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X-Ray Scattering Factors Computed
from Numerical Hartree-Fock Wave Functions

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by

Don T. Cromer
Joseph B. Mann

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X-RAY SCATTERING FACTORS COMPUTED
FROM NUMERICAL HARTREE-FOCK WAVE FUNCTIONS

by

Don T. Cromer and Joseph B. Mann

ABSTRACT

X-ray scattering factors for neutral atoms from He to Lw and for most of the chemically significant ions through Lu³⁺ have been computed from numerical Hartree-Fock wave functions. The results are given in numerical tables and in the form of coefficients for an analytic function.

During the last few years extensive calculations of x-ray scattering factors have been published for several different atomic models. In order of increasing sophistication, these have included the Thomas-Fermi-Dirac model by Thomas and Umeda;¹ the Hartree model by Cromer, Larson, and Waber;² the Hartree-Fock-Slater (HFS) model by Hanson, Herman, Lea, and Skillman³ and by Hanson and Pohler;⁴ and the Dirac-Slater (DS) model, the relativistic equivalent of the HFS model, by Cromer and Waber.⁵ A comparison of these four models has been made by Cromer.⁶

Except for relativistic effects (and the rather trivial effect of electron correlation), the best free atom approximation is given by another model, the Hartree-Fock (HF) model. Hartree-Fock scattering factors for elements through Kr ($Z = 36$) have been computed by a number of persons, and the results have been tabulated by Ibers.⁷ Most of these HF scattering factors were calculated from analytic wave functions.

Mann^{8,9} has recently made extensive calculations of numerical HF wave functions. From these, we have computed x-ray scattering factors for all of the neutral atoms through Lw ($Z = 103$) and most of the chemically significant ions through Lu ($Z=71$). The HF scattering factors were computed from $\sin \theta/\lambda = 0$ to 1.50 at intervals of 0.01 \AA^{-1} . The detailed results are given in Table I. For conven-

ience the scattering factors have been fitted to the analytic function

$$f(\sin \theta/\lambda) = \sum_{i=1}^4 a_i \exp(-b_i \sin^2 \theta/\lambda^2) + c.$$

The coefficients, along with the maximum and minimum percentage deviations of the analytic fit defined as

$$E = \frac{(f_{\text{HF}} - f_{\text{analytic}}) \times 100}{f_{\text{HF}}},$$

are listed in Table II (p. 66).

Some duplication of previous work occurs in this report. The lighter elements have been included here because analytic expressions for HF scattering factors have not heretofore been published, and because it is convenient to have a complete tabulation of HF scattering factors. With the use of numerical wave functions, many of the results should be more accurate than those of previous calculations, although the differences between these scattering factors and those computed from analytic wave functions are not large (about 0.02 electron at most).

The importance of relativistic effects can be seen in Fig. 7 of Reference 6, where HFS and DS scattering factors are compared. These scattering factors are essentially identical up to $Z \approx 40$ and do not differ greatly until $Z > \approx 55$. Thus, HF scattering factors are probably the best to use for atoms lighter than Cs ($Z = 55$). For heavier elements, however, HF scattering factors are too small,

because of the neglect of the relativistic contraction of the atom, and it is now believed that the DS scattering factors⁵ are in error by being too large. Kohn and Sham¹⁰ and Cowan, Larson, Liberman, Mann, and Waber¹¹ have given evidence that the Slater¹² $\rho^{1/3}$ exchange coefficient should be two-thirds as great as that given by Slater. This change in coefficient has the effect of lowering the exchange energy, expanding the atom, and, thereby, decreasing the scattering factor. Thus, for the heavier elements, scattering factors calculated from a relativistic HF model should lie between the HF and DS scattering factors. However, until relativistic HF scattering factors are available, the HF or DE scattering factors should be equally useful for heavy elements.

A deck of computer cards with the analytic coefficients may be obtained from the authors.

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Table I. Hartree-Fock Scattering Factors
 (The configuration is given by the occupancy of the four outermost orbitals)

HARTREE FOCK SCATTERING FACTOR										
HE CONFIGURATION 1S 2, , , ,										
SIN(THETA)/	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
LAMBDA										
0.	2.000	1.998	1.993	1.984	1.972	1.957	1.939	1.917	1.893	1.866
0.1	1.837	1.806	1.772	1.737	1.701	1.663	1.624	1.584	1.543	1.502
0.2	1.460	1.419	1.377	1.336	1.295	1.254	1.214	1.174	1.136	1.097
0.3	1.060	1.024	0.988	0.954	0.920	0.887	0.856	0.825	0.795	0.766
0.4	0.738	0.711	0.685	0.660	0.636	0.613	0.591	0.569	0.548	0.528
0.5	0.509	0.490	0.473	0.455	0.439	0.423	0.408	0.393	0.379	0.366
0.6	0.353	0.340	0.328	0.317	0.306	0.295	0.285	0.275	0.266	0.257
0.7	0.248	0.240	0.232	0.224	0.216	0.209	0.202	0.196	0.189	0.183
0.8	0.177	0.172	0.166	0.161	0.156	0.151	0.146	0.142	0.137	0.133
0.9	0.129	0.125	0.121	0.117	0.114	0.111	0.107	0.104	0.101	0.098
1.0	0.095	0.093	0.090	0.087	0.085	0.082	0.080	0.078	0.076	0.074
1.1	0.072	0.070	0.068	0.066	0.064	0.062	0.061	0.059	0.058	0.056
1.2	0.055	0.053	0.052	0.050	0.049	0.048	0.047	0.046	0.044	0.043
1.3	0.042	0.041	0.040	0.039	0.038	0.037	0.036	0.036	0.035	0.034
1.4	0.033	0.032	0.032	0.031	0.030	0.029	0.029	0.028	0.027	0.027
1.5	0.026									
LI CONFIGURATION 2S 1, 1S 2, , ,										
SIN(THETA)/	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
LAMBDA										
0.	3.000	2.986	2.947	2.884	2.802	2.708	2.606	2.502	2.400	2.303
0.1	2.215	2.135	2.065	2.003	1.950	1.904	1.863	1.828	1.796	1.768
0.2	1.742	1.717	1.693	1.671	1.648	1.626	1.604	1.581	1.559	1.536
0.3	1.513	1.489	1.465	1.442	1.417	1.393	1.369	1.344	1.319	1.295
0.4	1.270	1.246	1.221	1.197	1.173	1.149	1.125	1.102	1.078	1.055
0.5	1.032	1.010	0.988	0.966	0.945	0.923	0.903	0.882	0.862	0.843
0.6	0.823	0.804	0.786	0.767	0.750	0.732	0.715	0.698	0.682	0.666
0.7	0.650	0.635	0.620	0.605	0.591	0.577	0.564	0.550	0.537	0.525
0.8	0.512	0.500	0.488	0.477	0.466	0.455	0.444	0.434	0.424	0.414
0.9	0.404	0.395	0.386	0.377	0.368	0.359	0.351	0.343	0.335	0.328
1.0	0.320	0.313	0.306	0.299	0.292	0.285	0.279	0.273	0.267	0.261
1.1	0.255	0.249	0.244	0.238	0.233	0.228	0.223	0.218	0.214	0.209
1.2	0.204	0.200	0.196	0.192	0.188	0.184	0.180	0.176	0.172	0.169
1.3	0.165	0.162	0.158	0.155	0.152	0.149	0.146	0.143	0.140	0.137
1.4	0.134	0.132	0.129	0.126	0.124	0.121	0.119	0.117	0.114	0.112
1.5	0.110									
LI+1 CONFIGURATION 1S 2, , , ,										
SIN(THETA)/	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
LAMBDA										
0.	2.000	1.999	1.997	1.994	1.990	1.984	1.977	1.968	1.959	1.948
0.1	1.936	1.923	1.909	1.894	1.878	1.861	1.843	1.824	1.804	1.784
0.2	1.762	1.741	1.718	1.695	1.672	1.648	1.624	1.599	1.574	1.549
0.3	1.523	1.498	1.472	1.446	1.420	1.394	1.368	1.343	1.317	1.291
0.4	1.266	1.240	1.215	1.190	1.166	1.141	1.117	1.093	1.070	1.047
0.5	1.024	1.001	0.979	0.957	0.936	0.915	0.894	0.873	0.853	0.834
0.6	0.815	0.796	0.777	0.759	0.742	0.724	0.707	0.691	0.674	0.659
0.7	0.643	0.628	0.613	0.599	0.584	0.571	0.557	0.544	0.531	0.519
0.8	0.506	0.495	0.483	0.472	0.460	0.450	0.439	0.429	0.419	0.409
0.9	0.400	0.390	0.381	0.372	0.364	0.355	0.347	0.339	0.331	0.324
1.0	0.316	0.309	0.302	0.295	0.289	0.282	0.276	0.270	0.264	0.258
1.1	0.252	0.247	0.241	0.236	0.231	0.226	0.221	0.216	0.211	0.207
1.2	0.202	0.198	0.194	0.189	0.185	0.182	0.178	0.174	0.170	0.167
1.3	0.163	0.160	0.157	0.153	0.150	0.147	0.144	0.141	0.138	0.136
1.4	0.133	0.130	0.128	0.125	0.122	0.120	0.118	0.115	0.113	0.111
1.5	0.109									

HARTREE FOCK SCATTERING FACTOR

BE CONFIGURATION 2S 2, 1S 2, , ,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	4.000	3.987	3.950	3.889	3.807	3.707	3.592	3.467	3.336	3.200
0.1	3.065	2.932	2.804	2.682	2.568	2.462	2.365	2.276	2.196	2.124
0.2	2.060	2.002	1.951	1.905	1.864	1.827	1.795	1.765	1.739	1.715
0.3	1.692	1.671	1.652	1.634	1.616	1.599	1.583	1.567	1.551	1.536
0.4	1.520	1.505	1.489	1.474	1.458	1.443	1.427	1.411	1.395	1.378
0.5	1.362	1.346	1.329	1.313	1.296	1.279	1.262	1.246	1.229	1.212
0.6	1.195	1.178	1.162	1.145	1.128	1.111	1.095	1.078	1.062	1.046
0.7	1.030	1.014	0.998	0.982	0.966	0.951	0.936	0.921	0.906	0.891
0.8	0.876	0.862	0.847	0.833	0.819	0.806	0.792	0.779	0.765	0.752
0.9	0.740	0.727	0.715	0.702	0.690	0.678	0.667	0.655	0.644	0.633
1.0	0.622	0.611	0.601	0.590	0.580	0.570	0.560	0.550	0.541	0.531
1.1	0.522	0.513	0.504	0.495	0.487	0.478	0.470	0.462	0.454	0.446
1.2	0.438	0.431	0.423	0.416	0.409	0.402	0.395	0.388	0.381	0.375
1.3	0.369	0.362	0.356	0.350	0.344	0.338	0.333	0.327	0.321	0.316
1.4	0.311	0.305	0.300	0.295	0.290	0.286	0.281	0.276	0.272	0.267
1.5	0.263									

BE+2 CONFIGURATION 1S 2, , ,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	2.000	2.000	1.999	1.997	1.995	1.991	1.988	1.903	1.978	1.973
0.1	1.966	1.959	1.952	1.944	1.935	1.925	1.915	1.905	1.894	1.882
0.2	1.870	1.858	1.845	1.831	1.817	1.803	1.788	1.773	1.758	1.742
0.3	1.726	1.709	1.693	1.676	1.658	1.641	1.623	1.606	1.587	1.569
0.4	1.551	1.533	1.514	1.495	1.477	1.458	1.439	1.420	1.402	1.383
0.5	1.364	1.345	1.326	1.308	1.289	1.271	1.252	1.234	1.215	1.197
0.6	1.179	1.161	1.144	1.126	1.108	1.091	1.074	1.057	1.040	1.023
0.7	1.007	0.991	0.974	0.958	0.943	0.927	0.912	0.897	0.882	0.867
0.8	0.852	0.838	0.824	0.810	0.796	0.782	0.769	0.756	0.743	0.730
0.9	0.718	0.705	0.693	0.681	0.669	0.658	0.646	0.635	0.624	0.613
1.0	0.602	0.592	0.582	0.572	0.562	0.552	0.542	0.533	0.523	0.514
1.1	0.505	0.497	0.488	0.479	0.471	0.463	0.455	0.447	0.439	0.432
1.2	0.424	0.417	0.410	0.403	0.396	0.389	0.382	0.376	0.369	0.363
1.3	0.357	0.351	0.345	0.339	0.333	0.327	0.322	0.316	0.311	0.306
1.4	0.301	0.296	0.291	0.286	0.281	0.276	0.272	0.267	0.263	0.259
1.5	0.254									

B CONFIGURATION 2P 1, 2S 2, 1S 2, ,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	5.000	4.988	4.954	4.897	4.820	4.724	4.613	4.488	4.352	4.208
0.1	4.060	3.908	3.756	3.606	3.458	3.316	3.178	3.048	2.924	2.807
0.2	2.698	2.597	2.503	2.416	2.336	2.262	2.195	2.133	2.077	2.025
0.3	1.979	1.936	1.897	1.861	1.828	1.799	1.771	1.746	1.722	1.701
0.4	1.680	1.661	1.644	1.627	1.611	1.595	1.581	1.567	1.553	1.539
0.5	1.526	1.513	1.501	1.488	1.476	1.463	1.451	1.438	1.426	1.414
0.6	1.401	1.389	1.377	1.364	1.352	1.339	1.326	1.314	1.301	1.288
0.7	1.275	1.263	1.250	1.237	1.224	1.211	1.198	1.185	1.172	1.160
0.8	1.147	1.134	1.121	1.108	1.096	1.083	1.070	1.058	1.045	1.032
0.9	1.020	1.008	0.995	0.983	0.971	0.959	0.947	0.935	0.923	0.911
1.0	0.900	0.888	0.877	0.866	0.854	0.843	0.832	0.821	0.811	0.800
1.1	0.789	0.779	0.769	0.758	0.748	0.738	0.728	0.718	0.709	0.699
1.2	0.690	0.680	0.671	0.662	0.653	0.644	0.635	0.627	0.618	0.610
1.3	0.601	0.593	0.585	0.577	0.569	0.561	0.554	0.546	0.539	0.531
1.4	0.524	0.517	0.510	0.503	0.496	0.489	0.482	0.476	0.469	0.463
1.5	0.456									

HARTREE FOCK SCATTERING FACTOR

C CONFIGURATION 2P 2, 2S 2, 1S 2,										
SIN(THETA)/										
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	6.000	5.990	5.959	5.908	5.839	5.752	5.649	5.531	5.402	5.262
0.1	5.115	4.961	4.803	4.643	4.482	4.321	4.163	4.007	3.856	3.710
0.2	3.568	3.433	3.304	3.181	3.064	2.954	2.851	2.753	2.662	2.576
0.3	2.496	2.422	2.352	2.288	2.228	2.172	2.121	2.073	2.028	1.987
0.4	1.949	1.913	1.880	1.849	1.821	1.794	1.769	1.746	1.724	1.704
0.5	1.684	1.666	1.649	1.633	1.617	1.602	1.588	1.574	1.561	1.549
0.6	1.536	1.524	1.512	1.501	1.490	1.479	1.468	1.457	1.446	1.436
0.7	1.425	1.415	1.404	1.394	1.384	1.373	1.363	1.353	1.342	1.332
0.8	1.322	1.311	1.301	1.291	1.280	1.270	1.259	1.249	1.239	1.228
0.9	1.218	1.207	1.197	1.186	1.176	1.166	1.155	1.145	1.134	1.124
1.0	1.114	1.103	1.093	1.082	1.072	1.062	1.052	1.041	1.031	1.021
1.1	1.011	1.001	0.991	0.981	0.971	0.961	0.952	0.942	0.932	0.923
1.2	0.913	0.903	0.894	0.885	0.875	0.866	0.857	0.848	0.839	0.830
1.3	0.821	0.812	0.803	0.794	0.786	0.777	0.769	0.760	0.752	0.744
1.4	0.736	0.727	0.719	0.711	0.704	0.696	0.688	0.680	0.673	0.665
1.5	0.658									

N CONFIGURATION 2P 3, 2S 2, 1S 2,										
SIN(THETA)/										
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	7.000	6.991	6.963	6.918	6.855	6.776	6.682	6.574	6.453	6.322
0.1	6.180	6.031	5.876	5.715	5.552	5.386	5.219	5.052	4.887	4.724
0.2	4.563	4.407	4.254	4.106	3.963	3.825	3.693	3.566	3.444	3.328
0.3	3.218	3.113	3.014	2.919	2.830	2.746	2.666	2.591	2.520	2.454
0.4	2.391	2.333	2.277	2.225	2.177	2.131	2.088	2.047	2.010	1.974
0.5	1.941	1.909	1.880	1.852	1.826	1.801	1.778	1.756	1.735	1.715
0.6	1.696	1.679	1.662	1.646	1.630	1.616	1.601	1.588	1.575	1.562
0.7	1.550	1.538	1.527	1.516	1.505	1.494	1.484	1.474	1.464	1.454
0.8	1.444	1.435	1.425	1.416	1.407	1.397	1.388	1.379	1.370	1.361
0.9	1.352	1.343	1.335	1.326	1.317	1.308	1.299	1.290	1.282	1.273
1.0	1.264	1.255	1.246	1.238	1.229	1.220	1.211	1.202	1.194	1.185
1.1	1.176	1.167	1.159	1.150	1.141	1.132	1.124	1.115	1.106	1.097
1.2	1.089	1.080	1.071	1.063	1.054	1.046	1.037	1.029	1.020	1.012
1.3	1.003	0.995	0.986	0.978	0.970	0.961	0.953	0.945	0.937	0.928
1.4	0.920	0.912	0.904	0.896	0.888	0.880	0.873	0.865	0.857	0.849
1.5	0.842									

O CONFIGURATION 2P 4, 2S 2, 1S 2,										
SIN(THETA)/										
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	8.000	7.992	7.967	7.926	7.869	7.797	7.711	7.612	7.500	7.377
0.1	7.244	7.102	6.952	6.796	6.635	6.470	6.302	6.132	5.961	5.790
0.2	5.620	5.452	5.285	5.122	4.961	4.805	4.652	4.503	4.359	4.220
0.3	4.085	3.956	3.831	3.711	3.596	3.485	3.380	3.279	3.183	3.091
0.4	3.003	2.920	2.841	2.765	2.694	2.626	2.562	2.500	2.442	2.387
0.5	2.335	2.286	2.239	2.195	2.153	2.113	2.076	2.040	2.006	1.974
0.6	1.944	1.915	1.888	1.862	1.838	1.814	1.792	1.771	1.751	1.731
0.7	1.713	1.696	1.679	1.663	1.648	1.633	1.619	1.605	1.592	1.579
0.8	1.567	1.555	1.544	1.533	1.522	1.511	1.501	1.491	1.481	1.472
0.9	1.462	1.453	1.444	1.435	1.426	1.418	1.409	1.401	1.392	1.384
1.0	1.376	1.368	1.360	1.352	1.344	1.336	1.328	1.320	1.312	1.305
1.1	1.297	1.289	1.281	1.274	1.266	1.258	1.251	1.243	1.235	1.228
1.2	1.220	1.212	1.205	1.197	1.190	1.182	1.174	1.167	1.159	1.152
1.3	1.144	1.137	1.129	1.122	1.114	1.106	1.099	1.092	1.084	1.077
1.4	1.069	1.062	1.054	1.047	1.040	1.032	1.025	1.017	1.010	1.003
1.5	0.996									

HARTREE FOCK SCATTERING FACTOR

G -1 CONFIGURATION 2P 5, 2S 2, 1S 2,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	9.000	8.986	8.945	8.878	8.785	8.670	8.534	8.381	8.211	8.029
0.1	7.836	7.635	7.429	7.218	7.005	6.792	6.579	6.368	6.160	5.956
0.2	5.756	5.561	5.371	5.187	5.008	4.836	4.670	4.510	4.357	4.209
0.3	4.068	3.933	3.804	3.681	3.564	3.452	3.345	3.244	3.147	3.056
0.4	2.969	2.886	2.808	2.734	2.663	2.597	2.533	2.474	2.417	2.364
0.5	2.313	2.265	2.220	2.177	2.136	2.097	2.061	2.027	1.994	1.963
0.6	1.934	1.906	1.879	1.854	1.830	1.808	1.786	1.766	1.746	1.727
0.7	1.710	1.693	1.676	1.661	1.646	1.631	1.617	1.604	1.591	1.579
0.8	1.567	1.555	1.544	1.533	1.522	1.511	1.501	1.491	1.482	1.472
0.9	1.463	1.453	1.444	1.436	1.427	1.418	1.410	1.401	1.393	1.384
1.0	1.376	1.368	1.360	1.352	1.344	1.336	1.328	1.320	1.312	1.304
1.1	1.296	1.289	1.281	1.273	1.265	1.258	1.250	1.242	1.234	1.227
1.2	1.219	1.211	1.204	1.196	1.188	1.181	1.173	1.166	1.158	1.150
1.3	1.143	1.135	1.128	1.120	1.112	1.105	1.097	1.090	1.082	1.075
1.4	1.067	1.060	1.052	1.045	1.038	1.030	1.023	1.016	1.008	1.001
1.5	0.994									

F CONFIGURATION 2P 5, 2S 2, 1S 2,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	9.000	8.992	8.970	8.933	8.881	8.815	8.736	8.644	8.540	8.425
0.1	8.301	8.166	8.024	7.874	7.719	7.558	7.392	7.224	7.053	6.880
0.2	6.706	6.532	6.359	6.187	6.016	5.847	5.681	5.518	5.359	5.202
0.3	5.050	4.901	4.757	4.616	4.480	4.348	4.221	4.098	3.979	3.865
0.4	3.755	3.649	3.547	3.449	3.356	3.266	3.180	3.097	3.018	2.943
0.5	2.871	2.802	2.736	2.673	2.613	2.555	2.501	2.448	2.399	2.351
0.6	2.306	2.263	2.222	2.182	2.145	2.109	2.075	2.043	2.012	1.982
0.7	1.954	1.927	1.902	1.877	1.854	1.831	1.810	1.789	1.770	1.751
0.8	1.733	1.716	1.699	1.683	1.668	1.653	1.639	1.625	1.612	1.599
0.9	1.586	1.574	1.563	1.552	1.541	1.530	1.520	1.510	1.500	1.490
1.0	1.481	1.472	1.463	1.454	1.445	1.437	1.429	1.420	1.412	1.404
1.1	1.397	1.389	1.381	1.374	1.366	1.359	1.351	1.344	1.337	1.329
1.2	1.322	1.315	1.308	1.301	1.294	1.287	1.280	1.273	1.266	1.260
1.3	1.253	1.246	1.239	1.232	1.225	1.219	1.212	1.205	1.198	1.192
1.4	1.185	1.178	1.172	1.165	1.158	1.152	1.145	1.138	1.132	1.125
1.5	1.118									

F -1 CONFIGURATION 2P 6, 2S 2, 1S 2,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	10.000	9.988	9.953	9.895	9.816	9.716	9.597	9.461	9.309	9.144
0.1	8.967	8.781	8.586	8.386	8.181	7.973	7.762	7.551	7.341	7.131
0.2	6.924	6.719	6.517	6.320	6.126	5.937	5.753	5.573	5.399	5.230
0.3	5.067	4.909	4.756	4.609	4.467	4.330	4.199	4.073	3.951	3.835
0.4	3.724	3.617	3.514	3.416	3.322	3.233	3.147	3.065	2.987	2.912
0.5	2.841	2.773	2.708	2.647	2.588	2.531	2.478	2.427	2.378	2.332
0.6	2.288	2.246	2.205	2.167	2.131	2.096	2.063	2.031	2.001	1.972
0.7	1.945	1.919	1.894	1.870	1.847	1.825	1.804	1.784	1.765	1.747
0.8	1.729	1.712	1.696	1.680	1.665	1.651	1.637	1.623	1.610	1.598
0.9	1.585	1.574	1.562	1.551	1.540	1.530	1.519	1.509	1.500	1.490
1.0	1.481	1.472	1.463	1.454	1.445	1.437	1.429	1.421	1.412	1.404
1.1	1.397	1.389	1.381	1.374	1.366	1.359	1.351	1.344	1.337	1.329
1.2	1.322	1.315	1.308	1.301	1.294	1.287	1.280	1.273	1.266	1.259
1.3	1.252	1.245	1.238	1.232	1.225	1.218	1.211	1.204	1.198	1.191
1.4	1.184	1.177	1.171	1.164	1.157	1.150	1.144	1.137	1.130	1.124
1.5	1.117									

HARTREE FOCK SCATTERING FACTOR

NE CONFIGURATION 2P 6, 2S 2, 1S 2, ,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	10.000	9.993	9.972	9.938	9.891	9.830	9.757	9.672	9.575	9.468
0.1	9.351	9.225	9.090	8.947	8.798	8.642	8.482	8.317	8.148	7.977
0.2	7.803	7.628	7.452	7.276	7.100	6.925	6.752	6.579	6.409	6.242
0.3	6.076	5.914	5.755	5.600	5.447	5.299	5.154	5.013	4.876	4.743
0.4	4.613	4.488	4.367	4.249	4.135	4.026	3.919	3.817	3.718	3.623
0.5	3.531	3.443	3.358	3.276	3.198	3.122	3.049	2.980	2.913	2.848
0.6	2.787	2.727	2.670	2.616	2.564	2.514	2.466	2.419	2.375	2.333
0.7	2.292	2.254	2.216	2.181	2.146	2.114	2.082	2.052	2.023	1.995
0.8	1.969	1.943	1.919	1.895	1.873	1.851	1.830	1.810	1.791	1.772
0.9	1.754	1.737	1.721	1.705	1.689	1.674	1.660	1.646	1.633	1.620
1.0	1.607	1.595	1.583	1.572	1.561	1.550	1.540	1.529	1.519	1.510
1.1	1.500	1.491	1.482	1.473	1.465	1.456	1.448	1.440	1.432	1.424
1.2	1.416	1.408	1.401	1.393	1.386	1.379	1.372	1.365	1.358	1.351
1.3	1.344	1.337	1.331	1.324	1.317	1.311	1.304	1.298	1.291	1.285
1.4	1.279	1.272	1.266	1.260	1.254	1.247	1.241	1.235	1.229	1.223
1.5	1.217									

NA CONFIGURATION 3S 1, 2P 6, 2S 2, 1S 2, ,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	11.000	10.980	10.922	10.829	10.709	10.567	10.411	10.248	10.083	9.919
0.1	9.759	9.603	9.453	9.307	9.165	9.025	8.887	8.749	8.611	8.473
0.2	8.334	8.193	8.050	7.907	7.762	7.516	7.469	7.321	7.174	7.026
0.3	6.878	6.731	6.584	6.439	6.294	6.152	6.011	5.872	5.734	5.599
0.4	5.467	5.337	5.209	5.084	4.962	4.843	4.726	4.612	4.501	4.393
0.5	4.288	4.186	4.087	3.990	3.897	3.806	3.718	3.632	3.550	3.470
0.6	3.392	3.318	3.245	3.175	3.108	3.043	2.980	2.919	2.860	2.803
0.7	2.749	2.696	2.646	2.597	2.550	2.504	2.460	2.418	2.378	2.339
0.8	2.301	2.265	2.230	2.196	2.164	2.133	2.103	2.074	2.046	2.019
0.9	1.993	1.968	1.944	1.921	1.899	1.878	1.857	1.837	1.818	1.799
1.0	1.781	1.764	1.747	1.731	1.715	1.700	1.685	1.671	1.657	1.644
1.1	1.631	1.619	1.607	1.595	1.584	1.572	1.562	1.551	1.541	1.531
1.2	1.521	1.512	1.503	1.494	1.485	1.476	1.468	1.459	1.451	1.443
1.3	1.436	1.428	1.421	1.413	1.406	1.399	1.392	1.385	1.378	1.371
1.4	1.365	1.358	1.352	1.345	1.339	1.332	1.326	1.320	1.314	1.308
1.5	1.302									

NA+1 CONFIGURATION 2P 6, 2S 2, 1S 2, ,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	10.000	9.995	9.981	9.950	9.925	9.883	9.832	9.773	9.705	9.629
0.1	9.545	9.454	9.356	9.252	9.141	9.024	8.903	8.776	8.645	8.510
0.2	8.372	8.230	8.087	7.940	7.793	7.644	7.494	7.343	7.192	7.041
0.3	6.891	6.742	6.593	6.446	6.300	6.156	6.013	5.873	5.735	5.599
0.4	5.466	5.335	5.207	5.082	4.960	4.840	4.723	4.609	4.498	4.390
0.5	4.285	4.183	4.084	3.987	3.894	3.803	3.715	3.630	3.547	3.467
0.6	3.390	3.315	3.243	3.173	3.106	3.041	2.978	2.917	2.859	2.802
0.7	2.748	2.695	2.645	2.596	2.549	2.504	2.460	2.418	2.377	2.338
0.8	2.301	2.265	2.230	2.196	2.164	2.133	2.103	2.074	2.046	2.019
0.9	1.994	1.969	1.945	1.922	1.900	1.878	1.857	1.837	1.818	1.800
1.0	1.782	1.764	1.748	1.731	1.716	1.701	1.686	1.672	1.658	1.645
1.1	1.632	1.619	1.607	1.596	1.584	1.573	1.562	1.552	1.541	1.531
1.2	1.522	1.512	1.503	1.494	1.485	1.477	1.468	1.460	1.452	1.444
1.3	1.436	1.428	1.421	1.413	1.406	1.399	1.392	1.385	1.378	1.371
1.4	1.365	1.358	1.352	1.345	1.339	1.333	1.326	1.320	1.314	1.308
1.5	1.302									

HARTREE FOCK SCATTERING FACTOR

MG CONFIGURATION 3S 2, 2P 6, 2S 2, 1S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	12.000	11.978	11.914	11.811	11.673	11.506	11.318	11.114	10.901	10.685
0.1	10.470	10.259	10.056	9.861	9.675	9.499	9.331	9.172	9.020	8.873
0.2	8.733	8.596	8.462	8.331	8.202	8.075	7.948	7.821	7.695	7.569
0.3	7.443	7.317	7.191	7.065	6.939	6.813	6.687	6.562	6.437	6.313
0.4	6.190	6.067	5.946	5.826	5.707	5.590	5.474	5.360	5.247	5.136
0.5	5.028	4.921	4.816	4.713	4.612	4.513	4.417	4.322	4.230	4.140
0.6	4.052	3.966	3.883	3.801	3.722	3.645	3.570	3.497	3.426	3.357
0.7	3.290	3.225	3.162	3.101	3.042	2.984	2.929	2.875	2.822	2.772
0.8	2.722	2.675	2.629	2.584	2.541	2.500	2.459	2.421	2.383	2.346
0.9	2.311	2.277	2.244	2.212	2.182	2.152	2.123	2.095	2.069	2.043
1.0	2.017	1.993	1.970	1.947	1.925	1.904	1.883	1.864	1.844	1.826
1.1	1.808	1.790	1.773	1.757	1.741	1.726	1.711	1.697	1.683	1.669
1.2	1.656	1.643	1.631	1.619	1.607	1.596	1.585	1.574	1.563	1.553
1.3	1.543	1.534	1.524	1.515	1.506	1.497	1.488	1.480	1.472	1.464
1.4	1.456	1.448	1.440	1.433	1.426	1.419	1.411	1.405	1.398	1.391
1.5	1.384									

MG+2 CONFIGURATION 2P 6, 2S 2, 1S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	10.000	9.997	9.986	9.969	9.945	9.914	9.876	9.832	9.781	9.725
0.1	9.662	9.593	9.519	9.439	9.354	9.264	9.169	9.070	8.967	8.860
0.2	8.750	8.636	8.519	8.399	8.277	8.153	8.027	7.900	7.771	7.641
0.3	7.510	7.378	7.247	7.115	6.983	6.851	6.720	6.590	6.460	6.332
0.4	6.205	6.078	5.954	5.831	5.709	5.589	5.471	5.355	5.241	5.129
0.5	5.019	4.911	4.805	4.702	4.600	4.501	4.404	4.310	4.218	4.128
0.6	4.040	3.954	3.871	3.790	3.711	3.634	3.559	3.487	3.416	3.348
0.7	3.281	3.217	3.154	3.093	3.035	2.977	2.922	2.869	2.817	2.766
0.8	2.718	2.671	2.625	2.581	2.538	2.497	2.457	2.418	2.381	2.345
0.9	2.310	2.276	2.243	2.212	2.181	2.152	2.123	2.096	2.069	2.043
1.0	2.018	1.994	1.971	1.948	1.926	1.905	1.885	1.865	1.846	1.827
1.1	1.809	1.792	1.775	1.759	1.743	1.728	1.713	1.699	1.685	1.671
1.2	1.658	1.645	1.633	1.621	1.609	1.598	1.587	1.576	1.565	1.555
1.3	1.545	1.535	1.526	1.517	1.507	1.499	1.490	1.482	1.473	1.465
1.4	1.457	1.449	1.442	1.434	1.427	1.420	1.413	1.406	1.399	1.392
1.5	1.385									

AL CONFIGURATION 3P 1, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	13.000	12.975	12.903	12.785	12.628	12.438	12.221	11.984	11.736	11.481
0.1	11.226	10.974	10.729	10.493	10.268	10.055	9.853	9.662	9.483	9.313
0.2	9.154	9.002	8.858	8.720	8.588	8.461	8.337	8.217	8.099	7.983
0.3	7.869	7.756	7.644	7.533	7.422	7.311	7.201	7.091	6.981	6.871
0.4	6.761	6.652	6.542	6.433	6.325	6.217	6.109	6.002	5.896	5.790
0.5	5.686	5.582	5.480	5.378	5.278	5.179	5.081	4.985	4.890	4.797
0.6	4.705	4.614	4.526	4.438	4.353	4.269	4.187	4.106	4.028	3.950
0.7	3.875	3.801	3.729	3.659	3.590	3.523	3.458	3.394	3.332	3.272
0.8	3.213	3.155	3.099	3.045	2.992	2.941	2.891	2.842	2.795	2.749
0.9	2.704	2.661	2.619	2.578	2.538	2.500	2.462	2.426	2.391	2.357
1.0	2.323	2.291	2.260	2.230	2.201	2.172	2.145	2.118	2.092	2.067
1.1	2.043	2.019	1.996	1.974	1.952	1.931	1.911	1.891	1.872	1.854
1.2	1.836	1.818	1.802	1.785	1.769	1.754	1.739	1.724	1.710	1.696
1.3	1.683	1.670	1.657	1.645	1.633	1.621	1.610	1.599	1.588	1.577
1.4	1.567	1.557	1.547	1.538	1.529	1.520	1.511	1.502	1.494	1.485
1.5	1.477									

HARTREE FOCK SCATTERING FACTOR

AL+3 CONFIGURATION 2P 6, 2S 2, 1S 2, ,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	10.000	9.997	9.989	9.976	9.957	9.933	9.904	9.870	9.831	9.787
0.1	9.738	9.684	9.625	9.563	9.495	9.424	9.349	9.270	9.187	9.101
0.2	9.011	8.918	8.823	8.724	8.623	8.520	8.414	8.307	8.198	8.087
0.3	7.975	7.861	7.747	7.631	7.515	7.399	7.282	7.165	7.047	6.930
0.4	6.813	6.697	6.581	6.465	6.350	6.237	6.124	6.012	5.901	5.791
0.5	5.683	5.575	5.470	5.366	5.263	5.162	5.062	4.964	4.868	4.773
0.6	4.681	4.590	4.500	4.413	4.327	4.243	4.161	4.081	4.002	3.926
0.7	3.851	3.777	3.706	3.636	3.568	3.502	3.437	3.374	3.313	3.253
0.8	3.195	3.138	3.083	3.029	2.977	2.926	2.877	2.829	2.783	2.737
0.9	2.693	2.651	2.609	2.569	2.530	2.492	2.455	2.419	2.385	2.351
1.0	2.319	2.287	2.256	2.226	2.197	2.169	2.142	2.116	2.090	2.065
1.1	2.041	2.018	1.995	1.973	1.952	1.931	1.911	1.892	1.873	1.855
1.2	1.837	1.820	1.803	1.787	1.771	1.755	1.741	1.726	1.712	1.698
1.3	1.685	1.672	1.659	1.647	1.635	1.623	1.612	1.601	1.590	1.580
1.4	1.570	1.560	1.550	1.540	1.531	1.522	1.513	1.504	1.496	1.488
1.5	1.479									

SI CONFIGURATION 3P 2, 3S 2, 2P 6, 2S 2,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	14.000	13.976	13.904	13.788	13.631	13.437	13.214	12.966	12.700	12.423
0.1	12.139	11.854	11.571	11.295	11.027	10.770	10.524	10.291	10.071	9.863
0.2	9.668	9.485	9.312	9.150	8.997	8.852	8.715	8.584	8.460	8.340
0.3	8.224	8.113	8.004	7.898	7.794	7.592	7.591	7.491	7.392	7.294
0.4	7.196	7.099	7.002	6.905	6.809	6.712	6.616	6.520	6.424	6.328
0.5	6.233	6.138	6.043	5.949	5.855	5.761	5.668	5.576	5.485	5.394
0.6	5.304	5.215	5.127	5.040	4.953	4.868	4.784	4.702	4.620	4.540
0.7	4.460	4.382	4.306	4.230	4.156	4.084	4.012	3.942	3.874	3.806
0.8	3.740	3.676	3.613	3.551	3.490	3.431	3.373	3.316	3.261	3.207
0.9	3.154	3.103	3.052	3.003	2.956	2.909	2.863	2.819	2.776	2.734
1.0	2.693	2.653	2.614	2.576	2.539	2.503	2.468	2.434	2.401	2.369
1.1	2.338	2.307	2.278	2.249	2.221	2.194	2.167	2.141	2.116	2.092
1.2	2.068	2.045	2.023	2.001	1.980	1.960	1.940	1.920	1.901	1.883
1.3	1.865	1.848	1.831	1.814	1.798	1.783	1.767	1.753	1.738	1.724
1.4	1.711	1.698	1.685	1.672	1.660	1.648	1.636	1.625	1.614	1.603
1.5	1.593									

SI+4 CONFIGURATION 2P 6, 2S 2, 1S 2, ,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	10.000	9.998	9.991	9.981	9.966	9.947	9.924	9.896	9.865	9.829
0.1	9.790	9.747	9.700	9.649	9.595	9.537	9.476	9.411	9.343	9.272
0.2	9.199	9.127	9.043	8.961	8.877	8.790	8.701	8.611	8.518	8.423
0.3	8.327	8.230	8.131	8.031	7.929	7.827	7.724	7.620	7.516	7.411
0.4	7.306	7.201	7.095	6.990	6.884	6.779	6.674	6.569	6.465	6.361
0.5	6.259	6.156	6.055	5.954	5.854	5.755	5.658	5.561	5.465	5.371
0.6	5.277	5.185	5.095	5.005	4.917	4.830	4.745	4.661	4.579	4.497
0.7	4.418	4.339	4.263	4.187	4.113	4.041	3.970	3.901	3.832	3.766
0.8	3.701	3.637	3.574	3.513	3.454	3.396	3.339	3.283	3.229	3.176
0.9	3.124	3.074	3.024	2.976	2.930	2.884	2.840	2.796	2.754	2.713
1.0	2.673	2.634	2.596	2.559	2.523	2.488	2.454	2.421	2.388	2.357
1.1	2.326	2.297	2.268	2.240	2.212	2.186	2.160	2.135	2.110	2.086
1.2	2.063	2.041	2.019	1.997	1.977	1.956	1.937	1.918	1.899	1.881
1.3	1.864	1.847	1.830	1.814	1.798	1.783	1.768	1.753	1.739	1.725
1.4	1.712	1.699	1.686	1.674	1.661	1.650	1.638	1.627	1.616	1.605
1.5	1.595									

HARTREE FOCK SCATTERING FACTOR

P CONFIGURATION 3P 3, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	15.000	14.977	14.909	14.798	14.646	14.457	14.236	13.989	13.719	13.433
0.1	13.135	12.831	12.524	12.218	11.917	11.624	11.339	11.066	10.804	10.555
0.2	10.319	10.096	9.886	9.688	9.502	9.327	9.162	9.007	8.861	8.723
0.3	8.592	8.468	8.349	8.236	8.127	8.022	7.920	7.822	7.726	7.632
0.4	7.540	7.449	7.360	7.271	7.183	7.096	7.010	6.924	6.838	6.752
0.5	6.666	6.581	6.496	6.411	6.326	6.241	6.156	6.072	5.988	5.904
0.6	5.820	5.737	5.654	5.571	5.489	5.407	5.326	5.246	5.166	5.087
0.7	5.009	4.931	4.854	4.778	4.703	4.629	4.555	4.483	4.412	4.341
0.8	4.272	4.203	4.136	4.070	4.005	3.941	3.878	3.816	3.755	3.695
0.9	3.637	3.579	3.523	3.467	3.413	3.360	3.308	3.257	3.207	3.158
1.0	3.110	3.064	3.018	2.973	2.929	2.887	2.845	2.804	2.764	2.725
1.1	2.687	2.650	2.614	2.578	2.544	2.510	2.477	2.445	2.414	2.384
1.2	2.354	2.325	2.297	2.269	2.242	2.216	2.191	2.166	2.141	2.118
1.3	2.095	2.072	2.050	2.029	2.008	1.988	1.969	1.949	1.931	1.912
1.4	1.895	1.877	1.860	1.844	1.828	1.812	1.797	1.782	1.768	1.754
1.5	1.740									

S CONFIGURATION 3P 4, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	16.000	15.978	15.914	15.808	15.664	15.483	15.269	15.027	14.760	14.474
0.1	14.172	13.859	13.540	13.217	12.894	12.575	12.261	11.955	11.658	11.372
0.2	11.098	10.837	10.587	10.351	10.127	9.916	9.717	9.529	9.353	9.186
0.3	9.029	8.882	8.742	8.610	8.485	8.367	8.254	8.146	8.042	7.943
0.4	7.847	7.755	7.665	7.578	7.492	7.409	7.326	7.246	7.166	7.087
0.5	7.008	6.931	6.853	6.776	6.700	6.623	6.547	6.471	6.395	6.319
0.6	6.243	6.168	6.092	6.017	5.941	5.866	5.791	5.716	5.641	5.567
0.7	5.493	5.419	5.346	5.273	5.200	5.128	5.057	4.986	4.915	4.845
0.8	4.776	4.708	4.640	4.572	4.506	4.440	4.375	4.311	4.248	4.185
0.9	4.124	4.063	4.003	3.944	3.886	3.828	3.772	3.717	3.662	3.608
1.0	3.556	3.504	3.453	3.403	3.354	3.305	3.258	3.212	3.166	3.121
1.1	3.078	3.035	2.993	2.952	2.911	2.872	2.833	2.795	2.758	2.722
1.2	2.686	2.651	2.618	2.584	2.552	2.520	2.489	2.459	2.429	2.400
1.3	2.372	2.344	2.317	2.290	2.265	2.239	2.215	2.191	2.167	2.144
1.4	2.122	2.100	2.078	2.058	2.037	2.017	1.998	1.979	1.961	1.942
1.5	1.925									

CL CONFIGURATION 3P 5, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	17.000	16.980	16.919	16.819	16.682	16.509	16.304	16.070	15.810	15.528
0.1	15.229	14.915	14.590	14.259	13.924	13.588	13.254	12.924	12.601	12.286
0.2	11.980	11.685	11.401	11.129	10.869	10.621	10.386	10.163	9.952	9.753
0.3	9.564	9.387	9.219	9.061	8.912	8.771	8.637	8.511	8.392	8.278
0.4	8.170	8.067	7.969	7.874	7.783	7.696	7.611	7.529	7.449	7.371
0.5	7.294	7.220	7.146	7.073	7.002	6.931	6.861	6.791	6.721	6.652
0.6	6.584	6.515	6.447	6.378	6.310	6.242	6.174	6.106	6.038	5.970
0.7	5.902	5.834	5.766	5.699	5.631	5.564	5.497	5.430	5.363	5.297
0.8	5.231	5.165	5.099	5.034	4.969	4.905	4.841	4.778	4.715	4.652
0.9	4.591	4.529	4.469	4.409	4.349	4.290	4.232	4.175	4.118	4.062
1.0	4.006	3.951	3.897	3.844	3.792	3.740	3.689	3.638	3.589	3.540
1.1	3.492	3.445	3.398	3.353	3.308	3.264	3.220	3.178	3.136	3.094
1.2	3.054	3.014	2.975	2.937	2.900	2.863	2.827	2.791	2.757	2.722
1.3	2.689	2.656	2.624	2.593	2.562	2.532	2.503	2.474	2.445	2.418
1.4	2.391	2.364	2.338	2.313	2.288	2.263	2.239	2.216	2.193	2.171
1.5	2.149									

HARTREE FOCK SCATTERING FACTOR

CL-1 CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	18.000	17.972	17.888	17.750	17.563	17.329	17.056	16.749	16.413	16.056
0.1	15.682	15.297	14.907	14.514	14.125	13.740	13.364	12.998	12.644	12.304
0.2	11.977	11.666	11.369	11.088	10.821	10.569	10.331	10.108	9.897	9.699
0.3	9.513	9.337	9.173	9.018	8.872	8.735	8.605	8.482	8.366	8.256
0.4	8.151	8.051	7.955	7.863	7.774	7.689	7.606	7.525	7.447	7.370
0.5	7.295	7.221	7.148	7.076	7.005	6.935	6.865	6.795	6.726	6.658
0.6	6.589	6.520	6.452	6.384	6.315	6.247	6.179	6.111	6.043	5.975
0.7	5.907	5.839	5.771	5.703	5.635	5.568	5.500	5.433	5.367	5.300
0.8	5.234	5.168	5.102	5.037	4.972	4.907	4.843	4.780	4.717	4.654
0.9	4.592	4.531	4.470	4.410	4.350	4.291	4.233	4.175	4.118	4.062
1.0	4.007	3.952	3.898	3.845	3.792	3.740	3.689	3.639	3.589	3.540
1.1	3.492	3.445	3.399	3.353	3.308	3.264	3.220	3.178	3.136	3.095
1.2	3.054	3.014	2.975	2.937	2.900	2.863	2.827	2.791	2.757	2.723
1.3	2.689	2.657	2.625	2.593	2.562	2.532	2.503	2.474	2.446	2.418
1.4	2.391	2.364	2.338	2.313	2.288	2.264	2.240	2.216	2.194	2.171
1.5	2.149									

AR CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	18.000	17.981	17.924	17.829	17.699	17.535	17.339	17.114	16.862	16.588
0.1	16.294	15.983	15.660	15.326	14.985	14.640	14.293	13.948	13.606	13.269
0.2	12.938	12.616	12.303	12.000	11.708	11.428	11.159	10.902	10.657	10.424
0.3	10.202	9.992	9.793	9.605	9.426	9.258	9.099	8.948	8.806	8.672
0.4	8.544	8.424	8.309	8.200	8.097	7.998	7.904	7.813	7.727	7.643
0.5	7.563	7.485	7.409	7.336	7.264	7.194	7.126	7.058	6.992	6.927
0.6	6.862	6.798	6.735	6.672	6.609	6.547	6.485	6.423	6.361	6.299
0.7	6.238	6.176	6.115	6.053	5.992	5.930	5.869	5.807	5.746	5.685
0.8	5.623	5.562	5.501	5.440	5.379	5.318	5.258	5.198	5.137	5.078
0.9	5.018	4.959	4.900	4.841	4.783	4.725	4.667	4.610	4.553	4.497
1.0	4.441	4.386	4.331	4.277	4.223	4.169	4.117	4.065	4.013	3.962
1.1	3.912	3.862	3.813	3.764	3.716	3.669	3.623	3.577	3.531	3.486
1.2	3.442	3.399	3.356	3.314	3.273	3.232	3.192	3.152	3.113	3.075
1.3	3.037	3.000	2.964	2.928	2.893	2.859	2.825	2.791	2.759	2.727
1.4	2.695	2.664	2.634	2.604	2.575	2.546	2.518	2.490	2.463	2.437
1.5	2.411									

K CONFIGURATION 4S 1, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	19.000	18.963	18.853	18.681	18.459	18.201	17.919	17.625	17.326	17.026
0.1	16.727	16.429	16.132	15.834	15.536	15.235	14.933	14.629	14.325	14.021
0.2	13.717	13.416	13.118	12.825	12.536	12.254	11.979	11.712	11.453	11.202
0.3	10.960	10.728	10.505	10.291	10.086	9.891	9.705	9.527	9.358	9.197
0.4	9.045	8.899	8.761	8.630	8.505	8.387	8.274	8.167	8.064	7.967
0.5	7.873	7.784	7.698	7.615	7.536	7.459	7.385	7.314	7.244	7.176
0.6	7.110	7.046	6.982	6.920	6.859	6.799	6.740	6.681	6.623	6.565
0.7	6.507	6.450	6.394	6.337	6.281	6.225	6.169	6.112	6.057	6.001
0.8	5.945	5.889	5.833	5.777	5.721	5.665	5.610	5.554	5.498	5.442
0.9	5.387	5.331	5.276	5.221	5.165	5.110	5.055	5.001	4.946	4.892
1.0	4.838	4.784	4.731	4.678	4.625	4.572	4.520	4.468	4.417	4.366
1.1	4.315	4.265	4.215	4.165	4.116	4.068	4.020	3.972	3.925	3.879
1.2	3.833	3.787	3.742	3.697	3.653	3.610	3.567	3.525	3.483	3.442
1.3	3.401	3.361	3.321	3.282	3.244	3.206	3.168	3.131	3.095	3.059
1.4	3.024	2.990	2.955	2.922	2.889	2.856	2.824	2.793	2.762	2.732
1.5	2.702									

HARTREE FOCK SCATTERING FACTOR

K +1 CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	18.000	17.986	17.943	17.871	17.773	17.647	17.497	17.323	17.126	16.909
0.1	16.673	16.421	16.155	15.876	15.587	15.289	14.986	14.678	14.368	14.058
0.2	13.748	13.441	13.138	12.839	12.546	12.261	11.982	11.712	11.451	11.199
0.3	10.956	10.723	10.499	10.284	10.080	9.884	9.698	9.521	9.352	9.191
0.4	9.039	8.894	8.756	8.626	8.501	8.383	8.271	8.164	8.062	7.964
0.5	7.871	7.782	7.696	7.614	7.535	7.459	7.385	7.314	7.244	7.176
0.6	7.111	7.046	6.983	6.921	6.860	6.800	6.740	6.682	6.623	6.566
0.7	6.508	6.451	6.395	6.338	6.282	6.225	6.169	6.113	6.057	6.001
0.8	5.945	5.889	5.834	5.778	5.722	5.666	5.610	5.554	5.498	5.443
0.9	5.387	5.332	5.276	5.221	5.166	5.110	5.056	5.001	4.946	4.892
1.0	4.838	4.784	4.731	4.678	4.625	4.572	4.520	4.468	4.416	4.365
1.1	4.315	4.264	4.214	4.165	4.116	4.068	4.020	3.972	3.925	3.878
1.2	3.832	3.787	3.742	3.697	3.653	3.610	3.567	3.525	3.483	3.441
1.3	3.401	3.361	3.321	3.282	3.243	3.206	3.168	3.131	3.095	3.059
1.4	3.024	2.989	2.955	2.922	2.889	2.856	2.824	2.793	2.762	2.732
1.5	2.702									

CA CONFIGURATION 4S 2, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	20.000	19.959	19.837	19.643	19.388	19.086	18.752	18.390	18.036	17.675
0.1	17.321	16.977	16.645	16.324	16.014	15.713	15.419	15.132	14.849	14.569
0.2	14.293	14.019	13.747	13.478	13.211	12.947	12.687	12.430	12.178	11.930
0.3	11.688	11.452	11.221	10.998	10.781	10.571	10.368	10.173	9.984	9.803
0.4	9.630	9.463	9.303	9.151	9.005	8.865	8.732	8.604	8.483	8.367
0.5	8.256	8.150	8.048	7.951	7.858	7.769	7.684	7.602	7.523	7.447
0.6	7.374	7.303	7.234	7.168	7.103	7.040	6.978	6.918	6.859	6.801
0.7	6.745	6.689	6.633	6.579	6.525	6.472	6.419	6.366	6.314	6.262
0.8	6.210	6.158	6.107	6.055	6.004	5.953	5.902	5.850	5.799	5.748
0.9	5.697	5.646	5.595	5.544	5.493	5.442	5.391	5.340	5.289	5.238
1.0	5.187	5.137	5.086	5.035	4.985	4.935	4.885	4.835	4.785	4.736
1.1	4.687	4.637	4.589	4.540	4.492	4.444	4.396	4.349	4.302	4.255
1.2	4.209	4.163	4.117	4.072	4.027	3.982	3.938	3.894	3.851	3.808
1.3	3.766	3.724	3.682	3.641	3.600	3.560	3.521	3.481	3.443	3.404
1.4	3.366	3.329	3.292	3.256	3.220	3.184	3.149	3.115	3.081	3.047
1.5	3.014									

CA+2 CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	18.000	17.989	17.955	17.898	17.820	17.720	17.600	17.460	17.301	17.124
0.1	16.931	16.723	16.501	16.266	16.021	15.766	15.503	15.234	14.959	14.681
0.2	14.400	14.118	13.836	13.555	13.277	13.001	12.729	12.467	12.200	11.944
0.3	11.694	11.451	11.216	10.988	10.767	10.555	10.350	10.153	9.964	9.782
0.4	9.608	9.442	9.283	9.131	8.986	8.847	8.715	8.589	8.468	8.353
0.5	8.244	8.139	8.039	7.943	7.851	7.763	7.679	7.598	7.520	7.444
0.6	7.372	7.302	7.233	7.167	7.103	7.041	6.979	6.920	6.861	6.803
0.7	6.747	6.691	6.636	6.582	6.528	6.474	6.421	6.369	6.316	6.264
0.8	6.213	6.161	6.109	6.058	6.006	5.955	5.904	5.852	5.801	5.750
0.9	5.699	5.647	5.596	5.545	5.494	5.443	5.392	5.340	5.289	5.238
1.0	5.188	5.137	5.086	5.035	4.985	4.935	4.885	4.835	4.785	4.735
1.1	4.686	4.637	4.588	4.539	4.491	4.443	4.395	4.348	4.301	4.254
1.2	4.207	4.161	4.116	4.070	4.025	3.981	3.937	3.893	3.850	3.807
1.3	3.765	3.723	3.681	3.640	3.599	3.559	3.519	3.480	3.441	3.403
1.4	3.365	3.328	3.291	3.255	3.219	3.183	3.148	3.114	3.080	3.046
1.5	3.013									

HARTREE FOCK SCATTERING FACTOR

SC CONFIGURATION 4S 2, 3D 1, 3P 6, 3S 2,											
SIN(THETA)/											
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09	
0.	21.000	20.961	20.846	20.662	20.418	20.126	19.798	19.446	19.081	18.712	
0.1	18.344	17.983	17.630	17.288	16.955	16.632	16.318	16.010	15.709	15.413	
0.2	15.121	14.834	14.549	14.268	13.991	13.716	13.446	13.179	12.916	12.658	
0.3	12.404	12.156	11.914	11.677	11.447	11.223	11.005	10.794	10.590	10.393	
0.4	10.203	10.020	9.843	9.674	9.511	9.354	9.204	9.060	8.923	8.791	
0.5	8.665	8.544	8.428	8.317	8.211	8.110	8.012	7.919	7.830	7.744	
0.6	7.661	7.582	7.505	7.432	7.360	7.292	7.225	7.160	7.097	7.036	
0.7	6.977	6.919	6.862	6.806	6.751	6.698	6.645	6.593	6.541	6.490	
0.8	6.440	6.390	6.341	6.291	6.243	6.194	6.146	6.097	6.049	6.001	
0.9	5.954	5.906	5.858	5.811	5.763	5.715	5.668	5.620	5.573	5.525	
1.0	5.478	5.430	5.383	5.335	5.288	5.241	5.194	5.146	5.099	5.052	
1.1	5.005	4.958	4.912	4.865	4.818	4.772	4.726	4.680	4.634	4.588	
1.2	4.543	4.498	4.453	4.408	4.364	4.320	4.276	4.232	4.189	4.146	
1.3	4.103	4.060	4.018	3.977	3.935	3.894	3.853	3.813	3.773	3.734	
1.4	3.694	3.656	3.617	3.579	3.542	3.504	3.467	3.431	3.395	3.359	
1.5	3.324										

SC+3 CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,											
SIN(THETA)/											
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09	
0.	18.000	17.991	17.963	17.917	17.853	17.771	17.672	17.556	17.424	17.278	
0.1	17.116	16.941	16.754	16.555	16.345	16.126	15.898	15.662	15.421	15.173	
0.2	14.922	14.667	14.410	14.152	13.893	13.634	13.377	13.122	12.869	12.619	
0.3	12.374	12.132	11.896	11.664	11.438	11.218	11.004	10.796	10.595	10.400	
0.4	10.212	10.030	9.855	9.686	9.524	9.368	9.218	9.075	8.937	8.805	
0.5	8.678	8.557	8.441	8.330	8.223	8.121	8.023	7.929	7.839	7.753	
0.6	7.670	7.590	7.513	7.439	7.367	7.298	7.231	7.166	7.103	7.041	
0.7	6.982	6.923	6.866	6.811	6.756	6.702	6.649	6.597	6.546	6.495	
0.8	6.445	6.395	6.346	6.297	6.249	6.200	6.152	6.104	6.056	6.009	
0.9	5.961	5.914	5.866	5.819	5.772	5.724	5.677	5.630	5.582	5.535	
1.0	5.488	5.441	5.393	5.346	5.299	5.252	5.205	5.158	5.111	5.064	
1.1	5.017	4.970	4.924	4.877	4.831	4.784	4.738	4.692	4.647	4.601	
1.2	4.556	4.511	4.466	4.421	4.376	4.332	4.288	4.245	4.201	4.158	
1.3	4.115	4.073	4.031	3.989	3.948	3.906	3.866	3.825	3.785	3.745	
1.4	3.706	3.667	3.629	3.591	3.553	3.515	3.479	3.442	3.406	3.370	
1.5	3.335										

TI CONFIGURATION 4S 2, 3D 2, 3P 6, 3S 2,											
SIN(THETA)/											
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09	
0.	22.000	21.963	21.855	21.680	21.446	21.165	20.847	20.502	20.140	19.769	
0.1	19.397	19.027	18.664	18.308	17.960	17.621	17.290	16.966	16.648	16.336	
0.2	16.029	15.727	15.428	15.134	14.843	14.555	14.272	13.992	13.716	13.445	
0.3	13.178	12.917	12.660	12.410	12.165	11.926	11.693	11.466	11.246	11.033	
0.4	10.826	10.627	10.433	10.247	10.067	9.894	9.727	9.566	9.412	9.264	
0.5	9.121	8.985	8.854	8.728	8.608	8.492	8.382	8.275	8.173	8.076	
0.6	7.982	7.892	7.805	7.722	7.642	7.565	7.491	7.419	7.350	7.282	
0.7	7.218	7.155	7.093	7.034	6.976	6.919	6.864	6.810	6.757	6.705	
0.8	6.654	6.604	6.554	6.505	6.457	6.410	6.362	6.315	6.269	6.223	
0.9	6.177	6.131	6.086	6.041	5.996	5.951	5.906	5.861	5.816	5.772	
1.0	5.727	5.683	5.638	5.594	5.549	5.505	5.460	5.416	5.372	5.327	
1.1	5.283	5.239	5.194	5.150	5.106	5.062	5.018	4.974	4.930	4.886	
1.2	4.843	4.799	4.756	4.713	4.670	4.627	4.584	4.541	4.499	4.457	
1.3	4.415	4.373	4.331	4.290	4.249	4.208	4.167	4.127	4.087	4.047	
1.4	4.007	3.968	3.929	3.890	3.852	3.814	3.776	3.739	3.702	3.665	
1.5	3.629										

HARTREE FOCK SCATTERING FACTOR

TI+3 CONFIGURATION 3D 1, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	19.000	18.990	18.962	18.914	18.848	18.764	18.662	18.543	18.407	18.255
0.1	18.089	17.909	17.716	17.510	17.294	17.067	16.832	16.589	16.339	16.083
0.2	15.822	15.558	15.291	15.022	14.752	14.482	14.213	13.945	13.680	13.417
0.3	13.157	12.902	12.650	12.404	12.162	11.926	11.696	11.472	11.254	11.042
0.4	10.837	10.638	10.446	10.260	10.080	9.907	9.740	9.580	9.426	9.277
0.5	9.135	8.998	8.866	8.740	8.619	8.503	8.392	8.285	8.183	8.085
0.6	7.990	7.900	7.813	7.729	7.649	7.571	7.496	7.424	7.355	7.287
0.7	7.222	7.159	7.098	7.038	6.980	6.923	6.868	6.814	6.761	6.709
0.8	6.658	6.608	6.558	6.509	6.461	6.414	6.367	6.320	6.274	6.228
0.9	6.182	6.136	6.091	6.046	6.001	5.957	5.912	5.867	5.823	5.778
1.0	5.734	5.690	5.645	5.601	5.557	5.512	5.468	5.424	5.380	5.336
1.1	5.291	5.247	5.203	5.159	5.115	5.071	5.027	4.983	4.940	4.896
1.2	4.852	4.809	4.766	4.722	4.679	4.637	4.594	4.551	4.509	4.467
1.3	4.425	4.383	4.341	4.300	4.259	4.218	4.177	4.137	4.096	4.057
1.4	4.017	3.978	3.939	3.900	3.862	3.823	3.786	3.748	3.711	3.674
1.5	3.638									

TI+4 CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	18.000	17.992	17.969	17.930	17.877	17.808	17.725	17.628	17.516	17.392
0.1	17.255	17.106	16.946	16.775	16.593	16.403	16.205	15.998	15.785	15.566
0.2	15.342	15.113	14.881	14.645	14.408	14.170	13.930	13.691	13.452	13.215
0.3	12.979	12.745	12.515	12.287	12.064	11.844	11.628	11.417	11.211	11.010
0.4	10.815	10.624	10.439	10.260	10.086	9.917	9.754	9.597	9.445	9.299
0.5	9.158	9.022	8.892	8.766	8.645	8.529	8.417	8.310	8.207	8.108
0.6	8.012	7.921	7.833	7.748	7.666	7.588	7.512	7.439	7.368	7.300
0.7	7.234	7.170	7.108	7.047	6.989	6.931	6.876	6.821	6.768	6.716
0.8	6.664	6.614	6.564	6.516	6.467	6.420	6.373	6.326	6.280	6.234
0.9	6.189	6.144	6.099	6.054	6.010	5.965	5.921	5.877	5.833	5.789
1.0	5.745	5.701	5.657	5.613	5.569	5.525	5.481	5.437	5.394	5.350
1.1	5.306	5.262	5.218	5.175	5.131	5.087	5.044	5.000	4.956	4.913
1.2	4.870	4.826	4.783	4.740	4.697	4.655	4.612	4.569	4.527	4.485
1.3	4.443	4.401	4.360	4.318	4.277	4.236	4.196	4.155	4.115	4.075
1.4	4.035	3.996	3.957	3.918	3.880	3.841	3.804	3.766	3.729	3.692
1.5	3.655									

V CONFIGURATION 4S 2, 3D 3, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	23.000	22.965	22.862	22.696	22.473	22.202	21.893	21.557	21.201	20.833
0.1	20.461	20.088	19.718	19.354	18.996	18.645	18.301	17.964	17.633	17.308
0.2	16.988	16.672	16.360	16.052	15.748	15.448	15.151	14.858	14.569	14.285
0.3	14.005	13.730	13.459	13.194	12.935	12.681	12.433	12.191	11.955	11.725
0.4	11.503	11.286	11.076	10.873	10.676	10.486	10.302	10.125	9.954	9.789
0.5	9.630	9.477	9.330	9.189	9.053	8.923	8.798	8.677	8.562	8.451
0.6	8.344	8.242	8.143	8.049	7.958	7.870	7.786	7.705	7.627	7.552
0.7	7.480	7.410	7.342	7.276	7.213	7.151	7.091	7.033	6.976	6.921
0.8	6.867	6.814	6.763	6.712	6.663	6.614	6.566	6.519	6.472	6.426
0.9	6.381	6.336	6.291	6.247	6.203	6.160	6.116	6.073	6.030	5.988
1.0	5.945	5.903	5.861	5.818	5.776	5.734	5.692	5.650	5.609	5.567
1.1	5.525	5.483	5.441	5.400	5.358	5.316	5.275	5.233	5.191	5.150
1.2	5.108	5.067	5.026	4.984	4.943	4.902	4.861	4.820	4.779	4.738
1.3	4.698	4.657	4.617	4.576	4.536	4.496	4.457	4.417	4.377	4.338
1.4	4.299	4.260	4.222	4.183	4.145	4.107	4.069	4.032	3.994	3.957
1.5	3.921									

HARTREE FOCK SCATTERING FACTOR

V +2 CONFIGURATION 3D 3, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	21.000	20.988	20.951	20.891	20.807	20.700	20.571	20.421	20.251	20.062
0.1	19.856	19.633	19.396	19.145	18.882	18.608	18.325	18.035	17.738	17.436
0.2	17.131	16.822	16.512	16.202	15.891	15.583	15.276	14.972	14.671	14.375
0.3	14.083	13.797	13.516	13.240	12.972	12.709	12.454	12.205	11.963	11.728
0.4	11.501	11.280	11.067	10.861	10.662	10.470	10.285	10.107	9.935	9.770
0.5	9.611	9.458	9.312	9.171	9.035	8.906	8.781	8.662	8.547	8.437
0.6	8.331	8.230	8.132	8.039	7.949	7.862	7.779	7.699	7.622	7.547
0.7	7.475	7.406	7.339	7.274	7.211	7.150	7.090	7.033	6.976	6.921
0.8	6.868	6.815	6.764	6.714	6.664	6.615	6.568	6.520	6.474	6.428
0.9	6.382	6.337	6.293	6.249	6.205	6.161	6.118	6.075	6.032	5.989
1.0	5.946	5.904	5.861	5.819	5.777	5.734	5.692	5.650	5.608	5.566
1.1	5.524	5.482	5.440	5.399	5.357	5.315	5.273	5.231	5.190	5.148
1.2	5.106	5.065	5.023	4.982	4.941	4.899	4.858	4.817	4.776	4.735
1.3	4.695	4.654	4.613	4.573	4.533	4.493	4.453	4.413	4.374	4.335
1.4	4.296	4.257	4.218	4.180	4.141	4.103	4.066	4.028	3.991	3.954
1.5	3.917									

V +3 CONFIGURATION 3D 2, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	20.000	19.990	19.961	19.913	19.846	19.760	19.657	19.536	19.398	19.244
0.1	19.075	18.892	18.695	18.485	18.265	18.033	17.793	17.544	17.287	17.025
0.2	16.757	16.485	16.210	15.932	15.653	15.373	15.093	14.814	14.537	14.261
0.3	13.989	13.720	13.455	13.194	12.938	12.687	12.441	12.201	11.967	11.739
0.4	11.517	11.301	11.092	10.889	10.692	10.502	10.318	10.141	9.969	9.804
0.5	9.645	9.492	9.345	9.203	9.067	8.936	8.810	8.689	8.572	8.461
0.6	8.354	8.251	8.152	8.057	7.966	7.878	7.793	7.712	7.633	7.558
0.7	7.485	7.415	7.347	7.281	7.217	7.155	7.095	7.037	6.980	6.924
0.8	6.870	6.818	6.766	6.715	6.666	6.617	6.569	6.522	6.475	6.430
0.9	6.384	6.339	6.295	6.251	6.207	6.164	6.120	6.077	6.035	5.992
1.0	5.950	5.908	5.865	5.823	5.782	5.740	5.698	5.656	5.614	5.573
1.1	5.531	5.489	5.448	5.406	5.364	5.323	5.281	5.240	5.198	5.157
1.2	5.116	5.074	5.033	4.992	4.951	4.910	4.869	4.828	4.787	4.746
1.3	4.705	4.665	4.625	4.584	4.544	4.504	4.465	4.425	4.385	4.346
1.4	4.307	4.268	4.230	4.191	4.153	4.115	4.077	4.040	4.002	3.965
1.5	3.929									

V +5 CONFIGURATION 3P 6, 3S 2, 2P 6, 2S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	18.000	17.993	17.974	17.941	17.895	17.837	17.766	17.682	17.587	17.480
0.1	17.362	17.234	17.095	16.946	16.789	16.522	16.448	16.266	16.078	15.883
0.2	15.683	15.478	15.268	15.055	14.839	14.620	14.399	14.177	13.955	13.732
0.3	13.509	13.288	13.067	12.848	12.631	12.417	12.205	11.997	11.792	11.590
0.4	11.392	11.199	11.010	10.825	10.644	10.469	10.298	10.132	9.970	9.814
0.5	9.662	9.515	9.372	9.235	9.102	8.973	8.849	8.730	8.614	8.503
0.6	8.396	8.293	8.193	8.097	8.005	7.915	7.829	7.747	7.667	7.590
0.7	7.515	7.443	7.374	7.306	7.241	7.178	7.117	7.057	6.999	6.943
0.8	6.888	6.835	6.782	6.731	6.681	6.632	6.584	6.536	6.490	6.444
0.9	6.399	6.354	6.310	6.266	6.222	6.179	6.137	6.094	6.052	6.010
1.0	5.960	5.927	5.885	5.844	5.803	5.761	5.720	5.679	5.638	5.597
1.1	5.556	5.515	5.474	5.433	5.392	5.352	5.311	5.270	5.229	5.188
1.2	5.147	5.106	5.066	5.025	4.984	4.943	4.903	4.862	4.822	4.781
1.3	4.741	4.701	4.661	4.621	4.581	4.541	4.501	4.462	4.423	4.383
1.4	4.344	4.306	4.267	4.228	4.190	4.152	4.114	4.077	4.039	4.002
1.5	3.965									

HARTREE FOCK SCATTERING FACTOR

CR CONFIGURATION 4S 1, 3D 5, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	24.000	23.971	23.884	23.744	23.555	23.324	23.058	22.765	22.451	22.121
0.1	21.780	21.432	21.080	20.725	20.369	20.013	19.657	19.303	18.950	18.599
0.2	18.250	17.903	17.559	17.218	16.880	16.546	16.216	15.891	15.570	15.255
0.3	14.945	14.641	14.343	14.051	13.766	13.487	13.216	12.951	12.693	12.442
0.4	12.198	11.962	11.732	11.510	11.295	11.086	10.885	10.691	10.503	10.322
0.5	10.148	9.979	9.817	9.661	9.511	9.367	9.228	9.094	8.966	8.843
0.6	8.724	8.610	8.500	8.395	8.294	8.196	8.102	8.012	7.925	7.842
0.7	7.761	7.683	7.608	7.536	7.466	7.398	7.333	7.269	7.208	7.148
0.8	7.090	7.033	6.978	6.924	6.872	6.821	6.770	6.721	6.673	6.625
0.9	6.579	6.533	6.488	6.443	6.399	6.355	6.312	6.269	6.227	6.185
1.0	6.143	6.102	6.061	6.020	5.979	5.938	5.898	5.857	5.817	5.777
1.1	5.737	5.697	5.657	5.617	5.577	5.538	5.498	5.458	5.419	5.379
1.2	5.339	5.300	5.260	5.221	5.182	5.142	5.103	5.064	5.024	4.985
1.3	4.946	4.907	4.868	4.829	4.791	4.752	4.713	4.675	4.637	4.598
1.4	4.560	4.522	4.485	4.447	4.409	4.372	4.335	4.298	4.261	4.224
1.5	4.188									

CR+2 CONFIGURATION 3D 4, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	22.000	21.988	21.952	21.892	21.808	21.702	21.574	21.425	21.256	21.067
0.1	20.861	20.638	20.400	20.148	19.884	19.609	19.324	19.030	18.729	18.423
0.2	18.112	17.798	17.481	17.163	16.845	16.527	16.210	15.896	15.584	15.276
0.3	14.972	14.673	14.378	14.089	13.805	13.528	13.257	12.992	12.734	12.483
0.4	12.238	12.001	11.770	11.547	11.330	11.121	10.918	10.722	10.533	10.350
0.5	10.174	10.005	9.841	9.684	9.532	9.386	9.246	9.111	8.982	8.857
0.6	8.737	8.622	8.511	8.405	8.303	8.205	8.110	8.019	7.931	7.847
0.7	7.766	7.688	7.612	7.539	7.469	7.401	7.335	7.271	7.209	7.149
0.8	7.091	7.034	6.978	6.925	6.872	6.820	6.770	6.721	6.673	6.625
0.9	6.578	6.532	6.487	6.443	6.399	6.355	6.312	6.269	6.227	6.185
1.0	6.143	6.102	6.061	6.020	5.979	5.939	5.898	5.858	5.818	5.778
1.1	5.738	5.698	5.658	5.619	5.579	5.539	5.500	5.460	5.420	5.381
1.2	5.341	5.302	5.263	5.223	5.184	5.145	5.105	5.066	5.027	4.988
1.3	4.949	4.910	4.871	4.832	4.794	4.755	4.716	4.678	4.640	4.602
1.4	4.564	4.526	4.488	4.450	4.413	4.375	4.338	4.301	4.264	4.228
1.5	4.191									

CR+3 CONFIGURATION 3D 3, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	21.000	20.990	20.961	20.913	20.845	20.759	20.655	20.534	20.395	20.240
0.1	20.069	19.884	19.685	19.474	19.250	19.016	18.772	18.519	18.258	17.991
0.2	17.718	17.439	17.157	16.872	16.585	16.297	16.008	15.719	15.431	15.145
0.3	14.862	14.581	14.303	14.029	13.759	13.494	13.234	12.979	12.730	12.486
0.4	12.248	12.016	11.790	11.571	11.357	11.150	10.950	10.755	10.567	10.385
0.5	10.210	10.040	9.876	9.718	9.566	9.419	9.278	9.142	9.011	8.885
0.6	8.764	8.647	8.535	8.428	8.324	8.224	8.128	8.036	7.947	7.862
0.7	7.779	7.700	7.623	7.549	7.478	7.409	7.342	7.277	7.215	7.154
0.8	7.095	7.038	6.982	6.928	6.875	6.823	6.772	6.723	6.674	6.627
0.9	6.580	6.534	6.489	6.444	6.400	6.356	6.313	6.271	6.229	6.187
1.0	6.145	6.104	6.063	6.023	5.982	5.942	5.902	5.862	5.822	5.782
1.1	5.742	5.703	5.663	5.623	5.584	5.545	5.505	5.466	5.427	5.387
1.2	5.348	5.309	5.270	5.231	5.191	5.152	5.113	5.074	5.035	4.996
1.3	4.958	4.919	4.880	4.841	4.803	4.764	4.726	4.688	4.649	4.611
1.4	4.573	4.536	4.498	4.460	4.423	4.385	4.348	4.311	4.275	4.238
1.5	4.202									

HARTREE FOCK SCATTERING FACTOR

MN CONFIGURATION 4S 2, 3D 5, 3P 6, 3S 2,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	25.000	24.968	24.875	24.723	24.518	24.267	23.979	23.660	23.318	22.962
0.1	22.595	22.224	21.851	21.480	21.112	20.748	20.388	20.034	19.684	19.339
0.2	18.998	18.661	18.327	17.997	17.671	17.348	17.028	16.712	16.399	16.091
0.3	15.786	15.485	15.189	14.897	14.610	14.328	14.052	13.780	13.515	13.255
0.4	13.001	12.753	12.512	12.276	12.047	11.824	11.607	11.397	11.193	10.995
0.5	10.804	10.618	10.439	10.265	10.098	9.936	9.780	9.629	9.483	9.343
0.6	9.208	9.078	8.953	8.832	8.715	8.603	8.495	8.392	8.292	8.195
0.7	8.102	8.013	7.927	7.843	7.763	7.686	7.611	7.539	7.469	7.402
0.8	7.336	7.273	7.211	7.152	7.094	7.037	6.983	6.929	6.877	6.826
0.9	6.777	6.728	6.680	6.634	6.588	6.543	6.499	6.455	6.412	6.370
1.0	6.328	6.286	6.245	6.205	6.165	6.125	6.085	6.046	6.007	5.968
1.1	5.930	5.891	5.853	5.815	5.777	5.739	5.701	5.664	5.626	5.588
1.2	5.551	5.513	5.476	5.439	5.401	5.364	5.327	5.290	5.252	5.215
1.3	5.178	5.141	5.104	5.067	5.030	4.993	4.957	4.920	4.883	4.846
1.4	4.810	4.773	4.737	4.701	4.664	4.628	4.592	4.556	4.520	4.485
1.5	4.449									

MN+2 CONFIGURATION 3D 5, 3P 6, 3S 2, 2P 6,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	23.000	22.988	22.952	22.893	22.811	22.706	22.579	22.431	22.264	22.077
0.1	21.872	21.650	21.413	21.161	20.897	20.621	20.335	20.040	19.737	19.428
0.2	19.113	18.795	18.473	18.149	17.824	17.499	17.174	16.851	16.530	16.211
0.3	15.896	15.585	15.278	14.976	14.679	14.388	14.102	13.823	13.550	13.283
0.4	13.022	12.769	12.522	12.282	12.048	11.822	11.602	11.389	11.183	10.983
0.5	10.790	10.604	10.423	10.249	10.081	9.919	9.763	9.612	9.467	9.327
0.6	9.192	9.063	8.938	8.818	8.702	8.591	8.484	8.381	8.281	8.186
0.7	8.094	8.005	7.919	7.837	7.757	7.681	7.606	7.535	7.466	7.399
0.8	7.334	7.271	7.210	7.151	7.093	7.037	6.982	6.929	6.878	6.827
0.9	6.777	6.729	6.681	6.635	6.589	6.544	6.500	6.456	6.413	6.371
1.0	6.329	6.288	6.247	6.206	6.166	6.126	6.086	6.047	6.008	5.969
1.1	5.930	5.892	5.853	5.815	5.777	5.739	5.701	5.663	5.625	5.588
1.2	5.550	5.513	5.475	5.437	5.400	5.363	5.325	5.288	5.251	5.213
1.3	5.176	5.139	5.102	5.065	5.028	4.991	4.954	4.917	4.880	4.843
1.4	4.807	4.770	4.734	4.697	4.661	4.625	4.589	4.553	4.517	4.481
1.5	4.445									

MN+3 CONFIGURATION 3D 4, 3P 6, 3S 2, 2P 6,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	22.000	21.990	21.961	21.913	21.846	21.760	21.656	21.534	21.395	21.240
0.1	21.070	20.884	20.684	20.472	20.247	20.011	19.765	19.509	19.246	18.975
0.2	18.697	18.414	18.127	17.836	17.543	17.247	16.951	16.654	16.357	16.062
0.3	15.768	15.476	15.187	14.901	14.619	14.341	14.068	13.799	13.536	13.277
0.4	13.024	12.777	12.536	12.301	12.072	11.848	11.632	11.421	11.216	11.018
0.5	10.826	10.640	10.460	10.285	10.117	9.954	9.797	9.646	9.500	9.359
0.6	9.223	9.092	8.966	8.844	8.727	8.615	8.506	8.402	8.301	8.204
0.7	8.111	8.021	7.934	7.851	7.770	7.692	7.617	7.544	7.474	7.406
0.8	7.341	7.277	7.215	7.156	7.097	7.041	6.986	6.932	6.880	6.829
0.9	6.779	6.731	6.683	6.636	6.590	6.545	6.501	6.457	6.415	6.372
1.0	6.330	6.289	6.248	6.208	6.167	6.128	6.088	6.049	6.010	5.971
1.1	5.933	5.894	5.856	5.818	5.780	5.742	5.705	5.667	5.630	5.592
1.2	5.555	5.517	5.480	5.443	5.405	5.368	5.331	5.294	5.257	5.220
1.3	5.183	5.146	5.109	5.072	5.035	4.998	4.961	4.925	4.888	4.851
1.4	4.815	4.778	4.742	4.706	4.669	4.633	4.597	4.561	4.525	4.490
1.5	4.454									

HARTREE FOCK SCATTERING FACTOR

MN+4 CONFIGURATION 3D 3, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	21.000	20.992	20.968	20.927	20.871	20.799	20.712	20.610	20.493	20.363
0.1	20.218	20.061	19.891	19.710	19.517	19.315	19.102	18.881	18.652	18.415
0.2	18.172	17.923	17.669	17.410	17.149	16.884	16.617	16.348	16.079	15.810
0.3	15.540	15.272	15.005	14.740	14.477	14.217	13.961	13.708	13.458	13.213
0.4	12.972	12.736	12.504	12.278	12.057	11.841	11.630	11.425	11.225	11.031
0.5	10.843	10.660	10.482	10.310	10.143	9.982	9.826	9.675	9.529	9.388
0.6	9.252	9.121	8.994	8.872	8.754	8.641	8.531	8.426	8.324	8.226
0.7	8.132	8.041	7.953	7.868	7.787	7.708	7.632	7.558	7.487	7.418
0.8	7.352	7.287	7.225	7.164	7.105	7.048	6.993	6.939	6.886	6.835
0.9	6.785	6.736	6.688	6.641	6.595	6.549	6.505	6.461	6.418	6.376
1.0	6.334	6.293	6.252	6.211	6.171	6.132	6.092	6.053	6.015	5.976
1.1	5.938	5.900	5.862	5.824	5.786	5.749	5.711	5.674	5.636	5.599
1.2	5.562	5.525	5.488	5.451	5.414	5.377	5.340	5.303	5.266	5.229
1.3	5.193	5.156	5.119	5.082	5.046	5.009	4.972	4.936	4.899	4.863
1.4	4.826	4.790	4.754	4.718	4.682	4.646	4.610	4.574	4.538	4.502
1.5	4.467									

FE CONFIGURATION 4S 2, 3D 6, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	26.000	25.970	25.880	25.735	25.538	25.296	25.017	24.707	24.374	24.023
0.1	23.662	23.293	22.922	22.550	22.180	21.819	21.449	21.089	20.733	20.381
0.2	20.033	19.688	19.346	19.007	18.672	18.340	18.011	17.685	17.362	17.043
0.3	16.727	16.415	16.107	15.803	15.504	15.210	14.920	14.636	14.357	14.083
0.4	13.815	13.553	13.297	13.046	12.802	12.563	12.331	12.105	11.885	11.672
0.5	11.464	11.263	11.067	10.878	10.695	10.517	10.345	10.179	10.018	9.863
0.6	9.713	9.568	9.428	9.293	9.163	9.037	8.916	8.799	8.686	8.578
0.7	8.473	8.372	8.275	8.181	8.090	8.003	7.918	7.837	7.758	7.682
0.8	7.608	7.537	7.469	7.402	7.338	7.275	7.214	7.156	7.098	7.043
0.9	6.988	6.936	6.884	6.834	6.785	6.737	6.690	6.644	6.599	6.555
1.0	6.511	6.468	6.426	6.385	6.344	6.303	6.264	6.224	6.185	6.146
1.1	6.108	6.070	6.032	5.995	5.958	5.921	5.884	5.847	5.811	5.774
1.2	5.738	5.702	5.666	5.630	5.594	5.559	5.523	5.487	5.452	5.416
1.3	5.381	5.345	5.310	5.275	5.239	5.204	5.169	5.134	5.099	5.064
1.4	5.029	4.994	4.959	4.924	4.889	4.854	4.819	4.785	4.750	4.716
1.5	4.681									

FE+2 CONFIGURATION 3D 6, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	24.000	23.988	23.953	23.895	23.814	23.710	23.586	23.440	23.274	23.089
0.1	22.886	22.666	22.431	22.181	21.918	21.642	21.356	21.061	20.757	20.446
0.2	20.129	19.807	19.482	19.153	18.823	18.492	18.160	17.830	17.501	17.173
0.3	16.849	16.527	16.210	15.896	15.587	15.284	14.985	14.692	14.405	14.123
0.4	13.848	13.579	13.317	13.061	12.812	12.569	12.333	12.104	11.881	11.665
0.5	11.455	11.252	11.055	10.865	10.680	10.502	10.330	10.163	10.002	9.847
0.6	9.697	9.552	9.413	9.278	9.148	9.023	8.903	8.787	8.675	8.567
0.7	8.462	8.362	8.265	8.172	8.082	7.995	7.912	7.831	7.753	7.677
0.8	7.604	7.534	7.466	7.399	7.335	7.273	7.213	7.154	7.098	7.042
0.9	6.988	6.936	6.885	6.835	6.786	6.738	6.691	6.645	6.600	6.556
1.0	6.513	6.470	6.428	6.386	6.345	6.305	6.265	6.225	6.186	6.148
1.1	6.109	6.071	6.033	5.996	5.958	5.921	5.884	5.847	5.811	5.774
1.2	5.738	5.702	5.666	5.630	5.594	5.558	5.522	5.486	5.451	5.415
1.3	5.379	5.344	5.308	5.273	5.238	5.202	5.167	5.132	5.096	5.061
1.4	5.026	4.991	4.956	4.921	4.886	4.851	4.816	4.782	4.747	4.712
1.5	4.678									

HARTREE FOCK SCATTERING FACTOR

FE+3 CONFIGURATION 3D 5, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	23.000	22.990	22.961	22.914	22.847	22.761	22.658	22.537	22.399	22.244
0.1	22.074	21.889	21.689	21.476	21.251	21.015	20.767	20.510	20.245	19.971
0.2	19.691	19.405	19.114	18.819	18.520	18.219	17.916	17.612	17.308	17.005
0.3	16.702	16.401	16.102	15.806	15.513	15.223	14.938	14.657	14.380	14.108
0.4	13.842	13.580	13.324	13.074	12.830	12.592	12.359	12.133	11.913	11.698
0.5	11.490	11.288	11.092	10.902	10.718	10.539	10.367	10.199	10.038	9.882
0.6	9.731	9.585	9.444	9.309	9.178	9.051	8.929	8.812	8.699	8.589
0.7	8.484	8.382	8.284	8.190	8.099	8.011	7.926	7.844	7.765	7.688
0.8	7.614	7.543	7.474	7.407	7.342	7.280	7.219	7.159	7.102	7.046
0.9	6.992	6.939	6.887	6.837	6.788	6.740	6.693	6.647	6.601	6.557
1.0	6.514	6.471	6.429	6.387	6.346	6.306	6.266	6.226	6.187	6.149
1.1	6.110	6.072	6.035	5.997	5.960	5.923	5.886	5.850	5.813	5.777
1.2	5.741	5.705	5.669	5.633	5.597	5.562	5.526	5.490	5.455	5.420
1.3	5.384	5.349	5.313	5.278	5.243	5.208	5.173	5.137	5.102	5.067
1.4	5.032	4.997	4.962	4.928	4.893	4.858	4.823	4.789	4.754	4.720
1.5	4.685									

CU CONFIGURATION 4S 2, 3D 7, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	27.000	26.971	26.885	26.745	26.556	26.323	26.052	25.751	25.426	25.082
0.1	24.726	24.362	23.993	23.623	23.252	22.883	22.517	22.153	21.792	21.435
0.2	21.081	20.729	20.381	20.035	19.692	19.352	19.014	18.680	18.348	18.019
0.3	17.694	17.372	17.054	16.740	16.429	16.124	15.822	15.526	15.234	14.947
0.4	14.666	14.390	14.120	13.856	13.597	13.344	13.097	12.856	12.621	12.392
0.5	12.170	11.953	11.742	11.537	11.338	11.145	10.958	10.776	10.600	10.430
0.6	10.265	10.105	9.950	9.801	9.656	9.517	9.382	9.251	9.126	9.004
0.7	8.887	8.773	8.664	8.558	8.456	8.358	8.262	8.171	8.082	7.996
0.8	7.914	7.834	7.756	7.681	7.609	7.539	7.471	7.405	7.342	7.280
0.9	7.220	7.161	7.105	7.050	6.996	6.944	6.893	6.843	6.795	6.747
1.0	6.701	6.655	6.611	6.567	6.524	6.482	6.440	6.400	6.359	6.320
1.1	6.281	6.242	6.204	6.166	6.129	6.092	6.055	6.019	5.983	5.947
1.2	5.911	5.876	5.840	5.805	5.771	5.736	5.701	5.667	5.632	5.598
1.3	5.564	5.530	5.496	5.462	5.428	5.394	5.360	5.327	5.293	5.259
1.4	5.226	5.192	5.159	5.125	5.092	5.058	5.025	4.992	4.958	4.925
1.5	4.892									

CU+2 CONFIGURATION 3D 7, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	25.000	24.988	24.954	24.897	24.817	24.716	24.593	24.449	24.285	24.103
0.1	23.903	23.685	23.452	23.204	22.943	22.669	22.384	22.089	21.785	21.473
0.2	21.155	20.832	20.503	20.172	19.838	19.502	19.165	18.828	18.492	18.158
0.3	17.825	17.495	17.168	16.844	16.525	16.210	15.899	15.594	15.294	14.999
0.4	14.711	14.428	14.151	13.881	13.617	13.359	13.108	12.863	12.624	12.392
0.5	12.166	11.947	11.734	11.528	11.327	11.133	10.945	10.762	10.586	10.415
0.6	10.250	10.090	9.935	9.786	9.642	9.502	9.368	9.238	9.113	8.991
0.7	8.875	8.762	8.653	8.548	8.447	8.349	8.254	8.163	8.075	7.990
0.8	7.908	7.828	7.751	7.677	7.605	7.536	7.468	7.403	7.340	7.278
0.9	7.219	7.161	7.104	7.049	6.996	6.944	6.893	6.844	6.795	6.748
1.0	6.702	6.656	6.612	6.568	6.525	6.483	6.442	6.401	6.361	6.321
1.1	6.282	6.243	6.205	6.167	6.130	6.093	6.056	6.019	5.983	5.947
1.2	5.912	5.876	5.841	5.806	5.771	5.736	5.701	5.666	5.632	5.598
1.3	5.563	5.529	5.495	5.461	5.427	5.393	5.359	5.325	5.291	5.258
1.4	5.224	5.190	5.157	5.123	5.089	5.056	5.022	4.989	4.956	4.922
1.5	4.889									

HARTREE FOCK SCATTERING FACTOR

CO+3 CONFIGURATION 3D 6, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	24.000	23.990	23.962	23.914	23.848	23.764	23.661	23.541	23.404	23.250
0.1	23.081	22.896	22.698	22.486	22.261	22.024	21.777	21.520	21.253	20.978
0.2	20.696	20.408	20.114	19.815	19.513	19.207	18.899	18.590	18.280	17.969
0.3	17.659	17.350	17.043	16.737	16.435	16.135	15.838	15.546	15.258	14.974
0.4	14.694	14.420	14.151	13.887	13.629	13.376	13.129	12.888	12.652	12.423
0.5	12.200	11.982	11.771	11.565	11.365	11.171	10.983	10.800	10.624	10.452
0.6	10.286	10.126	9.970	9.820	9.675	9.534	9.398	9.267	9.140	9.018
0.7	8.900	8.786	8.676	8.570	8.467	8.368	8.272	8.180	8.091	8.005
0.8	7.921	7.841	7.763	7.688	7.615	7.545	7.477	7.411	7.346	7.284
0.9	7.224	7.166	7.109	7.053	7.000	6.947	6.896	6.846	6.797	6.750
1.0	6.703	6.658	6.613	6.569	6.526	6.484	6.443	6.402	6.362	6.322
1.1	6.283	6.244	6.206	6.168	6.131	6.094	6.057	6.021	5.985	5.949
1.2	5.913	5.878	5.843	5.808	5.773	5.738	5.703	5.669	5.635	5.600
1.3	5.566	5.532	5.498	5.464	5.431	5.397	5.363	5.329	5.296	5.262
1.4	5.228	5.195	5.161	5.128	5.095	5.061	5.028	4.995	4.962	4.928
1.5	4.895									

NI CONFIGURATION 4S 2, 3D 8, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	28.000	27.972	27.890	27.755	27.573	27.348	27.085	26.793	26.475	26.139
0.1	25.789	25.429	25.064	24.695	24.325	23.956	23.588	23.222	22.858	22.497
0.2	22.138	21.782	21.428	21.076	20.727	20.380	20.035	19.693	19.354	19.017
0.3	18.683	18.352	18.025	17.701	17.381	17.064	16.752	16.445	16.141	15.843
0.4	15.550	15.261	14.978	14.701	14.429	14.162	13.901	13.646	13.397	13.154
0.5	12.916	12.685	12.459	12.239	12.025	11.817	11.615	11.418	11.227	11.042
0.6	10.862	10.688	10.518	10.354	10.196	10.042	9.893	9.749	9.609	9.474
0.7	9.344	9.217	9.095	8.977	8.863	8.753	8.646	8.543	8.444	8.348
0.8	8.255	8.165	8.078	7.994	7.912	7.834	7.757	7.684	7.612	7.543
0.9	7.476	7.411	7.348	7.287	7.227	7.169	7.113	7.058	7.005	6.953
1.0	6.903	6.853	6.805	6.758	6.712	6.667	6.623	6.580	6.537	6.495
1.1	6.454	6.414	6.375	6.336	6.297	6.259	6.222	6.185	6.148	6.112
1.2	6.076	6.040	6.005	5.970	5.936	5.901	5.867	5.833	5.799	5.766
1.3	5.732	5.699	5.666	5.633	5.600	5.567	5.534	5.502	5.469	5.437
1.4	5.404	5.372	5.340	5.308	5.275	5.243	5.211	5.179	5.147	5.115
1.5	5.083									

NI+2 CONFIGURATION 3D 8, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	26.000	25.989	25.955	25.899	25.821	25.721	25.600	25.459	25.298	25.118
0.1	24.920	24.706	24.475	24.230	23.971	23.699	23.416	23.122	22.819	22.508
0.2	22.189	21.865	21.535	21.201	20.864	20.525	20.184	19.842	19.501	19.160
0.3	18.820	18.483	18.148	17.815	17.486	17.161	16.841	16.524	16.213	15.906
0.4	15.605	15.310	15.020	14.736	14.458	14.186	13.920	13.661	13.407	13.160
0.5	12.919	12.685	12.457	12.235	12.019	11.809	11.605	11.407	11.215	11.029
0.6	10.849	10.674	10.504	10.340	10.181	10.028	9.879	9.735	9.596	9.461
0.7	9.331	9.205	9.084	8.966	8.853	8.743	8.637	8.534	8.435	8.340
0.8	8.247	8.158	8.072	7.988	7.907	7.829	7.753	7.680	7.609	7.540
0.9	7.473	7.409	7.346	7.285	7.226	7.168	7.113	7.058	7.005	6.953
1.0	6.903	6.854	6.806	6.759	6.713	6.668	6.624	6.581	6.538	6.497
1.1	6.456	6.416	6.376	6.337	6.298	6.260	6.223	6.186	6.149	6.113
1.2	6.077	6.041	6.006	5.971	5.936	5.902	5.867	5.833	5.800	5.766
1.3	5.732	5.699	5.666	5.632	5.599	5.567	5.534	5.501	5.468	5.436
1.4	5.403	5.371	5.338	5.306	5.274	5.242	5.209	5.177	5.145	5.113
1.5	5.081									

HARTREE FOCK SCATTERING FACTOR

NI+3 CONFIGURATION 3D 7, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	25.000	24.991	24.962	24.915	24.850	24.766	24.665	24.546	24.410	24.258
0.1	24.090	23.907	23.709	23.498	23.275	23.039	22.792	22.535	22.268	21.993
0.2	21.710	21.420	21.125	20.824	20.518	20.209	19.897	19.583	19.268	18.952
0.3	18.636	18.320	18.005	17.692	17.380	17.071	16.765	16.463	16.164	15.869
0.4	15.578	15.292	15.010	14.734	14.463	14.197	13.936	13.681	13.432	13.188
0.5	12.950	12.718	12.491	12.271	12.056	11.847	11.644	11.446	11.254	11.068
0.6	10.887	10.712	10.542	10.377	10.217	10.062	9.912	9.767	9.627	9.491
0.7	9.360	9.233	9.110	8.991	8.877	8.766	8.659	8.555	8.455	8.358
0.8	8.265	8.174	8.087	8.002	7.920	7.841	7.765	7.690	7.619	7.549
0.9	7.482	7.416	7.353	7.291	7.232	7.174	7.117	7.062	7.009	6.957
1.0	6.906	6.856	6.808	6.761	6.715	6.670	6.625	6.582	6.539	6.498
1.1	6.457	6.416	6.377	6.338	6.299	6.261	6.223	6.186	6.150	6.114
1.2	6.078	6.042	6.007	5.972	5.937	5.903	5.869	5.835	5.801	5.768
1.3	5.734	5.701	5.668	5.635	5.602	5.569	5.536	5.504	5.471	5.439
1.4	5.407	5.374	5.342	5.310	5.278	5.246	5.214	5.182	5.150	5.118
1.5	5.086									

CU CONFIGURATION 4S 1, 3D10, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	29.000	28.976	28.906	28.791	28.635	28.442	28.216	27.962	27.684	27.387
0.1	27.075	26.749	26.414	26.071	25.721	25.366	25.006	24.643	24.278	23.910
0.2	23.541	23.171	22.800	22.429	22.058	21.688	21.319	20.951	20.586	20.223
0.3	19.863	19.506	19.153	18.804	18.458	18.117	17.781	17.450	17.124	16.804
0.4	16.489	16.179	15.876	15.578	15.286	15.001	14.721	14.448	14.181	13.920
0.5	13.666	13.418	13.176	12.940	12.710	12.487	12.269	12.058	11.852	11.652
0.6	11.458	11.269	11.086	10.909	10.737	10.570	10.408	10.251	10.099	9.952
0.7	9.809	9.671	9.538	9.408	9.283	9.162	9.045	8.932	8.822	8.716
0.8	8.613	8.514	8.418	8.325	8.235	8.148	8.063	7.982	7.903	7.826
0.9	7.752	7.680	7.610	7.542	7.477	7.413	7.351	7.291	7.233	7.176
1.0	7.120	7.067	7.014	6.963	6.913	6.864	6.817	6.770	6.725	6.680
1.1	6.636	6.594	6.552	6.510	6.470	6.430	6.391	6.353	6.315	6.277
1.2	6.240	6.204	6.168	6.132	6.097	6.062	6.027	5.993	5.959	5.925
1.3	5.892	5.859	5.826	5.793	5.760	5.728	5.696	5.664	5.632	5.600
1.4	5.568	5.536	5.505	5.474	5.442	5.411	5.380	5.349	5.318	5.287
1.5	5.256									

CU+1 CONFIGURATION 3D10, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	28.000	27.986	27.945	27.878	27.784	27.664	27.519	27.351	27.159	26.947
0.1	26.714	26.462	26.194	25.909	25.610	25.299	24.976	24.643	24.301	23.952
0.2	23.597	23.237	22.873	22.506	22.137	21.767	21.397	21.028	20.659	20.293
0.3	19.929	19.568	19.210	18.856	18.506	18.161	17.821	17.485	17.156	16.831
0.4	16.513	16.200	15.894	15.593	15.299	15.011	14.730	14.455	14.186	13.924
0.5	13.668	13.418	13.175	12.938	12.708	12.483	12.265	12.053	11.847	11.647
0.6	11.452	11.264	11.081	10.903	10.731	10.564	10.402	10.245	10.093	9.946
0.7	9.804	9.666	9.532	9.403	9.278	9.158	9.041	8.927	8.818	8.712
0.8	8.610	8.511	8.415	8.322	8.232	8.145	8.061	7.980	7.901	7.824
0.9	7.750	7.679	7.609	7.541	7.476	7.412	7.351	7.291	7.232	7.175
1.0	7.120	7.066	7.014	6.963	6.913	6.864	6.817	6.770	6.725	6.680
1.1	6.637	6.594	6.552	6.511	6.470	6.431	6.391	6.353	6.315	6.277
1.2	6.240	6.204	6.168	6.132	6.097	6.062	6.027	5.993	5.959	5.926
1.3	5.892	5.859	5.826	5.793	5.760	5.728	5.696	5.663	5.631	5.599
1.4	5.568	5.536	5.504	5.473	5.442	5.410	5.379	5.348	5.317	5.286
1.5	5.255									

HARTREE FOCK SCATTERING FACTOR

CU+2 CONFIGURATION 3D 9, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	27.000	26.989	26.956	26.901	26.824	26.726	26.608	26.469	26.311	26.134
0.1	25.939	25.728	25.500	25.258	25.001	24.732	24.451	24.159	23.857	23.547
0.2	23.229	22.904	22.574	22.239	21.900	21.558	21.214	20.869	20.523	20.177
0.3	19.832	19.488	19.146	18.806	18.469	18.135	17.805	17.479	17.157	16.840
0.4	16.528	16.221	15.919	15.622	15.332	15.046	14.767	14.494	14.227	13.966
0.5	13.711	13.462	13.219	12.982	12.751	12.526	12.308	12.095	11.888	11.687
0.6	11.491	11.302	11.117	10.939	10.765	10.597	10.434	10.276	10.123	9.974
0.7	9.831	9.692	9.557	9.427	9.300	9.178	9.060	8.946	8.835	8.729
0.8	8.625	8.525	8.428	8.334	8.244	8.156	8.071	7.989	7.909	7.832
0.9	7.757	7.685	7.615	7.547	7.481	7.417	7.354	7.294	7.235	7.178
1.0	7.123	7.068	7.016	6.964	6.914	6.865	6.818	6.771	6.725	6.681
1.1	6.637	6.594	6.552	6.511	6.470	6.430	6.391	6.352	6.314	6.277
1.2	6.240	6.203	6.167	6.132	6.096	6.062	6.027	5.993	5.959	5.925
1.3	5.892	5.859	5.826	5.793	5.760	5.728	5.696	5.664	5.632	5.600
1.4	5.568	5.537	5.505	5.474	5.442	5.411	5.380	5.349	5.318	5.287
1.5	5.256									

ZN CONFIGURATION 4S 2, 3D10, 3P 6, 3S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	30.000	29.974	29.898	29.773	29.603	29.392	29.145	28.868	28.566	28.244
0.1	27.906	27.557	27.200	26.837	26.471	26.104	25.736	25.368	25.001	24.635
0.2	24.271	23.908	23.547	23.186	22.828	22.471	22.116	21.762	21.410	21.060
0.3	20.712	20.367	20.024	19.684	19.347	19.013	18.682	18.356	18.033	17.714
0.4	17.399	17.089	16.783	16.482	16.186	15.895	15.609	15.329	15.053	14.784
0.5	14.519	14.260	14.007	13.760	13.518	13.281	13.051	12.826	12.606	12.392
0.6	12.183	11.980	11.783	11.590	11.403	11.221	11.044	10.872	10.706	10.543
0.7	10.386	10.234	10.085	9.942	9.802	9.667	9.536	9.409	9.286	9.167
0.8	9.052	8.940	8.832	8.727	8.625	8.527	8.431	8.339	8.249	8.163
0.9	8.079	7.997	7.918	7.842	7.767	7.695	7.626	7.558	7.492	7.428
1.0	7.366	7.306	7.247	7.190	7.134	7.080	7.028	6.976	6.926	6.877
1.1	6.830	6.783	6.738	6.693	6.649	6.607	6.565	6.524	6.483	6.444
1.2	6.405	6.367	6.329	6.292	6.255	6.219	6.184	6.149	6.114	6.080
1.3	6.046	6.012	5.979	5.946	5.914	5.881	5.849	5.817	5.786	5.754
1.4	5.723	5.692	5.661	5.630	5.600	5.569	5.539	5.509	5.478	5.448
1.5	5.418									

ZN+2 CONFIGURATION 3D10, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	28.000	27.989	27.957	27.903	27.828	27.732	27.615	27.479	27.324	27.150
0.1	26.958	26.750	26.525	26.286	26.032	25.766	25.487	25.198	24.898	24.589
0.2	24.272	23.948	23.618	23.283	22.943	22.599	22.253	21.905	21.556	21.206
0.3	20.856	20.507	20.159	19.813	19.469	19.127	18.789	18.454	18.124	17.797
0.4	17.474	17.157	16.844	16.536	16.234	15.937	15.645	15.359	15.079	14.805
0.5	14.536	14.274	14.017	13.766	13.521	13.282	13.049	12.822	12.601	12.385
0.6	12.175	11.971	11.772	11.579	11.391	11.209	11.032	10.860	10.693	10.530
0.7	10.373	10.221	10.073	9.929	9.790	9.655	9.525	9.398	9.276	9.157
0.8	9.042	8.931	8.823	8.718	8.617	8.519	8.424	8.332	8.243	8.157
0.9	8.073	7.992	7.914	7.838	7.764	7.692	7.623	7.555	7.490	7.426
1.0	7.365	7.305	7.246	7.189	7.134	7.080	7.028	6.977	6.927	6.878
1.1	6.830	6.784	6.738	6.694	6.650	6.608	6.566	6.525	6.485	6.445
1.2	6.406	6.368	6.330	6.293	6.257	6.220	6.185	6.150	6.115	6.081
1.3	6.047	6.013	5.980	5.947	5.914	5.882	5.850	5.818	5.786	5.754
1.4	5.723	5.692	5.661	5.630	5.599	5.569	5.538	5.508	5.477	5.447
1.5	5.417									

HARTREE FOCK SCATTERING FACTOR

GA CONFIGURATION 4P 1, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	31.000	30.970	30.881	30.735	30.539	30.297	30.017	29.706	29.370	29.016
0.1	28.649	28.274	27.894	27.513	27.132	26.753	26.377	26.004	25.636	25.271
0.2	24.910	24.553	24.200	23.849	23.502	23.157	22.814	22.474	22.136	21.801
0.3	21.467	21.135	20.806	20.478	20.153	19.830	19.510	19.192	18.877	18.565
0.4	18.256	17.950	17.648	17.349	17.054	16.763	16.476	16.193	15.915	15.641
0.5	15.371	15.106	14.846	14.591	14.341	14.095	13.855	13.619	13.389	13.163
0.6	12.943	12.728	12.518	12.312	12.112	11.917	11.726	11.541	11.360	11.184
0.7	11.013	10.847	10.685	10.527	10.374	10.225	10.080	9.940	9.803	9.671
0.8	9.542	9.418	9.297	9.179	9.065	8.955	8.848	8.744	8.643	8.545
0.9	8.450	8.358	8.269	8.183	8.099	8.017	7.938	7.862	7.788	7.715
1.0	7.645	7.577	7.511	7.447	7.385	7.324	7.265	7.208	7.152	7.097
1.1	7.045	6.993	6.943	6.893	6.846	6.799	6.753	6.708	6.665	6.622
1.2	6.580	6.539	6.498	6.459	6.420	6.382	6.345	6.308	6.271	6.236
1.3	6.201	6.166	6.132	6.098	6.064	6.031	5.999	5.967	5.935	5.903
1.4	5.871	5.840	5.810	5.779	5.748	5.718	5.688	5.658	5.629	5.599
1.5	5.570									

GA+3 CONFIGURATION 3D10, 3P 6, 3S 2, 2P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	28.000	27.991	27.964	27.919	27.856	27.776	27.678	27.564	27.433	27.286
0.1	27.123	26.946	26.754	26.548	26.330	26.099	25.856	25.603	25.339	25.066
0.2	24.784	24.494	24.197	23.894	23.585	23.270	22.952	22.630	22.305	21.978
0.3	21.649	21.318	20.988	20.657	20.327	19.997	19.669	19.343	19.019	18.697
0.4	18.379	18.063	17.751	17.443	17.139	16.839	16.544	16.253	15.967	15.685
0.5	15.409	15.138	14.872	14.611	14.356	14.106	13.861	13.622	13.388	13.160
0.6	12.937	12.719	12.507	12.300	12.098	11.902	11.710	11.524	11.343	11.166
0.7	10.995	10.828	10.666	10.508	10.355	10.206	10.062	9.922	9.786	9.654
0.8	9.526	9.402	9.282	9.165	9.052	8.942	8.835	8.732	8.632	8.535
0.9	8.441	8.349	8.261	8.175	8.092	8.011	7.933	7.857	7.783	7.711
1.0	7.642	7.574	7.509	7.445	7.383	7.323	7.264	7.207	7.152	7.098
1.1	7.045	6.994	6.943	6.895	6.847	6.800	6.755	6.710	6.666	6.624
1.2	6.582	6.541	6.501	6.461	6.422	6.384	6.347	6.310	6.274	6.238
1.3	6.203	6.168	6.133	6.100	6.066	6.033	6.000	5.968	5.936	5.904
1.4	5.872	5.841	5.810	5.779	5.749	5.719	5.688	5.658	5.629	5.599
1.5	5.569									

GE CONFIGURATION 4P 2, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	32.000	31.969	31.877	31.727	31.522	31.269	30.975	30.645	30.287	29.907
0.1	29.512	29.107	28.697	28.286	27.875	27.469	27.067	26.672	26.285	25.904
0.2	25.530	25.164	24.804	24.451	24.103	23.761	23.423	23.090	22.761	22.435
0.3	22.112	21.792	21.475	21.161	20.848	20.538	20.231	19.925	19.622	19.321
0.4	19.022	18.726	18.432	18.141	17.853	17.568	17.285	17.006	16.730	16.458
0.5	16.189	15.924	15.662	15.404	15.151	14.901	14.656	14.414	14.177	13.945
0.6	13.717	13.493	13.274	13.059	12.848	12.643	12.441	12.245	12.052	11.865
0.7	11.681	11.502	11.328	11.158	10.992	10.830	10.673	10.519	10.370	10.225
0.8	10.084	9.946	9.812	9.682	9.556	9.433	9.314	9.198	9.085	8.976
0.9	8.870	8.767	8.667	8.570	8.475	8.384	8.295	8.208	8.124	8.043
1.0	7.964	7.887	7.813	7.740	7.670	7.601	7.535	7.470	7.408	7.347
1.1	7.287	7.229	7.173	7.118	7.065	7.013	6.962	6.913	6.864	6.817
1.2	6.771	6.726	6.682	6.639	6.597	6.556	6.516	6.476	6.437	6.399
1.3	6.362	6.325	6.289	6.253	6.218	6.184	6.150	6.116	6.083	6.050
1.4	6.018	5.986	5.955	5.924	5.893	5.862	5.832	5.802	5.773	5.743
1.5	5.714									

HARTREE FOCK SCATTERING FACTOR

AS CONFIGURATION 4P 3, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	33.000	32.969	32.877	32.726	32.521	32.265	31.964	31.625	31.255	30.859
0.1	30.445	30.017	29.581	29.141	28.702	28.265	27.834	27.410	26.994	26.588
0.2	26.191	25.803	25.426	25.057	24.698	24.346	24.003	23.666	23.335	23.011
0.3	22.691	22.377	22.066	21.760	21.457	21.157	20.860	20.565	20.273	19.984
0.4	19.697	19.412	19.129	18.848	18.570	18.294	18.020	17.748	17.479	17.213
0.5	16.949	16.688	16.430	16.175	15.923	15.674	15.428	15.186	14.947	14.712
0.6	14.480	14.252	14.028	13.807	13.591	13.378	13.170	12.965	12.764	12.567
0.7	12.375	12.186	12.001	11.821	11.644	11.472	11.303	11.139	10.978	10.821
0.8	10.668	10.519	10.373	10.231	10.093	9.958	9.827	9.700	9.576	9.455
0.9	9.337	9.223	9.111	9.003	8.898	8.795	8.696	8.599	8.505	8.414
1.0	8.325	8.239	8.155	8.073	7.994	7.917	7.842	7.770	7.699	7.630
1.1	7.563	7.498	7.435	7.373	7.313	7.255	7.198	7.143	7.089	7.036
1.2	6.985	6.935	6.886	6.839	6.792	6.747	6.703	6.659	6.617	6.575
1.3	6.535	6.495	6.456	6.418	6.380	6.343	6.307	6.272	6.237	6.202
1.4	6.168	6.135	6.102	6.070	6.038	6.006	5.975	5.945	5.914	5.884
1.5	5.854									

SE CONFIGURATION 4P 4, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	34.000	33.970	33.877	33.730	33.526	33.270	32.969	32.628	32.252	31.847
0.1	31.420	30.976	30.521	30.058	29.594	29.130	28.670	28.216	27.771	27.336
0.2	26.911	26.497	26.094	25.702	25.322	24.953	24.593	24.243	23.903	23.570
0.3	23.245	22.928	22.616	22.311	22.010	21.715	21.423	21.136	20.852	20.571
0.4	20.293	20.018	19.745	19.474	19.206	18.940	18.676	18.414	18.154	17.896
0.5	17.641	17.387	17.136	16.887	16.640	16.396	16.154	15.914	15.678	15.444
0.6	15.213	14.985	14.760	14.538	14.319	14.103	13.891	13.682	13.476	13.274
0.7	13.075	12.880	12.688	12.500	12.316	12.135	11.957	11.784	11.614	11.447
0.8	11.284	11.125	10.969	10.817	10.668	10.523	10.381	10.242	10.107	9.976
0.9	9.847	9.722	9.599	9.480	9.364	9.251	9.141	9.034	8.930	8.828
1.0	8.729	8.633	8.540	8.448	8.360	8.274	8.190	8.108	8.029	7.951
1.1	7.876	7.803	7.732	7.663	7.595	7.530	7.466	7.404	7.343	7.284
1.2	7.227	7.171	7.116	7.063	7.011	6.961	6.912	6.863	6.816	6.771
1.3	6.726	6.682	6.639	6.597	6.556	6.516	6.477	6.438	6.401	6.364
1.4	6.327	6.292	6.257	6.222	6.188	6.155	6.122	6.090	6.058	6.027
1.5	5.996									

BR CONFIGURATION 4P 5, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	35.000	34.970	34.881	34.735	34.534	34.282	33.983	33.642	33.264	32.856
0.1	32.422	31.968	31.499	31.020	30.535	30.049	29.564	29.084	28.611	28.147
0.2	27.692	27.250	26.819	26.400	25.994	25.601	25.219	24.850	24.491	24.143
0.3	23.805	23.477	23.157	22.845	22.540	22.242	21.950	21.663	21.382	21.105
0.4	20.832	20.563	20.297	20.034	19.774	19.516	19.261	19.008	18.758	18.509
0.5	18.262	18.017	17.774	17.533	17.294	17.057	16.821	16.588	16.357	16.127
0.6	15.900	15.676	15.453	15.233	15.015	14.800	14.588	14.378	14.171	13.967
0.7	13.765	13.567	13.371	13.179	12.990	12.803	12.620	12.440	12.263	12.090
0.8	11.919	11.752	11.588	11.427	11.270	11.116	10.965	10.817	10.672	10.531
0.9	10.392	10.257	10.125	9.996	9.870	9.747	9.627	9.510	9.395	9.284
1.0	9.175	9.069	8.965	8.865	8.766	8.671	8.577	8.487	8.398	8.312
1.1	8.228	8.146	8.067	7.989	7.914	7.840	7.769	7.699	7.631	7.565
1.2	7.500	7.438	7.376	7.317	7.259	7.202	7.147	7.093	7.041	6.990
1.3	6.940	6.891	6.844	6.797	6.752	6.707	6.664	6.622	6.580	6.540
1.4	6.500	6.461	6.423	6.386	6.349	6.313	6.278	6.243	6.209	6.176
1.5	6.143									

HARTREE FOCK SCATTERING FACTOR

BR-1 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.961	35.844	35.653	35.393	35.070	34.693	34.269	33.807	33.315
0.1	32.802	32.274	31.738	31.199	30.663	30.132	29.610	29.100	28.603	28.120
0.2	27.652	27.199	26.762	26.340	25.933	25.540	25.160	24.793	24.438	24.094
0.3	23.761	23.437	23.121	22.813	22.513	22.219	21.930	21.647	21.369	21.095
0.4	20.824	20.557	20.294	20.032	19.774	19.518	19.264	19.012	18.762	18.514
0.5	18.267	18.023	17.780	17.539	17.300	17.063	16.827	16.594	16.362	16.133
0.6	15.906	15.681	15.458	15.238	15.020	14.805	14.592	14.382	14.174	13.970
0.7	13.768	13.569	13.374	13.181	12.991	12.805	12.621	12.441	12.264	12.090
0.8	11.920	11.753	11.588	11.428	11.270	11.116	10.965	10.817	10.672	10.530
0.9	10.392	10.257	10.125	9.996	9.870	9.746	9.626	9.509	9.395	9.283
1.0	9.174	9.068	8.965	8.864	8.766	8.670	8.577	8.486	8.398	8.311
1.1	8.227	8.146	8.066	7.989	7.913	7.840	7.768	7.698	7.630	7.564
1.2	7.500	7.437	7.376	7.317	7.259	7.202	7.147	7.093	7.041	6.990
1.3	6.940	6.891	6.843	6.797	6.752	6.707	6.664	6.622	6.580	6.540
1.4	6.500	6.461	6.423	6.386	6.349	6.313	6.278	6.243	6.210	6.176
1.5	6.143									

KR CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.971	35.884	35.741	35.544	35.296	35.001	34.663	34.287	33.878
0.1	33.441	32.981	32.504	32.013	31.514	31.010	30.505	30.002	29.504	29.013
0.2	28.532	28.061	27.601	27.155	26.721	26.301	25.893	25.499	25.118	24.749
0.3	24.392	24.046	23.711	23.386	23.071	22.764	22.465	22.173	21.888	21.609
0.4	21.336	21.068	20.805	20.546	20.290	20.038	19.789	19.543	19.300	19.059
0.5	18.820	18.583	18.349	18.116	17.885	17.655	17.428	17.202	16.977	16.755
0.6	16.534	16.315	16.098	15.882	15.669	15.457	15.247	15.040	14.835	14.631
0.7	14.430	14.232	14.036	13.842	13.651	13.462	13.276	13.093	12.912	12.734
0.8	12.559	12.386	12.216	12.050	11.886	11.725	11.567	11.412	11.259	11.110
0.9	10.964	10.820	10.680	10.542	10.407	10.275	10.146	10.019	9.896	9.775
1.0	9.657	9.542	9.429	9.319	9.211	9.106	9.004	8.904	8.806	8.711
1.1	8.618	8.528	8.440	8.354	8.270	8.188	8.108	8.030	7.954	7.881
1.2	7.809	7.738	7.670	7.603	7.538	7.475	7.413	7.353	7.294	7.237
1.3	7.181	7.127	7.074	7.022	6.971	6.922	6.874	6.827	6.781	6.736
1.4	6.692	6.649	6.607	6.566	6.526	6.486	6.448	6.410	6.373	6.337
1.5	6.301									

RB CONFIGURATION 5S 1, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	37.000	36.950	36.804	36.575	36.278	35.930	35.549	35.146	34.730	34.306
0.1	33.876	33.440	32.998	32.550	32.096	31.637	31.174	30.708	30.241	29.774
0.2	29.310	28.850	28.395	27.948	27.509	27.079	26.659	26.250	25.851	25.464
0.3	25.087	24.722	24.367	24.023	23.689	23.364	23.049	22.743	22.445	22.154
0.4	21.871	21.595	21.325	21.060	20.801	20.546	20.296	20.051	19.808	19.570
0.5	19.334	19.101	18.871	18.643	18.417	18.194	17.973	17.753	17.535	17.319
0.6	17.105	16.892	16.681	16.471	16.263	16.057	15.853	15.650	15.448	15.249
0.7	15.051	14.855	14.661	14.469	14.279	14.091	13.905	13.721	13.540	13.360
0.8	13.183	13.009	12.836	12.666	12.499	12.334	12.171	12.011	11.854	11.699
0.9	11.547	11.397	11.250	11.105	10.964	10.824	10.688	10.554	10.423	10.294
1.0	10.168	10.044	9.923	9.805	9.689	9.576	9.465	9.356	9.250	9.146
1.1	9.045	8.946	8.849	8.755	8.662	8.572	8.484	8.398	8.314	8.233
1.2	8.153	8.075	7.999	7.925	7.852	7.782	7.713	7.646	7.580	7.516
1.3	7.454	7.393	7.334	7.276	7.219	7.164	7.110	7.058	7.006	6.956
1.4	6.907	6.860	6.813	6.767	6.723	6.679	6.637	6.595	6.554	6.514
1.5	6.475									

HARTREE FOCK SCATTERING FACTOR

RB+1 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.977	35.907	35.791	35.631	35.428	35.185	34.904	34.588	34.241
0.1	33.866	33.467	33.047	32.609	32.158	31.696	31.226	30.753	30.277	29.803
0.2	29.331	28.865	28.405	27.953	27.510	27.077	26.655	26.244	25.844	25.456
0.3	25.079	24.713	24.358	24.014	23.681	23.357	23.042	22.736	22.439	22.149
0.4	21.867	21.591	21.321	21.057	20.799	20.545	20.295	20.050	19.808	19.569
0.5	19.334	19.101	18.871	18.644	18.419	18.195	17.974	17.755	17.537	17.321
0.6	17.106	16.894	16.683	16.473	16.265	16.059	15.854	15.651	15.450	15.250
0.7	15.052	14.856	14.662	14.470	14.280	14.092	13.906	13.722	13.540	13.361
0.8	13.184	13.009	12.837	12.667	12.499	12.334	12.171	12.011	11.854	11.699
0.9	11.547	11.397	11.250	11.105	10.963	10.824	10.688	10.554	10.422	10.294
1.0	10.168	10.044	9.923	9.805	9.689	9.575	9.464	9.356	9.250	9.146
1.1	9.045	8.946	8.849	8.754	8.662	8.572	8.484	8.398	8.314	8.232
1.2	8.153	8.075	7.999	7.924	7.852	7.782	7.713	7.645	7.580	7.516
1.3	7.454	7.393	7.334	7.276	7.219	7.164	7.110	7.058	7.006	6.956
1.4	6.907	6.860	6.813	6.767	6.723	6.679	6.637	6.595	6.554	6.514
1.5	6.475									

SR CONFIGURATION 5S 2, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	38.000	37.944	37.781	37.521	37.180	36.778	36.333	35.862	35.379	34.894
0.1	34.414	33.941	33.476	33.019	32.569	32.123	31.681	31.241	30.803	30.366
0.2	29.931	29.497	29.066	28.638	28.213	27.794	27.381	26.973	26.574	26.181
0.3	25.798	25.422	25.056	24.699	24.351	24.012	23.682	23.360	23.048	22.743
0.4	22.447	22.158	21.876	21.601	21.333	21.070	20.814	20.562	20.315	20.073
0.5	19.835	19.601	19.371	19.144	18.920	18.699	18.480	18.264	18.050	17.839
0.6	17.629	17.421	17.215	17.011	16.808	16.607	16.408	16.210	16.013	15.818
0.7	15.625	15.433	15.243	15.055	14.868	14.682	14.499	14.317	14.137	13.958
0.8	13.782	13.607	13.435	13.264	13.095	12.929	12.764	12.602	12.442	12.284
0.9	12.128	11.974	11.823	11.674	11.527	11.383	11.241	11.101	10.964	10.829
1.0	10.697	10.567	10.439	10.313	10.190	10.070	9.951	9.835	9.722	9.610
1.1	9.501	9.394	9.290	9.188	9.087	8.989	8.893	8.800	8.708	8.618
1.2	8.531	8.445	8.362	8.280	8.200	8.122	8.046	7.971	7.899	7.828
1.3	7.759	7.691	7.625	7.560	7.497	7.436	7.376	7.317	7.260	7.204
1.4	7.150	7.097	7.045	6.994	6.944	6.896	6.848	6.802	6.757	6.713
1.5	6.669									

SR+2 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.980	35.922	35.824	35.689	35.518	35.311	35.071	34.800	34.501
0.1	34.174	33.824	33.453	33.062	32.656	32.236	31.806	31.368	30.923	30.475
0.2	30.026	29.577	29.130	28.687	28.249	27.817	27.392	26.976	26.568	26.170
0.3	25.781	25.402	25.033	24.674	24.325	23.986	23.656	23.336	23.024	22.721
0.4	22.427	22.139	21.860	21.586	21.320	21.059	20.804	20.554	20.309	20.069
0.5	19.832	19.600	19.370	19.144	18.921	18.701	18.483	18.268	18.054	17.843
0.6	17.634	17.426	17.220	17.016	16.813	16.612	16.413	16.215	16.019	15.824
0.7	15.630	15.438	15.248	15.059	14.872	14.686	14.502	14.320	14.140	13.961
0.8	13.784	13.610	13.437	13.266	13.097	12.930	12.765	12.603	12.442	12.284
0.9	12.128	11.974	11.823	11.674	11.527	11.383	11.241	11.101	10.963	10.828
1.0	10.696	10.566	10.438	10.312	10.189	10.069	9.950	9.834	9.720	9.609
1.1	9.500	9.393	9.289	9.186	9.086	8.988	8.892	8.798	8.707	8.617
1.2	8.530	8.444	8.360	8.279	8.199	8.121	8.045	7.971	7.898	7.827
1.3	7.758	7.690	7.624	7.560	7.497	7.435	7.376	7.317	7.260	7.204
1.4	7.150	7.096	7.044	6.994	6.944	6.896	6.848	6.802	6.757	6.712
1.5	6.669									

HARTREE FOCK SCATTERING FACTOR

Y CONFIGURATION 5S 2, 4D 1, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	39.000	38.946	38.788	38.534	38.198	37.795	37.343	36.858	36.354	35.840
0.1	35.327	34.818	34.316	33.824	33.341	32.865	32.398	31.937	31.481	31.030
0.2	30.584	30.142	29.704	29.271	28.843	28.420	28.004	27.593	27.190	26.794
0.3	26.406	26.026	25.654	25.291	24.936	24.590	24.253	23.925	23.605	23.293
0.4	22.990	22.694	22.406	22.125	21.851	21.583	21.322	21.067	20.817	20.572
0.5	20.332	20.097	19.866	19.639	19.415	19.195	18.978	18.764	18.553	18.344
0.6	18.138	17.933	17.731	17.530	17.332	17.135	16.940	16.746	16.554	16.363
0.7	16.174	15.986	15.799	15.614	15.431	15.248	15.068	14.888	14.710	14.534
0.8	14.359	14.186	14.014	13.844	13.675	13.508	13.343	13.180	13.019	12.859
0.9	12.701	12.545	12.392	12.240	12.090	11.942	11.796	11.652	11.511	11.371
1.0	11.234	11.098	10.965	10.834	10.706	10.579	10.454	10.332	10.212	10.094
1.1	9.978	9.865	9.753	9.644	9.537	9.432	9.329	9.228	9.129	9.032
1.2	8.937	8.844	8.753	8.664	8.577	8.492	8.409	8.327	8.248	8.170
1.3	8.094	8.019	7.946	7.875	7.806	7.738	7.671	7.607	7.543	7.481
1.4	7.421	7.362	7.304	7.247	7.192	7.138	7.086	7.034	6.984	6.935
1.5	6.887									

Y +3 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.983	35.933	35.849	35.732	35.584	35.405	35.196	34.960	34.697
0.1	34.410	34.099	33.768	33.419	33.052	32.672	32.278	31.875	31.463	31.044
0.2	30.622	30.196	29.769	29.342	28.917	28.496	28.078	27.666	27.259	26.859
0.3	26.467	26.083	25.707	25.339	24.980	24.630	24.289	23.957	23.633	23.318
0.4	23.011	22.712	22.421	22.137	21.861	21.591	21.328	21.070	20.819	20.573
0.5	20.331	20.095	19.863	19.635	19.410	19.189	18.972	18.757	18.545	18.336
0.6	18.129	17.925	17.722	17.522	17.323	17.126	16.931	16.737	16.545	16.355
0.7	16.166	15.978	15.792	15.607	15.424	15.242	15.061	14.882	14.704	14.528
0.8	14.353	14.180	14.009	13.839	13.670	13.504	13.339	13.176	13.015	12.855
0.9	12.698	12.542	12.388	12.236	12.087	11.939	11.793	11.650	11.508	11.369
1.0	11.231	11.096	10.963	10.832	10.703	10.577	10.453	10.330	10.210	10.092
1.1	9.977	9.863	9.752	9.642	9.535	9.430	9.327	9.226	9.127	9.031
1.2	8.936	8.843	8.752	8.663	8.576	8.491	8.408	8.326	8.247	8.169
1.3	8.093	8.018	7.945	7.874	7.805	7.737	7.671	7.606	7.542	7.480
1.4	7.420	7.361	7.303	7.247	7.192	7.138	7.085	7.034	6.983	6.934
1.5	6.886									

ZR CONFIGURATION 5S 2, 4D 2, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	40.000	39.948	39.796	39.549	39.221	38.825	38.376	37.889	37.376	36.849
0.1	36.316	35.784	35.256	34.736	34.223	33.720	33.224	32.737	32.257	31.784
0.2	31.317	30.857	30.403	29.955	29.513	29.078	28.650	28.229	27.816	27.410
0.3	27.012	26.623	26.243	25.871	25.508	25.154	24.808	24.472	24.144	23.825
0.4	23.514	23.212	22.917	22.630	22.350	22.078	21.812	21.552	21.299	21.051
0.5	20.809	20.572	20.339	20.111	19.888	19.668	19.451	19.239	19.029	18.822
0.6	18.618	18.416	18.217	18.020	17.824	17.631	17.440	17.250	17.062	16.875
0.7	16.690	16.506	16.323	16.142	15.962	15.784	15.606	15.430	15.255	15.082
0.8	14.909	14.738	14.569	14.400	14.233	14.068	13.904	13.741	13.580	13.420
0.9	13.262	13.105	12.950	12.797	12.645	12.496	12.348	12.201	12.057	11.914
1.0	11.773	11.634	11.497	11.362	11.229	11.098	10.969	10.841	10.716	10.593
1.1	10.472	10.352	10.235	10.120	10.006	9.895	9.786	9.679	9.573	9.470
1.2	9.368	9.269	9.171	9.076	8.982	8.890	8.800	8.712	8.625	8.541
1.3	8.458	8.376	8.297	8.219	8.143	8.069	7.996	7.925	7.855	7.787
1.4	7.720	7.655	7.591	7.529	7.468	7.408	7.350	7.293	7.237	7.183
1.5	7.130									

HARTREE FOCK SCATTERING FACTOR

ZR+4 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.985	35.941	35.868	35.765	35.635	35.478	35.294	35.085	34.852
0.1	34.596	34.318	34.022	33.707	33.375	33.029	32.669	32.298	31.917	31.528
0.2	31.133	30.732	30.328	29.922	29.515	29.109	28.704	28.301	27.903	27.508
0.3	27.119	26.736	26.359	25.988	25.625	25.269	24.922	24.581	24.249	23.925
0.4	23.608	23.300	22.999	22.705	22.419	22.139	21.867	21.601	21.341	21.087
0.5	20.839	20.597	20.359	20.126	19.898	19.673	19.453	19.237	19.024	18.814
0.6	18.607	18.403	18.201	18.002	17.806	17.611	17.418	17.228	17.039	16.852
0.7	16.666	16.482	16.299	16.118	15.938	15.760	15.583	15.407	15.233	15.060
0.8	14.888	14.717	14.548	14.381	14.214	14.049	13.886	13.724	13.563	13.404
0.9	13.247	13.091	12.937	12.784	12.633	12.484	12.336	12.191	12.047	11.904
1.0	11.764	11.626	11.489	11.355	11.222	11.091	10.962	10.835	10.710	10.587
1.1	10.466	10.347	10.230	10.115	10.002	9.891	9.782	9.675	9.570	9.467
1.2	9.365	9.266	9.168	9.073	8.979	8.887	8.797	8.709	8.623	8.538
1.3	8.456	8.374	8.295	8.217	8.141	8.067	7.994	7.923	7.853	7.785
1.4	7.719	7.653	7.590	7.527	7.466	7.407	7.349	7.292	7.236	7.181
1.5	7.128									

NB CONFIGURATION 5S 1, 4D 4, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	41.000	40.955	40.821	40.604	40.312	39.956	39.546	39.095	38.611	38.104
0.1	37.581	37.048	36.509	35.968	35.427	34.888	34.352	33.821	33.295	32.775
0.2	32.262	31.756	31.258	30.768	30.287	29.815	29.353	28.901	28.459	28.028
0.3	27.607	27.196	26.797	26.408	26.030	25.662	25.305	24.958	24.622	24.294
0.4	23.977	23.668	23.368	23.077	22.794	22.518	22.250	21.989	21.734	21.486
0.5	21.244	21.007	20.775	20.549	20.327	20.109	19.895	19.684	19.477	19.274
0.6	19.073	18.875	18.679	18.486	18.295	18.106	17.918	17.733	17.549	17.367
0.7	17.186	17.006	16.828	16.650	16.475	16.300	16.126	15.953	15.782	15.612
0.8	15.442	15.274	15.107	14.941	14.776	14.612	14.449	14.288	14.128	13.969
0.9	13.811	13.655	13.500	13.346	13.194	13.043	12.894	12.746	12.599	12.455
1.0	12.312	12.170	12.031	11.892	11.756	11.621	11.488	11.357	11.228	11.100
1.1	10.975	10.851	10.729	10.608	10.490	10.373	10.259	10.146	10.035	9.926
1.2	9.818	9.713	9.609	9.508	9.408	9.310	9.214	9.119	9.026	8.935
1.3	8.846	8.759	8.673	8.589	8.507	8.426	8.347	8.269	8.194	8.119
1.4	8.046	7.975	7.905	7.837	7.770	7.705	7.641	7.578	7.517	7.457
1.5	7.398									

NB+3 CONFIGURATION 4D 2, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	38.000	37.981	37.925	37.832	37.703	37.539	37.341	37.111	36.850	36.561
0.1	36.245	35.906	35.545	35.164	34.766	34.353	33.928	33.492	33.049	32.599
0.2	32.146	31.690	31.234	30.778	30.326	29.876	29.432	28.993	28.561	28.136
0.3	27.720	27.311	26.912	26.522	26.141	25.770	25.409	25.057	24.714	24.381
0.4	24.057	23.743	23.437	23.139	22.850	22.568	22.294	22.027	21.768	21.514
0.5	21.267	21.026	20.790	20.559	20.333	20.112	19.895	19.682	19.473	19.267
0.6	19.064	18.864	18.667	18.472	18.280	18.090	17.902	17.716	17.531	17.348
0.7	17.167	16.987	16.809	16.632	16.456	16.282	16.108	15.936	15.765	15.595
0.8	15.426	15.258	15.092	14.926	14.762	14.599	14.437	14.276	14.116	13.958
0.9	13.801	13.645	13.490	13.337	13.185	13.035	12.886	12.739	12.593	12.449
1.0	12.306	12.165	12.026	11.888	11.752	11.618	11.485	11.354	11.225	11.098
1.1	10.972	10.848	10.727	10.606	10.488	10.372	10.257	10.145	10.034	9.925
1.2	9.818	9.712	9.609	9.507	9.407	9.309	9.213	9.119	9.026	8.935
1.3	8.846	8.759	8.673	8.589	8.506	8.426	8.347	8.269	8.193	8.119
1.4	8.046	7.975	7.905	7.837	7.770	7.705	7.641	7.578	7.517	7.457
1.5	7.398									

HARTREE FOCK SCATTERING FACTOR

NB+5 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.987	35.948	35.883	35.792	35.676	35.536	35.372	35.185	34.977
0.1	34.747	34.497	34.229	33.944	33.642	33.326	32.997	32.655	32.303	31.942
0.2	31.574	31.198	30.818	30.434	30.047	29.658	29.269	28.881	28.494	28.109
0.3	27.728	27.350	26.977	26.609	26.246	25.890	25.539	25.196	24.859	24.529
0.4	24.206	23.890	23.582	23.280	22.986	22.698	22.417	22.143	21.875	21.613
0.5	21.358	21.108	20.863	20.624	20.390	20.161	19.936	19.715	19.499	19.286
0.6	19.077	18.871	18.668	18.469	18.272	18.077	17.885	17.696	17.508	17.323
0.7	17.139	16.957	16.777	16.599	16.422	16.247	16.072	15.900	15.728	15.558
0.8	15.390	15.222	15.056	14.891	14.727	14.564	14.403	14.243	14.084	13.927
0.9	13.771	13.616	13.462	13.310	13.160	13.010	12.863	12.716	12.571	12.428
1.0	12.287	12.146	12.008	11.871	11.736	11.602	11.471	11.340	11.212	11.085
1.1	10.961	10.838	10.716	10.597	10.479	10.363	10.249	10.137	10.027	9.918
1.2	9.811	9.706	9.603	9.502	9.402	9.305	9.209	9.114	9.022	8.931
1.3	8.842	8.755	8.669	8.586	8.503	8.423	8.344	8.266	8.191	8.116
1.4	8.044	7.972	7.903	7.834	7.768	7.702	7.638	7.576	7.514	7.454
1.5	7.396									

M0 CONFIGURATION 5S 1, 4D 5, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	42.000	41.956	41.827	41.618	41.335	40.988	40.586	40.141	39.661	39.155
0.1	38.630	38.091	37.543	36.990	36.435	35.880	35.326	34.775	34.229	33.688
0.2	33.153	32.626	32.106	31.594	31.091	30.598	30.115	29.643	29.181	28.730
0.3	28.290	27.861	27.444	27.038	26.643	26.259	25.887	25.525	25.174	24.834
0.4	24.504	24.183	23.872	23.570	23.277	22.993	22.716	22.448	22.186	21.932
0.5	21.684	21.443	21.207	20.977	20.752	20.532	20.317	20.105	19.898	19.695
0.6	19.494	19.298	19.103	18.912	18.723	18.537	18.353	18.170	17.990	17.811
0.7	17.634	17.458	17.284	17.111	16.939	16.769	16.600	16.431	16.264	16.097
0.8	15.932	15.768	15.604	15.442	15.280	15.120	14.960	14.801	14.644	14.487
0.9	14.331	14.177	14.023	13.871	13.720	13.570	13.421	13.273	13.127	12.982
1.0	12.838	12.696	12.555	12.416	12.278	12.141	12.006	11.873	11.741	11.610
1.1	11.481	11.354	11.229	11.105	10.982	10.862	10.743	10.626	10.510	10.396
1.2	10.284	10.174	10.065	9.958	9.853	9.750	9.648	9.548	9.450	9.353
1.3	9.258	9.165	9.073	8.983	8.895	8.808	8.723	8.640	8.558	8.478
1.4	8.399	8.322	8.246	8.172	8.099	8.028	7.958	7.890	7.823	7.757
1.5	7.693									

M0+3 CONFIGURATION 4D 3, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	39.000	38.981	38.923	38.828	38.696	38.528	38.326	38.090	37.824	37.528
0.1	37.204	36.856	36.485	36.094	35.685	35.260	34.823	34.374	33.917	33.453
0.2	32.985	32.514	32.042	31.571	31.102	30.637	30.176	29.721	29.272	28.831
0.3	28.399	27.975	27.560	27.154	26.759	26.373	25.997	25.631	25.276	24.930
0.4	24.594	24.268	23.951	23.643	23.344	23.053	22.771	22.496	22.230	21.970
0.5	21.717	21.471	21.230	20.996	20.767	20.543	20.324	20.110	19.900	19.693
0.6	19.491	19.292	19.096	18.903	18.712	18.524	18.339	18.156	17.974	17.795
0.7	17.617	17.441	17.267	17.093	16.922	16.751	16.582	16.413	16.246	16.080
0.8	15.915	15.751	15.588	15.426	15.265	15.105	14.946	14.788	14.630	14.474
0.9	14.319	14.165	14.012	13.861	13.710	13.560	13.412	13.265	13.119	12.975
1.0	12.831	12.690	12.549	12.410	12.272	12.136	12.001	11.868	11.737	11.606
1.1	11.478	11.351	11.226	11.102	10.980	10.860	10.741	10.624	10.509	10.395
1.2	10.283	10.173	10.064	9.957	9.852	9.749	9.647	9.547	9.449	9.352
1.3	9.258	9.164	9.073	8.983	8.895	8.808	8.723	8.640	8.558	8.478
1.4	8.399	8.322	8.246	8.172	8.099	8.028	7.958	7.890	7.823	7.757
1.5	7.693									

HARTREE FOCK SCATTERING FACTOR

MU+5 CONFIGURATION 4D 1, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	37.000	36.986	36.945	36.876	36.781	36.659	36.512	36.340	36.143	35.924
0.1	35.683	35.421	35.140	34.841	34.525	34.195	33.850	33.493	33.126	32.749
0.2	32.365	31.974	31.578	31.178	30.776	30.372	29.968	29.565	29.164	28.766
0.3	28.370	27.980	27.594	27.213	26.838	26.470	26.109	25.754	25.407	25.067
0.4	24.735	24.410	24.093	23.783	23.481	23.186	22.899	22.619	22.345	22.078
0.5	21.818	21.564	21.316	21.074	20.837	20.606	20.379	20.157	19.940	19.727
0.6	19.518	19.312	19.111	18.912	18.717	18.524	18.334	18.147	17.962	17.779
0.7	17.598	17.420	17.243	17.067	16.894	16.722	16.551	16.382	16.214	16.047
0.8	15.882	15.717	15.554	15.392	15.231	15.071	14.912	14.755	14.598	14.443
0.9	14.288	14.135	13.983	13.832	13.682	13.533	13.386	13.240	13.095	12.951
1.0	12.809	12.668	12.528	12.390	12.253	12.118	11.984	11.852	11.721	11.592
1.1	11.464	11.338	11.213	11.090	10.968	10.849	10.731	10.614	10.499	10.386
1.2	10.275	10.165	10.057	9.950	9.846	9.743	9.641	9.542	9.444	9.347
1.3	9.253	9.160	9.068	8.979	8.891	8.804	8.719	8.636	8.554	8.474
1.4	8.396	8.319	8.243	8.169	8.096	8.025	7.955	7.887	7.820	7.755
1.5	7.690									

MU+6 CONFIGURATION 4P 6, 4S 2, 3D10, 3P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	36.000	35.988	35.953	35.895	35.814	35.710	35.584	35.437	35.268	35.080
0.1	34.872	34.646	34.403	34.143	33.867	33.578	33.275	32.960	32.635	32.300
0.2	31.956	31.605	31.247	30.885	30.519	30.149	29.778	29.405	29.032	28.660
0.3	28.290	27.921	27.556	27.193	26.835	26.482	26.133	25.789	25.451	25.119
0.4	24.793	24.474	24.160	23.853	23.553	23.259	22.971	22.690	22.415	22.146
0.5	21.884	21.627	21.375	21.129	20.889	20.654	20.423	20.197	19.976	19.759
0.6	19.546	19.336	19.131	18.929	18.730	18.534	18.341	18.150	17.963	17.777
0.7	17.594	17.413	17.234	17.057	16.882	16.708	16.536	16.366	16.197	16.029
0.8	15.863	15.698	15.534	15.372	15.211	15.051	14.892	14.734	14.577	14.422
0.9	14.268	14.115	13.963	13.812	13.663	13.514	13.367	13.222	13.077	12.934
1.0	12.792	12.652	12.513	12.375	12.239	12.104	11.971	11.839	11.708	11.579
1.1	11.452	11.326	11.202	11.079	10.958	10.839	10.721	10.605	10.491	10.378
1.2	10.267	10.157	10.050	9.944	9.839	9.736	9.635	9.536	9.438	9.342
1.3	9.248	9.155	9.064	8.974	8.886	8.800	8.715	8.632	8.551	8.471
1.4	8.392	8.315	8.240	8.166	8.093	8.022	7.953	7.884	7.817	7.752
1.5	7.688									

TC CONFIGURATION 5S 2, 4D 5, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	43.000	42.954	42.816	42.592	42.291	41.921	41.494	41.022	40.514	39.982
0.1	39.432	38.872	38.307	37.740	37.175	36.614	36.058	35.507	34.963	34.425
0.2	33.894	33.371	32.854	32.346	31.846	31.353	30.870	30.395	29.929	29.473
0.3	29.026	28.589	28.163	27.746	27.340	26.943	26.558	26.182	25.817	25.462
0.4	25.117	24.781	24.456	24.139	23.832	23.534	23.244	22.962	22.688	22.422
0.5	22.164	21.912	21.667	21.428	21.195	20.967	20.746	20.529	20.316	20.109
0.6	19.905	19.705	19.509	19.316	19.126	18.940	18.756	18.574	18.395	18.218
0.7	18.043	17.870	17.698	17.528	17.360	17.193	17.027	16.863	16.699	16.537
0.8	16.376	16.216	16.056	15.898	15.740	15.584	15.428	15.273	15.119	14.966
0.9	14.814	14.663	14.512	14.362	14.214	14.066	13.919	13.774	13.629	13.485
1.0	13.343	13.201	13.061	12.922	12.784	12.647	12.512	12.377	12.244	12.113
1.1	11.982	11.854	11.726	11.600	11.475	11.352	11.230	11.110	10.991	10.874
1.2	10.759	10.644	10.532	10.421	10.311	10.204	10.097	9.993	9.890	9.788
1.3	9.688	9.590	9.493	9.398	9.304	9.212	9.122	9.033	8.946	8.860
1.4	8.776	8.693	8.612	8.532	8.453	8.377	8.301	8.227	8.155	8.083
1.5	8.014									

HARTREE FOCK SCATTERING FACTOR

RU CONFIGURATION 5S 1, 4D 7, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	44.000	43.959	43.839	43.642	43.375	43.045	42.661	42.232	41.765	41.267
0.1	40.746	40.206	39.652	39.088	38.517	37.942	37.364	36.785	36.208	35.634
0.2	35.063	34.498	33.939	33.387	32.843	32.308	31.783	31.268	30.763	30.270
0.3	29.788	29.318	28.860	28.414	27.981	27.559	27.150	26.752	26.367	25.993
0.4	25.630	25.279	24.939	24.609	24.290	23.980	23.680	23.390	23.108	22.835
0.5	22.570	22.313	22.063	21.820	21.583	21.353	21.129	20.911	20.697	20.489
0.6	20.285	20.086	19.891	19.699	19.511	19.326	19.144	18.965	18.788	18.614
0.7	18.442	18.273	18.105	17.938	17.774	17.611	17.449	17.288	17.129	16.971
0.8	16.814	16.657	16.502	16.348	16.194	16.041	15.889	15.738	15.588	15.438
0.9	15.289	15.140	14.993	14.846	14.700	14.554	14.410	14.266	14.123	13.981
1.0	13.840	13.699	13.560	13.421	13.284	13.147	13.012	12.877	12.744	12.611
1.1	12.480	12.350	12.221	12.094	11.967	11.842	11.718	11.596	11.475	11.355
1.2	11.236	11.119	11.003	10.889	10.776	10.665	10.555	10.446	10.339	10.233
1.3	10.129	10.027	9.925	9.826	9.727	9.631	9.536	9.442	9.349	9.259
1.4	9.169	9.082	8.995	8.910	8.827	8.745	8.664	8.585	8.507	8.431
1.5	8.355									

RU+3 CONFIGURATION 4D 5, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	41.000	40.981	40.922	40.826	40.692	40.521	40.315	40.075	39.802	39.499
0.1	39.168	38.810	38.428	38.024	37.600	37.160	36.704	36.236	35.757	35.270
0.2	34.777	34.280	33.780	33.280	32.780	32.283	31.790	31.302	30.820	30.344
0.3	29.877	29.418	28.968	28.528	28.098	27.678	27.269	26.870	26.482	26.105
0.4	25.739	25.383	25.038	24.703	24.378	24.063	23.757	23.461	23.173	22.894
0.5	22.624	22.361	22.106	21.858	21.617	21.382	21.154	20.931	20.714	20.502
0.6	20.295	20.093	19.894	19.700	19.509	19.322	19.138	18.957	18.779	18.604
0.7	18.431	18.260	18.091	17.924	17.758	17.595	17.432	17.272	17.112	16.954
0.8	16.796	16.640	16.485	16.331	16.177	16.025	15.873	15.722	15.572	15.423
0.9	15.274	15.126	14.979	14.832	14.687	14.542	14.398	14.254	14.112	13.970
1.0	13.829	13.689	13.550	13.412	13.275	13.139	13.004	12.870	12.737	12.605
1.1	12.474	12.345	12.216	12.089	11.963	11.838	11.714	11.592	11.471	11.352
1.2	11.233	11.116	11.001	10.887	10.774	10.663	10.553	10.444	10.338	10.232
1.3	10.128	10.025	9.924	9.825	9.727	9.630	9.535	9.441	9.349	9.258
1.4	9.169	9.081	8.995	8.910	8.826	8.744	8.664	8.585	8.507	8.430
1.5	8.355									

RU+4 CONFIGURATION 4D 4, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	40.000	39.983	39.933	39.849	39.733	39.585	39.405	39.196	38.958	38.693
0.1	38.401	38.086	37.748	37.389	37.011	36.616	36.207	35.784	35.349	34.905
0.2	34.453	33.996	33.534	33.069	32.603	32.137	31.672	31.210	30.751	30.298
0.3	29.850	29.408	28.973	28.546	28.127	27.717	27.316	26.923	26.541	26.168
0.4	25.804	25.450	25.106	24.771	24.445	24.129	23.822	23.523	23.233	22.952
0.5	22.678	22.412	22.154	21.902	21.658	21.420	21.188	20.962	20.742	20.527
0.6	20.316	20.111	19.910	19.713	19.519	19.330	19.144	18.961	18.780	18.603
0.7	18.428	18.256	18.085	17.917	17.750	17.586	17.422	17.261	17.100	16.941
0.8	16.784	16.627	16.471	16.317	16.163	16.011	15.859	15.708	15.558	15.408
0.9	15.260	15.112	14.965	14.819	14.673	14.529	14.385	14.242	14.100	13.958
1.0	13.818	13.678	13.540	13.402	13.265	13.130	12.995	12.861	12.728	12.597
1.1	12.466	12.337	12.209	12.082	11.956	11.832	11.708	11.586	11.466	11.346
1.2	11.228	11.112	10.996	10.883	10.770	10.659	10.549	10.441	10.334	10.229
1.3	10.125	10.023	9.922	9.822	9.724	9.628	9.533	9.439	9.347	9.256
1.4	9.167	9.080	8.993	8.908	8.825	8.743	8.662	8.583	8.505	8.429
1.5	8.354									

HARTREE FOCK SCATTERING FACTOR

RH CONFIGURATION 5S 1, 4D 8, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	45.000	44.961	44.843	44.652	44.393	44.071	43.696	43.275	42.815	42.324
0.1	41.807	41.270	40.717	40.152	39.578	38.997	38.412	37.824	37.236	36.650
0.2	36.065	35.485	34.909	34.340	33.778	33.224	32.679	32.144	31.619	31.105
0.3	30.602	30.111	29.632	29.165	28.710	28.268	27.838	27.421	27.015	26.622
0.4	26.241	25.872	25.514	25.168	24.832	24.508	24.193	23.888	23.593	23.308
0.5	23.031	22.762	22.502	22.250	22.004	21.766	21.535	21.310	21.090	20.877
0.6	20.669	20.465	20.266	20.072	19.882	19.695	19.512	19.333	19.156	18.983
0.7	18.812	18.643	18.477	18.312	18.150	17.989	17.830	17.673	17.517	17.362
0.8	17.208	17.056	16.905	16.754	16.604	16.456	16.308	16.160	16.014	15.868
0.9	15.723	15.578	15.434	15.291	15.148	15.006	14.865	14.724	14.584	14.445
1.0	14.306	14.168	14.031	13.894	13.759	13.624	13.490	13.356	13.224	13.092
1.1	12.961	12.832	12.703	12.575	12.449	12.323	12.198	12.075	11.952	11.831
1.2	11.711	11.592	11.474	11.358	11.243	11.129	11.016	10.905	10.795	10.686
1.3	10.579	10.472	10.368	10.264	10.162	10.062	9.963	9.865	9.768	9.673
1.4	9.579	9.487	9.396	9.307	9.218	9.132	9.046	8.962	8.880	8.798
1.5	8.718									

RH+3 CONFIGURATION 4D 6, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	42.000	41.981	41.922	41.826	41.692	41.521	41.315	41.075	40.801	40.498
0.1	40.165	39.805	39.420	39.013	38.585	38.139	37.678	37.203	36.716	36.221
0.2	35.718	35.210	34.698	34.185	33.672	33.161	32.653	32.149	31.650	31.158
0.3	30.674	30.197	29.730	29.271	28.823	28.385	27.958	27.541	27.135	26.741
0.4	26.357	25.984	25.622	25.271	24.931	24.601	24.281	23.970	23.670	23.378
0.5	23.096	22.822	22.556	22.298	22.048	21.805	21.569	21.339	21.116	20.898
0.6	20.686	20.479	20.277	20.080	19.887	19.698	19.512	19.330	19.152	18.976
0.7	18.803	18.633	18.466	18.300	18.137	17.975	17.816	17.658	17.501	17.346
0.8	17.192	17.039	16.888	16.737	16.587	16.439	16.291	16.144	15.997	15.852
0.9	15.707	15.563	15.419	15.276	15.134	14.992	14.852	14.711	14.572	14.433
1.0	14.294	14.157	14.020	13.884	13.749	13.614	13.480	13.348	13.215	13.084
1.1	12.954	12.825	12.696	12.569	12.443	12.317	12.193	12.070	11.948	11.827
1.2	11.707	11.588	11.471	11.355	11.240	11.126	11.014	10.902	10.793	10.684
1.3	10.577	10.471	10.366	10.263	10.161	10.061	9.961	9.864	9.767	9.672
1.4	9.579	9.486	9.396	9.306	9.218	9.131	9.046	8.962	8.879	8.798
1.5	8.718									

RH+4 CONFIGURATION 4D 5, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	41.000	40.983	40.932	40.848	40.731	40.581	40.401	40.189	39.949	39.681
0.1	39.386	39.066	38.724	38.360	37.977	37.576	37.159	36.728	36.285	35.831
0.2	35.369	34.901	34.427	33.950	33.471	32.991	32.513	32.036	31.562	31.093
0.3	30.629	30.171	29.720	29.276	28.840	28.413	27.995	27.586	27.187	26.798
0.4	26.418	26.048	25.688	25.338	24.998	24.668	24.347	24.035	23.733	23.439
0.5	23.154	22.877	22.609	22.348	22.094	21.848	21.609	21.376	21.149	20.928
0.6	20.713	20.503	20.298	20.098	19.902	19.710	19.523	19.338	19.158	18.980
0.7	18.805	18.633	18.464	18.297	18.132	17.970	17.809	17.649	17.492	17.336
0.8	17.181	17.028	16.876	16.725	16.575	16.426	16.277	16.130	15.984	15.838
0.9	15.693	15.549	15.405	15.263	15.121	14.979	14.838	14.698	14.559	14.420
1.0	14.282	14.145	14.009	13.873	13.738	13.604	13.470	13.338	13.206	13.075
1.1	12.945	12.816	12.688	12.561	12.435	12.310	12.186	12.063	11.941	11.821
1.2	11.701	11.583	11.466	11.350	11.235	11.121	11.009	10.898	10.789	10.680
1.3	10.573	10.467	10.363	10.260	10.158	10.058	9.959	9.861	9.765	9.670
1.4	9.577	9.484	9.394	9.304	9.216	9.130	9.044	8.960	8.878	8.797
1.5	8.717									

HARTREE FOCK SCATTERING FACTOR

PD CONFIGURATION 4D10, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	46.000	45.969	45.875	45.720	45.507	45.237	44.915	44.545	44.130	43.675
0.1	43.186	42.665	42.119	41.551	40.965	40.366	39.756	39.139	38.518	37.895
0.2	37.273	36.654	36.039	35.431	34.831	34.239	33.657	33.087	32.527	31.980
0.3	31.446	30.924	30.416	29.921	29.439	28.972	28.517	28.077	27.650	27.235
0.4	26.834	26.446	26.070	25.707	25.355	25.015	24.686	24.367	24.059	23.762
0.5	23.474	23.195	22.925	22.663	22.410	22.164	21.926	21.694	21.469	21.251
0.6	21.038	20.831	20.629	20.432	20.240	20.051	19.867	19.687	19.510	19.337
0.7	19.166	18.998	18.833	18.670	18.510	18.351	18.195	18.040	17.887	17.735
0.8	17.585	17.435	17.287	17.141	16.995	16.850	16.705	16.562	16.419	16.277
0.9	16.136	15.995	15.855	15.715	15.576	15.438	15.300	15.162	15.025	14.889
1.0	14.753	14.618	14.483	14.349	14.216	14.083	13.951	13.819	13.688	13.558
1.1	13.429	13.300	13.172	13.045	12.919	12.793	12.669	12.545	12.422	12.300
1.2	12.180	12.060	11.941	11.823	11.707	11.591	11.477	11.363	11.251	11.140
1.3	11.030	10.922	10.814	10.708	10.603	10.499	10.397	10.295	10.195	10.097
1.4	9.999	9.903	9.809	9.715	9.623	9.532	9.442	9.354	9.267	9.181
1.5	9.097									

PD+2 CONFIGURATION 4D 8, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	44.000	43.978	43.912	43.802	43.649	43.454	43.220	42.947	42.637	42.294
0.1	41.918	41.513	41.081	40.625	40.147	39.651	39.138	38.612	38.075	37.530
0.2	36.978	36.422	35.864	35.306	34.749	34.196	33.647	33.104	32.568	32.041
0.3	31.522	31.013	30.515	30.027	29.551	29.087	28.634	28.194	27.765	27.349
0.4	26.945	26.553	26.174	25.805	25.449	25.104	24.769	24.446	24.132	23.829
0.5	23.536	23.252	22.977	22.710	22.452	22.202	21.959	21.724	21.495	21.272
0.6	21.056	20.846	20.641	20.441	20.245	20.055	19.868	19.686	19.507	19.332
0.7	19.160	18.991	18.824	18.660	18.499	18.339	18.182	18.027	17.873	17.721
0.8	17.570	17.421	17.273	17.126	16.980	16.835	16.690	16.547	16.405	16.263
0.9	16.122	15.981	15.841	15.702	15.564	15.425	15.288	15.151	15.015	14.879
1.0	14.743	14.608	14.474	14.341	14.208	14.075	13.943	13.812	13.682	13.552
1.1	13.423	13.295	13.167	13.040	12.914	12.789	12.665	12.542	12.419	12.298
1.2	12.177	12.058	11.939	11.822	11.705	11.590	11.476	11.363	11.251	11.140
1.3	11.030	10.921	10.814	10.708	10.603	10.500	10.397	10.296	10.196	10.098
1.4	10.000	9.904	9.810	9.716	9.624	9.533	9.443	9.355	9.268	9.183
1.5	9.098									

PD+4 CONFIGURATION 4D 6, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	42.000	41.983	41.932	41.848	41.730	41.580	41.398	41.186	40.945	40.675
0.1	40.378	40.056	39.711	39.343	38.956	38.550	38.127	37.690	37.240	36.779
0.2	36.309	35.831	35.347	34.859	34.368	33.877	33.385	32.894	32.406	31.922
0.3	31.443	30.969	30.502	30.042	29.589	29.145	28.710	28.284	27.868	27.461
0.4	27.065	26.678	26.302	25.935	25.579	25.233	24.897	24.571	24.255	23.947
0.5	23.649	23.360	23.080	22.808	22.543	22.287	22.038	21.797	21.562	21.334
0.6	21.111	20.895	20.685	20.479	20.279	20.084	19.893	19.706	19.523	19.343
0.7	19.168	18.995	18.825	18.658	18.494	18.332	18.173	18.015	17.859	17.705
0.8	17.553	17.402	17.253	17.105	16.958	16.812	16.667	16.524	16.381	16.239
0.9	16.097	15.957	15.817	15.678	15.539	15.401	15.264	15.128	14.991	14.856
1.0	14.721	14.587	14.453	14.320	14.187	14.056	13.924	13.794	13.664	13.535
1.1	13.406	13.279	13.152	13.025	12.900	12.776	12.652	12.529	12.407	12.286
1.2	12.166	12.047	11.929	11.812	11.696	11.581	11.467	11.355	11.243	11.133
1.3	11.023	10.915	10.808	10.702	10.598	10.495	10.392	10.292	10.192	10.094
1.4	9.997	9.901	9.806	9.713	9.621	9.530	9.441	9.353	9.266	9.180
1.5	9.096									

HARTREE FOCK SCATTERING FACTOR

AG CONFIGURATION 5S 1, 4D10, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	47.000	46.963	46.852	46.672	46.425	46.119	45.761	45.356	44.912	44.435
0.1	43.930	43.402	42.856	42.293	41.719	41.134	40.542	39.944	39.342	38.738
0.2	38.134	37.530	36.929	36.331	35.739	35.152	34.573	34.002	33.439	32.887
0.3	32.344	31.813	31.293	30.784	30.288	29.804	29.333	28.874	28.428	27.994
0.4	27.573	27.165	26.769	26.385	26.013	25.653	25.304	24.967	24.640	24.324
0.5	24.018	23.722	23.436	23.159	22.890	22.630	22.378	22.134	21.897	21.667
0.6	21.444	21.227	21.016	20.811	20.611	20.416	20.226	20.040	19.859	19.681
0.7	19.508	19.337	19.170	19.006	18.844	18.685	18.528	18.374	18.222	18.071
0.8	17.922	17.775	17.629	17.485	17.342	17.200	17.059	16.919	16.779	16.641
0.9	16.503	16.367	16.230	16.095	15.960	15.825	15.691	15.558	15.425	15.293
1.0	15.161	15.029	14.898	14.767	14.637	14.508	14.379	14.250	14.122	13.994
1.1	13.868	13.741	13.615	13.490	13.366	13.242	13.119	12.996	12.874	12.753
1.2	12.633	12.514	12.395	12.278	12.161	12.045	11.930	11.816	11.703	11.591
1.3	11.480	11.369	11.260	11.152	11.045	10.940	10.835	10.731	10.629	10.528
1.4	10.427	10.328	10.231	10.134	10.038	9.944	9.851	9.759	9.668	9.579
1.5	9.491									

AG+1 CONFIGURATION 4D10, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	46.000	45.975	45.899	45.774	45.600	45.380	45.114	44.805	44.456	44.070
0.1	43.644	43.196	42.715	42.209	41.681	41.134	40.571	39.996	39.410	38.817
0.2	38.219	37.619	37.018	36.419	35.822	35.231	34.646	34.068	33.499	32.940
0.3	32.391	31.853	31.327	30.812	30.311	29.822	29.346	28.883	28.433	27.996
0.4	27.572	27.161	26.763	26.377	26.003	25.642	25.292	24.954	24.627	24.310
0.5	24.004	23.708	23.422	23.145	22.876	22.617	22.365	22.121	21.885	21.656
0.6	21.433	21.217	21.007	20.802	20.603	20.409	20.219	20.035	19.854	19.677
0.7	19.504	19.334	19.167	19.003	18.842	18.684	18.528	18.374	18.222	18.071
0.8	17.923	17.776	17.631	17.486	17.343	17.202	17.061	16.921	16.782	16.644
0.9	16.506	16.369	16.233	16.098	15.963	15.828	15.694	15.561	15.428	15.295
1.0	15.163	15.032	14.901	14.770	14.640	14.510	14.381	14.253	14.124	13.997
1.1	13.870	13.743	13.617	13.492	13.368	13.244	13.120	12.998	12.876	12.755
1.2	12.635	12.515	12.397	12.279	12.162	12.046	11.931	11.817	11.704	11.591
1.3	11.480	11.370	11.261	11.153	11.046	10.940	10.835	10.732	10.629	10.528
1.4	10.428	10.329	10.231	10.134	10.038	9.944	9.851	9.759	9.668	9.579
1.5	9.491									

AG+2 CONFIGURATION 4D 9, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	45.000	44.978	44.913	44.804	44.654	44.462	44.230	43.960	43.654	43.313
0.1	42.941	42.538	42.108	41.653	41.176	40.679	40.165	39.636	39.095	38.545
0.2	37.986	37.423	36.856	36.287	35.720	35.154	34.591	34.034	33.483	32.939
0.3	32.403	31.877	31.360	30.854	30.359	29.875	29.403	28.942	28.494	28.058
0.4	27.635	27.224	26.825	26.438	26.062	25.699	25.347	25.006	24.676	24.357
0.5	24.048	23.750	23.460	23.181	22.910	22.647	22.393	22.147	21.908	21.676
0.6	21.451	21.233	21.020	20.814	20.613	20.417	20.226	20.039	19.857	19.679
0.7	19.504	19.333	19.165	19.001	18.839	18.679	18.523	18.368	18.215	18.065
0.8	17.916	17.768	17.623	17.478	17.335	17.193	17.052	16.912	16.773	16.635
0.9	16.497	16.361	16.225	16.089	15.954	15.820	15.686	15.553	15.420	15.288
1.0	15.156	15.025	14.894	14.764	14.634	14.504	14.375	14.247	14.119	13.992
1.1	13.865	13.739	13.613	13.488	13.364	13.240	13.117	12.994	12.873	12.752
1.2	12.632	12.513	12.394	12.277	12.160	12.044	11.929	11.815	11.702	11.590
1.3	11.479	11.369	11.260	11.152	11.045	10.939	10.835	10.731	10.629	10.527
1.4	10.427	10.328	10.231	10.134	10.038	9.944	9.851	9.759	9.669	9.579
1.5	9.491									

HARTREE FOCK SCATTERING FACTOR

CD	CONFIGURATION	5S 2,	4D10,	4P 6,	4S 2,						
SIN(THETA)/	LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	48.000	47.960	47.841	47.647	47.383	47.055	46.671	46.239	45.767	45.263	
0.1	44.733	44.182	43.616	43.039	42.454	41.864	41.270	40.674	40.078	39.482	
0.2	38.887	38.295	37.706	37.121	36.540	35.964	35.394	34.831	34.275	33.727	
0.3	33.187	32.656	32.134	31.623	31.121	30.630	30.150	29.681	29.223	28.777	
0.4	28.342	27.919	27.507	27.107	26.718	26.341	25.974	25.619	25.274	24.940	
0.5	24.617	24.303	23.999	23.705	23.420	23.144	22.877	22.618	22.366	22.123	
0.6	21.887	21.657	21.435	21.218	21.008	20.804	20.605	20.411	20.222	20.038	
0.7	19.858	19.682	19.510	19.342	19.177	19.015	18.856	18.700	18.546	18.394	
0.8	18.245	18.098	17.953	17.809	17.667	17.527	17.388	17.250	17.113	16.977	
0.9	16.843	16.709	16.576	16.444	16.312	16.181	16.051	15.921	15.792	15.664	
1.0	15.535	15.408	15.281	15.154	15.027	14.901	14.776	14.651	14.526	14.402	
1.1	14.278	14.155	14.032	13.909	13.787	13.666	13.545	13.425	13.305	13.186	
1.2	13.067	12.949	12.832	12.715	12.599	12.484	12.369	12.256	12.143	12.031	
1.3	11.919	11.809	11.699	11.590	11.483	11.376	11.270	11.165	11.061	10.958	
1.4	10.856	10.755	10.655	10.556	10.458	10.361	10.265	10.171	10.077	9.985	
1.5	9.893										

CD+2	CONFIGURATION	4D10,	4P 6,	4S 2,	3D10,						
SIN(THETA)/	LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	46.000	45.979	45.914	45.807	45.659	45.470	45.241	44.975	44.672	44.335	
0.1	43.966	43.566	43.139	42.686	42.211	41.714	41.200	40.670	40.127	39.572	
0.2	39.009	38.440	37.866	37.289	36.711	36.135	35.560	34.990	34.425	33.866	
0.3	33.315	32.772	32.238	31.714	31.200	30.697	30.206	29.726	29.259	28.803	
0.4	28.360	27.929	27.511	27.104	26.710	26.328	25.957	25.599	25.251	24.915	
0.5	24.589	24.275	23.970	23.675	23.390	23.114	22.846	22.588	22.337	22.095	
0.6	21.859	21.631	21.410	21.195	20.986	20.783	20.586	20.393	20.206	20.023	
0.7	19.845	19.670	19.500	19.332	19.169	19.008	18.850	18.695	18.542	18.392	
0.8	18.244	18.097	17.953	17.810	17.669	17.529	17.391	17.253	17.117	16.982	
0.9	16.847	16.714	16.581	16.449	16.318	16.187	16.057	15.928	15.799	15.670	
1.0	15.542	15.414	15.287	15.160	15.034	14.908	14.782	14.657	14.532	14.408	
1.1	14.284	14.160	14.037	13.914	13.792	13.671	13.550	13.429	13.309	13.190	
1.2	13.071	12.953	12.835	12.718	12.602	12.487	12.372	12.258	12.145	12.033	
1.3	11.921	11.810	11.701	11.592	11.484	11.377	11.271	11.166	11.061	10.958	
1.4	10.856	10.755	10.655	10.556	10.458	10.361	10.265	10.171	10.077	9.984	
1.5	9.893										

IN	CONFIGURATION	5P 1,	5S 2,	4D10,	4P 6,						
SIN(THETA)/	LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	49.000	48.955	48.821	48.603	48.308	47.944	47.523	47.054	46.547	46.010	
0.1	45.452	44.878	44.295	43.705	43.112	42.518	41.924	41.333	40.743	40.157	
0.2	39.574	38.994	38.419	37.848	37.281	36.719	36.162	35.610	35.065	34.526	
0.3	33.993	33.468	32.950	32.441	31.939	31.447	30.963	30.489	30.025	29.570	
0.4	29.126	28.692	28.268	27.855	27.452	27.060	26.678	26.307	25.946	25.595	
0.5	25.255	24.924	24.604	24.292	23.991	23.698	23.414	23.139	22.873	22.614	
0.6	22.364	22.120	21.884	21.655	21.433	21.217	21.007	20.803	20.605	20.412	
0.7	20.224	20.040	19.861	19.686	19.516	19.349	19.185	19.025	18.868	18.714	
0.8	18.562	18.413	18.267	18.122	17.980	17.840	17.701	17.564	17.428	17.294	
0.9	17.161	17.029	16.899	16.769	16.640	16.512	16.385	16.258	16.132	16.007	
1.0	15.883	15.758	15.635	15.512	15.389	15.267	15.145	15.023	14.902	14.781	
1.1	14.661	14.541	14.421	14.302	14.183	14.065	13.947	13.829	13.712	13.595	
1.2	13.479	13.363	13.248	13.133	13.018	12.905	12.792	12.679	12.567	12.456	
1.3	12.345	12.235	12.126	12.017	11.909	11.802	11.696	11.591	11.486	11.382	
1.4	11.279	11.177	11.076	10.975	10.876	10.778	10.680	10.583	10.488	10.393	
1.5	10.299										

HARTREE FOCK SCATTERING FACTOR

IN+3 CONFIGURATION 4D10, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	46.000	45.981	45.925	45.832	45.702	45.536	45.335	45.100	44.832	44.533
0.1	44.204	43.847	43.464	43.055	42.625	42.173	41.702	41.215	40.713	40.197
0.2	39.671	39.136	38.593	38.045	37.493	36.939	36.384	35.830	35.278	34.729
0.3	34.184	33.646	33.113	32.588	32.071	31.563	31.064	30.575	30.096	29.628
0.4	29.171	28.725	28.291	27.868	27.456	27.056	26.667	26.289	25.923	25.568
0.5	25.223	24.890	24.567	24.253	23.950	23.657	23.373	23.098	22.831	22.573
0.6	22.323	22.081	21.847	21.619	21.399	21.184	20.976	20.774	20.578	20.386
0.7	20.200	20.019	19.842	19.669	19.500	19.335	19.173	19.015	18.859	18.706
0.8	18.557	18.409	18.264	18.121	17.980	17.840	17.702	17.566	17.432	17.298
0.9	17.166	17.035	16.905	16.775	16.647	16.519	16.393	16.266	16.141	16.016
1.0	15.891	15.767	15.644	15.520	15.398	15.275	15.153	15.032	14.910	14.789
1.1	14.669	14.549	14.429	14.309	14.190	14.072	13.953	13.835	13.718	13.601
1.2	13.484	13.368	13.253	13.138	13.023	12.909	12.796	12.683	12.571	12.459
1.3	12.348	12.238	12.128	12.020	11.912	11.804	11.698	11.592	11.487	11.383
1.4	11.280	11.178	11.076	10.976	10.876	10.778	10.680	10.583	10.488	10.393
1.5	10.299									

SN CONFIGURATION 5P 2, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	50.000	49.953	49.814	49.588	49.280	48.900	48.458	47.964	47.429	46.862
0.1	46.272	45.666	45.052	44.434	43.815	43.200	42.588	41.983	41.385	40.793
0.2	40.209	39.631	39.061	38.497	37.939	37.388	36.843	36.303	35.770	35.243
0.3	34.722	34.207	33.699	33.197	32.702	32.215	31.735	31.263	30.799	30.343
0.4	29.896	29.457	29.027	28.607	28.196	27.794	27.401	27.018	26.645	26.281
0.5	25.926	25.582	25.246	24.920	24.603	24.294	23.995	23.705	23.422	23.149
0.6	22.883	22.625	22.375	22.132	21.896	21.667	21.444	21.228	21.018	20.814
0.7	20.615	20.422	20.234	20.051	19.872	19.698	19.527	19.361	19.198	19.039
0.8	18.883	18.731	18.581	18.433	18.289	18.146	18.006	17.868	17.732	17.598
0.9	17.465	17.334	17.204	17.075	16.948	16.822	16.696	16.572	16.449	16.326
1.0	16.204	16.003	15.962	15.842	15.723	15.604	15.485	15.367	15.250	15.132
1.1	15.015	14.899	14.783	14.667	14.551	14.436	14.321	14.207	14.093	13.979
1.2	13.865	13.752	13.639	13.527	13.415	13.304	13.192	13.082	12.972	12.862
1.3	12.753	12.644	12.536	12.429	12.322	12.215	12.110	12.004	11.900	11.796
1.4	11.693	11.591	11.489	11.388	11.288	11.189	11.091	10.993	10.896	10.800
1.5	10.705									

SN+2 CONFIGURATION 5S 2, 4D10, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	48.000	47.974	47.895	47.765	47.585	47.357	47.084	46.769	46.414	46.024
0.1	45.601	45.150	44.674	44.177	43.662	43.132	42.589	42.037	41.478	40.915
0.2	40.348	39.780	39.212	38.645	38.081	37.520	36.963	36.411	35.865	35.324
0.3	34.790	34.263	33.744	33.232	32.728	32.232	31.745	31.266	30.796	30.336
0.4	29.885	29.443	29.011	28.589	28.176	27.773	27.380	26.997	26.624	26.261
0.5	25.907	25.562	25.228	24.902	24.586	24.279	23.981	23.691	23.410	23.137
0.6	22.873	22.616	22.366	22.124	21.889	21.661	21.439	21.224	21.015	20.811
0.7	20.613	20.421	20.233	20.050	19.872	19.698	19.528	19.362	19.200	19.041
0.8	18.885	18.732	18.583	18.436	18.291	18.149	18.009	17.871	17.735	17.600
0.9	17.467	17.336	17.206	17.078	16.950	16.824	16.699	16.574	16.451	16.328
1.0	16.206	16.085	15.964	15.844	15.725	15.606	15.487	15.369	15.251	15.134
1.1	15.017	14.900	14.784	14.668	14.552	14.437	14.322	14.207	14.093	13.979
1.2	13.866	13.752	13.640	13.527	13.415	13.304	13.192	13.082	12.972	12.862
1.3	12.753	12.644	12.536	12.428	12.321	12.215	12.109	12.004	11.900	11.796
1.4	11.693	11.590	11.489	11.388	11.288	11.188	11.090	10.992	10.895	10.799
1.5	10.704									

HARTREE FOCK SCATTERING FACTOR

SN+4 CONFIGURATION 4D10, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	46.000	45.983	45.933	45.850	45.734	45.587	45.407	45.197	44.957	44.689
0.1	44.393	44.070	43.723	43.353	42.960	42.547	42.115	41.666	41.202	40.723
0.2	40.233	39.731	39.221	38.703	38.179	37.651	37.119	36.586	36.052	35.519
0.3	34.988	34.460	33.936	33.417	32.903	32.396	31.897	31.405	30.921	30.447
0.4	29.982	29.526	29.081	28.646	28.221	27.807	27.403	27.010	26.628	26.256
0.5	25.895	25.544	25.203	24.873	24.553	24.242	23.941	23.649	23.366	23.093
0.6	22.827	22.570	22.321	22.079	21.845	21.618	21.398	21.184	20.976	20.774
0.7	20.578	20.388	20.202	20.021	19.845	19.673	19.506	19.342	19.181	19.024
0.8	18.871	18.720	18.572	18.427	18.284	18.143	18.005	17.868	17.733	17.600
0.9	17.469	17.339	17.210	17.082	16.955	16.830	16.705	16.582	16.459	16.337
1.0	16.215	16.094	15.974	15.854	15.734	15.615	15.497	15.379	15.261	15.143
1.1	15.026	14.910	14.793	14.677	14.561	14.446	14.331	14.216	14.101	13.987
1.2	13.873	13.760	13.647	13.534	13.422	13.310	13.198	13.087	12.977	12.867
1.3	12.757	12.648	12.540	12.432	12.325	12.218	12.112	12.007	11.902	11.798
1.4	11.695	11.592	11.490	11.389	11.289	11.189	11.090	10.993	10.895	10.799
1.5	10.704									

SB CONFIGURATION 5P 3, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	51.000	50.953	50.812	50.583	50.270	49.882	49.429	48.920	48.365	47.775
0.1	47.158	46.524	45.879	45.230	44.581	43.936	43.297	42.668	42.048	41.440
0.2	40.842	40.254	39.678	39.111	38.553	38.005	37.465	36.933	36.408	35.890
0.3	35.379	34.875	34.377	33.886	33.401	32.922	32.450	31.984	31.526	31.074
0.4	30.629	30.192	29.762	29.340	28.926	28.520	28.122	27.733	27.351	26.979
0.5	26.615	26.259	25.912	25.574	25.244	24.923	24.610	24.305	24.009	23.721
0.6	23.441	23.169	22.904	22.647	22.397	22.154	21.918	21.689	21.467	21.250
0.7	21.040	20.835	20.636	20.443	20.254	20.070	19.891	19.717	19.547	19.380
0.8	19.218	19.059	18.904	18.752	18.602	18.456	18.313	18.172	18.033	17.897
0.9	17.762	17.630	17.499	17.371	17.243	17.117	16.993	16.869	16.747	16.626
1.0	16.506	16.387	16.268	16.151	16.034	15.917	15.801	15.686	15.572	15.457
1.1	15.344	15.230	15.117	15.005	14.892	14.781	14.669	14.558	14.447	14.336
1.2	14.226	14.116	14.006	13.896	13.787	13.678	13.570	13.462	13.354	13.247
1.3	13.140	13.033	12.927	12.821	12.716	12.611	12.506	12.402	12.299	12.196
1.4	12.094	11.992	11.891	11.790	11.690	11.591	11.492	11.394	11.297	11.201
1.5	11.105									

SB+3 CONFIGURATION 5S 2, 4D10, 4P 6, 4S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	48.000	47.977	47.909	47.795	47.638	47.439	47.198	46.920	46.605	46.256
0.1	45.876	45.468	45.034	44.578	44.102	43.609	43.101	42.582	42.052	41.515
0.2	40.972	40.425	39.876	39.326	38.776	38.228	37.682	37.140	36.601	36.068
0.3	35.539	35.017	34.501	33.992	33.489	32.994	32.507	32.027	31.556	31.093
0.4	30.638	30.192	29.754	29.326	28.906	28.496	28.094	27.702	27.318	26.944
0.5	26.579	26.223	25.876	25.538	25.209	24.889	24.577	24.274	23.979	23.693
0.6	23.415	23.144	22.881	22.626	22.378	22.137	21.902	21.675	21.454	21.239
0.7	21.030	20.827	20.629	20.437	20.249	20.067	19.889	19.715	19.545	19.380
0.8	19.218	19.060	18.905	18.754	18.605	18.459	18.316	18.175	18.037	17.901
0.9	17.767	17.635	17.504	17.375	17.248	17.122	16.998	16.874	16.752	16.631
1.0	16.511	16.391	16.273	16.155	16.038	15.921	15.805	15.690	15.575	15.461
1.1	15.347	15.233	15.120	15.007	14.895	14.783	14.671	14.560	14.449	14.338
1.2	14.227	14.117	14.007	13.897	13.788	13.679	13.570	13.462	13.354	13.247
1.3	13.140	13.033	12.927	12.821	12.715	12.610	12.506	12.402	12.298	12.195
1.4	12.093	11.991	11.890	11.789	11.689	11.590	11.491	11.393	11.296	11.199
1.5	11.103									

HARTREE FOCK SCATTERING FACTOR

SB+5 CONFIGURATION 4D10, 4P 6, 4S 2, 3D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	46.000	45.985	45.940	45.865	45.761	45.628	45.466	45.276	45.059	44.816
0.1	44.547	44.254	43.938	43.599	43.239	42.860	42.462	42.048	41.617	41.173
0.2	40.715	40.246	39.766	39.278	38.783	38.281	37.774	37.264	36.751	36.238
0.3	35.723	35.210	34.699	34.191	33.686	33.185	32.690	32.201	31.718	31.243
0.4	30.775	30.315	29.864	29.421	28.988	28.564	28.150	27.745	27.350	26.965
0.5	26.590	26.224	25.869	25.523	25.187	24.861	24.544	24.237	23.938	23.649
0.6	23.368	23.095	22.831	22.575	22.326	22.086	21.852	21.625	21.405	21.192
0.7	20.984	20.783	20.587	20.397	20.211	20.031	19.855	19.684	19.517	19.354
0.8	19.194	19.039	18.886	18.737	18.590	18.446	18.305	18.167	18.030	17.896
0.9	17.763	17.632	17.503	17.376	17.250	17.125	17.002	16.879	16.758	16.638
1.0	16.518	16.400	16.282	16.164	16.048	15.932	15.816	15.701	15.586	15.472
1.1	15.358	15.245	15.131	15.019	14.906	14.794	14.682	14.570	14.459	14.348
1.2	14.237	14.126	14.016	13.906	13.797	13.687	13.578	13.470	13.361	13.254
1.3	13.146	13.039	12.932	12.826	12.720	12.615	12.510	12.406	12.302	12.198
1.4	12.096	11.994	11.892	11.791	11.691	11.591	11.492	11.394	11.296	11.200
1.5	11.103									

TE CONFIGURATION 5P 4, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	52.000	51.953	51.813	51.583	51.269	50.879	50.420	49.902	49.334	48.728
0.1	48.091	47.433	46.761	46.083	45.404	44.728	44.059	43.400	42.754	42.120
0.2	41.500	40.893	40.301	39.722	39.155	38.601	38.058	37.525	37.003	36.489
0.3	35.984	35.486	34.997	34.514	34.038	33.568	33.105	32.649	32.198	31.753
0.4	31.315	30.883	30.458	30.039	29.627	29.222	28.823	28.432	28.048	27.671
0.5	27.301	26.939	26.585	26.239	25.900	25.569	25.245	24.930	24.622	24.322
0.6	24.029	23.744	23.467	23.196	22.933	22.678	22.429	22.186	21.951	21.722
0.7	21.499	21.282	21.071	20.866	20.667	20.472	20.283	20.099	19.919	19.744
0.8	19.573	19.407	19.244	19.085	18.930	18.778	18.629	18.483	18.340	18.200
0.9	18.062	17.927	17.794	17.663	17.534	17.407	17.281	17.157	17.035	16.914
1.0	16.794	16.675	16.558	16.442	16.326	16.211	16.098	15.984	15.872	15.760
1.1	15.649	15.538	15.428	15.318	15.209	15.100	14.992	14.883	14.775	14.668
1.2	14.561	14.454	14.347	14.241	14.134	14.029	13.923	13.818	13.713	13.608
1.3	13.503	13.399	13.295	13.192	13.089	12.986	12.883	12.781	12.679	12.578
1.4	12.477	12.377	12.277	12.177	12.078	11.980	11.882	11.784	11.687	11.591
1.5	11.495									

I CONFIGURATION 5P 5, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	53.000	52.953	52.814	52.586	52.273	51.883	51.422	50.900	50.325	49.707
0.1	49.056	48.379	47.686	46.982	46.275	45.570	44.871	44.182	43.505	42.843
0.2	42.195	41.564	40.949	40.350	39.767	39.199	38.645	38.105	37.577	37.061
0.3	36.555	36.060	35.573	35.096	34.626	34.163	33.708	33.259	32.817	32.381
0.4	31.950	31.526	31.107	30.694	30.287	29.886	29.491	29.102	28.719	28.342
0.5	27.972	27.608	27.250	26.900	26.556	26.218	25.888	25.565	25.249	24.939
0.6	24.637	24.342	24.054	23.772	23.498	23.230	22.969	22.715	22.467	22.226
0.7	21.991	21.762	21.539	21.323	21.111	20.906	20.706	20.511	20.321	20.136
0.8	19.955	19.779	19.608	19.441	19.277	19.118	18.962	18.810	18.661	18.515
0.9	18.372	18.232	18.095	17.960	17.827	17.697	17.569	17.443	17.319	17.196
1.0	17.076	16.956	16.838	16.722	16.607	16.492	16.379	16.267	16.156	16.046
1.1	15.936	15.827	15.719	15.611	15.504	15.398	15.292	15.186	15.081	14.976
1.2	14.872	14.768	14.664	14.561	14.457	14.354	14.252	14.149	14.047	13.945
1.3	13.844	13.742	13.641	13.540	13.439	13.339	13.239	13.139	13.039	12.940
1.4	12.841	12.743	12.644	12.547	12.449	12.352	12.255	12.159	12.063	11.968
1.5	11.873									

HARTREE FOCK SCATTERING FACTOR

I -1 CONFIGURATION 5P 6, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	54.000	53.941	53.767	53.483	53.097	52.620	52.066	51.446	50.776	50.067
0.1	49.331	48.580	47.821	47.063	46.311	45.570	44.844	44.136	43.446	42.775
0.2	42.124	41.493	40.880	40.285	39.707	39.145	38.597	38.063	37.542	37.032
0.3	36.532	36.041	35.560	35.086	34.620	34.161	33.708	33.261	32.821	32.386
0.4	31.957	31.533	31.115	30.703	30.296	29.895	29.499	29.110	28.727	28.350
0.5	27.979	27.614	27.257	26.905	26.561	26.223	25.893	25.569	25.252	24.942
0.6	24.640	24.344	24.055	23.774	23.499	23.231	22.970	22.715	22.467	22.226
0.7	21.991	21.762	21.539	21.322	21.110	20.905	20.704	20.509	20.319	20.134
0.8	19.954	19.778	19.607	19.439	19.276	19.117	18.961	18.809	18.660	18.514
0.9	18.371	18.231	18.094	17.959	17.827	17.696	17.568	17.442	17.318	17.196
1.0	17.075	16.956	16.838	16.722	16.606	16.492	16.379	16.267	16.156	16.046
1.1	15.936	15.827	15.719	15.611	15.504	15.398	15.292	15.186	15.081	14.976
1.2	14.872	14.768	14.664	14.561	14.458	14.355	14.252	14.149	14.047	13.945
1.3	13.844	13.742	13.641	13.540	13.440	13.339	13.239	13.139	13.040	12.940
1.4	12.842	12.743	12.645	12.547	12.449	12.352	12.255	12.157	12.063	11.968
1.5	11.873									

XE CONFIGURATION 5P 6, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	54.000	53.954	53.817	53.591	53.280	52.892	52.432	51.909	51.330	50.706
0.1	50.044	49.354	48.643	47.918	47.188	46.456	45.729	45.010	44.303	43.610
0.2	42.933	42.273	41.632	41.008	40.402	39.814	39.243	38.688	38.149	37.623
0.3	37.111	36.612	36.124	35.646	35.178	34.719	34.268	33.825	33.389	32.960
0.4	32.537	32.120	31.709	31.303	30.903	30.508	30.119	29.734	29.356	28.982
0.5	28.614	28.252	27.895	27.544	27.198	26.859	26.525	26.198	25.877	25.562
0.6	25.253	24.950	24.654	24.364	24.081	23.803	23.532	23.268	23.010	22.757
0.7	22.511	22.271	22.037	21.809	21.587	21.370	21.159	20.953	20.752	20.556
0.8	20.366	20.180	19.999	19.822	19.650	19.482	19.317	19.157	19.001	18.848
0.9	18.698	18.552	18.409	18.268	18.131	17.996	17.864	17.734	17.607	17.481
1.0	17.358	17.236	17.116	16.998	16.882	16.767	16.653	16.541	16.430	16.320
1.1	16.211	16.102	15.995	15.889	15.783	15.678	15.574	15.470	15.367	15.265
1.2	15.162	15.061	14.959	14.859	14.758	14.658	14.558	14.458	14.359	14.260
1.3	14.161	14.062	13.964	13.865	13.767	13.670	13.572	13.475	13.378	13.281
1.4	13.184	13.088	12.992	12.896	12.801	12.706	12.611	12.516	12.422	12.328
1.5	12.234									

CS CONFIGURATION 6S 1, 5P 6, 5S 2, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	55.000	54.928	54.720	54.393	53.970	53.477	52.935	52.361	51.763	51.147
0.1	50.515	49.868	49.208	48.536	47.855	47.166	46.473	45.780	45.089	44.405
0.2	43.729	43.064	42.411	41.773	41.149	40.542	39.950	39.374	38.815	38.270
0.3	37.740	37.225	36.722	36.232	35.755	35.288	34.831	34.384	33.946	33.516
0.4	33.093	32.678	32.270	31.868	31.472	31.081	30.697	30.317	29.943	29.574
0.5	29.210	28.851	28.498	28.149	27.805	27.467	27.134	26.806	26.483	26.166
0.6	25.855	25.548	25.248	24.953	24.664	24.380	24.103	23.830	23.564	23.304
0.7	23.049	22.800	22.556	22.319	22.086	21.860	21.638	21.422	21.211	21.006
0.8	20.805	20.609	20.418	20.232	20.050	19.873	19.699	19.531	19.366	19.205
0.9	19.047	18.893	18.743	18.596	18.452	18.312	18.174	18.039	17.906	17.776
1.0	17.649	17.523	17.400	17.279	17.160	17.042	16.927	16.813	16.700	16.589
1.1	16.479	16.371	16.263	16.157	16.051	15.947	15.844	15.741	15.639	15.537
1.2	15.437	15.337	15.237	15.138	15.040	14.942	14.844	14.746	14.649	14.553
1.3	14.456	14.360	14.264	14.169	14.073	13.978	13.883	13.789	13.694	13.600
1.4	13.506	13.412	13.318	13.225	13.132	13.039	12.946	12.853	12.761	12.669
1.5	12.577									

HARTREE FOCK SCATTERING FACTOR

CS+1 CONFIGURATION 5P 6, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	54.000	53.961	53.846	53.655	53.392	53.061	52.666	52.211	51.705	51.151
0.1	50.558	49.931	49.276	48.602	47.912	47.213	46.509	45.806	45.106	44.414
0.2	43.732	43.062	42.406	41.765	41.140	40.532	39.940	39.364	38.804	38.261
0.3	37.732	37.217	36.715	36.227	35.750	35.284	34.828	34.382	33.944	33.515
0.4	33.093	32.679	32.271	31.869	31.473	31.083	30.699	30.319	29.945	29.576
0.5	29.212	28.854	28.500	28.151	27.807	27.469	27.136	26.808	26.485	26.168
0.6	25.856	25.549	25.249	24.954	24.664	24.381	24.103	23.831	23.564	23.304
0.7	23.049	22.800	22.556	22.318	22.086	21.859	21.638	21.421	21.211	21.005
0.8	20.804	20.608	20.417	20.231	20.049	19.872	19.699	19.530	19.365	19.204
0.9	19.047	18.893	18.743	18.596	18.452	18.311	18.173	18.038	17.906	17.776
1.0	17.648	17.523	17.400	17.279	17.160	17.042	16.927	16.813	16.700	16.589
1.1	16.479	16.371	16.263	16.157	16.052	15.947	15.844	15.741	15.639	15.538
1.2	15.437	15.337	15.237	15.138	15.040	14.942	14.844	14.747	14.650	14.553
1.3	14.457	14.360	14.265	14.169	14.074	13.978	13.884	13.789	13.694	13.600
1.4	13.506	13.412	13.319	13.225	13.132	13.039	12.946	12.854	12.761	12.669
1.5	12.577									

BA CONFIGURATION 6S 2, 5P 6, 5S 2, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	56.000	55.920	55.688	55.320	54.841	54.280	53.663	53.013	52.348	51.679
0.1	51.011	50.347	49.686	49.028	48.370	47.713	47.055	46.397	45.739	45.084
0.2	44.431	43.784	43.143	42.510	41.888	41.276	40.677	40.091	39.518	38.959
0.3	38.413	37.882	37.364	36.859	36.367	35.887	35.418	34.961	34.514	34.077
0.4	33.650	33.230	32.819	32.416	32.020	31.630	31.247	30.869	30.498	30.132
0.5	29.771	29.415	29.065	28.719	28.378	28.042	27.711	27.385	27.063	26.747
0.6	26.435	26.128	25.826	25.529	25.237	24.950	24.668	24.392	24.120	23.854
0.7	23.593	23.337	23.087	22.841	22.601	22.366	22.136	21.911	21.692	21.477
0.8	21.267	21.062	20.862	20.666	20.475	20.289	20.107	19.929	19.755	19.586
0.9	19.420	19.258	19.100	18.945	18.794	18.647	18.502	18.360	18.222	18.086
1.0	17.953	17.823	17.695	17.570	17.446	17.325	17.206	17.089	16.974	16.860
1.1	16.748	16.638	16.529	16.421	16.315	16.210	16.106	16.003	15.901	15.800
1.2	15.700	15.601	15.502	15.404	15.307	15.210	15.114	15.018	14.923	14.828
1.3	14.734	14.640	14.546	14.453	14.360	14.267	14.174	14.082	13.990	13.898
1.4	13.806	13.715	13.624	13.533	13.442	13.351	13.261	13.171	13.081	12.991
1.5	12.901									

BA+2 CONFIGURATION 5P 6, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	54.000	53.966	53.866	53.701	53.472	53.182	52.834	52.433	51.982	51.486
0.1	50.951	50.380	49.780	49.155	48.511	47.851	47.182	46.506	45.828	45.151
0.2	44.479	43.813	43.157	42.511	41.878	41.259	40.654	40.064	39.409	38.729
0.3	38.384	37.853	37.337	36.835	36.345	35.868	35.403	34.948	34.504	34.070
0.4	33.644	33.227	32.818	32.417	32.022	31.634	31.251	30.875	30.504	30.139
0.5	29.778	29.423	29.072	28.727	28.386	28.050	27.718	27.391	27.069	26.752
0.6	26.440	26.133	25.830	25.533	25.240	24.953	24.670	24.393	24.121	23.855
0.7	23.593	23.337	23.086	22.841	22.600	22.365	22.135	21.910	21.690	21.475
0.8	21.265	21.060	20.859	20.664	20.473	20.286	20.104	19.926	19.753	19.583
0.9	19.418	19.256	19.098	18.943	18.792	18.645	18.500	18.359	18.220	18.085
1.0	17.952	17.822	17.694	17.569	17.445	17.324	17.205	17.088	16.973	16.860
1.1	16.748	16.638	16.529	16.421	16.315	16.210	16.106	16.003	15.901	15.800
1.2	15.700	15.601	15.502	15.405	15.307	15.211	15.114	15.019	14.923	14.829
1.3	14.734	14.640	14.547	14.453	14.360	14.267	14.175	14.083	13.991	13.899
1.4	13.807	13.716	13.624	13.533	13.443	13.352	13.261	13.171	13.081	12.991
1.5	12.902									

HARTREE FOCK SCATTERING FACTOR

LA CONFIGURATION 6S 2, 5D 1, 5P 6, 5S 2,											
SIN(THETA)/											
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09	
0.	57.000	56.923	56.695	56.333	55.856	55.291	54.661	53.989	53.293	52.587	
0.1	51.878	51.173	50.473	49.779	49.090	48.406	47.727	47.053	46.383	45.718	
0.2	45.058	44.406	43.762	43.127	42.501	41.887	41.285	40.696	40.119	39.556	
0.3	39.007	38.471	37.949	37.439	36.943	36.459	35.987	35.526	35.077	34.637	
0.4	34.208	33.787	33.376	32.972	32.576	32.187	31.805	31.429	31.059	30.695	
0.5	30.336	29.983	29.634	29.290	28.951	28.617	28.287	27.961	27.640	27.324	
0.6	27.012	26.704	26.401	26.102	25.807	25.518	25.233	24.952	24.676	24.405	
0.7	24.139	23.878	23.621	23.369	23.122	22.880	22.642	22.410	22.182	21.959	
0.8	21.741	21.528	21.319	21.115	20.915	20.720	20.529	20.343	20.161	19.983	
0.9	19.809	19.639	19.473	19.310	19.152	18.996	18.845	18.696	18.551	18.409	
1.0	18.270	18.134	18.001	17.870	17.742	17.616	17.493	17.372	17.253	17.136	
1.1	17.021	16.908	16.797	16.687	16.579	16.472	16.367	16.263	16.160	16.058	
1.2	15.958	15.858	15.759	15.662	15.565	15.469	15.373	15.279	15.185	15.091	
1.3	14.998	14.905	14.813	14.722	14.631	14.540	14.449	14.359	14.269	14.179	
1.4	14.090	14.001	13.912	13.823	13.734	13.646	13.558	13.470	13.382	13.295	
1.5	13.207										

LA+3 CONFIGURATION 5P 6, 5S 2, 4D10, 4P 6,											
SIN(THETA)/											
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09	
0.	54.000	53.970	53.882	53.735	53.532	53.274	52.964	52.605	52.199	51.751	
0.1	51.264	50.743	50.191	49.613	49.012	48.393	47.761	47.118	46.468	45.814	
0.2	45.161	44.509	43.862	43.222	42.591	41.970	41.360	40.763	40.178	39.608	
0.3	39.051	38.508	37.979	37.463	36.961	36.472	35.995	35.530	35.077	34.634	
0.4	34.202	33.779	33.365	32.959	32.562	32.172	31.789	31.413	31.043	30.678	
0.5	30.320	29.966	29.618	29.275	28.936	28.603	28.273	27.949	27.629	27.313	
0.6	27.001	26.694	26.392	26.094	25.800	25.512	25.227	24.947	24.672	24.402	
0.7	24.136	23.875	23.619	23.368	23.121	22.879	22.642	22.410	22.183	21.960	
0.8	21.742	21.529	21.320	21.116	20.916	20.721	20.531	20.344	20.162	19.984	
0.9	19.810	19.640	19.474	19.312	19.153	18.998	18.846	18.698	18.553	18.411	
1.0	18.272	18.136	18.002	17.872	17.743	17.618	17.494	17.373	17.254	17.137	
1.1	17.022	16.909	16.797	16.688	16.579	16.473	16.367	16.263	16.160	16.058	
1.2	15.958	15.858	15.760	15.662	15.565	15.469	15.373	15.279	15.184	15.091	
1.3	14.998	14.905	14.813	14.721	14.630	14.539	14.449	14.358	14.268	14.179	
1.4	14.089	14.000	13.911	13.822	13.734	13.645	13.557	13.469	13.382	13.294	
1.5	13.206										

CE CONFIGURATION 6S 2, 5D 1, 5P 6, 5S 2,											
SIN(THETA)/											
LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09	
0.	58.000	57.924	57.702	57.346	56.878	56.322	55.700	55.036	54.347	53.645	
0.1	52.939	52.236	51.536	50.841	50.150	49.464	48.781	48.101	47.425	46.753	
0.2	46.086	45.425	44.771	44.125	43.488	42.862	42.246	41.643	41.052	40.474	
0.3	39.909	39.357	38.819	38.293	37.781	37.281	36.794	36.318	35.854	35.400	
0.4	34.956	34.522	34.098	33.681	33.273	32.873	32.480	32.093	31.713	31.340	
0.5	30.972	30.609	30.252	29.900	29.553	29.211	28.874	28.541	28.213	27.890	
0.6	27.571	27.257	26.947	26.641	26.340	26.044	25.753	25.466	25.183	24.905	
0.7	24.633	24.364	24.101	23.842	23.588	23.339	23.095	22.856	22.621	22.391	
0.8	22.166	21.946	21.730	21.519	21.312	21.110	20.913	20.720	20.531	20.347	
0.9	20.166	19.990	19.818	19.650	19.485	19.324	19.167	19.013	18.863	18.716	
1.0	18.572	18.431	18.294	18.159	18.027	17.897	17.770	17.646	17.523	17.403	
1.1	17.286	17.170	17.056	16.944	16.834	16.725	16.619	16.513	16.409	16.306	
1.2	16.205	16.105	16.006	15.908	15.811	15.714	15.619	15.525	15.431	15.338	
1.3	15.246	15.154	15.063	14.972	14.882	14.792	14.703	14.614	14.525	14.437	
1.4	14.349	14.261	14.174	14.087	14.000	13.913	13.827	13.741	13.655	13.569	
1.5	13.483										

HARTREE FOCK SCATTERING FACTOR

CE+3 CONFIGURATION 5P 6, 5S 2, 4F 1, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	55.000	54.971	54.884	54.739	54.539	54.284	53.978	53.623	53.222	52.778
0.1	52.295	51.777	51.229	50.653	50.054	49.436	48.802	48.158	47.505	46.847
0.2	46.187	45.529	44.874	44.224	43.582	42.950	42.327	41.716	41.118	40.533
0.3	39.960	39.402	38.857	38.326	37.808	37.302	36.810	36.330	35.861	35.404
0.4	34.957	34.520	34.093	33.674	33.264	32.862	32.468	32.081	31.700	31.326
0.5	30.958	30.595	30.238	29.886	29.540	29.198	28.861	28.529	28.202	27.879
0.6	27.561	27.247	26.938	26.633	26.333	26.037	25.746	25.460	25.178	24.901
0.7	24.628	24.361	24.098	23.839	23.586	23.337	23.093	22.854	22.620	22.390
0.8	22.166	21.945	21.730	21.519	21.313	21.111	20.914	20.721	20.532	20.348
0.9	20.167	19.991	19.819	19.651	19.486	19.325	19.168	19.014	18.864	18.717
1.0	18.573	18.432	18.295	18.160	18.028	17.898	17.771	17.646	17.524	17.404
1.1	17.286	17.171	17.057	16.945	16.835	16.726	16.619	16.513	16.409	16.307
1.2	16.205	16.105	16.006	15.908	15.811	15.714	15.619	15.524	15.431	15.338
1.3	15.245	15.153	15.062	14.972	14.881	14.792	14.702	14.613	14.525	14.436
1.4	14.348	14.261	14.173	14.086	13.999	13.913	13.826	13.740	13.654	13.568
1.5	13.482									

CE+4 CONFIGURATION 5P 6, 5S 2, 4D10, 4P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	54.000	53.973	53.894	53.763	53.580	53.348	53.068	52.743	52.375	51.967
0.1	51.522	51.043	50.534	49.998	49.438	48.859	48.263	47.653	47.034	46.408
0.2	45.777	45.146	44.515	43.887	43.264	42.649	42.041	41.444	40.857	40.281
0.3	39.717	39.166	38.628	38.102	37.589	37.089	36.602	36.126	35.663	35.211
0.4	34.769	34.338	33.917	33.506	33.103	32.708	32.322	31.943	31.571	31.205
0.5	30.846	30.493	30.145	29.803	29.466	29.133	28.806	28.483	28.164	27.850
0.6	27.540	27.234	26.933	26.635	26.342	26.053	25.768	25.487	25.211	24.938
0.7	24.670	24.406	24.147	23.892	23.641	23.395	23.153	22.915	22.682	22.453
0.8	22.229	22.009	21.793	21.582	21.375	21.172	20.974	20.780	20.590	20.404
0.9	20.223	20.045	19.871	19.701	19.534	19.372	19.213	19.057	18.905	18.756
1.0	18.610	18.467	18.327	18.191	18.057	17.925	17.797	17.671	17.547	17.425
1.1	17.306	17.189	17.074	16.960	16.849	16.739	16.631	16.525	16.420	16.317
1.2	16.214	16.114	16.014	15.915	15.818	15.721	15.625	15.531	15.437	15.343
1.3	15.251	15.159	15.068	14.977	14.887	14.797	14.708	14.619	14.531	14.443
1.4	14.355	14.268	14.181	14.094	14.008	13.921	13.835	13.749	13.664	13.578
1.5	13.493									

PK CONFIGURATION 6S 2, 5P 6, 5S 2, 4F 3,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	59.000	58.925	58.707	58.360	57.906	57.370	56.775	56.144	55.493	54.832
0.1	54.168	53.504	52.841	52.178	51.513	50.846	50.177	49.505	48.830	48.155
0.2	47.480	46.807	46.138	45.474	44.817	44.169	43.530	42.902	42.286	41.683
0.3	41.092	40.514	39.950	39.399	38.861	38.336	37.823	37.322	36.833	36.356
0.4	35.888	35.431	34.984	34.545	34.115	33.694	33.280	32.873	32.474	32.081
0.5	31.695	31.314	30.940	30.571	30.208	29.850	29.498	29.151	28.809	28.471
0.6	28.139	27.812	27.490	27.173	26.861	26.553	26.251	25.954	25.662	25.374
0.7	25.092	24.815	24.543	24.276	24.014	23.757	23.506	23.259	23.017	22.780
0.8	22.548	22.321	22.099	21.882	21.670	21.462	21.259	21.060	20.866	20.676
0.9	20.491	20.310	20.133	19.960	19.791	19.626	19.464	19.306	19.152	19.001
1.0	18.854	18.710	18.568	18.430	18.295	18.163	18.033	17.906	17.781	17.659
1.1	17.539	17.421	17.305	17.192	17.080	16.970	16.861	16.755	16.649	16.546
1.2	16.443	16.342	16.243	16.144	16.047	15.950	15.855	15.760	15.666	15.573
1.3	15.481	15.390	15.299	15.209	15.119	15.030	14.941	14.853	14.766	14.678
1.4	14.591	14.505	14.418	14.332	14.247	14.161	14.076	13.991	13.906	13.821
1.5	13.737									

HARTREE FÜCK SCATTERING FACTOR

PR+3 CONFIGURATION 5P 6, 5S 2, 4F 2, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	56.000	55.971	55.885	55.743	55.545	55.294	54.992	54.641	54.245	53.806
0.1	53.328	52.814	52.269	51.697	51.100	50.484	49.851	49.205	48.550	47.890
0.2	47.226	46.562	45.900	45.243	44.592	43.949	43.315	42.693	42.082	41.483
0.3	40.896	40.323	39.764	39.217	38.684	38.164	37.656	37.161	36.677	36.205
0.4	35.744	35.293	34.852	34.420	33.997	33.583	33.176	32.778	32.386	32.001
0.5	31.622	31.250	30.883	30.522	30.167	29.816	29.471	29.131	28.795	28.464
0.6	28.138	27.817	27.501	27.189	26.881	26.578	26.280	25.987	25.698	25.414
0.7	25.134	24.859	24.589	24.324	24.064	23.808	23.557	23.311	23.069	22.832
0.8	22.601	22.373	22.151	21.933	21.719	21.511	21.307	21.107	20.911	20.720
0.9	20.533	20.351	20.172	19.998	19.827	19.660	19.497	19.338	19.182	19.030
1.0	18.881	18.735	18.592	18.452	18.316	18.182	18.051	17.922	17.797	17.673
1.1	17.552	17.433	17.316	17.202	17.089	16.978	16.869	16.761	16.656	16.551
1.2	16.448	16.347	16.247	16.148	16.050	15.953	15.858	15.763	15.669	15.576
1.3	15.484	15.392	15.301	15.211	15.122	15.033	14.944	14.856	14.769	14.681
1.4	14.595	14.508	14.422	14.336	14.251	14.166	14.081	13.996	13.912	13.827
1.5	13.743									

PR+4 CONFIGURATION 5P 6, 5S 2, 4F 1, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	55.000	54.974	54.896	54.766	54.586	54.357	54.081	53.759	53.395	52.991
0.1	52.550	52.075	51.570	51.036	50.479	49.901	49.306	48.696	48.076	47.447
0.2	46.814	46.177	45.541	44.906	44.276	43.651	43.034	42.425	41.826	41.238
0.3	40.661	40.096	39.543	39.003	38.475	37.960	37.457	36.966	36.487	36.020
0.4	35.564	35.118	34.683	34.257	33.840	33.433	33.033	32.641	32.257	31.880
0.5	31.510	31.146	30.788	30.435	30.088	29.747	29.410	29.078	28.751	28.429
0.6	28.111	27.797	27.488	27.183	26.883	26.586	26.294	26.007	25.723	25.444
0.7	25.169	24.898	24.632	24.370	24.112	23.859	23.610	23.366	23.126	22.891
0.8	22.660	22.433	22.211	21.993	21.779	21.570	21.365	21.165	20.969	20.776
0.9	20.588	20.404	20.224	20.048	19.876	19.708	19.543	19.382	19.224	19.070
1.0	18.919	18.771	18.627	18.485	18.347	18.211	18.079	17.949	17.821	17.696
1.1	17.573	17.453	17.335	17.219	17.105	16.993	16.883	16.774	16.668	16.562
1.2	16.459	16.356	16.256	16.156	16.058	15.960	15.864	15.769	15.675	15.581
1.3	15.489	15.397	15.306	15.216	15.127	15.038	14.949	14.861	14.774	14.687
1.4	14.600	14.514	14.428	14.343	14.258	14.173	14.088	14.004	13.919	13.836
1.5	13.752									

ND CONFIGURATION 6S 2, 5P 6, 5S 2, 4F 4,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	60.000	59.927	59.713	59.372	58.926	58.397	57.811	57.187	56.541	55.885
0.1	55.224	54.563	53.901	53.239	52.574	51.907	51.237	50.563	49.886	49.207
0.2	48.528	47.850	47.174	46.503	45.837	45.179	44.531	43.892	43.264	42.648
0.3	42.044	41.453	40.874	40.309	39.757	39.217	38.690	38.175	37.672	37.180
0.4	36.699	36.229	35.768	35.317	34.875	34.441	34.015	33.598	33.187	32.784
0.5	32.387	31.997	31.613	31.235	30.862	30.496	30.134	29.779	29.428	29.083
0.6	28.743	28.407	28.077	27.752	27.433	27.118	26.808	26.503	26.203	25.908
0.7	25.618	25.333	25.054	24.779	24.510	24.245	23.986	23.731	23.482	23.237
0.8	22.998	22.763	22.534	22.309	22.089	21.874	21.663	21.457	21.256	21.059
0.9	20.867	20.679	20.495	20.315	20.140	19.968	19.801	19.637	19.477	19.320
1.0	19.167	19.017	18.871	18.728	18.587	18.450	18.316	18.185	18.056	17.930
1.1	17.806	17.684	17.565	17.449	17.334	17.221	17.110	17.001	16.894	16.788
1.2	16.684	16.581	16.480	16.380	16.281	16.184	16.088	15.993	15.898	15.805
1.3	15.713	15.621	15.531	15.441	15.351	15.263	15.175	15.087	15.000	14.914
1.4	14.827	14.742	14.657	14.572	14.487	14.403	14.319	14.235	14.152	14.069
1.5	13.986									

HARTREE FOCK SCATTERING FACTOR

ND+3 CONFIGURATION 5P 6, 5S 2, 4F 3, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	57.000	56.972	56.887	56.747	56.552	56.305	56.007	55.660	55.269	54.834
0.1	54.361	53.852	53.312	52.743	52.149	51.535	50.903	50.258	49.603	48.940
0.2	48.273	47.605	46.938	46.274	45.615	44.964	44.320	43.687	43.064	42.453
0.3	41.854	41.268	40.694	40.134	39.586	39.051	38.529	38.019	37.521	37.034
0.4	36.558	36.094	35.639	35.194	34.758	34.331	33.912	33.501	33.098	32.702
0.5	32.312	31.929	31.552	31.182	30.816	30.457	30.102	29.753	29.409	29.070
0.6	28.736	28.407	28.082	27.762	27.447	27.137	26.831	26.530	26.234	25.942
0.7	25.655	25.373	25.096	24.823	24.555	24.292	24.034	23.780	23.531	23.287
0.8	23.048	22.814	22.584	22.359	22.138	21.922	21.711	21.504	21.302	21.104
0.9	20.910	20.721	20.536	20.354	20.177	20.004	19.835	19.670	19.508	19.350
1.0	19.195	19.044	18.896	18.752	18.610	18.472	18.336	18.203	18.073	17.946
1.1	17.821	17.698	17.578	17.460	17.344	17.231	17.119	17.009	16.901	16.795
1.2	16.690	16.587	16.485	16.384	16.285	16.188	16.091	15.996	15.901	15.808
1.3	15.715	15.623	15.533	15.443	15.353	15.265	15.177	15.089	15.002	14.916
1.4	14.830	14.744	14.659	14.575	14.490	14.406	14.323	14.239	14.156	14.073
1.5	13.991									

PM CONFIGURATION 6S 2, 5P 6, 5S 2, 4F 5,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	61.000	60.928	60.718	60.384	59.945	59.424	58.845	58.228	57.588	56.937
0.1	56.280	55.621	54.962	54.301	53.638	52.971	52.300	51.626	50.947	50.266
0.2	49.584	48.901	48.220	47.543	46.870	46.204	45.546	44.897	44.259	43.631
0.3	43.015	42.412	41.820	41.242	40.676	40.123	39.582	39.053	38.536	38.031
0.4	37.536	37.052	36.579	36.114	35.660	35.214	34.776	34.347	33.925	33.511
0.5	33.103	32.703	32.308	31.920	31.538	31.162	30.792	30.427	30.068	29.714
0.6	29.365	29.022	28.683	28.350	28.022	27.699	27.381	27.068	26.760	26.458
0.7	26.160	25.867	25.580	25.297	25.020	24.747	24.480	24.218	23.961	23.708
0.8	23.461	23.219	22.982	22.749	22.521	22.299	22.081	21.867	21.659	21.454
0.9	21.255	21.060	20.869	20.682	20.500	20.322	20.147	19.977	19.811	19.648
1.0	19.489	19.333	19.181	19.033	18.887	18.745	18.606	18.470	18.336	18.206
1.1	18.078	17.952	17.829	17.709	17.591	17.475	17.361	17.249	17.139	17.030
1.2	16.924	16.819	16.716	16.614	16.514	16.415	16.318	16.222	16.126	16.032
1.3	15.939	15.847	15.756	15.666	15.576	15.488	15.400	15.313	15.226	15.140
1.4	15.054	14.969	14.885	14.801	14.717	14.634	14.551	14.469	14.386	14.304
1.5	14.223									

PM+3 CONFIGURATION 5P 6, 5S 2, 4F 4, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	58.000	57.972	57.889	57.751	57.559	57.315	57.021	56.679	56.292	55.863
0.1	55.395	54.891	54.355	53.790	53.200	52.589	51.959	51.315	50.660	49.996
0.2	49.327	48.656	47.984	47.315	46.650	45.990	45.339	44.696	44.063	43.441
0.3	42.830	42.231	41.645	41.071	40.510	39.961	39.425	38.901	38.389	37.888
0.4	37.399	36.920	36.452	35.993	35.544	35.105	34.673	34.250	33.835	33.427
0.5	33.027	32.633	32.245	31.864	31.489	31.120	30.756	30.398	30.044	29.697
0.6	29.354	29.016	28.683	28.355	28.032	27.713	27.400	27.091	26.787	26.487
0.7	26.193	25.903	25.618	25.337	25.062	24.791	24.525	24.264	24.008	23.756
0.8	23.510	23.268	23.030	22.798	22.570	22.347	22.128	21.914	21.704	21.499
0.9	21.299	21.102	20.910	20.722	20.539	20.359	20.183	20.012	19.844	19.680
1.0	19.519	19.362	19.209	19.059	18.912	18.768	18.628	18.490	18.355	18.224
1.1	18.094	17.968	17.844	17.722	17.603	17.486	17.371	17.258	17.147	17.038
1.2	16.931	16.826	16.722	16.620	16.519	16.420	16.322	16.225	16.129	16.035
1.3	15.942	15.849	15.758	15.668	15.578	15.489	15.401	15.314	15.228	15.142
1.4	15.056	14.971	14.887	14.803	14.719	14.636	14.554	14.471	14.389	14.308
1.5	14.226									

HARTREE FOCK SCATTERING FACTOR

SM CONFIGURATION 6S 2, 5P 6, 5S 2, 4F 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	62.000	61.930	61.724	61.395	60.963	60.450	59.878	59.268	58.634	57.987
0.1	57.335	56.680	56.023	55.364	54.703	54.037	53.367	52.692	52.013	51.330
0.2	50.645	49.960	49.274	48.592	47.913	47.240	46.574	45.917	45.268	44.630
0.3	44.003	43.388	42.785	42.194	41.615	41.049	40.495	39.953	39.423	38.904
0.4	38.396	37.899	37.413	36.936	36.469	36.010	35.561	35.120	34.686	34.261
0.5	33.842	33.431	33.026	32.628	32.236	31.850	31.471	31.096	30.728	30.365
0.6	30.007	29.655	29.308	28.966	28.630	28.298	27.972	27.651	27.335	27.024
0.7	26.718	26.417	26.122	25.831	25.546	25.265	24.990	24.720	24.455	24.194
0.8	23.939	23.689	23.444	23.203	22.968	22.737	22.512	22.291	22.074	21.863
0.9	21.656	21.453	21.255	21.061	20.872	20.687	20.506	20.329	20.156	19.987
1.0	19.821	19.660	19.502	19.347	19.196	19.048	18.904	18.762	18.624	18.489
1.1	18.356	18.226	18.099	17.974	17.852	17.732	17.615	17.500	17.386	17.275
1.2	17.166	17.059	16.953	16.849	16.747	16.646	16.547	16.449	16.352	16.257
1.3	16.163	16.070	15.978	15.887	15.797	15.708	15.619	15.532	15.445	15.359
1.4	15.274	15.189	15.105	15.021	14.938	14.856	14.773	14.692	14.610	14.529
1.5	14.449									

SM+3 CONFIGURATION 5P 6, 5S 2, 4F 5, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	59.000	58.973	58.890	58.754	58.565	58.325	58.035	57.698	57.316	56.892
0.1	56.429	55.930	55.398	54.838	54.252	53.644	53.017	52.374	51.720	51.056
0.2	50.386	49.712	49.037	48.363	47.693	47.027	46.368	45.717	45.074	44.442
0.3	43.821	43.211	42.613	42.026	41.452	40.891	40.341	39.804	39.278	38.764
0.4	38.261	37.769	37.288	36.816	36.354	35.902	35.458	35.023	34.596	34.176
0.5	33.764	33.359	32.961	32.569	32.184	31.804	31.431	31.063	30.700	30.343
0.6	29.991	29.645	29.303	28.966	28.635	28.308	27.986	27.669	27.357	27.049
0.7	26.747	26.449	26.156	25.868	25.585	25.306	25.032	24.764	24.499	24.240
0.8	23.986	23.736	23.491	23.251	23.015	22.785	22.559	22.337	22.120	21.908
0.9	21.700	21.496	21.297	21.102	20.912	20.725	20.543	20.365	20.190	20.020
1.0	19.853	19.690	19.531	19.375	19.222	19.073	18.927	18.785	18.645	18.508
1.1	18.375	18.244	18.115	17.989	17.866	17.745	17.627	17.511	17.397	17.285
1.2	17.174	17.066	16.960	16.855	16.752	16.651	16.551	16.453	16.356	16.260
1.3	16.165	16.072	15.980	15.889	15.798	15.709	15.621	15.533	15.446	15.360
1.4	15.275	15.190	15.106	15.023	14.940	14.857	14.775	14.694	14.612	14.532
1.5	14.451									

EU CONFIGURATION 6S 2, 5P 6, 5S 2, 4F 7,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	63.000	62.931	62.728	62.405	61.980	61.474	60.910	60.307	59.679	59.037
0.1	58.389	57.738	57.084	56.428	55.768	55.104	54.435	53.761	53.081	52.398
0.2	51.711	51.023	50.335	49.648	48.964	48.285	47.612	46.947	46.290	45.643
0.3	45.006	44.380	43.765	43.163	42.572	41.994	41.427	40.872	40.329	39.798
0.4	39.277	38.767	38.268	37.779	37.299	36.829	36.367	35.914	35.469	35.033
0.5	34.603	34.181	33.766	33.357	32.955	32.559	32.169	31.786	31.408	31.035
0.6	30.669	30.307	29.952	29.601	29.256	28.916	28.581	28.251	27.927	27.608
0.7	27.293	26.984	26.681	26.382	26.088	25.799	25.516	25.238	24.964	24.696
0.8	24.433	24.174	23.921	23.673	23.429	23.191	22.957	22.729	22.505	22.285
0.9	22.071	21.860	21.655	21.454	21.257	21.065	20.877	20.693	20.513	20.337
1.0	20.165	19.997	19.833	19.672	19.515	19.361	19.211	19.064	18.920	18.780
1.1	18.642	18.508	18.376	18.247	18.120	17.996	17.875	17.755	17.639	17.524
1.2	17.411	17.301	17.192	17.086	16.981	16.878	16.776	16.676	16.577	16.480
1.3	16.385	16.290	16.197	16.105	16.014	15.924	15.835	15.747	15.659	15.573
1.4	15.487	15.403	15.319	15.235	15.152	15.070	14.988	14.907	14.826	14.746
1.5	14.666									

HARTREE FOCK SCATTERING FACTOR

EU+2 CONFIGURATION 5P 6, 5S 2, 4F 7, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	61.000	60.970	60.881	60.732	60.527	60.265	59.950	59.585	59.171	58.713
0.1	58.214	57.677	57.107	56.507	55.882	55.235	54.570	53.890	53.199	52.501
0.2	51.797	51.092	50.387	49.685	48.988	48.298	47.615	46.942	46.279	45.627
0.3	44.987	44.359	43.744	43.141	42.551	41.973	41.408	40.855	40.314	39.784
0.4	39.266	38.758	38.261	37.773	37.296	36.827	36.367	35.915	35.472	35.036
0.5	34.608	34.186	33.772	33.364	32.962	32.567	32.177	31.793	31.415	31.043
0.6	30.676	30.315	29.959	29.608	29.262	28.922	28.587	28.257	27.932	27.612
0.7	27.297	26.988	26.684	26.384	26.090	25.801	25.517	25.239	24.965	24.696
0.8	24.433	24.174	23.921	23.672	23.428	23.190	22.956	22.727	22.503	22.283
0.9	22.068	21.858	21.653	21.451	21.255	21.062	20.874	20.690	20.510	20.335
1.0	20.163	19.995	19.830	19.670	19.513	19.359	19.209	19.062	18.918	18.778
1.1	18.640	18.506	18.374	18.245	18.118	17.995	17.873	17.754	17.637	17.523
1.2	17.410	17.300	17.191	17.085	16.980	16.877	16.775	16.675	16.577	16.480
1.3	16.384	16.290	16.197	16.104	16.014	15.924	15.835	15.747	15.659	15.573
1.4	15.488	15.403	15.319	15.235	15.152	15.070	14.988	14.907	14.826	14.746
1.5	14.666									

EU+3 CONFIGURATION 5P 6, 5S 2, 4F 6, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	60.000	59.973	59.892	59.758	59.572	59.335	59.049	58.716	58.339	57.920
0.1	57.462	56.968	56.442	55.886	55.304	54.700	54.076	53.435	52.782	52.119
0.2	51.448	50.773	50.095	49.418	48.743	48.072	47.406	46.747	46.097	45.456
0.3	44.825	44.204	43.595	42.998	42.412	41.838	41.276	40.726	40.187	39.660
0.4	39.144	38.639	38.145	37.660	37.186	36.721	36.265	35.817	35.378	34.947
0.5	34.524	34.107	33.698	33.296	32.900	32.510	32.126	31.749	31.377	31.010
0.6	30.649	30.293	29.942	29.597	29.257	28.921	28.591	28.265	27.945	27.629
0.7	27.318	27.012	26.711	26.415	26.124	25.837	25.556	25.279	25.007	24.740
0.8	24.477	24.220	23.967	23.719	23.476	23.237	23.004	22.775	22.550	22.330
0.9	22.115	21.904	21.698	21.496	21.298	21.104	20.915	20.730	20.549	20.372
1.0	20.199	20.029	19.864	19.702	19.543	19.388	19.237	19.088	18.943	18.801
1.1	18.663	18.527	18.394	18.263	18.136	18.011	17.888	17.768	17.650	17.535
1.2	17.421	17.310	17.201	17.093	16.988	16.884	16.782	16.681	16.582	16.484
1.3	16.388	16.293	16.200	16.107	16.016	15.926	15.836	15.748	15.661	15.574
1.4	15.489	15.404	15.319	15.236	15.153	15.071	14.989	14.908	14.827	14.747
1.5	14.667									

GD CONFIGURATION 6S 2, 5D 1, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	64.000	63.932	63.733	63.414	62.990	62.481	61.908	61.288	60.637	59.967
0.1	59.288	58.604	57.919	57.234	56.550	55.865	55.180	54.494	53.807	53.120
0.2	52.433	51.746	51.061	50.379	49.700	49.026	48.358	47.698	47.045	46.401
0.3	45.766	45.142	44.528	43.925	43.334	42.754	42.185	41.627	41.081	40.545
0.4	40.021	39.507	39.003	38.510	38.025	37.551	37.085	36.628	36.179	35.737
0.5	35.304	34.878	34.459	34.046	33.641	33.241	32.848	32.461	32.079	31.703
0.6	31.333	30.968	30.608	30.254	29.904	29.560	29.221	28.886	28.557	28.233
0.7	27.913	27.599	27.289	26.985	26.685	26.390	26.100	25.815	25.534	25.259
0.8	24.988	24.723	24.462	24.206	23.955	23.708	23.466	23.229	22.997	22.769
0.9	22.546	22.328	22.114	21.904	21.699	21.498	21.302	21.109	20.921	20.737
1.0	20.557	20.381	20.209	20.040	19.876	19.714	19.557	19.403	19.252	19.104
1.1	18.960	18.819	18.681	18.545	18.413	18.283	18.156	18.032	17.910	17.791
1.2	17.673	17.558	17.446	17.335	17.226	17.119	17.014	16.911	16.810	16.710
1.3	16.611	16.515	16.419	16.325	16.232	16.141	16.050	15.961	15.872	15.785
1.4	15.699	15.613	15.529	15.445	15.362	15.279	15.197	15.116	15.036	14.956
1.5	14.876									

HARTREE FOCK SCATTERING FACTOR

GD+3 CONFIGURATION 5P 6, 5S 2, 4F 7, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	61.000	60.973	60.894	60.762	60.578	60.345	60.063	59.734	59.362	58.948
0.1	58.495	58.007	57.485	56.934	56.356	55.756	55.135	54.497	53.846	53.184
0.2	52.513	51.837	51.158	50.478	49.799	49.123	48.452	47.787	47.129	46.480
0.3	45.840	45.210	44.591	43.982	43.386	42.800	42.226	41.664	41.113	40.574
0.4	40.046	39.528	39.021	38.524	38.037	37.560	37.092	36.632	36.181	35.739
0.5	35.304	34.876	34.456	34.043	33.636	33.236	32.842	32.455	32.073	31.696
0.6	31.326	30.961	30.601	30.246	29.897	29.553	29.214	28.880	28.551	28.226
0.7	27.907	27.593	27.284	26.979	26.680	26.385	26.095	25.810	25.530	25.255
0.8	24.985	24.719	24.458	24.203	23.952	23.705	23.464	23.227	22.995	22.767
0.9	22.544	22.326	22.112	21.902	21.697	21.497	21.300	21.108	20.920	20.736
1.0	20.556	20.380	20.208	20.040	19.875	19.714	19.556	19.402	19.251	19.104
1.1	18.960	18.819	18.680	18.545	18.413	18.283	18.156	18.032	17.910	17.790
1.2	17.673	17.558	17.446	17.335	17.226	17.119	17.014	16.911	16.810	16.710
1.3	16.611	16.514	16.419	16.325	16.232	16.140	16.050	15.960	15.872	15.785
1.4	15.698	15.613	15.528	15.444	15.361	15.279	15.197	15.116	15.035	14.955
1.5	14.876									

TB CONFIGURATION 6S 2, 5D 1, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	65.000	64.934	64.738	64.423	64.006	63.504	62.938	62.324	61.680	61.016
0.1	60.341	59.662	58.980	58.298	57.616	56.933	56.250	55.565	54.879	54.192
0.2	53.504	52.816	52.128	51.443	50.761	50.083	49.410	48.743	48.083	47.432
0.3	46.789	46.156	45.533	44.920	44.318	43.727	43.147	42.578	42.020	41.473
0.4	40.936	40.410	39.895	39.389	38.893	38.406	37.928	37.459	36.999	36.546
0.5	36.102	35.664	35.234	34.811	34.395	33.985	33.582	33.185	32.793	32.408
0.6	32.028	31.653	31.284	30.921	30.562	30.209	29.861	29.518	29.180	28.847
0.7	28.520	28.197	27.879	27.566	27.258	26.954	26.656	26.363	26.074	25.791
0.8	25.512	25.238	24.969	24.705	24.446	24.192	23.942	23.697	23.457	23.221
0.9	22.991	22.764	22.543	22.326	22.113	21.905	21.701	21.501	21.306	21.115
1.0	20.928	20.745	20.566	20.391	20.219	20.052	19.888	19.728	19.571	19.418
1.1	19.268	19.121	18.977	18.837	18.699	18.564	18.433	18.304	18.177	18.053
1.2	17.932	17.813	17.696	17.582	17.469	17.359	17.251	17.145	17.040	16.938
1.3	16.837	16.738	16.640	16.544	16.449	16.355	16.263	16.172	16.083	15.994
1.4	15.906	15.820	15.734	15.650	15.566	15.483	15.401	15.320	15.239	15.159
1.5	15.079									

TB+3 CONFIGURATION 5P 6, 5S 2, 4F 8, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	62.000	61.974	61.895	61.765	61.584	61.354	61.076	60.752	60.384	59.975
0.1	59.528	59.044	58.528	57.982	57.409	56.812	56.195	55.560	54.911	54.250
0.2	53.580	52.904	52.223	51.541	50.859	50.180	49.504	48.833	48.169	47.512
0.3	46.864	46.226	45.597	44.979	44.372	43.776	43.191	42.618	42.055	41.504
0.4	40.964	40.434	39.915	39.406	38.907	38.418	37.938	37.467	37.004	36.550
0.5	36.103	35.665	35.234	34.809	34.392	33.982	33.578	33.180	32.788	32.402
0.6	32.022	31.647	31.278	30.914	30.556	30.203	29.855	29.512	29.174	28.841
0.7	28.514	28.191	27.873	27.560	27.252	26.949	26.651	26.358	26.070	25.787
0.8	25.508	25.235	24.966	24.702	24.443	24.189	23.939	23.694	23.454	23.219
0.9	22.988	22.762	22.541	22.324	22.111	21.903	21.699	21.500	21.305	21.114
1.0	20.927	20.744	20.565	20.390	20.219	20.051	19.887	19.727	19.570	19.417
1.1	19.267	19.120	18.977	18.836	18.699	18.564	18.432	18.303	18.177	18.053
1.2	17.932	17.813	17.696	17.582	17.469	17.359	17.251	17.145	17.040	16.938
1.3	16.837	16.737	16.640	16.543	16.449	16.355	16.263	16.172	16.082	15.994
1.4	15.906	15.820	15.734	15.649	15.566	15.483	15.401	15.319	15.238	15.158
1.5	15.079									

HARTREE FOCK SCATTERING FACTOR

DY CONFIGURATION 6S 2, 5P 6, 5S 2, 4F10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	66.000	65.935	65.742	65.434	65.028	64.543	64.000	63.416	62.806	62.180
0.1	61.546	60.906	60.262	59.615	58.963	58.306	57.642	56.972	56.296	55.613
0.2	54.926	54.234	53.540	52.845	52.151	51.458	50.770	50.086	49.409	48.739
0.3	48.077	47.424	46.781	46.148	45.526	44.915	44.315	43.726	43.148	42.582
0.4	42.025	41.480	40.945	40.420	39.905	39.399	38.903	38.415	37.937	37.466
0.5	37.004	36.549	36.101	35.661	35.228	34.802	34.382	33.969	33.562	33.161
0.6	32.766	32.376	31.993	31.615	31.243	30.876	30.515	30.159	29.808	29.463
0.7	29.123	28.788	28.459	28.134	27.815	27.501	27.193	26.889	26.591	26.297
0.8	26.009	25.726	25.448	25.175	24.907	24.644	24.386	24.133	23.885	23.642
0.9	23.403	23.170	22.941	22.717	22.497	22.282	22.072	21.866	21.664	21.467
1.0	21.274	21.085	20.900	20.719	20.542	20.369	20.200	20.035	19.873	19.715
1.1	19.560	19.408	19.260	19.115	18.973	18.835	18.699	18.566	18.436	18.308
1.2	18.183	18.061	17.941	17.823	17.708	17.595	17.484	17.375	17.268	17.163
1.3	17.059	16.958	16.858	16.760	16.663	16.568	16.474	16.382	16.290	16.201
1.4	16.112	16.024	15.937	15.852	15.767	15.684	15.601	15.519	15.438	15.357
1.5	15.277									

DY+3 CONFIGURATION 5P 6, 5S 2, 4F 9, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	63.000	62.974	62.897	62.769	62.591	62.363	62.089	61.769	61.406	61.002
0.1	60.560	60.081	59.570	59.029	58.461	57.868	57.255	56.623	55.977	55.317
0.2	54.649	53.972	53.291	52.608	51.924	51.241	50.561	49.885	49.215	48.552
0.3	47.897	47.251	46.614	45.987	45.370	44.764	44.169	43.585	43.011	42.449
0.4	41.897	41.356	40.825	40.305	39.794	39.293	38.801	38.318	37.844	37.379
0.5	36.921	36.472	36.029	35.595	35.167	34.746	34.331	33.923	33.522	33.126
0.6	32.736	32.352	31.973	31.600	31.233	30.870	30.514	30.162	29.815	29.474
0.7	29.137	28.806	28.480	28.158	27.842	27.531	27.224	26.923	26.626	26.335
0.8	26.048	25.766	25.489	25.217	24.950	24.688	24.430	24.177	23.929	23.686
0.9	23.448	23.214	22.984	22.760	22.540	22.324	22.113	21.906	21.703	21.505
1.0	21.311	21.121	20.935	20.753	20.575	20.401	20.231	20.064	19.901	19.741
1.1	19.585	19.433	19.283	19.137	18.994	18.854	18.717	18.583	18.452	18.324
1.2	18.198	18.074	17.953	17.835	17.719	17.605	17.493	17.383	17.276	17.170
1.3	17.066	16.964	16.863	16.764	16.667	16.572	16.477	16.384	16.293	16.203
1.4	16.113	16.026	15.939	15.853	15.768	15.684	15.601	15.519	15.438	15.357
1.5	15.277									

H0 CONFIGURATION 6S 2, 5P 6, 5S 2, 4F11,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	67.000	66.936	66.746	66.443	66.043	65.565	65.028	64.450	63.846	63.225
0.1	62.596	61.960	61.320	60.676	60.027	59.373	58.712	58.044	57.369	56.687
0.2	56.000	55.308	54.614	53.917	53.221	52.525	51.833	51.145	50.462	49.786
0.3	49.117	48.457	47.806	47.165	46.534	45.913	45.303	44.704	44.116	43.538
0.4	42.971	42.415	41.869	41.333	40.807	40.290	39.782	39.284	38.794	38.313
0.5	37.839	37.374	36.916	36.466	36.022	35.586	35.156	34.733	34.316	33.905
0.6	33.500	33.102	32.709	32.322	31.940	31.565	31.194	30.829	30.470	30.116
0.7	29.767	29.423	29.085	28.752	28.425	28.102	27.785	27.473	27.166	26.864
0.8	26.567	26.276	25.989	25.708	25.432	25.160	24.894	24.633	24.377	24.125
0.9	23.879	23.637	23.400	23.168	22.940	22.717	22.499	22.285	22.076	21.871
1.0	21.671	21.474	21.282	21.094	20.911	20.731	20.555	20.383	20.214	20.049
1.1	19.888	19.731	19.576	19.426	19.278	19.134	18.992	18.854	18.719	18.586
1.2	18.456	18.329	18.205	18.083	17.963	17.846	17.731	17.618	17.507	17.399
1.3	17.292	17.188	17.085	16.984	16.884	16.786	16.690	16.595	16.502	16.410
1.4	16.319	16.230	16.142	16.055	15.969	15.884	15.800	15.717	15.635	15.554
1.5	15.473									

HARTREE FOCK SCATTERING FACTOR

H0+3 CONFIGURATION 5P 6, 5S 2, 4F10, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	64.000	63.975	63.898	63.772	63.596	63.372	63.102	62.786	62.428	62.029
0.1	61.591	61.118	60.612	60.075	59.512	58.924	58.314	57.686	57.042	56.386
0.2	55.718	55.043	54.362	53.677	52.991	52.305	51.622	50.942	50.267	49.599
0.3	48.937	48.284	47.639	47.004	46.378	45.763	45.158	44.563	43.980	43.406
0.4	42.844	42.292	41.750	41.218	40.696	40.184	39.681	39.187	38.702	38.225
0.5	37.756	37.296	36.843	36.397	35.959	35.528	35.103	34.685	34.273	33.868
0.6	33.468	33.074	32.686	32.304	31.927	31.556	31.190	30.829	30.474	30.123
0.7	29.778	29.438	29.103	28.773	28.448	28.129	27.814	27.504	27.199	26.899
0.8	26.604	26.314	26.029	25.749	25.473	25.203	24.937	24.676	24.420	24.169
0.9	23.922	23.680	23.443	23.211	22.983	22.759	22.541	22.326	22.116	21.910
1.0	21.709	21.512	21.319	21.130	20.945	20.764	20.587	20.413	20.244	20.078
1.1	19.916	19.757	19.601	19.449	19.301	19.155	19.013	18.873	18.737	18.603
1.2	18.472	18.344	18.219	18.096	17.975	17.857	17.741	17.628	17.516	17.407
1.3	17.300	17.194	17.091	16.989	16.889	16.791	16.694	16.599	16.505	16.413
1.4	16.322	16.232	16.143	16.056	15.970	15.885	15.801	15.717	15.635	15.554
1.5	15.473									

ER CONFIGURATION 6S 2, 5P 6, 5S 2, 4F12,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	68.000	67.937	67.750	67.452	67.057	66.585	66.055	65.483	64.885	64.270
0.1	63.644	63.013	62.377	61.736	61.091	60.439	59.780	59.115	58.441	57.761
0.2	57.075	56.384	55.689	54.991	54.293	53.595	52.900	52.208	51.520	50.839
0.3	50.164	49.497	48.839	48.190	47.551	46.921	46.302	45.693	45.095	44.507
0.4	43.930	43.363	42.807	42.260	41.723	41.195	40.677	40.168	39.667	39.175
0.5	38.691	38.215	37.747	37.286	36.833	36.386	35.946	35.513	35.087	34.666
0.6	34.252	33.844	33.442	33.045	32.655	32.270	31.890	31.517	31.148	30.785
0.7	30.428	30.075	29.728	29.387	29.050	28.719	28.393	28.073	27.757	27.447
0.8	27.142	26.842	26.547	26.257	25.972	25.693	25.418	25.148	24.884	24.624
0.9	24.369	24.120	23.875	23.634	23.399	23.168	22.942	22.720	22.503	22.291
1.0	22.082	21.879	21.679	21.484	21.293	21.106	20.923	20.744	20.569	20.397
1.1	20.229	20.065	19.905	19.748	19.594	19.444	19.297	19.153	19.012	18.874
1.2	18.739	18.607	18.477	18.350	18.226	18.105	17.985	17.868	17.754	17.641
1.3	17.531	17.423	17.317	17.212	17.110	17.009	16.910	16.812	16.716	16.622
1.4	16.529	16.438	16.348	16.259	16.171	16.084	15.999	15.915	15.831	15.749
1.5	15.667									

ER+3 CONFIGURATION 5P 6, 5S 2, 4F11, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	65.000	64.975	64.900	64.775	64.602	64.381	64.114	63.803	63.449	63.054
0.1	62.622	62.154	61.653	61.121	60.563	59.979	59.374	58.749	58.108	57.454
0.2	56.788	56.114	55.433	54.748	54.061	53.373	52.687	52.004	51.324	50.651
0.3	49.983	49.323	48.672	48.029	47.395	46.771	46.157	45.553	44.959	44.376
0.4	43.803	43.241	42.688	42.146	41.613	41.090	40.576	40.071	39.575	39.087
0.5	38.608	38.137	37.673	37.217	36.768	36.327	35.892	35.464	35.042	34.626
0.6	34.217	33.814	33.416	33.025	32.639	32.258	31.883	31.513	31.149	30.790
0.7	30.436	30.087	29.744	29.405	29.072	28.743	28.420	28.102	27.788	27.480
0.8	27.176	26.878	26.585	26.296	26.012	25.734	25.460	25.191	24.927	24.667
0.9	24.413	24.163	23.918	23.677	23.441	23.210	22.984	22.761	22.544	22.330
1.0	22.122	21.917	21.716	21.520	21.328	21.140	20.956	20.776	20.600	20.427
1.1	20.258	20.093	19.931	19.773	19.618	19.467	19.319	19.174	19.032	18.893
1.2	18.757	18.624	18.493	18.365	18.240	18.118	17.997	17.880	17.764	17.651
1.3	17.540	17.431	17.324	17.219	17.116	17.014	16.915	16.817	16.720	16.626
1.4	16.532	16.440	16.350	16.261	16.173	16.086	16.000	15.915	15.832	15.749
1.5	15.668									

HARTREE FOCK SCATTERING FACTOR

TM CONFIGURATION 6S 2, 5P 6, 5S 2, 4F13,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	69.000	68.938	68.754	68.460	68.071	67.605	67.081	66.516	65.923	65.313
0.1	64.692	64.065	63.433	62.796	62.153	61.504	60.849	60.185	59.514	58.836
0.2	58.151	57.460	56.765	56.067	55.368	54.668	53.970	53.274	52.583	51.897
0.3	51.217	50.544	49.879	49.223	48.575	47.938	47.310	46.692	46.085	45.488
0.4	44.901	44.324	43.757	43.200	42.652	42.114	41.586	41.066	40.555	40.053
0.5	39.558	39.072	38.594	38.123	37.659	37.203	36.753	36.310	35.874	35.444
0.6	35.020	34.603	34.191	33.786	33.386	32.992	32.603	32.220	31.843	31.471
0.7	31.105	30.744	30.388	30.038	29.693	29.353	29.018	28.689	28.365	28.046
0.8	27.732	27.424	27.120	26.822	26.529	26.241	25.958	25.680	25.407	25.139
0.9	24.876	24.618	24.365	24.116	23.873	23.634	23.400	23.170	22.945	22.725
1.0	22.509	22.298	22.091	21.888	21.689	21.495	21.305	21.119	20.936	20.758
1.1	20.584	20.413	20.246	20.082	19.922	19.766	19.613	19.463	19.316	19.173
1.2	19.032	18.895	18.760	18.628	18.499	18.372	18.248	18.127	18.008	17.891
1.3	17.777	17.665	17.555	17.447	17.341	17.237	17.134	17.034	16.935	16.838
1.4	16.742	16.648	16.556	16.465	16.375	16.286	16.199	16.113	16.028	15.944
1.5	15.861									

TM+3 CONFIGURATION 5P 6, 5S 2, 4F12, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	66.000	65.975	65.901	65.770	65.608	65.390	65.126	64.819	64.469	64.080
0.1	63.652	63.189	62.693	62.166	61.612	61.034	60.432	59.812	59.174	58.522
0.2	57.859	57.186	56.506	55.821	55.133	54.444	53.755	53.069	52.386	51.707
0.3	51.035	50.369	49.711	49.061	48.420	47.788	47.165	46.552	45.950	45.357
0.4	44.774	44.202	43.639	43.086	42.543	42.009	41.484	40.969	40.462	39.964
0.5	39.474	38.993	38.519	38.052	37.593	37.142	36.697	36.259	35.827	35.402
0.6	34.983	34.570	34.163	33.762	33.367	32.977	32.593	32.214	31.841	31.473
0.7	31.110	30.753	30.400	30.053	29.711	29.374	29.042	28.715	28.394	28.077
0.8	27.765	27.458	27.156	26.860	26.568	26.281	25.998	25.721	25.449	25.181
0.9	24.919	24.661	24.408	24.159	23.915	23.676	23.442	23.212	22.986	22.765
1.0	22.549	22.337	22.129	21.925	21.726	21.531	21.339	21.152	20.969	20.790
1.1	20.614	20.442	20.274	20.109	19.948	19.791	19.636	19.486	19.338	19.193
1.2	19.052	18.913	18.777	18.644	18.514	18.387	18.262	18.140	18.020	17.902
1.3	17.787	17.674	17.564	17.455	17.348	17.243	17.140	17.039	16.940	16.842
1.4	16.746	16.652	16.559	16.467	16.377	16.288	16.201	16.114	16.029	15.945
1.5	15.862									

YB CONFIGURATION 6S 2, 5P 6, 5S 2, 4F14,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	70.000	69.939	69.758	69.468	69.084	68.625	68.107	67.547	66.960	66.355
0.1	65.739	65.116	64.487	63.854	63.215	62.569	61.916	61.255	60.587	59.910
0.2	59.227	58.537	57.843	57.145	56.444	55.743	55.043	54.344	53.649	52.959
0.3	52.274	51.596	50.925	50.262	49.607	48.962	48.326	47.700	47.084	46.478
0.4	45.881	45.295	44.718	44.152	43.594	43.046	42.507	41.978	41.457	40.944
0.5	40.440	39.943	39.455	38.974	38.501	38.034	37.575	37.122	36.676	36.237
0.6	35.804	35.377	34.956	34.541	34.132	33.729	33.332	32.940	32.554	32.173
0.7	31.798	31.428	31.064	30.705	30.351	30.002	29.659	29.321	28.989	28.661
0.8	28.339	28.022	27.710	27.403	27.102	26.805	26.514	26.228	25.946	25.670
0.9	25.399	25.132	24.871	24.614	24.362	24.115	23.873	23.636	23.403	23.175
1.0	22.951	22.732	22.517	22.307	22.101	21.899	21.701	21.508	21.318	21.133
1.1	20.952	20.774	20.600	20.430	20.263	20.101	19.941	19.785	19.632	19.483
1.2	19.337	19.193	19.053	18.916	18.782	18.650	18.521	18.395	18.271	18.150
1.3	18.031	17.915	17.801	17.689	17.579	17.471	17.365	17.261	17.159	17.059
1.4	16.960	16.863	16.768	16.674	16.582	16.491	16.402	16.314	16.227	16.141
1.5	16.057									

HARTREE FOCK SCATTERING FACTOR

YB+2 CONFIGURATION 5P 6, 5S 2, 4F14, 4D10,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	68.000	67.973	67.893	67.760	67.575	67.339	67.054	66.723	66.346	65.927
0.1	65.468	64.971	64.441	63.880	63.290	62.676	62.039	61.384	60.712	60.027
0.2	59.332	58.628	57.919	57.207	56.493	55.779	55.067	54.359	53.655	52.958
0.3	52.267	51.585	50.910	50.245	49.589	48.943	48.307	47.682	47.066	46.461
0.4	45.866	45.281	44.706	44.140	43.585	43.038	42.501	41.973	41.453	40.942
0.5	40.439	39.944	39.457	38.977	38.504	38.039	37.580	37.128	36.682	36.243
0.6	35.811	35.384	34.963	34.549	34.140	33.736	33.339	32.947	32.561	32.180
0.7	31.804	31.434	31.069	30.710	30.356	30.007	29.664	29.325	28.992	28.665
0.8	28.342	28.025	27.712	27.405	27.103	26.807	26.515	26.228	25.947	25.670
0.9	25.399	25.132	24.870	24.613	24.361	24.114	23.872	23.634	23.401	23.173
1.0	22.949	22.730	22.515	22.305	22.099	21.897	21.699	21.506	21.316	21.131
1.1	20.949	20.772	20.598	20.428	20.261	20.098	19.939	19.783	19.630	19.481
1.2	19.335	19.192	19.051	18.914	18.780	18.648	18.520	18.393	18.270	18.149
1.3	18.030	17.914	17.799	17.687	17.578	17.470	17.364	17.260	17.158	17.058
1.4	16.960	16.863	16.768	16.674	16.582	16.491	16.401	16.313	16.226	16.141
1.5	16.056									

YB+3 CONFIGURATION 5P 6, 5S 2, 4F13, 4D10,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	67.000	66.976	66.903	66.782	66.613	66.398	66.138	65.835	65.489	65.104
0.1	64.681	64.223	63.732	63.211	62.662	62.087	61.490	60.874	60.240	59.591
0.2	58.929	58.258	57.579	56.894	56.206	55.516	54.825	54.136	53.450	52.768
0.3	52.091	51.420	50.756	50.100	49.451	48.812	48.181	47.561	46.949	46.347
0.4	45.755	45.173	44.601	44.038	43.485	42.941	42.406	41.881	41.364	40.855
0.5	40.355	39.863	39.379	38.903	38.434	37.972	37.517	37.069	36.628	36.193
0.6	35.764	35.342	34.926	34.515	34.111	33.712	33.319	32.931	32.549	32.172
0.7	31.800	31.434	31.073	30.717	30.367	30.021	29.681	29.345	29.015	28.690
0.8	28.370	28.054	27.744	27.439	27.139	26.843	26.553	26.268	25.987	25.711
0.9	25.440	25.174	24.913	24.656	24.405	24.158	23.915	23.677	23.444	23.215
1.0	22.991	22.771	22.556	22.345	22.138	21.935	21.737	21.542	21.352	21.166
1.1	20.983	20.805	20.630	20.458	20.291	20.127	19.966	19.809	19.655	19.505
1.2	19.358	19.213	19.072	18.934	18.799	18.666	18.536	18.409	18.285	18.162
1.3	18.043	17.926	17.811	17.698	17.587	17.479	17.372	17.268	17.165	17.064
1.4	16.965	16.868	16.772	16.678	16.585	16.494	16.404	16.316	16.228	16.142
1.5	16.058									

LU CONFIGURATION 6S 2, 5D 1, 5P 6, 5S 2,

SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	71.000	70.940	70.761	70.473	70.090	69.625	69.097	68.522	67.912	67.280
0.1	66.634	65.979	65.320	64.658	63.993	63.326	62.657	61.984	61.308	60.628
0.2	59.945	59.258	58.569	57.878	57.187	56.495	55.804	55.115	54.430	53.748
0.3	53.071	52.400	51.735	51.078	50.428	49.786	49.152	48.528	47.912	47.306
0.4	46.709	46.121	45.543	44.974	44.414	43.863	43.321	42.788	42.263	41.747
0.5	41.238	40.738	40.246	39.761	39.283	38.813	38.349	37.892	37.442	36.999
0.6	36.561	36.130	35.705	35.286	34.873	34.465	34.063	33.667	33.276	32.890
0.7	32.510	32.135	31.765	31.401	31.042	30.688	30.339	29.995	29.656	29.322
0.8	28.994	28.670	28.351	28.038	27.729	27.425	27.127	26.833	26.544	26.260
0.9	25.981	25.706	25.437	25.172	24.912	24.657	24.407	24.161	23.919	23.683
1.0	23.451	23.223	23.000	22.781	22.567	22.356	22.150	21.949	21.751	21.557
1.1	21.360	21.182	21.000	20.822	20.648	20.477	20.310	20.147	19.987	19.830
1.2	19.677	19.526	19.379	19.235	19.094	18.956	18.821	18.689	18.559	18.432
1.3	18.308	18.186	18.067	17.950	17.835	17.722	17.612	17.503	17.397	17.293
1.4	17.190	17.090	16.991	16.893	16.798	16.704	16.611	16.520	16.431	16.343
1.5	16.256									

HARTREE FOCK SCATTERING FACTOR

LU+3 CONFIGURATION 5P 6, 5S 2, 4F14, 4D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	68.000	67.976	67.904	67.785	67.618	67.406	67.150	66.850	66.509	66.128
0.1	65.710	65.257	64.771	64.254	63.710	63.140	62.548	61.935	61.304	60.659
0.2	60.000	59.331	58.653	57.969	57.281	56.590	55.898	55.207	54.518	53.832
0.3	53.151	52.476	51.806	51.144	50.489	49.843	49.205	48.577	47.957	47.347
0.4	46.746	46.155	45.573	45.001	44.438	43.885	43.340	42.805	42.278	41.759
0.5	41.249	40.747	40.253	39.767	39.288	38.816	38.352	37.894	37.443	36.999
0.6	36.561	36.129	35.704	35.284	34.870	34.462	34.060	33.664	33.272	32.887
0.7	32.506	32.131	31.762	31.397	31.038	30.684	30.335	29.991	29.652	29.318
0.8	28.990	28.666	28.348	28.034	27.726	27.422	27.123	26.829	26.541	26.257
0.9	25.978	25.703	25.434	25.169	24.909	24.654	24.404	24.158	23.917	23.680
1.0	23.448	23.221	22.998	22.779	22.565	22.354	22.149	21.947	21.749	21.556
1.1	21.366	21.181	20.999	20.821	20.647	20.476	20.309	20.146	19.985	19.829
1.2	19.675	19.525	19.378	19.235	19.094	18.956	18.821	18.688	18.559	18.432
1.3	18.307	18.186	18.066	17.949	17.834	17.722	17.611	17.503	17.397	17.292
1.4	17.190	17.089	16.990	16.893	16.798	16.704	16.611	16.520	16.431	16.342
1.5	16.255									

HF CONFIGURATION 6S 2, 5D 2, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	72.000	71.941	71.766	71.482	71.102	70.640	70.110	69.528	68.907	68.259
0.1	67.593	66.915	66.231	65.544	64.854	64.163	63.472	62.780	62.088	61.394
0.2	60.700	60.005	59.310	58.615	57.922	57.229	56.539	55.852	55.169	54.490
0.3	53.816	53.148	52.487	51.832	51.185	50.546	49.915	49.293	48.679	48.074
0.4	47.478	46.891	46.313	45.744	45.184	44.632	44.090	43.555	43.030	42.512
0.5	42.002	41.500	41.006	40.519	40.040	39.568	39.102	38.643	38.191	37.745
0.6	37.305	36.871	36.444	36.022	35.605	35.195	34.790	34.390	33.996	33.607
0.7	33.223	32.844	32.470	32.101	31.738	31.379	31.025	30.676	30.333	29.993
0.8	29.659	29.330	29.005	28.686	28.371	28.061	27.755	27.455	27.159	26.868
0.9	26.581	26.300	26.023	25.750	25.483	25.220	24.961	24.707	24.458	24.213
1.0	23.973	23.737	23.505	23.278	23.056	22.837	22.623	22.413	22.207	22.005
1.1	21.807	21.613	21.423	21.237	21.055	20.876	20.701	20.530	20.362	20.198
1.2	20.037	19.880	19.726	19.575	19.427	19.282	19.140	19.001	18.865	18.732
1.3	18.602	18.474	18.349	18.226	18.106	17.988	17.872	17.759	17.648	17.539
1.4	17.432	17.327	17.224	17.123	17.023	16.926	16.830	16.735	16.642	16.551
1.5	16.461									

TA CONFIGURATION 6S 2, 5D 3, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	73.000	72.942	72.771	72.492	72.117	71.659	71.131	70.547	69.920	69.262
0.1	68.583	67.889	67.185	66.477	65.765	65.053	64.340	63.627	62.915	62.204
0.2	61.494	60.786	60.079	59.373	58.671	57.971	57.276	56.584	55.897	55.216
0.3	54.540	53.871	53.209	52.554	51.907	51.268	50.638	50.016	49.403	48.798
0.4	48.203	47.616	47.039	46.470	45.910	45.359	44.817	44.283	43.757	43.239
0.5	42.730	42.228	41.733	41.246	40.766	40.293	39.827	39.368	38.915	38.468
0.6	38.027	37.593	37.164	36.741	36.323	35.911	35.504	35.102	34.706	34.315
0.7	33.928	33.547	33.170	32.799	32.432	32.070	31.713	31.360	31.012	30.669
0.8	30.330	29.996	29.666	29.342	29.021	28.706	28.395	28.088	27.786	27.489
0.9	27.196	26.908	26.624	26.345	26.070	25.800	25.534	25.273	25.016	24.763
1.0	24.515	24.271	24.032	23.797	23.566	23.339	23.117	22.899	22.685	22.475
1.1	22.269	22.067	21.869	21.674	21.484	21.298	21.115	20.936	20.760	20.588
1.2	20.420	20.255	20.093	19.935	19.780	19.628	19.479	19.333	19.191	19.051
1.3	18.914	18.780	18.648	18.519	18.393	18.270	18.149	18.030	17.913	17.799
1.4	17.687	17.577	17.470	17.364	17.260	17.158	17.058	16.960	16.863	16.769
1.5	16.675									

HARTREE FOCK SCATTERING FACTOR

W CONFIGURATION 6S 2, 5D 4, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	74.000	73.943	73.775	73.502	73.133	72.679	72.154	71.572	70.943	70.280
0.1	69.591	68.885	68.167	67.442	66.712	65.980	65.247	64.515	63.784	63.054
0.2	62.326	61.601	60.878	60.159	59.444	58.733	58.027	57.326	56.631	55.943
0.3	55.261	54.586	53.920	53.261	52.611	51.969	51.336	50.713	50.098	49.492
0.4	48.896	48.309	47.731	47.162	46.602	46.051	45.508	44.975	44.449	43.932
0.5	43.422	42.921	42.427	41.940	41.461	40.989	40.523	40.064	39.611	39.165
0.6	38.724	38.290	37.861	37.438	37.020	36.608	36.200	35.798	35.401	35.009
0.7	34.621	34.239	33.861	33.487	33.118	32.754	32.395	32.039	31.689	31.342
0.8	31.000	30.663	30.329	30.001	29.676	29.356	29.040	28.729	28.422	28.119
0.9	27.821	27.527	27.237	26.952	26.671	26.394	26.121	25.853	25.590	25.330
1.0	25.075	24.824	24.577	24.334	24.096	23.862	23.631	23.405	23.183	22.965
1.1	22.752	22.542	22.336	22.134	21.935	21.741	21.550	21.363	21.180	21.000
1.2	20.824	20.651	20.482	20.316	20.154	19.994	19.838	19.685	19.536	19.389
1.3	19.245	19.104	18.966	18.831	18.699	18.569	18.442	18.317	18.195	18.075
1.4	17.958	17.843	17.730	17.619	17.510	17.404	17.299	17.197	17.096	16.997
1.5	16.900									

RE CONFIGURATION 6S 2, 5D 5, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	75.000	74.944	74.780	74.511	74.148	73.700	73.180	72.600	71.972	71.306
0.1	70.612	69.897	69.168	68.430	67.685	66.936	66.186	65.435	64.686	63.938
0.2	63.192	62.449	61.710	60.975	60.244	59.519	58.799	58.086	57.380	56.681
0.3	55.990	55.306	54.632	53.966	53.309	52.662	52.024	51.395	50.777	50.168
0.4	49.568	48.979	48.398	47.828	47.266	46.714	46.171	45.637	45.111	44.594
0.5	44.084	43.583	43.090	42.604	42.125	41.654	41.189	40.731	40.279	39.833
0.6	39.394	38.960	38.532	38.110	37.693	37.281	36.875	36.473	36.076	35.684
0.7	35.297	34.914	34.535	34.162	33.792	33.427	33.066	32.710	32.357	32.009
0.8	31.665	31.325	30.989	30.658	30.330	30.007	29.687	29.372	29.061	28.754
0.9	28.451	28.152	27.858	27.567	27.281	26.998	26.720	26.446	26.176	25.910
1.0	25.649	25.391	25.137	24.888	24.642	24.401	24.164	23.930	23.701	23.475
1.1	23.254	23.036	22.823	22.613	22.407	22.205	22.006	21.812	21.621	21.433
1.2	21.249	21.069	20.892	20.719	20.549	20.382	20.219	20.058	19.901	19.748
1.3	19.597	19.449	19.304	19.162	19.023	18.887	18.753	18.623	18.494	18.369
1.4	18.245	18.124	18.006	17.890	17.776	17.664	17.555	17.447	17.342	17.238
1.5	17.137									

QS CONFIGURATION 6S 2, 5D 6, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	76.000	75.946	75.784	75.520	75.163	74.721	74.206	73.630	73.004	72.338
0.1	71.641	70.921	70.184	69.434	68.677	67.915	67.149	66.383	65.616	64.851
0.2	64.088	63.327	62.571	61.819	61.072	60.331	59.597	58.869	58.149	57.437
0.3	56.733	56.039	55.353	54.677	54.011	53.355	52.710	52.074	51.449	50.834
0.4	50.229	49.635	49.051	48.477	47.912	47.357	46.812	46.276	45.749	45.230
0.5	44.721	44.219	43.725	43.240	42.761	42.290	41.826	41.369	40.919	40.474
0.6	40.036	39.604	39.177	38.756	38.341	37.930	37.525	37.124	36.729	36.338
0.7	35.951	35.569	35.192	34.818	34.449	34.084	33.723	33.366	33.013	32.664
0.8	32.319	31.978	31.641	31.308	30.978	30.653	30.331	30.013	29.699	29.389
0.9	29.083	28.780	28.482	28.187	27.896	27.609	27.326	27.047	26.772	26.501
1.0	26.233	25.970	25.710	25.455	25.203	24.955	24.711	24.471	24.235	24.002
1.1	23.774	23.549	23.328	23.111	22.898	22.688	22.482	22.280	22.081	21.886
1.2	21.695	21.507	21.323	21.142	20.964	20.790	20.619	20.452	20.288	20.127
1.3	19.969	19.814	19.662	19.513	19.367	19.224	19.084	18.947	18.812	18.680
1.4	18.551	18.424	18.299	18.177	18.058	17.941	17.826	17.713	17.602	17.494
1.5	17.387									

HARTREE FOCK SCATTERING FACTOR

IR CONFIGURATION 6S 2, 5D 7, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	77.000	76.947	76.788	76.529	76.177	75.741	75.232	74.661	74.038	73.373
0.1	72.675	71.952	71.209	70.452	69.685	68.911	68.133	67.352	66.571	65.789
0.2	65.010	64.233	63.460	62.691	61.927	61.170	60.419	59.676	58.940	58.214
0.3	57.496	56.788	56.090	55.402	54.724	54.057	53.401	52.756	52.122	51.499
0.4	50.887	50.286	49.696	49.116	48.546	47.987	47.438	46.899	46.369	45.848
0.5	45.336	44.833	44.339	43.852	43.374	42.903	42.439	41.982	41.533	41.089
0.6	40.652	40.221	39.796	39.377	38.963	38.554	38.150	37.752	37.358	36.968
0.7	36.583	36.203	35.827	35.454	35.086	34.722	34.362	34.006	33.654	33.305
0.8	32.960	32.619	32.281	31.948	31.617	31.291	30.968	30.648	30.332	30.020
0.9	29.711	29.406	29.105	28.807	28.513	28.222	27.936	27.652	27.373	27.097
1.0	26.825	26.557	26.292	26.031	25.774	25.520	25.270	25.024	24.782	24.543
1.1	24.308	24.077	23.849	23.626	23.405	23.189	22.976	22.766	22.561	22.359
1.2	22.160	21.965	21.773	21.585	21.400	21.219	21.041	20.866	20.694	20.526
1.3	20.361	20.199	20.040	19.884	19.731	19.582	19.435	19.290	19.149	19.011
1.4	18.875	18.741	18.611	18.483	18.357	18.234	18.113	17.995	17.879	17.765
1.5	17.653									

PI CONFIGURATION 6S 1, 5D 9, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	78.000	77.952	77.809	77.574	77.253	76.855	76.385	75.854	75.269	74.638
0.1	73.968	73.265	72.536	71.783	71.013	70.227	69.430	68.625	67.813	66.998
0.2	66.181	65.365	64.551	63.741	62.936	62.138	61.348	60.567	59.796	59.035
0.3	58.285	57.548	56.822	56.109	55.408	54.721	54.046	53.385	52.736	52.100
0.4	51.477	50.867	50.268	49.682	49.107	48.544	47.991	47.450	46.919	46.397
0.5	45.886	45.384	44.891	44.406	43.930	43.462	43.002	42.548	42.102	41.662
0.6	41.229	40.802	40.381	39.966	39.556	39.151	38.752	38.357	37.966	37.581
0.7	37.199	36.822	36.449	36.080	35.714	35.353	34.995	34.641	34.290	33.943
0.8	33.599	33.259	32.922	32.588	32.258	31.931	31.607	31.287	30.970	30.656
0.9	30.346	30.039	29.735	29.435	29.138	28.844	28.554	28.267	27.984	27.704
1.0	27.428	27.155	26.885	26.619	26.357	26.098	25.843	25.591	25.343	25.098
1.1	24.857	24.619	24.385	24.155	23.928	23.705	23.485	23.269	23.056	22.847
1.2	22.641	22.439	22.240	22.045	21.853	21.664	21.479	21.297	21.118	20.942
1.3	20.770	20.601	20.435	20.272	20.112	19.955	19.801	19.651	19.503	19.357
1.4	19.215	19.075	18.938	18.804	18.672	18.543	18.416	18.292	18.170	18.050
1.5	17.933									

AU CONFIGURATION 6S 1, 5D10, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	79.000	78.953	78.812	78.581	78.266	77.873	77.410	76.884	76.304	75.677
0.1	75.010	74.309	73.579	72.825	72.051	71.260	70.456	69.642	68.820	67.994
0.2	67.164	66.334	65.506	64.680	63.859	63.044	62.237	61.439	60.650	59.872
0.3	59.105	58.350	57.607	56.878	56.161	55.459	54.769	54.093	53.431	52.782
0.4	52.147	51.524	50.915	50.319	49.735	49.163	48.602	48.054	47.516	46.989
0.5	46.473	45.966	45.469	44.982	44.503	44.032	43.570	43.116	42.669	42.229
0.6	41.796	41.370	40.949	40.535	40.127	39.723	39.326	38.933	38.544	38.161
0.7	37.782	37.407	37.036	36.669	36.306	35.947	35.591	35.239	34.891	34.545
0.8	34.203	33.865	33.529	33.197	32.868	32.542	32.219	31.899	31.582	31.269
0.9	30.958	30.651	30.346	30.045	29.747	29.452	29.160	28.871	28.586	28.303
1.0	28.024	27.748	27.475	27.206	26.940	26.677	26.410	26.161	25.909	25.659
1.1	25.413	25.170	24.931	24.695	24.463	24.234	24.008	23.786	23.567	23.351
1.2	23.139	22.930	22.725	22.523	22.324	22.129	21.937	21.748	21.562	21.380
1.3	21.201	21.025	20.852	20.682	20.515	20.351	20.191	20.033	19.878	19.726
1.4	19.577	19.431	19.287	19.146	19.008	18.873	18.740	18.609	18.481	18.356
1.5	18.233									

HARTREE FOCK SCATTERING FACTOR

HG CONFIGURATION 6S 2, 5D10, 5P 6, 5S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	80.000	79.950	79.799	79.554	79.218	78.801	78.310	77.755	77.146	76.490
0.1	75.797	75.073	74.324	73.556	72.771	71.975	71.170	70.358	69.542	68.723
0.2	67.903	67.083	66.265	65.450	64.639	63.834	63.034	62.242	61.458	60.682
0.3	59.917	59.161	58.417	57.684	56.962	56.253	55.557	54.873	54.201	53.543
0.4	52.897	52.264	51.644	51.036	50.441	49.858	49.286	48.727	48.179	47.642
0.5	47.115	46.600	46.094	45.598	45.111	44.634	44.165	43.705	43.252	42.808
0.6	42.370	41.940	41.517	41.100	40.689	40.284	39.885	39.491	39.102	38.718
0.7	38.339	37.965	37.595	37.229	36.867	36.509	36.155	35.805	35.458	35.114
0.8	34.774	34.437	34.103	33.773	33.445	33.121	32.799	32.481	32.165	31.853
0.9	31.543	31.236	30.932	30.631	30.333	30.038	29.746	29.457	29.170	28.887
1.0	28.606	28.329	28.055	27.783	27.515	27.250	26.987	26.728	26.472	26.220
1.1	25.970	25.724	25.480	25.240	25.003	24.770	24.539	24.312	24.088	23.867
1.2	23.650	23.435	23.224	23.016	22.812	22.610	22.412	22.217	22.025	21.836
1.3	21.651	21.468	21.289	21.112	20.939	20.769	20.601	20.437	20.275	20.117
1.4	19.961	19.808	19.658	19.511	19.366	19.224	19.085	18.948	18.814	18.682
1.5	18.553									

TL CONFIGURATION 6P 1, 6S 2, 5D10, 5P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	81.000	80.944	80.776	80.503	80.133	79.676	79.144	78.549	77.902	77.214
0.1	76.492	75.746	74.981	74.202	73.413	72.617	71.815	71.011	70.204	69.397
0.2	68.590	67.785	66.981	66.180	65.383	64.590	63.802	63.019	62.244	61.475
0.3	60.715	59.963	59.220	58.487	57.764	57.052	56.351	55.661	54.982	54.316
0.4	53.661	53.019	52.388	51.770	51.164	50.570	49.987	49.416	48.857	48.309
0.5	47.772	47.246	46.730	46.224	45.729	45.243	44.766	44.298	43.838	43.387
0.6	42.944	42.508	42.080	41.659	41.244	40.836	40.434	40.038	39.648	39.263
0.7	38.883	38.508	38.138	37.772	37.411	37.054	36.700	36.351	36.005	35.663
0.8	35.325	34.989	34.657	34.328	34.003	33.680	33.360	33.044	32.730	32.419
0.9	32.110	31.805	31.502	31.202	30.905	30.610	30.319	30.030	29.743	29.460
1.0	29.179	28.901	28.626	28.353	28.084	27.817	27.553	27.292	27.034	26.779
1.1	26.526	26.277	26.030	25.787	25.547	25.309	25.075	24.843	24.615	24.390
1.2	24.168	23.949	23.733	23.520	23.310	23.103	22.899	22.698	22.501	22.306
1.3	22.115	21.926	21.740	21.558	21.378	21.202	21.028	20.857	20.690	20.525
1.4	20.363	20.203	20.047	19.893	19.742	19.594	19.448	19.305	19.164	19.027
1.5	18.891									

PB CONFIGURATION 6P 2, 6S 2, 5D10, 5P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	82.000	81.941	81.767	81.482	81.096	80.618	80.060	79.435	78.756	78.034
0.1	77.278	76.499	75.704	74.898	74.085	73.270	72.455	71.642	70.831	70.023
0.2	69.220	68.420	67.626	66.835	66.050	65.270	64.495	63.726	62.963	62.206
0.3	61.456	60.713	59.978	59.251	58.533	57.824	57.124	56.434	55.754	55.085
0.4	54.426	53.779	53.142	52.516	51.902	51.299	50.707	50.127	49.557	48.999
0.5	48.452	47.915	47.389	46.873	46.367	45.871	45.385	44.908	44.440	43.981
0.6	43.530	43.087	42.652	42.225	41.805	41.392	40.985	40.585	40.191	39.803
0.7	39.421	39.044	38.672	38.305	37.943	37.585	37.231	36.882	36.537	36.195
0.8	35.857	35.523	35.192	34.865	34.541	34.219	33.901	33.586	33.274	32.964
0.9	32.658	32.354	32.052	31.754	31.458	31.165	30.874	30.586	30.300	30.017
1.0	29.737	29.459	29.184	28.911	28.641	28.374	28.109	27.847	27.588	27.331
1.1	27.077	26.826	26.577	26.331	26.088	25.848	25.611	25.376	25.145	24.916
1.2	24.690	24.467	24.247	24.029	23.815	23.604	23.395	23.189	22.987	22.787
1.3	22.590	22.396	22.205	22.017	21.832	21.649	21.470	21.293	21.119	20.948
1.4	20.780	20.615	20.452	20.292	20.135	19.981	19.829	19.680	19.533	19.389
1.5	19.248									

HARTREE FOCK SCATTERING FACTOR

BI CONFIGURATION 6P 3, 6S 2, 5D10, 5P 6,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	83.000	82.940	82.763	82.473	82.078	81.587	81.013	80.368	79.664	78.914
0.1	78.128	77.316	76.488	75.650	74.807	73.965	73.125	72.291	71.464	70.644
0.2	69.833	69.030	68.235	67.447	66.668	65.895	65.130	64.372	63.620	62.875
0.3	62.137	61.406	60.682	59.965	59.256	58.554	57.861	57.176	56.500	55.833
0.4	55.175	54.527	53.888	53.259	52.641	52.033	51.435	50.847	50.270	49.704
0.5	49.147	48.602	48.066	47.541	47.025	46.520	46.024	45.537	45.060	44.592
0.6	44.132	43.681	43.238	42.803	42.376	41.956	41.544	41.138	40.739	40.346
0.7	39.959	39.579	39.203	38.833	38.469	38.109	37.754	37.403	37.057	36.715
0.8	36.377	36.043	35.712	35.385	35.062	34.742	34.425	34.111	33.800	33.491
0.9	33.186	32.884	32.584	32.287	31.992	31.700	31.411	31.124	30.840	30.558
1.0	30.278	30.001	29.727	29.455	29.185	28.918	28.653	28.391	28.131	27.874
1.1	27.619	27.367	27.117	26.870	26.625	26.383	26.144	25.907	25.673	25.441
1.2	25.212	24.986	24.763	24.542	24.324	24.109	23.896	23.687	23.480	23.275
1.3	23.074	22.875	22.679	22.486	22.296	22.109	21.924	21.742	21.563	21.386
1.4	21.212	21.041	20.873	20.707	20.544	20.384	20.226	20.071	19.918	19.768
1.5	19.621									

PO CONFIGURATION 6P 4, 6S 2, 5D10, 5P 6,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	84.000	83.940	83.761	83.469	83.069	82.572	81.988	81.328	80.607	79.834
0.1	79.023	78.183	77.324	76.454	75.579	74.705	73.836	72.975	72.123	71.283
0.2	70.455	69.639	68.835	68.042	67.260	66.488	65.727	64.974	64.230	63.494
0.3	62.767	62.046	61.333	60.627	59.929	59.238	58.554	57.877	57.208	56.547
0.4	55.894	55.250	54.613	53.986	53.367	52.758	52.157	51.566	50.985	50.413
0.5	49.851	49.298	48.755	48.222	47.698	47.184	46.679	46.184	45.698	45.220
0.6	44.752	44.292	43.841	43.397	42.962	42.534	42.114	41.702	41.296	40.897
0.7	40.504	40.118	39.738	39.364	38.995	38.632	38.274	37.921	37.572	37.228
0.8	36.889	36.553	36.222	35.895	35.571	35.250	34.934	34.620	34.310	34.003
0.9	33.698	33.397	33.098	32.802	32.509	32.219	31.931	31.645	31.362	31.081
1.0	30.803	30.527	30.254	29.982	29.714	29.447	29.183	28.921	28.661	28.404
1.1	28.149	27.897	27.647	27.399	27.153	26.910	26.670	26.431	26.196	25.962
1.2	25.732	25.503	25.277	25.054	24.833	24.615	24.400	24.187	23.976	23.768
1.3	23.563	23.360	23.160	22.963	22.768	22.576	22.387	22.200	22.016	21.835
1.4	21.656	21.480	21.306	21.135	20.967	20.801	20.638	20.477	20.319	20.163
1.5	20.010									

AT CONFIGURATION 6P 5, 6S 2, 5D10, 5P 6,

SIN(THETA)/ LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	85.000	84.940	84.761	84.468	84.067	83.566	82.976	82.307	81.572	80.783
0.1	79.951	79.087	78.201	77.301	76.395	75.490	74.589	73.698	72.818	71.952
0.2	71.100	70.264	69.443	68.637	67.846	67.068	66.303	65.550	64.809	64.077
0.3	63.356	62.643	61.939	61.243	60.555	59.874	59.200	58.534	57.874	57.222
0.4	56.577	55.939	55.309	54.686	54.071	53.463	52.864	52.273	51.691	51.117
0.5	50.552	49.995	49.448	48.909	48.379	47.858	47.346	46.843	46.349	45.863
0.6	45.387	44.918	44.458	44.007	43.563	43.127	42.699	42.279	41.866	41.459
0.7	41.060	40.668	40.281	39.901	39.527	39.159	38.797	38.439	38.087	37.740
0.8	37.398	37.060	36.726	36.397	36.072	35.751	35.433	35.119	34.808	34.501
0.9	34.197	33.896	33.598	33.303	33.010	32.721	32.434	32.149	31.867	31.588
1.0	31.311	31.036	30.764	30.494	30.226	29.961	29.697	29.436	29.177	28.921
1.1	28.666	28.414	28.164	27.916	27.671	27.427	27.186	26.947	26.711	26.477
1.2	26.244	26.015	25.787	25.562	25.340	25.119	24.901	24.686	24.473	24.262
1.3	24.054	23.848	23.645	23.444	23.246	23.050	22.857	22.666	22.477	22.292
1.4	22.108	21.927	21.749	21.573	21.400	21.229	21.061	20.895	20.732	20.571
1.5	20.413									

HARTREE FOCK SCATTERING FACTOR

RN CONFIGURATION 6P 6, 6S 2, 5D10, 5P 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	86.000	85.940	85.762	85.470	85.068	84.566	83.973	83.298	82.554	81.753
0.1	80.904	80.020	79.111	78.185	77.250	76.315	75.383	74.460	73.550	72.654
0.2	71.776	70.914	70.071	69.246	68.439	67.648	66.874	66.115	65.370	64.638
0.3	63.918	63.209	62.510	61.821	61.141	60.469	59.805	59.148	58.499	57.856
0.4	57.220	56.591	55.968	55.353	54.744	54.142	53.547	52.960	52.379	51.807
0.5	51.242	50.684	50.135	49.593	49.060	48.535	48.018	47.509	47.009	46.517
0.6	46.033	45.557	45.089	44.630	44.178	43.735	43.299	42.870	42.449	42.035
0.7	41.629	41.229	40.836	40.449	40.069	39.695	39.326	38.964	38.607	38.255
0.8	37.909	37.567	37.230	36.898	36.570	36.246	35.927	35.611	35.299	34.991
0.9	34.686	34.384	34.086	33.791	33.499	33.210	32.923	32.639	32.358	32.080
1.0	31.803	31.530	31.258	30.989	30.723	30.458	30.196	29.936	29.678	29.422
1.1	29.169	28.917	28.668	28.421	28.175	27.932	27.691	27.452	27.216	26.981
1.2	26.749	26.518	26.290	26.064	25.840	25.618	25.399	25.182	24.967	24.754
1.3	24.544	24.335	24.130	23.926	23.725	23.526	23.329	23.135	22.943	22.754
1.4	22.567	22.382	22.200	22.020	21.842	21.667	21.495	21.324	21.156	20.991
1.5	20.828									

FR CONFIGURATION 7S 1, 6P 6, 6S 2, 5D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	87.000	86.912	86.657	86.255	85.735	85.127	84.454	83.735	82.981	82.197
0.1	81.387	80.553	79.698	78.824	77.935	77.036	76.132	75.227	74.325	73.429
0.2	72.544	71.671	70.812	69.969	69.142	68.332	67.538	66.761	66.000	65.254
0.3	64.522	63.804	63.098	62.404	61.722	61.049	60.386	59.732	59.087	58.449
0.4	57.819	57.197	56.581	55.972	55.370	54.775	54.186	53.604	53.028	52.460
0.5	51.898	51.343	50.795	50.255	49.721	49.195	48.677	48.166	47.662	47.166
0.6	46.678	46.197	45.724	45.259	44.801	44.351	43.908	43.473	43.045	42.624
0.7	42.210	41.804	41.404	41.010	40.623	40.243	39.868	39.500	39.137	38.780
0.8	38.428	38.082	37.740	37.404	37.072	36.745	36.422	36.104	35.789	35.479
0.9	35.172	34.869	34.570	34.273	33.980	33.690	33.403	33.120	32.838	32.560
1.0	32.284	32.011	31.740	31.472	31.206	30.942	30.681	30.422	30.165	29.910
1.1	29.657	29.406	29.158	28.911	28.667	28.424	28.184	27.945	27.709	27.474
1.2	27.241	27.011	26.782	26.556	26.332	26.109	25.889	25.671	25.455	25.240
1.3	25.028	24.819	24.611	24.405	24.202	24.001	23.802	23.605	23.410	23.218
1.4	23.028	22.840	22.654	22.471	22.290	22.111	21.934	21.760	21.588	21.418
1.5	21.251									

RA CONFIGURATION 7S 2, 6P 6, 6S 2, 5D10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	88.000	87.903	87.619	87.169	86.585	85.901	85.147	84.351	83.531	82.700
0.1	81.862	81.020	80.175	79.324	78.467	77.605	76.738	75.867	74.995	74.123
0.2	73.255	72.393	71.539	70.695	69.863	69.044	68.239	67.448	66.672	65.911
0.3	65.165	64.434	63.716	63.012	62.320	61.641	60.973	60.315	59.668	59.030
0.4	58.401	57.781	57.168	56.563	55.966	55.375	54.792	54.215	53.644	53.080
0.5	52.523	51.972	51.428	50.890	50.359	49.835	49.317	48.806	48.302	47.805
0.6	47.315	46.831	46.355	45.886	45.425	44.970	44.522	44.081	43.648	43.221
0.7	42.801	42.388	41.982	41.582	41.188	40.801	40.421	40.046	39.677	39.314
0.8	38.957	38.605	38.258	37.917	37.581	37.249	36.922	36.600	36.282	35.968
0.9	35.659	35.353	35.051	34.753	34.458	34.167	33.878	33.593	33.311	33.032
1.0	32.756	32.485	32.212	31.944	31.678	31.415	31.154	30.895	30.639	30.384
1.1	30.132	29.882	29.634	29.388	29.145	28.903	28.663	28.425	28.189	27.955
1.2	27.722	27.492	27.264	27.037	26.813	26.590	26.370	26.151	25.934	25.719
1.3	25.507	25.296	25.087	24.880	24.675	24.472	24.271	24.073	23.876	23.681
1.4	23.489	23.298	23.110	22.924	22.740	22.558	22.378	22.200	22.025	21.852
1.5	21.680									

HARTREE FOCK SCATTERING FACTOR

AC CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	89.000	88.904	88.624	88.178	87.592	86.896	86.121	85.293	84.434	83.557
0.1	82.672	81.785	80.898	80.011	79.125	78.240	77.356	76.474	75.594	74.719
0.2	73.849	72.987	72.134	71.291	70.460	69.642	68.837	68.046	67.270	66.508
0.3	65.762	65.029	64.310	63.605	62.913	62.234	61.566	60.909	60.263	59.627
0.4	59.000	58.382	57.772	57.170	56.575	55.988	55.408	54.834	54.267	53.706
0.5	53.151	52.602	52.060	51.523	50.993	50.469	49.952	49.440	48.935	48.436
0.6	47.944	47.459	46.980	46.507	46.041	45.582	45.130	44.684	44.245	43.813
0.7	43.388	42.969	42.557	42.151	41.751	41.358	40.972	40.591	40.216	39.848
0.8	39.485	39.128	38.776	38.430	38.088	37.752	37.421	37.095	36.773	36.456
0.9	36.143	35.834	35.530	35.229	34.932	34.639	34.349	34.062	33.779	33.499
1.0	33.222	32.948	32.677	32.408	32.142	31.879	31.618	31.360	31.104	30.850
1.1	30.598	30.349	30.102	29.856	29.613	29.372	29.133	28.895	28.660	28.426
1.2	28.195	27.965	27.737	27.511	27.286	27.064	26.843	26.625	26.408	26.192
1.3	25.919	25.768	25.558	25.350	25.144	24.940	24.738	24.538	24.340	24.143
1.4	23.949	23.757	23.566	23.378	23.191	23.007	22.824	22.644	22.465	22.289
1.5	22.115									

TH CONFIGURATION 7S 2, 6D 2, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	90.000	89.906	89.631	89.190	88.606	87.907	87.122	86.275	85.388	84.478
0.1	83.555	82.628	81.701	80.777	79.856	78.940	78.029	77.124	76.226	75.335
0.2	74.453	73.581	72.721	71.872	71.036	70.214	69.407	68.614	67.836	67.074
0.3	66.326	65.594	64.875	64.171	63.480	62.801	62.135	61.481	60.837	60.203
0.4	59.579	58.965	58.358	57.760	57.169	56.586	56.009	55.439	54.876	54.318
0.5	53.767	53.221	52.681	52.147	51.619	51.096	50.579	50.068	49.563	49.064
0.6	48.570	48.083	47.602	47.127	46.658	46.196	45.739	45.290	44.846	44.409
0.7	43.979	43.554	43.137	42.725	42.320	41.921	41.529	41.142	40.762	40.387
0.8	40.018	39.656	39.298	38.947	38.600	38.259	37.923	37.592	37.266	36.945
0.9	36.628	36.316	36.008	35.704	35.404	35.108	34.816	34.527	34.242	33.960
1.0	33.682	33.407	33.134	32.865	32.599	32.335	32.074	31.815	31.559	31.305
1.1	31.054	30.805	30.558	30.313	30.070	29.830	29.591	29.354	29.120	28.887
1.2	28.656	28.426	28.199	27.973	27.749	27.527	27.307	27.088	26.872	26.656
1.3	26.443	26.231	26.021	25.813	25.607	25.402	25.199	24.998	24.799	24.602
1.4	24.406	24.212	24.020	23.830	23.642	23.455	23.270	23.088	22.907	22.728
1.5	22.551									

PA CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	91.000	90.908	90.637	90.204	89.634	88.954	88.192	87.374	86.519	85.643
0.1	84.753	83.857	82.958	82.055	81.151	80.244	79.336	78.428	77.520	76.615
0.2	75.713	74.817	73.929	73.050	72.181	71.325	70.482	69.654	68.840	68.041
0.3	67.258	66.490	65.738	65.000	64.278	63.569	62.874	62.193	61.523	60.866
0.4	60.220	59.584	58.959	58.343	57.737	57.139	56.549	55.968	55.394	54.827
0.5	54.267	53.715	53.169	52.630	52.097	51.571	51.051	50.538	50.031	49.531
0.6	49.037	48.550	48.069	47.594	47.126	46.665	46.210	45.761	45.319	44.883
0.7	44.454	44.032	43.616	43.206	42.802	42.405	42.014	41.629	41.249	40.876
0.8	40.509	40.147	39.791	39.440	39.095	38.754	38.419	38.089	37.764	37.443
0.9	37.127	36.815	36.507	36.203	35.904	35.608	35.316	35.028	34.743	34.461
1.0	34.183	33.908	33.635	33.366	33.099	32.836	32.574	32.316	32.059	31.806
1.1	31.554	31.305	31.057	30.812	30.569	30.328	30.089	29.852	29.616	29.383
1.2	29.151	28.921	28.693	28.466	28.241	28.018	27.797	27.577	27.359	27.143
1.3	26.928	26.715	26.504	26.294	26.086	25.879	25.675	25.472	25.270	25.071
1.4	24.873	24.677	24.482	24.290	24.099	23.910	23.722	23.537	23.353	23.171
1.5	22.991									

HARTREE FOCK SCATTERING FACTOR

U CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	92.000	91.909	91.643	91.216	90.654	89.981	89.227	88.415	87.564	86.690
0.1	85.802	84.904	84.002	83.095	82.185	81.271	80.355	79.438	78.519	77.602
0.2	76.688	75.778	74.874	73.979	73.094	72.221	71.360	70.513	69.681	68.864
0.3	68.062	67.276	66.506	65.751	65.011	64.286	63.575	62.879	62.195	61.524
0.4	60.866	60.219	59.582	58.957	58.341	57.734	57.137	56.548	55.968	55.395
0.5	54.830	54.273	53.723	53.180	52.644	52.115	51.592	51.077	50.567	50.065
0.6	49.569	49.080	48.597	48.120	47.651	47.187	46.730	46.280	45.836	45.399
0.7	44.968	44.544	44.126	43.714	43.309	42.910	42.516	42.129	41.748	41.373
0.8	41.004	40.640	40.282	39.930	39.583	39.241	38.904	38.572	38.245	37.923
0.9	37.605	37.292	36.983	36.678	36.377	36.081	35.788	35.499	35.213	34.931
1.0	34.652	34.376	34.103	33.834	33.567	33.303	33.042	32.783	32.527	32.273
1.1	32.021	31.772	31.525	31.280	31.037	30.796	30.557	30.320	30.085	29.852
1.2	29.620	29.391	29.162	28.936	28.711	28.488	28.267	28.047	27.829	27.612
1.3	27.397	27.184	26.972	26.761	26.553	26.346	26.140	25.936	25.734	25.533
1.4	25.334	25.136	24.941	24.746	24.554	24.363	24.174	23.986	23.801	23.617
1.5	23.434									

NP CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	93.000	92.911	92.648	92.228	91.673	91.008	90.261	89.456	88.610	87.739
0.1	86.852	85.955	85.051	84.142	83.228	82.309	81.387	80.461	79.534	78.607
0.2	77.682	76.760	75.843	74.934	74.034	73.144	72.267	71.403	70.553	69.718
0.3	68.898	68.094	67.305	66.533	65.776	65.034	64.307	63.594	62.895	62.210
0.4	61.537	60.877	60.228	59.591	58.964	58.348	57.741	57.143	56.555	55.975
0.5	55.403	54.840	54.284	53.735	53.194	52.661	52.134	51.615	51.102	50.596
0.6	50.097	49.605	49.119	48.640	48.168	47.702	47.243	46.791	46.345	45.905
0.7	45.472	45.046	44.626	44.212	43.805	43.403	43.008	42.619	42.237	41.860
0.8	41.488	41.123	40.763	40.409	40.060	39.716	39.378	39.044	38.716	38.392
0.9	38.073	37.759	37.449	37.143	36.841	36.544	36.250	35.960	35.674	35.391
1.0	35.112	34.836	34.563	34.293	34.026	33.762	33.500	33.242	32.985	32.732
1.1	32.480	32.231	31.985	31.740	31.497	31.257	31.018	30.782	30.547	30.314
1.2	30.083	29.853	29.625	29.399	29.175	28.952	28.731	28.511	28.293	28.076
1.3	27.861	27.648	27.435	27.225	27.016	26.808	26.602	26.398	26.195	25.993
1.4	25.793	25.595	25.398	25.202	25.009	24.816	24.626	24.437	24.249	24.063
1.5	23.879									

PU CONFIGURATION 7S 2, 6P 6, 6S 2, 5F 6,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	94.000	93.912	93.654	93.243	92.702	92.059	91.339	90.567	89.760	88.928
0.1	88.081	87.221	86.349	85.465	84.570	83.664	82.746	81.819	80.884	79.943
0.2	78.999	78.055	77.113	76.175	75.245	74.325	73.415	72.518	71.635	70.767
0.3	69.914	69.078	68.258	67.455	66.667	65.896	65.141	64.402	63.677	62.967
0.4	62.270	61.587	60.917	60.259	59.613	58.979	58.355	57.741	57.137	56.543
0.5	55.958	55.383	54.815	54.257	53.706	53.164	52.629	52.102	51.583	51.072
0.6	50.567	50.070	49.581	49.098	48.623	48.154	47.693	47.238	46.791	46.350
0.7	45.916	45.489	45.068	44.654	44.246	43.845	43.450	43.062	42.679	42.303
0.8	41.932	41.567	41.208	40.855	40.507	40.164	39.826	39.494	39.166	38.844
0.9	38.526	38.212	37.903	37.598	37.297	37.001	36.708	36.419	36.134	35.852
1.0	35.573	35.298	35.026	34.757	34.491	34.227	33.967	33.709	33.453	33.200
1.1	32.950	32.701	32.455	32.211	31.969	31.729	31.491	31.255	31.020	30.788
1.2	30.557	30.328	30.100	29.874	29.650	29.427	29.205	28.986	28.767	28.550
1.3	28.335	28.121	27.908	27.697	27.488	27.279	27.073	26.867	26.663	26.461
1.4	26.259	26.060	25.861	25.665	25.469	25.276	25.083	24.893	24.703	24.516
1.5	24.329									

HARTREE FOCK SCATTERING FACTOR

AM CONFIGURATION 7S 2, 6P 6, 6S 2, 5F 7,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	95.000	94.913	94.659	94.254	93.719	93.083	92.371	91.605	90.803	89.976
0.1	89.131	88.273	87.402	86.519	85.624	84.715	83.795	82.865	81.925	80.978
0.2	80.027	79.075	78.123	77.175	76.233	75.299	74.376	73.464	72.565	71.681
0.3	70.812	69.959	69.121	68.301	67.496	66.708	65.936	65.179	64.438	63.712
0.4	63.000	62.302	61.617	60.946	60.286	59.639	59.002	58.377	57.763	57.158
0.5	56.564	55.979	55.403	54.836	54.277	53.728	53.186	52.653	52.127	51.610
0.6	51.100	50.598	50.103	49.616	49.136	48.663	48.198	47.739	47.288	46.844
0.7	46.406	45.976	45.552	45.135	44.724	44.320	43.923	43.531	43.146	42.767
0.8	42.394	42.027	41.666	41.311	40.961	40.616	40.277	39.943	39.614	39.290
0.9	38.970	38.656	38.345	38.040	37.738	37.441	37.147	36.858	36.572	36.289
1.0	36.011	35.735	35.463	35.194	34.928	34.665	34.404	34.147	33.892	33.639
1.1	33.389	33.141	32.895	32.652	32.411	32.171	31.934	31.698	31.465	31.233
1.2	31.003	30.774	30.547	30.322	30.098	29.876	29.656	29.436	29.219	29.002
1.3	28.787	28.574	28.362	28.151	27.941	27.733	27.526	27.321	27.117	26.914
1.4	26.713	26.513	26.314	26.117	25.921	25.727	25.534	25.342	25.152	24.963
1.5	24.775									

CM CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	96.000	95.915	95.664	95.261	94.726	94.084	93.359	92.573	91.744	90.886
0.1	90.008	89.117	88.215	87.304	86.386	85.460	84.527	83.588	82.644	81.697
0.2	80.747	79.798	78.850	77.907	76.970	76.041	75.121	74.212	73.315	72.431
0.3	71.561	70.707	69.867	69.043	68.234	67.441	66.663	65.901	65.154	64.421
0.4	63.703	62.998	62.307	61.628	60.963	60.309	59.667	59.035	58.415	57.805
0.5	57.205	56.614	56.033	55.461	54.898	54.344	53.797	53.259	52.729	52.207
0.6	51.693	51.186	50.686	50.194	49.710	49.232	48.762	48.299	47.843	47.393
0.7	46.951	46.515	46.086	45.664	45.249	44.839	44.437	44.040	43.650	43.266
0.8	42.888	42.517	42.150	41.790	41.436	41.087	40.743	40.405	40.072	39.743
0.9	39.420	39.102	38.788	38.479	38.175	37.874	37.578	37.286	36.998	36.713
1.0	36.433	36.155	35.882	35.611	35.344	35.080	34.818	34.560	34.304	34.051
1.1	33.801	33.553	33.308	33.064	32.823	32.584	32.347	32.112	31.880	31.648
1.2	31.419	31.192	30.966	30.741	30.519	30.298	30.078	29.860	29.643	29.428
1.3	29.214	29.002	28.790	28.581	28.372	28.165	27.959	27.755	27.551	27.349
1.4	27.148	26.949	26.751	26.554	26.358	26.164	25.971	25.779	25.587	25.400
1.5	25.212									

BK CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	97.000	96.916	96.668	96.271	95.743	95.108	94.390	93.611	92.788	91.934
0.1	91.060	90.172	89.272	88.363	87.445	86.518	85.584	84.643	83.695	82.743
0.2	81.788	80.833	79.878	78.926	77.979	77.038	76.107	75.185	74.275	73.377
0.3	72.492	71.622	70.767	69.926	69.101	68.292	67.498	66.719	65.955	65.207
0.4	64.472	63.752	63.046	62.353	61.672	61.005	60.349	59.705	59.072	58.450
0.5	57.839	57.237	56.646	56.064	55.491	54.927	54.373	53.826	53.288	52.759
0.6	52.237	51.724	51.218	50.720	50.229	49.746	49.271	48.802	48.341	47.887
0.7	47.440	47.000	46.567	46.141	45.722	45.309	44.903	44.503	44.110	43.723
0.8	43.342	42.968	42.599	42.236	41.879	41.528	41.182	40.842	40.507	40.177
0.9	39.852	39.532	39.217	38.907	38.601	38.299	38.002	37.709	37.420	37.135
1.0	36.853	36.576	36.302	36.031	35.763	35.499	35.238	34.980	34.724	34.471
1.1	34.221	33.974	33.729	33.486	33.245	33.007	32.771	32.537	32.305	32.074
1.2	31.846	31.619	31.394	31.171	30.949	30.729	30.510	30.293	30.077	29.862
1.3	29.649	29.438	29.227	29.018	28.810	28.604	28.398	28.194	27.992	27.790
1.4	27.590	27.390	27.192	26.995	26.800	26.605	26.412	26.220	26.030	25.840
1.5	25.652									

HARTREE FOCK SCATTERING FACTOR

CF CONFIGURATION 7S 2, 6P 6, 6S 2, 5F10,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	98.000	97.917	97.673	97.283	96.769	96.153	95.462	94.715	93.929	93.116
0.1	92.283	91.435	90.571	89.693	88.800	87.893	86.971	86.036	85.088	84.131
0.2	83.166	82.196	81.223	80.250	79.280	78.314	77.356	76.406	75.468	74.541
0.3	73.627	72.728	71.843	70.974	70.120	69.282	68.460	67.654	66.864	66.089
0.4	65.329	64.584	63.854	63.137	62.434	61.745	61.068	60.404	59.751	59.110
0.5	58.481	57.862	57.255	56.657	56.069	55.492	54.924	54.365	53.815	53.274
0.6	52.742	52.219	51.704	51.197	50.699	50.208	49.726	49.251	48.785	48.325
0.7	47.874	47.429	46.993	46.563	46.140	45.725	45.316	44.914	44.519	44.131
0.8	43.748	43.373	43.003	42.639	42.282	41.930	41.584	41.244	40.909	40.579
0.9	40.255	39.935	39.621	39.311	39.006	38.705	38.409	38.117	37.829	37.545
1.0	37.264	36.988	36.715	36.445	36.179	35.916	35.656	35.399	35.145	34.893
1.1	34.645	34.398	34.155	33.913	33.674	33.437	33.202	32.969	32.738	32.509
1.2	32.281	32.056	31.832	31.609	31.389	31.169	30.952	30.735	30.520	30.307
1.3	30.094	29.883	29.674	29.465	29.258	29.052	28.847	28.643	28.440	28.239
1.4	28.039	27.839	27.641	27.444	27.249	27.054	26.860	26.668	26.477	26.287
1.5	26.098									

ES CONFIGURATION 7S 2, 6P 6, 6S 2, 5F11,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	99.000	98.918	98.678	98.293	97.784	97.175	96.490	95.750	94.970	94.162
0.1	93.334	92.489	91.628	90.753	89.862	88.956	88.035	87.100	86.152	85.193
0.2	84.225	83.251	82.273	81.294	80.316	79.343	78.375	77.415	76.465	75.526
0.3	74.599	73.686	72.787	71.903	71.034	70.181	69.344	68.522	67.716	66.925
0.4	66.149	65.389	64.643	63.911	63.193	62.489	61.797	61.119	60.453	59.799
0.5	59.156	58.525	57.905	57.296	56.697	56.109	55.530	54.961	54.401	53.851
0.6	53.310	52.778	52.255	51.740	51.234	50.736	50.247	49.765	49.292	48.826
0.7	48.368	47.918	47.476	47.041	46.613	46.192	45.779	45.373	44.973	44.580
0.8	44.194	43.814	43.441	43.074	42.713	42.359	42.010	41.666	41.329	40.997
0.9	40.670	40.348	40.032	39.720	39.413	39.111	38.813	38.520	38.231	37.946
1.0	37.665	37.387	37.114	36.844	36.577	36.314	36.054	35.797	35.543	35.291
1.1	35.043	34.797	34.554	34.313	34.074	33.838	33.604	33.372	33.141	32.913
1.2	32.687	32.462	32.240	32.018	31.799	31.581	31.364	31.149	30.935	30.723
1.3	30.511	30.302	30.093	29.886	29.679	29.474	29.270	29.068	28.866	28.665
1.4	28.466	28.268	28.070	27.874	27.679	27.485	27.291	27.100	26.909	26.719
1.5	26.530									

FM CONFIGURATION 7S 2, 6P 6, 6S 2, 5F12,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	100.000	99.919	99.682	99.302	98.799	98.197	97.518	96.784	96.010	95.207
0.1	94.384	93.543	92.686	91.813	90.925	90.021	89.101	88.167	87.218	86.258
0.2	85.288	84.311	83.329	82.345	81.361	80.380	79.404	78.435	77.474	76.524
0.3	75.586	74.660	73.747	72.849	71.966	71.098	70.245	69.408	68.587	67.780
0.4	66.989	66.213	65.452	64.705	63.972	63.252	62.547	61.854	61.174	60.506
0.5	59.851	59.207	58.574	57.952	57.342	56.742	56.152	55.572	55.002	54.442
0.6	53.891	53.350	52.817	52.294	51.779	51.273	50.776	50.287	49.806	49.334
0.7	48.869	48.412	47.964	47.522	47.089	46.663	46.244	45.832	45.428	45.030
0.8	44.640	44.256	43.878	43.507	43.143	42.784	42.432	42.085	41.745	41.410
0.9	41.080	40.756	40.437	40.123	39.815	39.510	39.211	38.916	38.626	38.339
1.0	38.057	37.779	37.504	37.234	36.966	36.703	36.442	36.185	35.931	35.680
1.1	35.431	35.186	34.943	34.702	34.464	34.229	33.995	33.764	33.535	33.307
1.2	33.082	32.859	32.637	32.417	32.198	31.981	31.766	31.552	31.339	31.128
1.3	30.918	30.710	30.503	30.296	30.091	29.888	29.685	29.483	29.283	29.083
1.4	28.885	28.687	28.491	28.296	28.101	27.908	27.715	27.524	27.334	27.144
1.5	26.956									

HARTREE FOCK SCATTERING FACTOR

MD CONFIGURATION 7S 2, 6P 6, 6S 2, 5F13,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	101.000	100.920	100.686	100.310	99.813	99.217	98.545	97.817	97.049	96.252
0.1	95.433	94.596	93.743	92.874	91.989	91.087	90.169	89.235	88.288	87.327
0.2	86.356	85.376	84.391	83.403	82.413	81.426	80.442	79.465	78.495	77.534
0.3	76.584	75.647	74.722	73.811	72.914	72.032	71.164	70.312	69.476	68.654
0.4	67.848	67.056	66.280	65.518	64.770	64.036	63.315	62.608	61.914	61.232
0.5	60.563	59.906	59.260	58.626	58.003	57.391	56.789	56.198	55.617	55.047
0.6	54.485	53.934	53.392	52.859	52.335	51.821	51.315	50.818	50.329	49.849
0.7	49.377	48.913	48.457	48.009	47.569	47.137	46.712	46.295	45.885	45.482
0.8	45.087	44.698	44.316	43.940	43.571	43.209	42.853	42.503	42.158	41.820
0.9	41.487	41.160	40.839	40.522	40.211	39.905	39.603	39.306	39.014	38.726
1.0	38.443	38.163	37.888	37.616	37.348	37.084	36.823	36.565	36.311	36.059
1.1	35.811	35.565	35.323	35.083	34.845	34.610	34.377	34.146	33.918	33.692
1.2	33.467	33.245	33.024	32.805	32.588	32.372	32.158	31.945	31.734	31.524
1.3	31.315	31.108	30.902	30.697	30.494	30.291	30.090	29.889	29.690	29.492
1.4	29.295	29.098	28.903	28.709	28.516	28.323	28.132	27.941	27.752	27.563
1.5	27.375									

N0 CONFIGURATION 7S 2, 6P 6, 6S 2, 5F14,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	102.000	101.921	101.690	101.319	100.827	100.238	99.572	98.850	98.087	97.295
0.1	96.481	95.649	94.800	93.934	93.052	92.153	91.237	90.306	89.359	88.398
0.2	87.426	86.445	85.457	84.465	83.472	82.479	81.488	80.503	79.525	78.555
0.3	77.595	76.646	75.709	74.786	73.876	72.980	72.099	71.233	70.382	69.546
0.4	68.724	67.918	67.127	66.349	65.587	64.838	64.103	63.381	62.673	61.977
0.5	61.294	60.623	59.964	59.317	58.682	58.057	57.443	56.841	56.248	55.666
0.6	55.094	54.532	53.980	53.437	52.904	52.380	51.865	51.359	50.861	50.373
0.7	49.893	49.421	48.958	48.503	48.056	47.617	47.186	46.762	46.346	45.938
0.8	45.536	45.142	44.755	44.374	44.001	43.634	43.273	42.919	42.571	42.229
0.9	41.893	41.562	41.237	40.918	40.604	40.295	39.991	39.692	39.398	39.108
1.0	38.822	38.541	38.264	37.992	37.722	37.457	37.195	36.937	36.682	36.431
1.1	36.182	35.936	35.694	35.454	35.216	34.982	34.749	34.519	34.291	34.066
1.2	33.842	33.620	33.401	33.183	32.966	32.752	32.539	32.327	32.117	31.909
1.3	31.702	31.496	31.291	31.088	30.886	30.685	30.485	30.286	30.088	29.891
1.4	29.695	29.500	29.306	29.113	28.921	28.730	28.540	28.350	28.162	27.974
1.5	27.787									

LW CONFIGURATION 7S 2, 6D 1, 6P 6, 6S 2,
SIN(THETA)/

LAMBDA	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	103.000	102.922	102.693	102.324	101.831	101.236	100.558	99.817	99.030	98.208
0.1	97.362	96.497	95.617	94.723	93.817	92.899	91.970	91.029	90.077	89.116
0.2	88.147	87.171	86.191	85.207	84.222	83.239	82.257	81.281	80.310	79.347
0.3	78.393	77.448	76.515	75.594	74.685	73.790	72.908	72.040	71.186	70.346
0.4	69.521	68.710	67.913	67.130	66.361	65.606	64.864	64.136	63.421	62.718
0.5	62.027	61.349	60.683	60.028	59.385	58.753	58.132	57.522	56.922	56.332
0.6	55.753	55.183	54.623	54.073	53.532	53.000	52.478	51.964	51.459	50.963
0.7	50.476	49.997	49.526	49.063	48.609	48.162	47.723	47.292	46.869	46.453
0.8	46.044	45.643	45.249	44.861	44.481	44.107	43.740	43.379	43.025	42.676
0.9	42.334	41.998	41.667	41.343	41.023	40.709	40.400	40.096	39.797	39.503
1.0	39.214	38.929	38.648	38.372	38.099	37.831	37.567	37.306	37.048	36.794
1.1	36.544	36.297	36.052	35.811	35.572	35.336	35.103	34.873	34.644	34.418
1.2	34.194	33.973	33.753	33.536	33.320	33.106	32.894	32.683	32.474	32.266
1.3	32.060	31.855	31.652	31.450	31.249	31.050	30.851	30.654	30.457	30.262
1.4	30.068	29.875	29.682	29.491	29.300	29.111	28.922	28.734	28.547	28.361
1.5	28.176									

HARTREE FOCK SCATTERING FACTOR

H -1 CONFIGURATION SIN(THETA)/ LAMBDA	IS 2,									
	+0.00	+0.01	+0.02	+0.03	+0.04	+0.05	+0.06	+0.07	+0.08	+0.09
0.	2.000	1.986	1.946	1.883	1.802	1.708	1.606	1.501	1.396	1.293
0.1	1.195	1.102	1.014	0.933	0.858	0.789	0.725	0.667	0.613	0.565
0.2	0.520	0.479	0.442	0.408	0.377	0.348	0.322	0.298	0.277	0.257
0.3	0.238	0.221	0.206	0.192	0.178	0.166	0.155	0.145	0.135	0.127
0.4	0.119	0.111	0.104	0.098	0.092	0.086	0.081	0.076	0.072	0.068
0.5	0.064	0.060	0.057	0.054	0.051	0.048	0.045	0.043	0.041	0.039
0.6	0.037	0.035	0.033	0.031	0.030	0.028	0.027	0.026	0.025	0.023
0.7	0.022	0.021	0.020	0.019	0.019	0.018	0.017	0.016	0.015	0.015
0.8	0.014	0.014	0.013	0.013	0.012	0.012	0.011	0.011	0.010	0.010
0.9	0.009	0.009	0.009	0.008	0.008	0.008	0.007	0.007	0.007	0.007
1.0	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.005	0.005	0.005
1.1	0.005	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.003
1.2	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1.3	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
1.4	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001
1.5	0.001									

Table II. Coefficients and maximum errors for analytic approximation of Hartree-Fock scattering factors.

ATOM	A(1)	B(1)	A(2)	B(2)	A(3)	B(3)	A(4)	B(4)	C	EMAX	EMIN
HE	0.76844	10.9071	0.72694	4.30779	0.27631	1.33127	0.21572	25.6848	0.01249	0.242	-0.669
LI	0.99279	4.33979	0.87402	1.26006	0.84240	98.7088	0.23101	212.088	0.05988	0.402	-1.185
LI+1	6.08475	0.00498	0.86773	1.53730	0.80588	4.28524	0.17720	9.81413	-5.93560	0.085	-0.036
BE	2.22744	0.04965	1.55249	42.9165	1.40060	1.66379	0.58290	100.361	-1.76339	0.355	-0.180
BE+2	5.69034	-0.01336	1.19706	0.39000	1.03057	1.97441	0.20150	4.90642	-6.11950	0.013	-0.029
B	2.03876	23.0888	1.41491	0.97848	1.11609	59.8985	0.73273	0.08538	-0.30409	0.082	-0.191
C	1.93019	12.7188	1.87812	28.6498	1.57415	0.59645	0.37108	65.0337	0.24637	0.027	-0.026
N	12.7913	0.02064	3.28546	10.7018	1.76483	30.7773	0.54709	1.48044	-11.3926	0.465	-0.210
O	2.95648	13.8964	2.45240	5.91765	1.50510	0.34537	0.78135	34.0811	0.30413	0.025	-0.046
O -1	3.22563	18.4991	3.01717	6.65680	1.42553	0.40589	0.90525	61.1889	0.42362	0.101	-0.192
F	3.30393	11.2651	3.01753	4.66504	1.35754	0.33760	0.83645	27.9898	0.48398	0.031	-0.062
F -1	3.63220	5.27756	3.51057	14.7353	1.26064	0.44226	0.94071	47.3437	0.65340	0.102	-0.208
NE	3.71272	3.91091	3.52631	9.63126	1.19237	0.40483	0.83080	23.9546	0.73728	0.031	-0.062
NA	5.26400	4.02579	2.17549	10.4796	1.36690	0.84222	1.08859	133.617	1.09912	0.119	-0.255
NA+1	3.99479	3.11047	3.37245	7.14318	1.13877	0.40692	0.65118	15.7319	0.84267	0.010	-0.020
MG	5.59229	4.41142	2.68206	1.36549	1.72235	93.4885	0.73055	32.5281	1.26883	0.281	-0.643
MG+2	4.30491	2.55961	3.14719	5.60660	1.12859	0.41574	0.49034	11.4840	0.92893	0.003	-0.006
AL	5.35047	3.48665	2.92451	1.20535	2.27309	42.6051	1.16531	107.170	1.28489	0.113	-0.265
AL+3	4.17448	1.93816	3.38760	4.14553	1.20296	0.22875	0.52814	8.28524	0.70679	0.004	-0.002
SI	5.79411	2.57104	3.22390	34.1775	2.42795	0.86937	1.32149	85.3410	1.23139	0.020	-0.020
SI+4	4.43918	1.64167	3.20345	3.43757	1.19453	0.21490	0.41653	6.65365	0.74630	0.002	-0.001
P	6.92073	1.83778	4.14396	27.0198	2.01697	0.21318	1.53860	67.1086	0.37870	0.112	-0.056
S	7.18742	1.43280	5.88671	0.02865	5.15858	22.1101	1.64403	55.4651	-3.87732	0.092	-0.164
CL	9.83957	-0.00053	7.53181	1.11119	6.07100	18.0846	1.87128	45.3666	-8.31430	0.131	-0.283
CL-1	18.0842	0.00129	7.47202	1.12976	6.46337	19.3079	2.43918	59.0633	-16.4654	0.109	-0.231
AR	16.8752	-0.01456	8.32256	0.83310	6.91326	14.9177	2.18515	37.2256	-16.2972	0.121	-0.267
K	8.11756	12.6684	7.48062	0.76409	1.07795	211.222	0.97218	37.2727	1.35009	0.416	-0.194
K +1	9.70659	0.59947	7.37245	11.8765	5.67228	-0.08359	1.90688	26.7666	-6.65819	0.091	-0.201
CA	8.60272	10.2636	7.50769	0.62794	1.75117	149.301	0.96216	60.2274	1.17430	0.404	-0.176
CA+2	13.2063	0.39466	11.0586	-0.08204	7.73221	9.62976	1.72057	20.3341	-15.7176	0.058	-0.125
SC	9.06482	8.77431	7.55526	0.53306	2.05017	123.880	1.28745	36.8890	1.03849	0.262	-0.115
SC+3	13.4008	0.29854	8.02730	7.96290	1.65943	-0.28604	1.57936	16.0662	-6.66668	0.034	-0.072
TI	9.54969	7.60579	7.60067	0.45899	2.17223	109.099	1.75438	27.5715	0.91762	0.137	-0.063
TI+3	17.7344	0.22061	8.73816	7.04716	5.25691	-0.15762	1.92134	15.9768	-14.6519	0.011	-0.013
TI+4	19.5114	0.17885	8.23473	6.67018	2.01341	-0.29263	1.52080	12.9464	-13.2803	0.018	-0.037
V	10.0661	6.67721	7.61420	0.40322	2.23551	98.5954	2.23170	22.5720	0.84574	0.048	-0.044
V +2	9.34513	6.49985	7.68833	0.39491	2.94531	15.9868	0.26998	41.0832	0.75143	0.096	-0.042
V +3	9.43141	6.39535	7.74190	0.38335	2.15343	15.1908	0.01686	63.9690	0.65657	0.106	-0.046
V +5	15.6887	0.67900	8.14208	5.40135	2.02081	9.97278	-9.57602	0.94045	1.71430	0.002	-0.002
CR	10.4757	6.01658	7.51402	0.37426	3.50115	19.0654	1.54902	97.4599	0.95226	0.055	-0.050
CR+2	9.54034	5.66078	7.75090	0.34426	3.58274	13.3075	0.50911	32.4224	0.61690	0.048	-0.022
CR+3	9.68090	5.59463	7.81136	0.33439	2.87603	12.8288	0.11357	32.8761	0.51827	0.053	-0.024
MN	11.2519	5.34818	7.36935	0.34373	3.04107	17.4089	2.27703	84.2139	1.05195	0.058	-0.081
MN+2	9.78094	4.98303	7.79153	0.30421	4.18544	11.4399	0.72736	27.7750	0.51454	0.021	-0.010
MN+3	9.84521	4.91797	7.87194	0.29439	3.56531	10.8171	0.32361	24.1281	0.39397	0.025	-0.011
MN+4	9.96253	4.84850	7.97057	0.28330	2.76067	10.4852	0.05445	27.5730	0.25188	0.027	-0.012
FE	11.9185	4.87394	7.04848	0.34023	3.34326	15.9330	2.27228	79.0339	1.40818	0.062	-0.117
FE+2	10.1270	4.44133	7.78007	0.27418	4.71825	10.1451	0.89547	24.8302	0.47888	0.005	-0.003

FE+3	10.0333	4.36007	7.90625	0.26250	4.20562	9.35847	0.55048	20.4105	0.30429	0.010	-0.005
CG	12.6153	4.48994	6.62642	0.35459	3.57722	14.8402	2.25644	74.7352	1.91452	0.071	-0.141
CG+2	10.5942	4.00858	7.67791	0.25410	5.15947	9.21931	1.01440	22.7516	0.55358	0.004	-0.004
CG+3	10.3380	3.90969	7.88173	0.23867	4.76795	8.35583	0.72559	18.3491	0.28667	0.002	-0.001
NI	13.3239	4.17742	6.18746	0.38682	3.74792	14.0123	2.23195	71.1195	2.49899	0.077	-0.156
NI+2	11.1650	3.65944	7.45636	0.24397	5.51106	8.52556	1.09496	21.1647	0.77218	0.005	-0.009
NI+3	10.7806	3.54770	7.75868	0.22314	5.22746	7.64468	0.84711	16.9673	0.38604	0.002	-0.002
CU	13.9352	3.97779	5.84833	0.44555	4.64221	13.3971	1.44753	74.1605	3.11686	0.085	-0.174
CU+1	12.4655	3.54270	6.63111	0.28920	5.76679	9.31140	1.34230	26.9799	1.79285	0.016	-0.033
CU+2	11.8168	3.37484	7.11181	0.24408	5.78135	7.98760	1.14523	19.8970	1.14431	0.006	-0.012
ZN	14.6744	3.71486	5.62816	0.50033	3.92540	12.8862	2.16398	65.4071	3.59838	0.082	-0.172
ZN+2	12.5225	3.13961	6.68507	0.25431	5.98382	7.55544	1.17317	18.8453	1.63497	0.007	-0.013
GA	15.3412	3.63868	5.74150	0.65640	3.10733	16.0719	2.52764	70.7609	4.26842	0.117	-0.249
GA+3	12.6920	2.81262	6.69883	0.22789	6.06692	6.36441	1.00660	14.4122	1.53545	0.003	-0.005
GE	15.4378	3.39715	6.00432	0.73097	3.05158	18.9533	2.93572	63.7969	4.56068	0.110	-0.237
AS	15.4043	3.07517	6.13723	0.74113	3.74679	21.0014	3.01390	57.7446	4.69149	0.083	-0.180
SE	15.5372	2.71530	5.98288	0.68962	4.83996	21.0079	2.93549	52.4308	4.70026	0.051	-0.112
BR	15.9934	2.35651	6.02439	19.7393	5.51599	0.58143	2.88716	47.3323	4.57602	0.025	-0.056
BR-1	15.4080	2.43532	6.78083	22.0832	6.00715	0.68621	2.99332	64.9193	4.80234	0.044	-0.098
KR	16.8494	2.01856	7.19790	18.0409	4.92564	0.39741	2.91606	42.5054	4.10864	0.010	-0.018
RB	11.4809	1.08140	9.46904	18.2800	9.16981	2.38825	1.42608	185.293	5.43921	0.099	-0.216
RB+1	17.8943	1.71750	8.59341	0.09258	7.91428	15.4484	2.47499	32.5110	-0.87756	0.006	-0.007
SR	11.6164	1.85574	9.73009	14.6109	8.68081	0.89852	2.60986	139.830	5.34841	0.066	-0.110
SR+2	18.2430	1.51215	8.90811	13.6536	1.69192	27.8238	-32.1118	-0.01488	39.2691	0.020	-0.036
Y	19.0567	1.24615	6.50783	9.68019	4.81524	18.8903	2.84786	121.353	5.76121	0.158	-0.419
Y +3	18.4202	1.34457	9.75213	12.0631	1.05270	25.1684	-33.4755	-0.01023	40.2513	0.030	-0.063
ZF	19.2273	1.15488	10.1378	10.7877	2.48177	120.126	2.42892	33.3722	5.71886	0.095	-0.273
ZF+4	19.1301	1.16051	10.1098	10.4084	0.98896	20.7214	-0.00004	-3.20442	5.77164	0.022	-0.014
NE	19.3496	1.06626	10.8737	10.5977	3.47687	32.6174	1.64516	120.397	5.65073	0.044	-0.127
NE+3	19.1248	1.07235	18.2989	0.00315	11.0121	10.3385	2.04325	25.9292	-12.4799	0.030	-0.064
NE+5	19.0175	1.06028	10.7591	9.36239	1.09900	0.03765	0.48469	20.9764	4.64045	0.029	-0.063
MC	19.3885	0.97877	11.8308	10.0885	3.75919	31.9738	1.46772	117.932	5.55047	0.021	-0.024
MC+3	19.6761	0.95118	18.0893	-0.00669	11.7086	9.61097	2.50624	24.0356	-12.9813	0.026	-0.057
MC+5	19.6054	0.94029	17.9292	-0.00795	11.3451	8.76715	1.04247	19.3690	-12.9217	0.026	-0.057
MC+6	19.4800	0.94043	17.6328	-0.00723	11.0940	8.29745	0.37154	18.9700	-12.5778	0.024	-0.051
TC	19.3597	0.89356	12.8087	9.27497	3.41372	32.3513	1.99926	107.406	5.41556	0.067	-0.042
RU	19.4316	0.82092	13.7309	8.97737	4.26537	28.2621	1.28720	111.501	5.28192	0.110	-0.055
RU+3	20.8024	0.74711	13.2995	8.36626	3.27542	20.6179	2.21026	-0.14664	1.41087	0.018	-0.037
RU+4	41.5821	0.61466	12.9936	7.99801	2.71276	18.1564	-24.2593	0.43857	6.97025	0.017	-0.036
RH	19.4524	0.75019	14.6845	8.42622	4.50240	26.1564	1.24740	107.780	5.11007	0.130	-0.060
RH+3	25.0958	0.61346	14.1510	8.02244	3.64428	19.0932	-12.5768	0.13532	11.6838	0.011	-0.022
RH+4	41.5236	0.52905	13.8272	7.49419	3.07969	16.9498	-25.9694	0.32686	8.53824	0.013	-0.027
PD	19.5123	0.68583	15.3800	7.95714	5.38330	23.1808	0.81015	65.9295	4.91427	0.139	-0.062
PD+2	19.4652	0.68159	15.5805	7.80880	4.04748	20.9573	0.02216	110.020	4.88510	0.145	-0.063
PD+4	51.1288	0.43734	14.6979	7.03139	3.41607	15.8623	-38.2678	0.26589	11.0241	0.009	-0.019
AG	19.5284	0.62387	16.5811	7.39504	4.99150	22.2282	1.21404	100.226	4.68114	0.124	-0.055
AG+1	19.5416	0.62273	16.4239	7.39663	5.12995	20.5530	0.24053	59.0604	4.66470	0.133	-0.059
AG+2	19.5152	0.62050	16.4852	7.30347	4.32525	19.3673	0.02777	92.9184	4.64695	0.136	-0.059
CD	19.5528	0.56604	17.5717	6.79630	4.47374	21.2907	1.98562	85.2777	4.41158	0.104	-0.046
CD+2	19.5901	0.56389	17.3740	6.83082	4.62594	17.8856	0.03770	76.2909	4.37269	0.121	-0.052
IN	19.5872	0.51510	18.7169	6.29430	4.02722	22.7308	2.51452	88.5675	4.14542	0.072	-0.034
IN-3	19.6698	0.50926	18.1942	6.28098	4.09851	15.4189	0.00365	160.227	4.03396	0.105	-0.045

ATOM	A(1)	B(1)	A(2)	B(2)	A(3)	B(3)	A(4)	B(4)	C	EMAX	EMIN
SN	19.6527	0.46604	19.5108	5.76321	3.86895	24.0627	3.14764	78.1533	3.81227	0.051	-0.026
SN+2	19.7166	0.46027	18.9265	5.66448	3.79775	17.7248	1.86248	42.8086	3.69648	0.075	-0.033
SN+4	19.7914	0.45879	18.9162	5.76682	3.64761	13.3733	-0.	-0.	3.64494	0.088	-0.038
SB	20.0755	5.24328	19.7766	0.41858	4.30389	26.0178	3.44952	70.1646	3.38881	0.039	-0.021
SB+3	19.8617	0.41409	19.5199	5.18292	3.73465	16.8529	1.61027	35.1406	3.27356	0.059	-0.026
SB+5	19.9613	0.41262	19.5889	5.30028	3.24333	11.7603	-0.	-0.	3.20701	0.071	-0.031
TE	20.4608	4.74225	20.0336	0.37041	5.38664	27.3458	3.33079	65.0573	2.78462	0.038	-0.018
I	20.7492	4.27091	20.5640	0.31960	6.86158	27.3186	2.97589	61.5375	1.84739	0.045	-0.020
I -1	20.8307	4.29514	20.4454	0.32402	7.52618	29.8990	3.18616	81.4344	2.00513	0.034	-0.017
XE	21.6679	0.26422	21.0085	3.83526	8.43382	26.2297	2.52265	58.4830	0.26635	0.055	-0.024
CS	22.3163	0.23092	21.1792	3.49464	10.7332	25.1864	1.46163	232.829	-0.70709	0.035	-0.035
CS+1	23.9649	0.20448	21.2204	3.43876	9.76727	23.4941	1.51550	49.7057	-2.56728	0.064	-0.029
BA	27.7489	0.15152	21.3777	3.09817	11.0400	20.6774	2.68186	178.819	-6.85854	0.054	-0.026
BA+2	29.2996	0.14047	21.4669	3.08785	10.9209	20.8818	0.80126	46.8842	-8.48753	0.067	-0.031
LA	33.2109	0.11040	21.7181	2.83641	11.6222	19.3886	3.17239	144.438	-12.7404	0.037	-0.035
LA+3	43.6346	0.07854	21.7192	2.78360	11.7264	18.4930	0.32945	49.2222	-23.4085	0.053	-0.029
CE	29.4100	0.12335	22.2428	2.74837	11.9818	18.3794	3.19259	139.603	-8.84560	0.040	-0.039
CE+3	49.1105	0.06535	22.3499	2.67229	11.8399	17.2040	0.67455	38.1904	-28.9739	0.044	-0.022
CE+4	66.7693	0.04464	21.8563	2.53711	12.2486	16.4477	0.09617	64.4675	-46.9691	0.031	-0.032
PR	22.9220	2.78604	22.2518	0.18015	12.2269	17.6663	2.72431	160.915	-1.13930	0.031	-0.029
PR+3	49.4655	0.06197	22.9705	2.57634	11.8015	16.0371	1.12179	32.3673	-29.3586	0.030	-0.015
PR+4	62.6752	0.04586	22.4952	2.45900	12.4946	15.5713	0.20294	46.5889	-42.8667	0.023	-0.024
ND	23.4069	2.71587	19.7073	0.20950	12.5016	16.9122	2.72850	156.556	1.64038	0.033	-0.047
ND+3	49.4292	0.05936	23.6116	2.48611	11.6190	14.9366	1.68986	28.4515	-29.3493	0.021	-0.011
PM	23.8480	2.65746	17.5535	0.24780	12.7324	16.2463	2.72975	152.682	4.12018	0.035	-0.064
PM+3	49.2699	0.05709	24.2700	2.40055	11.3481	13.9124	2.32869	25.6906	-29.2165	0.017	-0.008
SM	24.2242	2.60993	15.9132	0.29475	12.9238	15.6554	2.72836	149.221	6.19355	0.040	-0.080
SM+3	36.3271	0.07823	24.8502	2.33602	11.3426	13.1872	2.62300	24.3996	-16.1429	0.004	-0.004
EU	24.5148	2.57255	14.8058	0.34930	13.0799	15.1280	2.72477	146.103	7.85731	0.046	-0.094
EU+2	25.6516	2.36073	23.9387	0.13260	10.5738	12.6495	4.05853	25.0026	-3.22358	0.003	-0.004
EU+3	33.2862	0.08350	25.5041	2.26275	11.1494	12.3883	3.13496	22.8351	-13.0748	0.002	-0.002
GD	24.4004	2.47491	14.0308	0.40238	13.1754	14.4670	3.24472	119.738	9.12488	0.052	-0.106
GD+3	29.0290	0.09521	26.1387	2.19696	11.0510	11.7141	3.52244	21.6929	-8.74150	0.002	-0.002
TB	24.3736	2.46637	13.8649	0.47517	13.2510	14.0424	3.24435	117.446	10.2420	0.057	-0.116
TB+3	26.7821	2.13333	25.9463	0.10597	10.9724	11.0974	3.88172	20.7042	-5.58307	0.002	-0.003
DY	24.6193	2.52208	14.2735	0.54555	13.3567	13.8487	2.70316	138.385	11.0290	0.059	-0.122
DY+3	27.3805	2.07832	22.2062	0.12643	10.9975	10.5960	4.10030	19.9671	-1.68516	0.003	-0.005
HQ	24.3162	2.52724	14.9012	0.61572	13.3895	13.5041	2.69309	136.246	11.6817	0.061	-0.128
HQ+3	27.9956	2.02324	19.9560	0.14275	11.0106	10.1165	4.33205	19.2589	0.70499	0.003	-0.005
ER	23.8201	2.54419	15.8796	0.68445	13.3938	13.1932	2.68190	134.282	12.2062	0.063	-0.133
ER+3	28.5315	1.97796	17.4316	0.17182	11.1113	9.73821	4.43156	18.7294	3.49325	0.003	-0.006
TM	23.1386	2.57320	17.1707	0.74948	13.3703	12.9126	2.66981	132.468	12.6322	0.064	-0.136
TM+3	29.0215	1.93707	15.6168	0.20467	11.2288	9.40342	4.49403	18.2607	5.63812	0.004	-0.008
YB	22.3028	2.61393	18.7202	0.80868	13.3200	12.6590	2.65701	130.785	12.9818	0.064	-0.138
YB+2	29.1313	1.99979	13.5855	0.32335	11.4132	9.59277	4.69659	20.3507	9.17182	0.007	-0.015
YB+3	29.4761	1.89879	14.4357	0.23793	11.3446	9.09408	4.54681	17.8206	7.19600	0.004	-0.008
LU	21.1866	0.88654	20.1760	2.68610	13.0532	12.2746	3.21190	107.128	13.3489	0.067	-0.145
LU+3	29.8480	1.86596	13.6268	0.27623	11.4750	8.82479	4.56009	17.4364	8.48923	0.004	-0.009
HF	24.6725	0.97400	17.2295	2.89038	12.8069	12.2897	3.55970	93.438	13.7049	0.074	-0.161
TA	28.1757	1.04034	14.4288	3.20764	12.6412	12.5054	3.74436	85.0183	13.9824	0.080	-0.178

W	31.0935	1.07885	12.5273	12.8331	12.3769	3.63298	3.79138	79.7647	14.1842	0.084	-0.191
RE	33.2961	1.09315	12.3497	13.2559	11.2819	4.16736	3.72367	76.5562	14.3239	0.086	-0.199
JS	34.8667	1.08840	11.9524	13.8042	11.1851	4.79179	3.56436	75.1399	14.4097	0.085	-0.201
IR	35.9454	1.06924	11.9980	5.43443	11.2501	14.4983	3.34312	74.7918	14.4449	0.079	-0.192
PT	35.8102	1.04422	13.0747	6.07340	11.3323	15.7018	2.31421	73.3375	14.4526	0.072	-0.178
AU	37.3027	1.00810	14.9306	6.52550	10.3425	16.5100	2.01229	76.9117	14.3992	0.059	-0.150
AG	37.5186	0.96455	17.0353	6.65786	8.51121	16.8438	2.63340	76.7228	14.2911	0.044	-0.113
TL	37.6947	0.92263	19.7195	6.78248	6.38290	19.2435	3.00960	85.9267	14.1800	0.034	-0.092
PB	37.7383	0.87755	21.3394	6.58964	5.17527	21.2437	3.71604	78.8094	14.0203	0.023	-0.063
BI	37.7143	0.83222	22.4542	6.27051	4.84549	24.4693	4.14816	72.1558	13.8301	0.013	-0.037
PO	37.6297	0.78640	23.1323	5.86644	5.59203	27.8678	4.04218	68.1617	13.5991	0.008	-0.012
AT	37.4971	0.74012	23.5635	5.42694	7.15953	29.8350	3.45924	66.3564	13.3183	0.011	-0.006
RN	37.3308	0.69354	23.8933	4.98696	9.02222	30.0338	2.77349	65.5799	12.9796	0.032	-0.015
FR	37.1902	0.65303	24.1306	4.61305	11.5026	29.2597	1.47980	257.965	12.6868	0.031	-0.017
FA	36.9820	0.60394	24.2495	4.17857	11.8719	24.3782	2.72428	200.024	12.1642	0.053	-0.024
AC	36.8705	0.56458	24.7131	3.88776	12.3889	23.1506	3.26501	161.726	11.7484	0.050	-0.023
TH	36.7754	0.52510	25.2506	3.61658	13.0681	22.3410	3.63791	139.164	11.2497	0.046	-0.024
FA	37.1457	0.52020	25.2998	3.66300	13.7846	20.6539	3.29611	150.973	11.4561	0.024	-0.023
L	37.2808	0.50239	25.6563	3.58562	14.3501	19.6342	3.30732	146.633	11.3864	0.026	-0.024
NP	37.3968	0.48676	26.0671	3.52325	14.8366	18.7419	3.31586	142.798	11.3632	0.027	-0.026
PU	37.6407	0.47976	26.5603	3.57178	15.4492	17.9814	2.79814	165.232	11.5358	0.022	-0.022
AM	37.6909	0.46617	27.1436	3.52195	15.7842	17.3069	2.79600	161.931	11.5685	0.023	-0.029
CM	37.5543	0.44932	27.6657	3.38713	15.8858	16.6498	3.32758	133.547	11.5431	0.031	-0.037
DK	37.5273	0.43930	28.3202	3.35014	16.1181	16.1000	3.32793	131.927	11.6823	0.031	-0.045
CF	37.6111	0.43255	29.2465	3.39285	16.4566	15.6791	2.78216	153.766	11.8853	0.027	-0.051
ES	37.4979	0.42353	30.0495	3.35234	16.5881	15.2381	2.77596	151.474	12.0698	0.029	-0.056
FM	37.3380	0.41562	30.8936	3.31193	16.6818	14.8362	2.76929	149.344	12.2983	0.031	-0.061
MD	37.1301	0.40883	31.7721	3.27132	16.7422	14.4683	2.76232	147.353	12.5741	0.033	-0.065
ND	36.8731	0.40324	32.6784	3.23045	16.7732	14.1302	2.75513	145.481	12.9008	0.034	-0.068
LW	36.3813	0.40165	33.1999	3.13608	16.6469	13.7255	3.31406	119.377	13.4313	0.037	-0.073