0.270E-01		
	300000.	0.229	-0.539E-02	*0.634E-01	-0.285E-01		
	500000.	0.212	-0.436E-02	0.643E-01	-0.310E-01		
P IV 5D 6P 6123.1 Å C= 0.23E+21	50000.	3.15	-0.254E-01	0.451	-0.673E-01	*0.892	-0.131
	100000.	2.85	-0.825E-02	0.503	-0.843E-01	*1.00	-0.168
	150000.	2.68	-0.772E-02	0.522	-0.938E-01	*1.04	-0.190
	200000.	2.57	-0.648E-02	0.533	-0.101	*1.06	-0.203
	300000.	2.41	-0.463E-02	0.546	-0.112	*1.09	-0.225
	500000.	2.22	0.515E-02	0.559	-0.123	*1.11	-0.248
P IV 5D 7P 2931.0 Å C= 0.34E+20	50000.	1.18	0.171E-01	*0.201	-0.453E-02		
	100000.	1.11	0.150E-01	*0.217	-0.631E-02		
	150000.	1.07	0.138E-01	0.223	-0.710E-02		
	200000.	1.03	0.138E-01	0.227	-0.773E-02	*0.450	-0.156E-01
	300000.	0.978	0.151E-01	0.231	-0.856E-02	*0.455	-0.173E-01
	500000.	0.906	0.137E-01	0.236	-0.968E-02	*0.463	-0.197E-01
P IV 5D 8P 2254.5 Å C= 0.89E+19	50000.	1.16	-0.512E-01	*0.217	-0.797E-01		
	100000.	1.10	-0.497E-01	*0.235	-0.978E-01		
	150000.	1.07	-0.465E-01	*0.242	-0.106		
	200000.	1.03	-0.400E-01	*0.245	-0.112		
	300000.	0.980	-0.333E-01	*0.263	-0.122		
	500000.	0.907	-0.270E-01	0.259	-0.128		
P IV 6D 7P 11861.0 Å C= 0.34E+21	50000.	26.5	-1.07	*4.00	-1.56		
	100000.	24.8	-1.08	*4.36	-1.92		
	150000.	23.7	-1.07	*4.54	-2.09		
	200000.	22.8	-0.981	4.78	-2.21		
	300000.	21.5	-0.780	5.01	-2.38		
	500000.	19.8	-0.618	5.18	-2.57	*9.95	-5.23
P IV 6D 8P 5356.6 Å C= 0.50E+20	50000.	7.95	-0.574	*1.37	-0.618		
	100000.	7.55	-0.552	*1.50	-0.755		
	150000.	7.26	-0.527	*1.53	-0.807		
	200000.	7.02	-0.473	*1.59	-0.858		
	300000.	6.63	-0.398	*1.71	-0.948		
	500000.	6.10	-0.324	*1.86	-1.02		
P IV 3D 4F 875.1 Å C= 0.80E+19	50000.	0.120E-01	-0.751E-04	0.837E-03	-0.368E-03	0.165E-02	-0.722E-03
	100000.	0.920E-02	-0.123E-03	0.113E-02	-0.516E-03	0.225E-02	-0.103E-02
	150000.	0.807E-02	-0.236E-04	0.124E-02	-0.586E-03	0.246E-02	-0.119E-02
	200000.	0.740E-02	-0.172E-05	0.131E-02	-0.636E-03	0.261E-02	-0.128E-02
	300000.	0.664E-02	-0.302E-04	0.143E-02	-0.702E-03	0.283E-02	-0.143E-02
	500000.	0.587E-02	-0.596E-05	0.158E-02	-0.795E-03	0.309E-02	-0.162E-02

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3D 5F 648.5 Å C= 0.17E+18	50000.	0.263E-01	0.866E-03	0.652E-02	0.589E-02		
	100000.	0.215E-01	0.851E-03	0.855E-02	0.720E-02	*0.157E-01	*0.139E-01
	150000.	0.191E-01	0.800E-03	0.101E-01	0.777E-02	*0.178E-01	*0.158E-01
	200000.	0.176E-01	0.775E-03	0.107E-01	0.836E-02	*0.185E-01	*0.165E-01
	300000.	0.158E-01	0.625E-03	0.125E-01	0.881E-02	*0.209E-01	*0.177E-01
	500000.	0.137E-01	0.519E-03	0.156E-01	0.983E-02	*0.233E-01	*0.200E-01
P IV 4D 4F 9599.5 Å C= 0.96E+21	50000.	2.36	-0.105	0.195	-0.114	0.385	-0.222
	100000.	1.89	-0.117	0.243	-0.146	0.485	-0.292
	150000.	1.69	-0.101	0.268	-0.164	0.535	-0.331
	200000.	1.57	-0.968E-01	0.285	-0.176	0.572	-0.356
	300000.	1.42	-0.967E-01	0.317	-0.196	0.628	-0.397
	500000.	1.26	-0.861E-01	0.348	-0.219	0.681	-0.446
P IV 4D 5F 1985.9 Å C= 0.16E+19	50000.	0.281	0.411E-02	0.604E-01	0.541E-01		
	100000.	0.231	0.369E-02	0.798E-01	0.662E-01	*0.147	*0.128
	150000.	0.206	0.331E-02	0.937E-01	0.718E-01	*0.166	*0.146
	200000.	0.191	0.315E-02	0.997E-01	0.760E-01	*0.175	*0.152
	300000.	0.171	0.190E-02	0.118	0.809E-01	*0.193	*0.164
	500000.	0.150	0.122E-02	0.143	0.915E-01	*0.217	*0.184
P IV 5D 5F 16012.6 Å C= 0.10E+21	50000.	23.4	-0.506	3.91	3.28		
	100000.	19.8	-0.407	5.12	4.03	*9.23	*7.91
	150000.	17.9	-0.429	5.82	4.39	*10.2	*8.77
	200000.	16.7	-0.415	6.52	4.60	*11.1	*9.21
	300000.	15.2	-0.469	7.60	4.92	*12.5	*9.97
	500000.	13.4	-0.406	9.11	5.44	*13.7	*11.3
P IV 4F 5D 2968.1 Å C= 0.55E+20	50000.	0.423	0.367E-01	0.478E-01	0.297E-01	*0.955E-01	*0.576E-01
	100000.	0.361	0.333E-01	0.570E-01	0.362E-01	0.114	0.719E-01
	150000.	0.330	0.318E-01	0.625E-01	0.401E-01	0.125	0.811E-01
	200000.	0.311	0.306E-01	0.667E-01	0.431E-01	0.135	0.880E-01
	300000.	0.286	0.296E-01	0.720E-01	0.470E-01	0.143	0.952E-01
	500000.	0.257	0.249E-01	0.771E-01	0.515E-01	0.153	0.103
P IV 4F 6D 1684.1 Å C= 0.68E+19	50000.	0.302	0.407E-01	0.474E-01	0.351E-01		
	100000.	0.266	0.380E-01	0.566E-01	0.428E-01		
	150000.	0.247	0.367E-01	0.606E-01	0.461E-01	*0.121	*0.926E-01
	200000.	0.234	0.345E-01	0.652E-01	0.487E-01	*0.133	*0.995E-01
	300000.	0.217	0.304E-01	0.724E-01	0.528E-01	*0.145	*0.109
	500000.	0.195	0.250E-01	0.783E-01	0.592E-01	*0.151	*0.119
P IV 4F 7D 1362.9 Å C= 0.27E+19	50000.	0.367	0.669E-01	*0.696E-01	*0.522E-01		
	100000.	0.339	0.596E-01	*0.826E-01	*0.630E-01		
	150000.	0.321	0.549E-01	*0.884E-01	*0.678E-01		
	200000.	0.306	0.496E-01	*0.919E-01	*0.719E-01		
	300000.	0.285	0.423E-01	*0.997E-01	*0.778E-01		
	500000.	0.257	0.354E-01	*0.104	*0.833E-01		
P IV 5F 6D 5143.5 Å C= 0.11E+20	50000.	3.91	0.322	0.369	-0.110	*0.691	-0.212
	100000.	3.41	0.298	0.447	-0.135	*0.784	-0.267
	150000.	3.13	0.291	0.497	-0.149	*0.831	-0.302
	200000.	2.95	0.273	0.536	-0.160	*0.852	-0.322
	300000.	2.70	0.243	0.611	-0.173	*0.883	-0.351
	500000.	2.41	0.201	0.728	-0.193	*0.943	-0.387
P IV 5F 7D 2990.6 Å C= 0.36E+19	50000.	2.13	0.305	*0.293	*0.185		
	100000.	1.94	0.260	*0.343	*0.223		
	150000.	1.82	0.239	*0.380	*0.240		
	200000.	1.73	0.222	*0.412	*0.259		
	300000.	1.60	0.190	*0.443	*0.275		
	500000.	1.43	0.160	*0.536	*0.308		
PERTURBER DENSITY = 1.E+18cm-3							
P IV 3S 3P 950.7 Å C= 0.81E+21	50000.	0.438E-01	-0.173E-03	0.101E-02	-0.271E-04	0.195E-02	-0.511E-04
	100000.	0.316E-01	-0.228E-03	0.178E-02	-0.558E-04	0.349E-02	-0.109E-03
	150000.	0.264E-01	-0.178E-03	0.218E-02	-0.824E-04	0.429E-02	-0.164E-03
	200000.	0.236E-01	-0.159E-03	0.251E-02	-0.106E-03	0.496E-02	-0.211E-03
	300000.	0.203E-01	-0.184E-03	0.280E-02	-0.143E-03	0.558E-02	-0.287E-03
	500000.	0.173E-01	-0.228E-03	0.308E-02	-0.192E-03	0.612E-02	-0.389E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3S 4P 388.3 Å C= 0.35E+20	50000.	0.193E-01	0.390E-03	0.146E-02	0.122E-03	0.283E-02	0.230E-03
	100000.	0.148E-01	0.250E-03	0.196E-02	0.210E-03	0.388E-02	0.411E-03
	150000.	0.130E-01	0.386E-03	0.211E-02	0.256E-03	0.418E-02	0.509E-03
	200000.	0.119E-01	0.418E-03	0.222E-02	0.295E-03	0.441E-02	0.591E-03
	300000.	0.107E-01	0.348E-03	0.237E-02	0.345E-03	0.472E-02	0.698E-03
	500000.	0.943E-02	0.342E-03	0.254E-02	0.393E-03	0.506E-02	0.795E-03
P IV 3S 5P 315.6 Å C= 0.57E+19	50000.	0.310E-01	-0.618E-03	0.353E-02	-0.130E-02		
	100000.	0.256E-01	-0.322E-03	0.411E-02	-0.172E-02	*0.810E-02	-0.327E-02
	150000.	0.231E-01	-0.274E-03	0.445E-02	-0.197E-02	*0.884E-02	-0.386E-02
	200000.	0.216E-01	-0.290E-03	0.470E-02	-0.211E-02	*0.929E-02	-0.419E-02
	300000.	0.197E-01	-0.285E-03	0.500E-02	-0.235E-02	*0.986E-02	-0.473E-02
	500000.	0.177E-01	-0.139E-03	0.530E-02	-0.258E-02	*0.103E-01	-0.524E-02
P IV 3S 6P 282.3 Å C= 0.53E+19	50000.	0.475E-01	0.250E-02	*0.814E-02	*0.115E-02		
	100000.	0.420E-01	0.244E-02	*0.920E-02	*0.152E-02		
	150000.	0.393E-01	0.240E-02	*0.964E-02	*0.173E-02		
	200000.	0.376E-01	0.232E-02	*0.985E-02	*0.187E-02		
	300000.	0.353E-01	0.223E-02	*0.100E-01	*0.208E-02		
	500000.	0.326E-01	0.210E-02	*0.103E-01	*0.231E-02		
P IV 4S 4P 4250.9 Å C= 0.43E+22	50000.	3.34	-0.107	0.186	-0.958E-01	*0.363	-0.177
	100000.	2.60	-0.157	0.257	-0.138	*0.512	-0.266
	150000.	2.29	-0.150	0.283	-0.156	0.565	-0.310
	200000.	2.11	-0.137	0.302	-0.170	0.603	-0.338
	300000.	1.90	-0.140	0.329	-0.188	0.660	-0.382
	500000.	1.69	-0.133	0.367	-0.216	0.726	-0.434
P IV 4S 5P 1206.4 Å C= 0.83E+20	50000.	0.531	-0.214E-01	0.532E-01	-0.238E-01		
	100000.	0.437	-0.198E-01	0.623E-01	-0.313E-01		
	150000.	0.395	-0.198E-01	0.683E-01	-0.356E-01	*0.136	-0.692E-01
	200000.	0.369	-0.193E-01	0.725E-01	-0.381E-01	*0.143	-0.751E-01
	300000.	0.338	-0.188E-01	0.777E-01	-0.423E-01	*0.152	-0.850E-01
	500000.	0.303	-0.160E-01	0.837E-01	-0.466E-01	*0.162	-0.939E-01
P IV 4S 6P 831.7 Å C= 0.46E+20	50000.	0.449	0.128E-01	*0.705E-01	*0.755E-02		
	100000.	0.394	0.122E-01	*0.797E-01	*0.102E-01		
	150000.	0.369	0.122E-01	*0.834E-01	*0.116E-01		
	200000.	0.352	0.122E-01	*0.850E-01	*0.126E-01		
	300000.	0.330	0.120E-01	*0.870E-01	*0.139E-01		
	500000.	0.304	0.114E-01	*0.894E-01	*0.155E-01		
P IV 5S 6P 2322.8 Å C= 0.31E+21	50000.	4.56	-0.130	*0.562	-0.166		
	100000.	4.03	-0.111	*0.643	-0.213		
	150000.	3.75	-0.106	*0.681	-0.244		
	200000.	3.57	-0.102	*0.695	-0.262		
	300000.	3.32	-0.967E-01	*0.714	-0.285		
	500000.	3.02	-0.736E-01	*0.754	-0.312		
P IV 3P 4S 776.4 Å C= 0.14E+21	50000.	0.677E-01	0.578E-02	0.240E-02	0.348E-02	0.478E-02	0.643E-02
	100000.	0.507E-01	0.668E-02	0.417E-02	0.499E-02	0.836E-02	0.965E-02
	150000.	0.438E-01	0.686E-02	0.533E-02	0.565E-02	0.108E-01	0.112E-01
	200000.	0.399E-01	0.648E-02	0.604E-02	0.612E-02	0.122E-01	0.122E-01
	300000.	0.353E-01	0.629E-02	0.699E-02	0.683E-02	0.141E-01	0.138E-01
	500000.	0.305E-01	0.599E-02	0.823E-02	0.770E-02	0.168E-01	0.156E-01
P IV 3P 5S 485.5 Å C= 0.13E+20	50000.	0.786E-01	0.128E-01	*0.873E-02	*0.880E-02		
	100000.	0.647E-01	0.119E-01	0.115E-01	0.114E-01		
	150000.	0.573E-01	0.116E-01	0.133E-01	0.131E-01		
	200000.	0.527E-01	0.113E-01	0.147E-01	0.140E-01		
	300000.	0.470E-01	0.108E-01	0.168E-01	0.152E-01		
	500000.	0.407E-01	0.946E-02	0.189E-01	0.170E-01	0.374E-01	0.338E-01
P IV 3P 6S 412.5 Å C= 0.11E+20	50000.	0.870E-01	0.328E-01	*0.108E-01	*0.101E-01		
	100000.	0.735E-01	0.266E-01	*0.137E-01	*0.132E-01		
	150000.	0.664E-01	0.232E-01	*0.158E-01	*0.151E-01		
	200000.	0.619E-01	0.213E-01	*0.174E-01	*0.161E-01		
	300000.	0.560E-01	0.197E-01	*0.188E-01	*0.172E-01		
	500000.	0.495E-01	0.169E-01	*0.215E-01	*0.198E-01		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 7S 380.2 Å C= 0.48E+19	50000.	0.160	0.595E-01				
	100000.	0.142	0.472E-01				
	150000.	0.132	0.425E-01				
	200000.	0.125	0.394E-01				
	300000.	0.115	0.353E-01				
	500000.	0.102	0.294E-01	*0.467E-01	*0.426E-01		
P IV 4P 5S 1863.6 Å C= 0.20E+21	50000.	1.41	0.177	0.134	0.129		
	100000.	1.16	0.167	0.176	0.167		
	150000.	1.03	0.160	0.202	0.191		
	200000.	0.954	0.155	0.222	0.206		
	300000.	0.855	0.151	0.253	0.223		
	500000.	0.748	0.130	0.282	0.249	*0.559	*0.495
P IV 4P 6S 1110.1 Å C= 0.82E+20	50000.	0.692	0.227	*0.792E-01	*0.727E-01		
	100000.	0.588	0.184	*0.100	*0.951E-01		
	150000.	0.535	0.161	*0.115	*0.109		
	200000.	0.501	0.147	*0.127	*0.116		
	300000.	0.457	0.136	*0.138	*0.124		
	500000.	0.407	0.118	*0.156	*0.143		
P IV 4P 7S 903.2 Å C= 0.27E+20	50000.	0.943	0.332				
	100000.	0.840	0.263				
	150000.	0.783	0.235				
	200000.	0.740	0.219				
	300000.	0.682	0.197				
	500000.	0.609	0.164	*0.263	*0.240		
P IV 5P 6S 3255.8 Å C= 0.60E+21	50000.	7.62	1.99	*0.819	*0.673		
	100000.	6.58	1.62	*1.01	*0.885		
	150000.	6.03	1.42	*1.17	*1.02		
	200000.	5.68	1.29	*1.25	*1.06		
	300000.	5.23	1.21	*1.36	*1.19		
	500000.	4.70	1.05	*1.60	*1.29		
P IV 5P 7S 1947.3 Å C= 0.13E+21	50000.	4.96	1.59				
	100000.	4.44	1.25				
	150000.	4.15	1.11				
	200000.	3.93	1.04				
	300000.	3.63	0.934				
	500000.	3.26	0.774	*1.28	*1.14		
P IV 3P 3D 877.5 Å C= 0.30E+21	50000.	0.607E-01	0.190E-02	0.265E-02	0.877E-03	0.514E-02	0.165E-02
	100000.	0.446E-01	0.169E-02	0.397E-02	0.144E-02	0.780E-02	0.282E-02
	150000.	0.380E-01	0.196E-02	0.473E-02	0.176E-02	0.939E-02	0.350E-02
	200000.	0.344E-01	0.213E-02	0.503E-02	0.201E-02	0.100E-01	0.402E-02
	300000.	0.302E-01	0.206E-02	0.548E-02	0.226E-02	0.109E-01	0.458E-02
	500000.	0.263E-01	0.196E-02	0.604E-02	0.260E-02	0.120E-01	0.527E-02
P IV 3P 4D 525.9 Å C= 0.14E+20	50000.	0.496E-01	-0.192E-02	0.427E-02	-0.250E-02	*0.833E-02	-0.454E-02
	100000.	0.390E-01	-0.166E-02	0.558E-02	-0.348E-02	*0.111E-01	-0.669E-02
	150000.	0.344E-01	-0.171E-02	0.624E-02	-0.394E-02	*0.124E-01	-0.778E-02
	200000.	0.316E-01	-0.173E-02	0.673E-02	-0.425E-02	*0.132E-01	-0.840E-02
	300000.	0.283E-01	-0.166E-02	0.753E-02	-0.473E-02	*0.145E-01	-0.951E-02
	500000.	0.249E-01	-0.143E-02	0.839E-02	-0.526E-02	*0.162E-01	-0.107E-01
P IV 3P 5D 429.5 Å C= 0.14E+20	50000.	0.691E-01	0.818E-02	*0.933E-02	*0.528E-02		
	100000.	0.591E-01	0.772E-02	*0.111E-01	*0.675E-02		
	150000.	0.541E-01	0.755E-02	*0.123E-01	*0.775E-02		
	200000.	0.509E-01	0.731E-02	0.129E-01	0.827E-02		
	300000.	0.469E-01	0.712E-02	0.139E-01	0.911E-02		
	500000.	0.423E-01	0.634E-02	0.153E-01	0.101E-01	*0.304E-01	*0.205E-01
P IV 3P 6D 386.8 Å C= 0.36E+19	50000.	0.152	0.204E-01				
	100000.	0.136	0.194E-01				
	150000.	0.127	0.193E-01				
	200000.	0.120	0.181E-01				
	300000.	0.111	0.166E-01	*0.388E-01	*0.284E-01		
	500000.	0.101	0.143E-01	*0.427E-01	*0.317E-01		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 7D 367.7 Å C= 0.18E+19	50000.	*0.261	*0.304E-01				
	100000.	0.239	0.308E-01				
	150000.	0.225	0.296E-01				
	200000.	0.215	0.271E-01				
	300000.	0.199	0.250E-01				
500000.	0.179	0.228E-01					
P IV 4P 4D 2645.1 Å C= 0.35E+21	50000.	1.64	-0.716E-01	0.147	-0.662E-01	*0.285	-0.120
	100000.	1.31	-0.578E-01	0.181	-0.915E-01	*0.358	-0.176
	150000.	1.16	-0.642E-01	0.199	-0.104	*0.394	-0.204
	200000.	1.08	-0.656E-01	0.213	-0.112	*0.419	-0.222
	300000.	0.976	-0.604E-01	0.232	-0.124	*0.456	-0.252
500000.	0.868	-0.543E-01	0.254	-0.139	*0.482	-0.281	
P IV 4P 5D 1242.0 Å C= 0.12E+21	50000.	0.652	0.616E-01	*0.824E-01	*0.438E-01		
	100000.	0.556	0.601E-01	*0.978E-01	*0.559E-01		
	150000.	0.509	0.579E-01	*0.108	*0.642E-01		
	200000.	0.479	0.559E-01	0.112	0.685E-01		
	300000.	0.442	0.552E-01	0.121	0.751E-01		
500000.	0.401	0.489E-01	0.133	0.841E-01	*0.262	*0.171	
P IV 4P 6D 941.4 Å C= 0.21E+20	50000.	0.942	0.117				
	100000.	0.838	0.112				
	150000.	0.782	0.111				
	200000.	0.742	0.104				
	300000.	0.688	0.957E-01	*0.231	*0.168		
500000.	0.621	0.822E-01	*0.254	*0.188			
P IV 4P 7D 835.7 Å C= 0.96E+19	50000.	*1.38	*0.156				
	100000.	1.26	0.158				
	150000.	1.19	0.151				
	200000.	1.13	0.138				
	300000.	1.05	0.128				
500000.	0.945	0.116					
P IV 5P 5D 4728.8 Å C= 0.13E+22	50000.	12.8	1.08	*1.55	*0.776		
	100000.	11.0	0.979	*1.82	*1.00		
	150000.	10.1	0.956	*1.98	*1.14		
	200000.	9.57	0.936	*2.09	*1.24		
	300000.	8.85	0.916	*2.23	*1.35		
500000.	8.03	0.790	2.39	1.49			
P IV 5P 6D 2133.8 Å C= 0.11E+21	50000.	5.47	0.640				
	100000.	4.87	0.600				
	150000.	4.54	0.595				
	200000.	4.31	0.559				
	300000.	4.00	0.515	*1.22	*0.885		
500000.	3.61	0.439	*1.34	*0.988			
P IV 5P 7D 1658.6 Å C= 0.38E+20	50000.	*5.79	*0.646				
	100000.	5.29	0.640				
	150000.	4.98	0.613				
	200000.	4.75	0.561				
	300000.	4.40	0.517				
500000.	3.97	0.467					
P IV 3D 4P 2606.3 Å C= 0.16E+22	50000.	1.01	0.244E-02	0.761E-01	-0.234E-02	*0.148	-0.440E-02
	100000.	0.774	-0.166E-02	0.999E-01	-0.429E-02	*0.198	-0.842E-02
	150000.	0.680	0.174E-02	0.108	-0.569E-02	0.214	-0.114E-01
	200000.	0.626	0.137E-02	0.113	-0.650E-02	0.225	-0.130E-01
	300000.	0.565	-0.105E-02	0.121	-0.792E-02	0.240	-0.160E-01
500000.	0.503	-0.126E-03	0.128	-0.935E-02	0.256	-0.189E-01	
P IV 3D 5P 1023.2 Å C= 0.60E+20	50000.	0.344	-0.902E-02	0.385E-01	-0.141E-01		
	100000.	0.283	-0.547E-02	0.447E-01	-0.187E-01		
	150000.	0.256	-0.538E-02	0.485E-01	-0.214E-01	*0.960E-01	-0.420E-01
	200000.	0.239	-0.581E-02	0.512E-01	-0.230E-01	*0.101	-0.453E-01
	300000.	0.219	-0.561E-02	0.545E-01	-0.254E-01	*0.107	-0.517E-01
500000.	0.197	-0.386E-02	0.586E-01	-0.283E-01	*0.112	-0.569E-01	

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3D 6P 740.3 Å C= 0.36E+20	50000.	0.336	0.148E-01	*0.565E-01	*0.762E-02		
	100000.	0.296	0.150E-01	*0.639E-01	*0.101E-01		
	150000.	0.277	0.148E-01	*0.669E-01	*0.115E-01		
	200000.	0.265	0.142E-01	*0.683E-01	*0.124E-01		
	300000.	0.249	0.138E-01	*0.697E-01	*0.137E-01		
	500000.	0.229	0.131E-01	*0.715E-01	*0.154E-01		
P IV 4D 5P 4638.3 Å C= 0.11E+22	50000.	8.69	0.432E-01	*0.875	-0.129		
	100000.	7.20	0.786E-01	1.00	-0.186		
	150000.	6.52	0.877E-01	1.08	-0.210	*2.12	-0.415
	200000.	6.10	0.838E-01	1.13	-0.228	*2.21	-0.452
	300000.	5.58	0.769E-01	1.19	-0.252	*2.30	-0.513
	500000.	5.01	0.895E-01	1.26	-0.288	*2.37	-0.578
P IV 4D 6P 1697.6 Å C= 0.14E+21	50000.	1.97	0.132	*0.308	*0.578E-01		
	100000.	1.73	0.117	*0.350	*0.745E-01		
	150000.	1.62	0.113	*0.367	*0.848E-01		
	200000.	1.54	0.108	*0.375	*0.919E-01		
	300000.	1.44	0.101	*0.384	*0.100		
	500000.	1.33	0.931E-01	*0.394	*0.112		
P IV 3D 4F 1405.0 Å C= 0.99E+20	50000.	0.287	0.838E-02	0.187E-01	0.145E-01	0.367E-01	0.266E-01
	100000.	0.220	0.820E-02	0.278E-01	0.207E-01	0.552E-01	0.398E-01
	150000.	0.192	0.817E-02	0.317E-01	0.234E-01	0.626E-01	0.460E-01
	200000.	0.176	0.756E-02	0.344E-01	0.252E-01	0.675E-01	0.499E-01
	300000.	0.157	0.679E-02	0.388E-01	0.279E-01	0.755E-01	0.565E-01
	500000.	0.138	0.598E-02	0.454E-01	0.315E-01	0.861E-01	0.643E-01
P IV 3D 5F 790.5 Å C= 0.10E+20	50000.	0.335	-0.247E-01	*0.451E-01	-0.335E-01		
	100000.	0.275	-0.225E-01	*0.560E-01	-0.435E-01		
	150000.	0.247	-0.223E-01	*0.630E-01	-0.500E-01		
	200000.	0.230	-0.214E-01	*0.684E-01	-0.532E-01		
	300000.	0.208	-0.204E-01	*0.777E-01	-0.575E-01		
	500000.	0.185	-0.174E-01	*0.846E-01	-0.631E-01		
P IV 4D 5F 1987.0 Å C= 0.65E+20	50000.	2.40	-0.119	*0.282	-0.197		
	100000.	1.98	-0.110	*0.351	-0.258		
	150000.	1.79	-0.107	*0.398	-0.296		
	200000.	1.67	-0.994E-01	*0.424	-0.316		
	300000.	1.51	-0.947E-01	*0.471	-0.343		
	500000.	1.34	-0.795E-01	*0.536	-0.372		
P IV 4F 5D 2096.1 Å C= 0.22E+21	50000.	1.87	0.157	*0.221	*0.109		
	100000.	1.59	0.151	*0.261	*0.140		
	150000.	1.45	0.148	0.285	0.160		
	200000.	1.37	0.143	0.302	0.172		
	300000.	1.26	0.142	0.320	0.187		
	500000.	1.14	0.126	0.340	0.206	*0.669	*0.416
P IV 4F 6D 1361.9 Å C= 0.44E+20	50000.	1.98	0.234				
	100000.	1.76	0.225				
	150000.	1.64	0.225				
	200000.	1.56	0.210				
	300000.	1.44	0.194	*0.476	*0.346		
	500000.	1.30	0.166	*0.528	*0.392		
P IV 4F 7D 1151.4 Å C= 0.18E+20	50000.	*2.63	*0.287				
	100000.	2.40	0.293				
	150000.	2.26	0.281				
	200000.	2.15	0.257				
	300000.	1.99	0.237				
	500000.	1.79	0.216				
P IV 4S 4P 3356.9 Å C= 0.34E+22	50000.	1.91	-0.492E-01	0.109	-0.363E-01	0.213	-0.676E-01
	100000.	1.47	-0.604E-01	0.149	-0.535E-01	0.295	-0.104
	150000.	1.29	-0.646E-01	0.162	-0.638E-01	0.322	-0.127
	200000.	1.19	-0.571E-01	0.171	-0.683E-01	0.341	-0.136
	300000.	1.07	-0.581E-01	0.184	-0.766E-01	0.368	-0.155
	500000.	0.951	-0.552E-01	0.201	-0.872E-01	0.400	-0.176

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4S 5P 1046.1 Å C= 0.15E+21	50000.	0.369	0.617E-02	*0.431E-01	*0.758E-02		
	100000.	0.312	0.965E-02	0.492E-01	0.108E-01		
	150000.	0.286	0.733E-02	0.527E-01	0.123E-01	*0.105	*0.241E-01
	200000.	0.270	0.774E-02	0.549E-01	0.132E-01	*0.109	*0.263E-01
	300000.	0.250	0.765E-02	0.570E-01	0.147E-01	*0.114	*0.298E-01
500000.	0.227	0.743E-02	0.593E-01	0.166E-01	*0.118	*0.335E-01	
P IV 4S 6P 788.7 Å C= 0.45E+20	50000.	0.388	0.149E-01	*0.624E-01	*0.104E-01		
	100000.	0.342	0.150E-01	*0.706E-01	*0.136E-01		
	150000.	0.321	0.145E-01	*0.742E-01	*0.154E-01		
	200000.	0.306	0.144E-01	*0.754E-01	*0.166E-01		
	300000.	0.288	0.142E-01	*0.776E-01	*0.184E-01		
500000.	0.265	0.131E-01	*0.800E-01	*0.203E-01			
P IV 4S 7P 691.7 Å C= 0.19E+20	50000.	0.561	0.242E-01				
	100000.	0.523	0.209E-01				
	150000.	0.502	0.198E-01				
	200000.	0.486	0.194E-01				
	300000.	0.462	0.198E-01	*0.121	*0.211E-01		
500000.	0.429	0.171E-01	*0.124	*0.231E-01			
P IV 4S 8P 645.9 Å C= 0.73E+19	50000.	*0.867	-0.179E-01				
	100000.	0.824	-0.212E-01				
	150000.	0.796	-0.212E-01				
	200000.	0.772	-0.160E-01				
	300000.	0.733	-0.142E-01				
500000.	0.679	-0.135E-01					
P IV 5S 5P 7474.4 Å C= 0.75E+22	50000.	23.8	-1.07	*2.26	-0.754		
	100000.	20.8	-1.17	2.60	-0.999		
	150000.	19.3	-1.12	2.81	-1.14	*5.58	-2.24
	200000.	18.3	-1.09	2.95	-1.23	*5.85	-2.42
	300000.	17.0	-1.05	3.09	-1.36	*6.15	-2.76
500000.	15.5	-0.998	3.28	-1.51	*6.42	-3.03	
P IV 5S 6P 2243.2 Å C= 0.36E+21	50000.	3.56	-0.201E-02	*0.502	-0.115E-01		
	100000.	3.19	-0.278E-01	*0.567	-0.174E-01		
	150000.	3.01	-0.169E-01	*0.595	-0.213E-01		
	200000.	2.88	-0.165E-01	*0.606	-0.233E-01		
	300000.	2.71	-0.142E-01	*0.620	-0.259E-01		
500000.	2.50	-0.178E-01	*0.635	-0.297E-01			
P IV 5S 7P 1603.4 Å C= 0.10E+21	50000.	3.23	0.650E-01				
	100000.	3.03	0.339E-01				
	150000.	2.91	0.362E-01				
	200000.	2.82	0.358E-01				
	300000.	2.68	0.402E-01	*0.646	*0.598E-01		
500000.	2.48	0.284E-01	*0.663	*0.660E-01			
P IV 5S 8P 1377.3 Å C= 0.33E+20	50000.	*4.09	-0.125				
	100000.	3.91	-0.152				
	150000.	3.77	-0.147				
	200000.	3.66	-0.123				
	300000.	3.48	-0.113				
500000.	3.22	-0.108					
P IV 6S 7P 3999.2 Å C= 0.63E+21	50000.	23.1	-0.708				
	100000.	21.9	-0.722				
	150000.	21.1	-0.713				
	200000.	20.5	-0.689				
	300000.	19.4	-0.652	*4.10	-1.06		
500000.	18.0	-0.582	*4.21	-1.19			
P IV 6S 8P 2837.4 Å C= 0.14E+21	50000.	*18.8	-1.14				
	100000.	18.1	-1.14				
	150000.	17.5	-1.11				
	200000.	17.0	-0.991				
	300000.	16.2	-0.937				
500000.	15.0	-0.842					

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 4S 630.8 Å C= 0.12E+21	50000.	0.355E-01	0.337E-02	0.110E-02	0.178E-02	0.217E-02	0.330E-02
	100000.	0.262E-01	0.347E-02	0.200E-02	0.257E-02	0.398E-02	0.497E-02
	150000.	0.224E-01	0.382E-02	0.274E-02	0.298E-02	0.551E-02	0.590E-02
	200000.	0.204E-01	0.362E-02	0.308E-02	0.322E-02	0.623E-02	0.642E-02
	300000.	0.180E-01	0.346E-02	0.362E-02	0.357E-02	0.728E-02	0.725E-02
	500000.	0.155E-01	0.328E-02	0.429E-02	0.405E-02	0.870E-02	0.827E-02
P IV 3P 5S 415.4 Å C= 0.23E+20	50000.	0.370E-01	0.824E-02	0.277E-02	0.343E-02	*0.556E-02	*0.610E-02
	100000.	0.298E-01	0.735E-02	0.427E-02	0.442E-02	*0.860E-02	*0.838E-02
	150000.	0.267E-01	0.683E-02	0.497E-02	0.504E-02	*0.100E-01	*0.981E-02
	200000.	0.246E-01	0.653E-02	0.544E-02	0.545E-02	*0.110E-01	*0.107E-01
	300000.	0.220E-01	0.615E-02	0.628E-02	0.594E-02	*0.127E-01	*0.121E-01
	500000.	0.193E-01	0.576E-02	0.714E-02	0.665E-02	*0.145E-01	*0.133E-01
P IV 3P 6S 359.6 Å C= 0.93E+19	50000.	0.602E-01	0.208E-01	*0.706E-02	*0.687E-02		
	100000.	0.519E-01	0.170E-01	*0.932E-02	*0.896E-02		
	150000.	0.472E-01	0.147E-01	*0.106E-01	*0.103E-01		
	200000.	0.441E-01	0.135E-01	*0.117E-01	*0.109E-01		
	300000.	0.402E-01	0.126E-01	*0.133E-01	*0.118E-01		
	500000.	0.359E-01	0.111E-01	0.144E-01	0.129E-01		
P IV 3P 7S 334.3 Å C= 0.44E+19	50000.	0.110	0.431E-01				
	100000.	0.976E-01	0.340E-01				
	150000.	0.908E-01	0.304E-01				
	200000.	0.858E-01	0.282E-01				
	300000.	0.789E-01	0.253E-01	*0.274E-01	*0.253E-01		
	500000.	0.707E-01	0.211E-01	*0.325E-01	*0.275E-01		
P IV 4P 5S 1907.5 Å C= 0.49E+21	50000.	1.01	0.123	0.700E-01	0.698E-01	*0.138	*0.124
	100000.	0.827	0.135	0.988E-01	0.904E-01	*0.197	*0.170
	150000.	0.748	0.124	0.113	0.103	*0.225	*0.200
	200000.	0.697	0.119	0.122	0.110	*0.248	*0.217
	300000.	0.633	0.114	0.140	0.122	*0.279	*0.246
	500000.	0.567	0.108	0.157	0.134	*0.324	*0.274
P IV 4P 6S 1113.8 Å C= 0.90E+20	50000.	0.648	0.172	*0.688E-01	*0.652E-01		
	100000.	0.558	0.150	*0.900E-01	*0.853E-01		
	150000.	0.512	0.132	*0.102	*0.977E-01		
	200000.	0.481	0.121	*0.112	*0.104		
	300000.	0.442	0.112	*0.129	*0.113		
	500000.	0.397	0.101	0.139	0.123		
P IV 4P 7S 902.1 Å C= 0.32E+20	50000.	0.847	0.308				
	100000.	0.750	0.243				
	150000.	0.699	0.214				
	200000.	0.662	0.199				
	300000.	0.611	0.181	*0.199	*0.184		
	500000.	0.550	0.150	*0.237	*0.200		
P IV 5P 6S 4169.9 Å C= 0.13E+22	50000.	11.2	1.89	*1.11	*0.859		
	100000.	10.1	1.49	*1.40	*1.13		
	150000.	9.44	1.43	*1.58	*1.30		
	200000.	9.00	1.36	*1.66	*1.38		
	300000.	8.40	1.32	*1.82	*1.49		
	500000.	7.65	1.15	2.03	1.63		
P IV 5P 7S 2220.0 Å C= 0.19E+21	50000.	5.68	1.68				
	100000.	5.16	1.35				
	150000.	4.85	1.18				
	200000.	4.63	1.11				
	300000.	4.31	1.02	*1.22	*1.09		
	500000.	3.91	0.844	*1.45	*1.20		
P IV 3P 3D 826.3 Å C= 0.46E+21	50000.	0.337E-01	-0.528E-04	0.137E-02	0.828E-05	0.265E-02	0.156E-04
	100000.	0.245E-01	-0.989E-04	0.217E-02	0.171E-04	0.428E-02	0.335E-04
	150000.	0.206E-01	-0.660E-04	0.266E-02	0.257E-04	0.526E-02	0.510E-04
	200000.	0.184E-01	-0.538E-04	0.294E-02	0.338E-04	0.583E-02	0.672E-04
	300000.	0.159E-01	-0.940E-04	0.317E-02	0.481E-04	0.629E-02	0.965E-04
	500000.	0.136E-01	-0.114E-03	0.346E-02	0.697E-04	0.690E-02	0.140E-03

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 4D 444.7 Å C= 0.21E+20	50000.	0.332E-01	0.190E-02	0.287E-02	0.171E-02	*0.558E-02	*0.312E-02
	100000.	0.267E-01	0.204E-02	0.378E-02	0.240E-02	*0.754E-02	*0.462E-02
	150000.	0.237E-01	0.203E-02	0.421E-02	0.273E-02	*0.840E-02	*0.536E-02
	200000.	0.219E-01	0.199E-02	0.451E-02	0.292E-02	*0.906E-02	*0.580E-02
	300000.	0.197E-01	0.194E-02	0.497E-02	0.324E-02	*0.996E-02	*0.659E-02
	500000.	0.175E-01	0.179E-02	0.561E-02	0.367E-02	0.111E-01	0.747E-02
P IV 3P 5D 371.8 Å C= 0.86E+19	50000.	0.551E-01	0.525E-02	*0.692E-02	*0.405E-02		
	100000.	0.477E-01	0.471E-02	*0.831E-02	*0.517E-02		
	150000.	0.438E-01	0.473E-02	*0.911E-02	*0.591E-02		
	200000.	0.413E-01	0.457E-02	0.969E-02	0.636E-02		
	300000.	0.380E-01	0.447E-02	0.105E-01	0.698E-02		
	500000.	0.342E-01	0.386E-02	0.116E-01	0.768E-02	*0.231E-01	*0.157E-01
P IV 3P 6D 339.4 Å C= 0.28E+19	50000.	0.114	0.141E-01				
	100000.	0.101	0.136E-01				
	150000.	0.941E-01	0.136E-01				
	200000.	0.892E-01	0.128E-01				
	300000.	0.824E-01	0.117E-01	*0.293E-01	*0.213E-01		
	500000.	0.742E-01	0.101E-01	*0.308E-01	*0.236E-01		
P IV 3P 7D 324.0 Å C= 0.15E+19	50000.	*0.199	*0.297E-01				
	100000.	0.185	0.279E-01				
	150000.	0.175	0.268E-01				
	200000.	0.167	0.240E-01				
	300000.	0.156	0.220E-01				
	500000.	0.141	0.198E-01				
P IV 4P 4D 2735.1 Å C= 0.78E+21	50000.	1.72	0.463E-01	0.148	0.576E-01	*0.288	*0.105
	100000.	1.38	0.548E-01	0.181	0.819E-01	*0.360	*0.158
	150000.	1.23	0.494E-01	0.198	0.926E-01	*0.394	*0.183
	200000.	1.14	0.465E-01	0.210	0.997E-01	*0.416	*0.198
	300000.	1.04	0.478E-01	0.226	0.111	*0.452	*0.224
	500000.	0.927	0.432E-01	0.243	0.125	*0.477	*0.252
P IV 4P 5D 1239.6 Å C= 0.96E+20	50000.	0.696	0.521E-01	*0.811E-01	*0.441E-01		
	100000.	0.598	0.471E-01	*0.966E-01	*0.565E-01		
	150000.	0.548	0.467E-01	*0.106	*0.648E-01		
	200000.	0.516	0.447E-01	0.112	0.693E-01		
	300000.	0.475	0.443E-01	0.120	0.763E-01		
	500000.	0.429	0.377E-01	0.132	0.841E-01	*0.261	*0.171
P IV 4P 6D 940.2 Å C= 0.21E+20	50000.	0.919	0.104				
	100000.	0.812	0.101				
	150000.	0.755	0.101				
	200000.	0.716	0.940E-01				
	300000.	0.662	0.864E-01	*0.225	*0.163		
	500000.	0.596	0.742E-01	*0.237	*0.180		
P IV 4P 7D 830.9 Å C= 0.10E+20	50000.	*1.35	*0.194				
	100000.	1.24	0.176				
	150000.	1.18	0.168				
	200000.	1.13	0.155				
	300000.	1.05	0.142				
	500000.	0.947	0.127				
P IV 5P 5D 6725.6 Å C= 0.28E+22	50000.	26.2	1.07	*3.05	*1.10		
	100000.	23.2	0.735	*3.52	*1.42		
	150000.	21.6	0.806	*3.79	*1.62		
	200000.	20.5	0.766	*3.92	*1.75		
	300000.	19.1	0.752	4.10	1.88		
	500000.	17.4	0.581	4.27	2.08		
P IV 5P 6D 2465.7 Å C= 0.15E+21	50000.	7.01	0.628				
	100000.	6.28	0.599				
	150000.	5.87	0.611				
	200000.	5.58	0.568				
	300000.	5.18	0.518	*1.58	*1.11		
	500000.	4.69	0.439	*1.66	*1.22		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5P 7D 1833.1 Å C= 0.49E+20	50000.	*6.91	*0.810				
	100000.	6.42	0.797				
	150000.	6.09	0.769				
	200000.	5.83	0.706				
	300000.	5.43	0.647				
	500000.	4.92	0.580				
P IV 3D 4P 1486.1 Å C= 0.66E+21	50000.	0.289	0.764E-02	0.231E-01	0.378E-02	*0.448E-01	*0.709E-02
	100000.	0.220	0.691E-02	0.307E-01	0.588E-02	0.609E-01	0.115E-01
	150000.	0.192	0.828E-02	0.332E-01	0.725E-02	0.658E-01	0.144E-01
	200000.	0.176	0.866E-02	0.349E-01	0.812E-02	0.693E-01	0.162E-01
	300000.	0.158	0.785E-02	0.373E-01	0.902E-02	0.742E-01	0.183E-01
	500000.	0.140	0.761E-02	0.398E-01	0.103E-01	0.797E-01	0.209E-01
P IV 3D 5P 751.4 Å C= 0.76E+20	50000.	0.168	0.838E-02	*0.228E-01	*0.555E-02		
	100000.	0.144	0.101E-01	0.261E-01	0.762E-02		
	150000.	0.132	0.943E-02	0.280E-01	0.864E-02	*0.557E-01	*0.170E-01
	200000.	0.125	0.927E-02	0.293E-01	0.933E-02	*0.584E-01	*0.185E-01
	300000.	0.115	0.897E-02	0.305E-01	0.103E-01	*0.607E-01	*0.210E-01
	500000.	0.105	0.859E-02	0.317E-01	0.117E-01	*0.630E-01	*0.235E-01
P IV 3D 6P 608.7 Å C= 0.27E+20	50000.	0.217	0.136E-01	*0.375E-01	*0.701E-02		
	100000.	0.193	0.132E-01	*0.424E-01	*0.909E-02		
	150000.	0.181	0.128E-01	*0.445E-01	*0.103E-01		
	200000.	0.173	0.124E-01	*0.453E-01	*0.111E-01		
	300000.	0.162	0.120E-01	*0.466E-01	*0.123E-01		
	500000.	0.150	0.111E-01	*0.478E-01	*0.135E-01		
P IV 3D 7P 549.2 Å C= 0.12E+20	50000.	0.342	0.194E-01				
	100000.	0.321	0.169E-01				
	150000.	0.308	0.160E-01				
	200000.	0.299	0.154E-01				
	300000.	0.284	0.154E-01	*0.767E-01	*0.141E-01		
	500000.	0.264	0.134E-01	*0.782E-01	*0.159E-01		
P IV 3D 8P 520.0 Å C= 0.47E+19	50000.	*0.551	-0.864E-02				
	100000.	0.526	-0.109E-01				
	150000.	0.508	-0.108E-01				
	200000.	0.493	-0.774E-02				
	300000.	0.469	-0.665E-02				
	500000.	0.434	-0.641E-02				
P IV 4D 5P 3419.9 Å C= 0.12E+22	50000.	4.45	0.456E-01	*0.524	*0.241E-01		
	100000.	3.83	0.805E-01	0.597	0.367E-01		
	150000.	3.53	0.689E-01	0.637	0.454E-01		
	200000.	3.34	0.696E-01	0.662	0.499E-01	*1.32	*0.998E-01
	300000.	3.09	0.676E-01	0.683	0.556E-01	*1.36	*0.113
	500000.	2.81	0.691E-01	0.706	0.632E-01	*1.40	*0.128
P IV 4D 6P 1654.5 Å C= 0.20E+21	50000.	1.81	0.636E-01	*0.286	*0.366E-01		
	100000.	1.61	0.625E-01	*0.323	*0.485E-01		
	150000.	1.51	0.628E-01	*0.338	*0.554E-01		
	200000.	1.45	0.610E-01	*0.345	*0.596E-01		
	300000.	1.36	0.598E-01	*0.353	*0.661E-01		
	500000.	1.25	0.556E-01	*0.361	*0.732E-01		
P IV 4D 7P 1278.3 Å C= 0.64E+20	50000.	1.98	0.816E-01				
	100000.	1.85	0.693E-01				
	150000.	1.77	0.667E-01				
	200000.	1.72	0.650E-01				
	300000.	1.63	0.661E-01	*0.420	*0.650E-01		
	500000.	1.51	0.571E-01	*0.430	*0.709E-01		
P IV 4D 8P 1130.4 Å C= 0.22E+20	50000.	*2.70	-0.561E-01				
	100000.	2.57	-0.670E-01				
	150000.	2.48	-0.656E-01				
	200000.	2.41	-0.503E-01				
	300000.	2.29	-0.448E-01				
	500000.	2.12	-0.424E-01				

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 5D 7P 2931.0 Å C= 0.34E+21	50000.	11.8	0.173				
	100000.	11.1	0.151				
	150000.	10.7	0.140				
	200000.	10.3	0.140				
	300000.	9.78	0.152	*2.31	-0.855E-01		
	500000.	9.06	0.138	*2.36	-0.968E-01		
P IV 5D 8P 2254.5 Å C= 0.89E+20	50000.	*11.5	-0.366				
	100000.	11.0	-0.387				
	150000.	10.7	-0.383				
	200000.	10.3	-0.317				
	300000.	9.80	-0.293				
	500000.	9.06	-0.264				
P IV 3D 4F 875.1 Å C= 0.80E+20	50000.	0.120	-0.484E-03	0.835E-02	-0.350E-02	*0.162E-01	-0.650E-02
	100000.	0.920E-01	-0.110E-02	0.113E-01	-0.507E-02	*0.224E-01	-0.981E-02
	150000.	0.807E-01	-0.147E-03	0.124E-01	-0.584E-02	0.246E-01	-0.116E-01
	200000.	0.740E-01	0.923E-04	0.131E-01	-0.634E-02	0.261E-01	-0.126E-01
	300000.	0.664E-01	-0.250E-03	0.143E-01	-0.701E-02	0.283E-01	-0.142E-01
	500000.	0.587E-01	-0.526E-04	0.158E-01	-0.795E-02	0.309E-01	-0.162E-01
P IV 3D 5F 648.5 Å C= 0.17E+19	50000.	0.254	-0.257E-03				
	100000.	0.208	0.187E-02				
	150000.	0.186	0.247E-02				
	200000.	0.172	0.211E-02				
	300000.	0.154	0.339E-02				
	500000.	0.134	0.476E-02				
P IV 4D 4F 9599.5 Å C= 0.96E+22	50000.	23.6	-0.963	1.94	-1.07	*3.78	-1.93
	100000.	18.9	-1.10	2.43	-1.43	*4.83	-2.73
	150000.	16.9	-0.977	2.68	-1.64	*5.34	-3.20
	200000.	15.7	-0.927	2.85	-1.76	*5.72	-3.47
	300000.	14.2	-0.949	3.17	-1.96	*6.28	-3.95
	500000.	12.6	-0.858	3.48	-2.19	*6.81	-4.44
P IV 4D 5F 1985.9 Å C= 0.16E+20	50000.	2.72	-0.404E-01				
	100000.	2.24	-0.236E-01				
	150000.	2.01	-0.176E-01				
	200000.	1.86	-0.202E-01				
	300000.	1.68	-0.741E-02				
	500000.	1.47	0.830E-02				
P IV 4F 5D 2968.1 Å C= 0.55E+21	50000.	4.23	0.340	*0.475	*0.272		
	100000.	3.61	0.313	*0.569	*0.349		
	150000.	3.30	0.304	*0.625	*0.399		
	200000.	3.11	0.291	0.667	0.429		
	300000.	2.86	0.288	0.720	0.468		
	500000.	2.57	0.248	0.771	0.515	*1.53	*1.03
P IV 4F 6D 1684.1 Å C= 0.68E+20	50000.	3.02	0.350				
	100000.	2.66	0.339				
	150000.	2.47	0.336				
	200000.	2.34	0.314				
	300000.	2.17	0.289	*0.723	*0.524		
	500000.	1.95	0.248	*0.783	*0.592		
P IV 4F 7D 1362.9 Å C= 0.27E+20	50000.	*3.66	*0.541				
	100000.	3.38	0.502				
	150000.	3.20	0.480				
	200000.	3.06	0.425				
	300000.	2.85	0.390				
	500000.	2.57	0.350				
P IV 5F 7D 2990.6 Å C= 0.36E+20	50000.	*21.0	*2.63				
	100000.	19.2	2.29				
	150000.	18.0	2.18				
	200000.	17.2	2.00				
	300000.	15.9	1.80				
	500000.	14.3	1.58				

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS WIDTH(Å)	SHIFT(Å)	PROTONS WIDTH(Å)	SHIFT(Å)	He III WIDTH(Å)	SHIFT(Å)
PERTURBER DENSITY = 1.E+19cm-3							
P IV 3S 3P 950.7 Å C= 0.81E+22	50000. 100000. 200000. 300000. 500000. 1000000.	0.438 0.316 0.236 0.203 0.173 0.143	-0.176E-02 -0.219E-02 -0.151E-02 -0.184E-02 -0.228E-02 -0.228E-02	0.999E-02 0.177E-01 0.251E-01 0.280E-01 0.307E-01 0.343E-01	-0.241E-03 -0.532E-03 -0.105E-02 -0.143E-02 -0.192E-02 -0.264E-02	0.186E-01 0.344E-01 0.494E-01 0.557E-01 0.612E-01 0.683E-01	-0.407E-03 -0.100E-02 -0.205E-02 -0.283E-02 -0.388E-02 -0.534E-02
P IV 3S 4P 388.3 Å C= 0.35E+21	50000. 100000. 200000. 300000. 500000. 1000000.	0.193 0.148 0.119 0.107 0.943E-01 0.816E-01	0.373E-02 0.236E-02 0.411E-02 0.340E-02 0.339E-02 0.343E-02	*0.141E-01 *0.194E-01 0.221E-01 0.237E-01 0.253E-01 0.266E-01	*0.108E-02 *0.197E-02 0.290E-02 0.344E-02 0.392E-02 0.470E-02	*0.505E-01 *0.530E-01	*0.792E-02 *0.945E-02
P IV 3S 5P 315.6 Å C= 0.57E+20	50000. 100000. 200000. 300000. 500000. 1000000.	0.310 0.256 0.215 0.197 0.177 0.154	-0.292E-02 -0.101E-02 -0.130E-02 -0.144E-02 -0.749E-03 -0.269E-04	*0.468E-01 *0.499E-01 *0.530E-01 *0.596E-01	-0.202E-01 -0.234E-01 -0.257E-01 -0.301E-01		
P IV 3S 6P 282.3 Å C= 0.53E+20	50000. 100000. 200000. 300000. 500000. 1000000.	*0.475 *0.420 0.376 0.353 0.326 0.291	*0.224E-01 *0.227E-01 0.219E-01 0.211E-01 0.205E-01 0.166E-01				
P IV 4S 5P 1206.4 Å C= 0.83E+21	50000. 100000. 200000. 300000. 500000. 1000000.	*5.31 4.37 3.69 3.37 3.03 2.63	-0.151 -0.155 -0.162 -0.161 -0.148 -0.122	*0.777 *0.836 *0.917	-0.420 -0.463 -0.532		
P IV 4S 6P 831.7 Å C= 0.46E+21	50000. 100000. 200000. 300000. 500000. 1000000.	*4.48 *3.94 3.52 3.30 3.04 2.70	*0.113 *0.112 0.114 0.113 0.110 0.855E-01				
P IV 3P 4S 776.4 Å C= 0.14E+22	50000. 100000. 200000. 300000. 500000. 1000000.	0.677 0.507 0.399 0.353 0.305 0.256	0.514E-01 0.625E-01 0.617E-01 0.600E-01 0.587E-01 0.522E-01	0.239E-01 0.417E-01 0.603E-01 0.699E-01 0.823E-01 0.102	0.291E-01 0.452E-01 0.591E-01 0.680E-01 0.766E-01 0.900E-01	*0.469E-01 *0.828E-01 *0.123 *0.141 *0.168 *0.199	*0.451E-01 *0.795E-01 *0.110 *0.131 *0.155 *0.181
P IV 3P 5S 485.5 Å C= 0.13E+21	50000. 100000. 200000. 300000. 500000. 1000000.	0.785 0.646 0.527 0.470 0.407 0.333	0.953E-01 0.970E-01 0.963E-01 0.939E-01 0.881E-01 0.721E-01	*0.230	*0.194		
P IV 3P 6S 412.5 Å C= 0.11E+21	50000. 100000. 200000. 300000. 500000. 1000000.	*0.869 0.735 0.619 0.560 0.495 0.415	*0.283 0.234 0.190 0.176 0.160 0.126				
P IV 3P 7S 380.2 Å C= 0.48E+20	50000. 100000. 200000. 300000. 500000. 1000000.	*1.40 *1.23 1.13 1.01 0.845	*0.355 *0.310 0.278 0.262 0.220				

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 5S 1863.6 Å C= 0.20E+22	50000.	*14.1	*1.28				
	100000.	11.5	1.35				
	200000.	9.53	1.31				
	300000.	8.55	1.29				
	500000.	7.47	1.21				
	1000000.	6.22	0.974	*3.39	*2.85		
P IV 4P 6S 1110.1 Å C= 0.82E+21	50000.	*6.92	*1.94				
	100000.	5.87	1.62				
	200000.	5.01	1.31				
	300000.	4.57	1.21				
	500000.	4.07	1.11				
	1000000.	3.46	0.872				
P IV 4P 7S 903.2 Å C= 0.27E+21	50000.						
	100000.	*8.26	*1.97				
	200000.	*7.31	*1.71				
	300000.	6.74	1.54				
	500000.	6.04	1.45				
	1000000.	5.07	1.22				
P IV 3P 3D 877.5 Å C= 0.30E+22	50000.	0.607	0.178E-01	0.260E-01	0.769E-02	*0.481E-01	*0.128E-01
	100000.	0.446	0.160E-01	0.395E-01	0.135E-01	*0.764E-01	*0.250E-01
	200000.	0.344	0.208E-01	0.503E-01	0.197E-01	*0.997E-01	*0.380E-01
	300000.	0.302	0.201E-01	0.548E-01	0.226E-01	*0.109	*0.445E-01
	500000.	0.263	0.194E-01	0.604E-01	0.259E-01	*0.120	*0.525E-01
	1000000.	0.225	0.182E-01	0.669E-01	0.308E-01	0.133	0.627E-01
P IV 3P 4D 525.9 Å C= 0.14E+21	50000.	0.496	-0.135E-01	*0.414E-01	-0.202E-01		
	100000.	0.390	-0.128E-01	*0.553E-01	-0.309E-01		
	200000.	0.316	-0.146E-01	*0.672E-01	-0.408E-01		
	300000.	0.283	-0.141E-01	*0.753E-01	-0.471E-01		
	500000.	0.249	-0.132E-01	*0.839E-01	-0.523E-01		
	1000000.	0.212	-0.115E-01	0.976E-01	-0.602E-01		
P IV 3P 5D 429.5 Å C= 0.14E+21	50000.	*0.691	*0.652E-01				
	100000.	0.591	0.660E-01				
	200000.	0.509	0.648E-01				
	300000.	0.468	0.637E-01				
	500000.	0.423	0.601E-01				
	1000000.	0.370	0.490E-01	*0.170	*0.114		
P IV 3P 6D 386.8 Å C= 0.36E+20	50000.	*1.48	*0.963E-01				
	100000.	*1.33	*0.121				
	200000.	*1.18	*0.126				
	300000.	1.10	0.117				
	500000.	0.992	0.121				
	1000000.	0.857	0.110				
P IV 3P 7D 367.7 Å C= 0.18E+20	50000.						
	100000.						
	200000.	*2.02	*0.131				
	300000.	*1.89	*0.119				
	500000.	*1.71	*0.163				
	1000000.	1.48	0.163				
P IV 4P 4D 2645.1 Å C= 0.35E+22	50000.	16.4	-0.563	*1.41	-0.535		
	100000.	13.1	-0.473	*1.78	-0.808		
	200000.	10.8	-0.582	*2.12	-1.08		
	300000.	9.75	-0.537	*2.32	-1.24		
	500000.	8.68	-0.514	*2.54	-1.38		
	1000000.	7.49	-0.470	*2.89	-1.60		
P IV 4P 5D 1242.0 Å C= 0.12E+22	50000.	*6.51	*0.478				
	100000.	5.56	0.508				
	200000.	4.79	0.491				
	300000.	4.42	0.491				
	500000.	4.01	0.461				
	1000000.	3.51	0.370	*1.45	*0.943		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 6D 941.4 Å C= 0.21E+21	50000. 100000. 200000. 300000. 500000. 1000000.						
		*8.20	*0.687				
		*7.30	*0.718				
		6.78	0.668				
		6.13	0.692				
		5.31	0.629				
P IV 4P 7D 835.7 Å C= 0.96E+20	50000. 100000. 200000. 300000. 500000. 1000000.						
		*10.7	*0.657				
		*9.96	*0.595				
		*9.04	*0.824				
		7.81	0.825				
P IV 3D 4P 2606.3 Å C= 0.16E+23	50000. 100000. 200000. 300000. 500000. 1000000.	10.1 7.74 6.26 5.65 5.03 4.39	0.279E-01 -0.155E-01 0.149E-01 -0.904E-02 -0.419E-03 0.111E-01	*0.736 *0.989 *1.13 1.21 1.28 1.35	-0.207E-01 -0.406E-01 -0.641E-01 -0.791E-01 -0.933E-01 -0.112		
						*2.55	-0.189
						*2.66	-0.228
P IV 3D 5P 1023.2 Å C= 0.60E+21	50000. 100000. 200000. 300000. 500000. 1000000.	3.44 2.83 2.39 2.19 1.97 1.72	-0.542E-01 -0.302E-01 -0.406E-01 -0.405E-01 -0.316E-01 -0.225E-01				
				*0.544	-0.253		
				*0.586	-0.282		
				*0.643	-0.321		
P IV 3D 6P 740.3 Å C= 0.36E+21	50000. 100000. 200000. 300000. 500000. 1000000.	*3.36 *2.96 2.65 2.49 2.29 2.05	*0.131 *0.139 0.134 0.130 0.127 0.102				
P IV 4D 6P 1697.6 Å C= 0.14E+22	50000. 100000. 200000. 300000. 500000. 1000000.	*19.7 *17.3 15.4 14.4 13.3 11.8	*1.17 *1.06 1.00 0.941 0.900 0.733				
P IV 3D 4F 1405.0 Å C= 0.99E+21	50000. 100000. 200000. 300000. 500000. 1000000.	2.87 2.20 1.75 1.57 1.38 1.18	0.530E-01 0.611E-01 0.601E-01 0.544E-01 0.537E-01 0.432E-01	*0.183 *0.276 *0.344 0.388 0.454 0.552	*0.119 *0.185 *0.243 0.277 0.314 0.368		
						*0.977	*0.743
P IV 3D 5F 790.5 Å C= 0.10E+21	50000. 100000. 200000. 300000. 500000. 1000000.	*3.26 2.69 2.26 2.05 1.83 1.56	-0.105 -0.129 -0.142 -0.138 -0.143 -0.127				
P IV 4F 5D 2096.1 Å C= 0.22E+22	50000. 100000. 200000. 300000. 500000. 1000000.	*18.7 15.9 13.7 12.6 11.4 9.92	*1.25 1.30 1.27 1.27 1.19 0.966				
				*3.97	*2.42		
P IV 4F 6D 1361.9 Å C= 0.44E+21	50000. 100000. 200000. 300000. 500000. 1000000.						
		*17.2	*1.37				
		*15.3	*1.45				
		14.2	1.34				
		12.8	1.40				
		11.1	1.28				

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4S 4P 3356.9 Å C= 0.34E+23	50000.	19.1	-0.435	*1.06	-0.312		
	100000.	14.7	-0.566	*1.47	-0.491		
	200000.	11.9	-0.543	1.71	-0.665		
	300000.	10.7	-0.555	1.84	-0.763		
	500000.	9.51	-0.541	2.01	-0.869	*4.00	-1.75
	1000000.	8.22	-0.485	2.14	-1.01	*4.24	-2.06
P IV 4S 5P 1046.1 Å C= 0.15E+22	50000.	3.69	0.473E-01				
	100000.	3.12	0.867E-01				
	200000.	2.70	0.700E-01				
	300000.	2.50	0.697E-01	*0.569	*0.146		
	500000.	2.27	0.711E-01	*0.593	*0.166		
	1000000.	2.00	0.532E-01	*0.617	*0.19		
P IV 4S 5P 1046.1 Å C= 0.15E+22	50000.	3.69	0.473E-01				
	100000.	3.12	0.867E-01				
	200000.	2.70	0.700E-01				
	300000.	2.50	0.697E-01	*0.569	*0.146		
	500000.	2.27	0.711E-01	*0.593	*0.166		
	1000000.	2.00	0.532E-01	*0.617	*0.191		
P IV 4S 6P 788.7 Å C= 0.45E+21	50000.	*3.88	*0.124				
	100000.	*3.42	*0.133				
	200000.	3.06	0.131				
	300000.	2.88	0.130				
	500000.	2.65	0.126				
	1000000.	2.37	0.981E-01				
P IV 4S 7P 691.7 Å C= 0.19E+21	50000.						
	100000.	*5.21	*0.187				
	200000.	*4.85	*0.177				
	300000.	*4.61	*0.183				
	500000.	4.28	0.164				
	1000000.	3.82	0.124				
P IV 4S 8P 645.9 Å C= 0.73E+20	50000.						
	100000.						
	200000.	*7.52	*0.135E-01				
	300000.	*7.17	*0.210E-01				
	500000.	*6.67	-0.561E-01				
	1000000.	5.93	-0.932E-01				
P IV 3P 4S 630.8 Å C= 0.12E+22	50000.	0.355	0.306E-01	0.109E-01	0.151E-01	*0.213E-01	*0.239E-01
	100000.	0.262	0.326E-01	0.200E-01	0.234E-01	*0.397E-01	*0.417E-01
	200000.	0.204	0.347E-01	0.308E-01	0.312E-01	*0.626E-01	*0.586E-01
	300000.	0.180	0.332E-01	0.362E-01	0.356E-01	*0.729E-01	*0.694E-01
	500000.	0.155	0.322E-01	0.429E-01	0.404E-01	*0.870E-01	*0.822E-01
	1000000.	0.130	0.295E-01	0.518E-01	0.469E-01	*0.104	*0.948E-01
P IV 3P 5S 415.4 Å C= 0.23E+21	50000.	0.370	0.733E-01	*0.277E-01	*0.261E-01		
	100000.	0.298	0.673E-01	*0.426E-01	*0.376E-01		
	200000.	0.246	0.609E-01	*0.544E-01	*0.516E-01		
	300000.	0.220	0.573E-01	*0.628E-01	*0.589E-01		
	500000.	0.193	0.558E-01	*0.714E-01	*0.660E-01		
	1000000.	0.163	0.459E-01	*0.893E-01	*0.748E-01		
P IV 3P 6S 359.6 Å C= 0.93E+20	50000.	*0.601	*0.178				
	100000.	0.518	0.150				
	200000.	0.441	0.120				
	300000.	0.402	0.113				
	500000.	0.359	0.105				
	1000000.	0.304	0.808E-01				
P IV 3P 7S 334.3 Å C= 0.44E+20	50000.	*1.09	*0.327				
	100000.	*0.967	*0.269				
	200000.	*0.852	*0.230				
	300000.	0.784	0.207				
	500000.	0.703	0.191				
	1000000.	0.592	0.158				

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 6S 1113.8 Å C= 0.90E+21	50000.	*6.47	*1.44				
	100000.	5.58	1.31				
	200000.	4.81	1.06				
	300000.	4.41	0.990				
	500000.	3.97	0.950				
1000000.	3.40	0.734					
P IV 4P 7S 902.1 Å C= 0.32E+21	50000.						
	100000.	*7.43	*1.91				
	200000.	*6.57	*1.62				
	300000.	6.07	1.47				
	500000.	5.47	1.36				
1000000.	4.63	1.11					
P IV 3P 3D 826.3 Å C= 0.46E+22	50000.	0.337	-0.576E-03	0.135E-01	0.735E-04	*0.250E-01	*0.124E-03
	100000.	0.245	-0.100E-02	0.216E-01	0.163E-03	0.420E-01	0.307E-03
	200000.	0.184	-0.526E-03	0.294E-01	0.334E-03	0.581E-01	0.653E-03
	300000.	0.159	-0.956E-03	0.316E-01	0.481E-03	0.628E-01	0.954E-03
	500000.	0.136	-0.115E-02	0.346E-01	0.697E-03	0.690E-01	0.140E-02
1000000.	0.114	-0.111E-02	0.382E-01	0.994E-03	0.761E-01	0.200E-02	
P IV 3P 4D 444.7 Å C= 0.21E+21	50000.	0.332	0.153E-01	*0.278E-01	*0.139E-01		
	100000.	0.267	0.180E-01	*0.375E-01	*0.213E-01		
	200000.	0.219	0.181E-01	*0.450E-01	*0.281E-01		
	300000.	0.197	0.177E-01	*0.497E-01	*0.323E-01		
	500000.	0.175	0.172E-01	*0.560E-01	*0.365E-01		
1000000.	0.150	0.141E-01	0.625E-01	0.415E-01			
P IV 3P 5D 371.8 Å C= 0.86E+20	50000.	*0.551	*0.393E-01				
	100000.	0.477	0.381E-01				
	200000.	0.413	0.392E-01				
	300000.	0.380	0.388E-01				
	500000.	0.342	0.360E-01				
1000000.	0.296	0.297E-01	*0.128	*0.862E-01			
P IV 3P 6D 339.4 Å C= 0.28E+20	50000.	*1.10	*0.630E-01				
	100000.	*0.988	*0.827E-01				
	200000.	*0.876	*0.880E-01				
	300000.	0.812	0.813E-01				
	500000.	0.732	0.846E-01				
1000000.	0.632	0.777E-01					
P IV 3P 7D 324.0 Å C= 0.15E+20	50000.						
	100000.						
	200000.	*1.59	*0.131				
	300000.	*1.49	*0.118				
	500000.	*1.35	*0.148				
1000000.	1.17	0.144					
P IV 4P 4D 2735.1 Å C= 0.78E+22	50000.	17.2	0.347	*1.42	*0.472		
	100000.	13.8	0.470	*1.79	*0.733		
	200000.	11.4	0.407	*2.09	*0.960		
	300000.	10.4	0.425	*2.26	*1.11		
	500000.	9.27	0.408	*2.43	*1.24		
1000000.	8.05	0.300	2.72	1.45			
P IV 4P 5D 1239.6 Å C= 0.96E+21	50000.	*6.95	*0.378				
	100000.	5.97	0.374				
	200000.	5.16	0.376				
	300000.	4.75	0.380				
	500000.	4.29	0.349				
1000000.	3.73	0.282	*1.47	*0.949			
P IV 4P 6D 940.2 Å C= 0.21E+21	50000.						
	100000.	*7.95	*0.600				
	200000.	*7.04	*0.638				
	300000.	6.52	0.592				
	500000.	5.89	0.619				
1000000.	5.09	0.568					

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 4P 7D 830.9 Å C= 0.10E+21	50000. 100000. 200000. 300000. 500000. 1000000.						
		*10.7	*0.832				
		*10.0	*0.752				
		*9.10	*0.952				
		7.88	0.925				
P IV 3D 4P 1486.1 Å C= 0.66E+22	50000. 100000. 200000. 300000. 500000. 1000000.	2.89 2.20 1.76 1.58 1.40 1.22	0.706E-01 0.651E-01 0.840E-01 0.759E-01 0.751E-01 0.721E-01	*0.223 *0.304 0.348 0.373 0.398 0.421	*0.329E-01 *0.546E-01 0.795E-01 0.900E-01 0.103 0.123	*0.796 *0.841	*0.208 *0.247
P IV 3D 5P 751.4 Å C= 0.76E+21	50000. 100000. 200000. 300000. 500000. 1000000.	1.68 1.44 1.25 1.15 1.05 0.930	0.721E-01 0.931E-01 0.868E-01 0.842E-01 0.834E-01 0.704E-01	*0.304 *0.317 *0.333	*0.102 *0.116 *0.134		
P IV 3D 6P 608.7 Å C= 0.27E+21	50000. 100000. 200000. 300000. 500000. 1000000.	*2.17 *1.93 1.73 1.62 1.50 1.34	*0.118 *0.120 0.115 0.111 0.107 0.869E-01				
P IV 3D 7P 549.2 Å C= 0.12E+21	50000. 100000. 200000. 300000. 500000. 1000000.						
		*3.19	*0.153				
		*2.98	*0.143				
		*2.83	*0.143				
		2.63	0.130				
		2.36	0.101				
P IV 3D 8P 520.0 Å C= 0.47E+20	50000. 100000. 200000. 300000. 500000. 1000000.						
		*4.80	*0.342E-01				
		*4.58	*0.382E-01				
		*4.26	*0.135E-01				
		3.80	-0.396E-01				
P IV 4D 6P 1654.5 Å C= 0.20E+22	50000. 100000. 200000. 300000. 500000. 1000000.	*18.1 *16.1 14.5 13.6 12.5 11.1	*0.554 *0.569 0.567 0.559 0.539 0.440				
P IV 4D 7P 1278.3 Å C= 0.64E+21	50000. 100000. 200000. 300000. 500000. 1000000.						
		*18.4	*0.630				
		*17.1	*0.601				
		*16.3	*0.617				
		15.1	0.552				
		13.5	0.428				
PERTURBER DENSITY = 1.E+20cm-3							
P IV 3S 3P 950.7 Å C= 0.81E+23	50000. 100000. 200000. 300000. 500000. 1000000.	4.38 3.16 2.36 2.03 1.73 1.43	-0.163E-01 -0.213E-01 -0.146E-01 -0.188E-01 -0.223E-01 -0.226E-01	0.856E-01 0.172 0.249 0.279 0.307 0.343	-0.163E-02 -0.469E-02 -0.990E-02 -0.138E-01 -0.190E-01 -0.264E-01	*0.122 *0.311 *0.478 *0.549 *0.609 *0.682	-0.194E-02 -0.774E-02 -0.185E-01 -0.264E-01 -0.373E-01 -0.528E-01
P IV 3S 4P 388.3 Å C= 0.35E+22	50000. 100000. 200000. 300000. 500000. 1000000.	*1.93 1.48 1.19 1.07 0.943 0.816	*0.321E-01 0.202E-01 0.385E-01 0.322E-01 0.318E-01 0.330E-01	*0.266	*0.468E-01		

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3S 5P 315.6 Å C= 0.57E+21	50000.						
	100000.	*2.48	*0.596E-01				
	200000.	*2.11	*0.340E-01				
	300000.	*1.93	*0.242E-01				
	500000.	1.74	0.279E-01				
1000000.	1.52	0.254E-01					
P IV 3S 6P 282.3 Å C= 0.53E+21	50000.						
	100000.						
	200000.						
	300000.	*3.44	*0.171				
	500000.	*3.19	*0.171				
1000000.	*2.86	*0.143					
P IV 3P 4S 776.4 Å C= 0.14E+23	50000.	*6.77	*0.286	*0.220	*0.146		
	100000.	5.07	0.477	*0.412	*0.333		
	200000.	3.99	0.517	*0.600	*0.482		
	300000.	3.53	0.518	*0.693	*0.593		
	500000.	3.05	0.515	*0.818	*0.724		
	1000000.	2.56	0.472	*1.02	*0.892		
P IV 3P 5S 485.5 Å C= 0.13E+22	50000.						
	100000.	*5.98	*0.244				
	200000.	*4.95	*0.473				
	300000.	*4.44	*0.535				
	500000.	3.87	0.517				
1000000.	3.19	0.461					
P IV 3P 6S 412.5 Å C= 0.11E+22	50000.						
	100000.						
	200000.	*5.82	*1.18				
	300000.	*5.30	*1.17				
	500000.	*4.72	*1.07				
1000000.	3.99	0.881					
P IV 3P 7S 380.2 Å C= 0.48E+21	50000.						
	100000.						
	200000.						
	300000.						
	500000.	*8.58	*1.10				
1000000.	*7.37	*1.06					
P IV 3P 3D 877.5 Å C= 0.30E+23	50000.	*6.07	*0.137	*0.211	*0.494E-01		
	100000.	4.46	0.133	*0.378	*0.113		
	200000.	3.44	0.189	*0.495	*0.176		
	300000.	3.02	0.185	*0.543	*0.209		
	500000.	2.63	0.180	*0.603	*0.251		
	1000000.	2.25	0.173	*0.669	*0.307		
P IV 3P 4D 525.9 Å C= 0.14E+22	50000.	*4.76	*0.409E-01				
	100000.	*3.79	-0.112E-01				
	200000.	3.09	-0.666E-01				
	300000.	2.78	-0.759E-01				
	500000.	2.45	-0.723E-01				
	1000000.	2.09	-0.721E-01				
P IV 3P 5D 429.5 Å C= 0.14E+22	50000.						
	100000.						
	200000.	*4.97	*0.375				
	300000.	*4.59	*0.417				
	500000.	4.16	0.406				
1000000.	3.65	0.352					
P IV 3P 6D 386.8 Å C= 0.36E+21	50000.						
	100000.						
	200000.						
	300000.						
500000.	*8.80	*0.386					
1000000.	*7.79	*0.462					

PERTURBERS ARE: TRANSITION	T(K)	ELECTRONS		PROTONS		He III	
		WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)	WIDTH(Å)	SHIFT(Å)
P IV 3P 4S 630.8 Å C= 0.12E+23	50000.	*3.55	*0.200	*0.102	*0.818E-01		
	100000.	2.62	0.257	*0.198	*0.178		
	200000.	2.04	0.300	*0.306	*0.262		
	300000.	1.80	0.294	*0.366	*0.314		
	500000.	1.55	0.287	*0.427	*0.384		
	1000000.	1.30	0.272	*0.518	*0.465		
P IV 3P 5S 415.4 Å C= 0.23E+22	50000.	*3.66	*0.390				
	100000.	*2.96	*0.449				
	200000.	2.45	0.457				
	300000.	2.19	0.450				
	500000.	1.92	0.451				
	1000000.	1.63	0.385				
P IV 3P 6S 359.6 Å C= 0.93E+21	50000.						
	100000.						
	200000.	*4.19	*0.722				
	300000.	*3.85	*0.744				
	500000.	*3.46	*0.702				
	1000000.	2.95	0.564				
P IV 3P 7S 334.3 Å C= 0.44E+21	50000.						
	100000.						
	200000.						
	300000.						
	500000.	*6.16	*0.911				
	1000000.	*5.31	*0.837				
P IV 3P 3D 826.3 Å C= 0.46E+23	50000.	3.37	-0.605E-02	*0.112	*0.498E-03		
	100000.	2.45	-0.104E-01	*0.209	*0.144E-02		
	200000.	1.84	-0.548E-02	*0.290	*0.317E-02		
	300000.	1.59	-0.983E-02	0.315	0.466E-02		
	500000.	1.36	-0.116E-01	0.346	0.690E-02		
	1000000.	1.14	-0.111E-01	0.381	0.992E-02	*0.760	*0.199E-01
P IV 3P 4D 444.7 Å C= 0.21E+22	50000.	*3.29	*0.168E-01				
	100000.	*2.65	*0.914E-01				
	200000.	2.18	0.120				
	300000.	1.96	0.129				
	500000.	1.74	0.129				
	1000000.	1.49	0.111				
P IV 3P 5D 371.8 Å C= 0.86E+21	50000.						
	100000.						
	200000.	*3.99	*0.192				
	300000.	*3.69	*0.223				
	500000.	*3.33	*0.211				
	1000000.	2.90	0.191				
P IV 3P 6D 339.4 Å C= 0.28E+21	50000.						
	100000.						
	200000.						
	300000.						
	500000.	*6.50	*0.254				
	1000000.	*5.74	*0.316				
P IV 3D 5P 751.4 Å C= 0.76E+22	50000.						
	100000.	*14.3	*0.645				
	200000.	*12.4	*0.673				
	300000.	*11.5	*0.681				
	500000.	10.5	0.697				
	1000000.	9.28	0.608				
P IV 3D 6P 608.7 Å C= 0.27E+22	50000.						
	100000.						
	200000.						
	300000.	*15.9	*0.859				
	500000.	*14.7	*0.848				
	1000000.	*13.2	*0.716				

The analysis of present results and comparison with existing theoretical data will be published elsewhere (Dimitrijević and Sahal–Bréchet, 1996b).

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ТАБЕЛЕ ПАРАМЕТАРА ШТАРКОВОГ ШИРЕЊА СПЕКТРАЛНИХ ЛИНИЈА P IV

М. С. Димитријевић¹ и S. Sahal–Bréchet²

¹ *Астрономска опсерваторија, Волгина 7, 11000 Београд, Југославија*

² *Laboratoire "Astrophysique, Atomes et Molécules"
Département Atomes et Molécules en Astrophysique
Unité associée au C.N.R.S. No 812
Observatoire de Paris-Meudon, 92190 Meudon, France*

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Користећи семикласичан прилаз, израчунате су ширине и помераји спектралних линија, проузроковани сударима са електронима, протонима и двоструко наелектрисаним јонима

хелијума, за 114 мултиплета P IV. Резултати су дати у функцији температуре и концентрације пертурбера.