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RELATIVISTIC SELF-CONSISTENT CALCULATION FOR THE NORMAL URANIUM ATOM

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THE NORMAL URANIUM ATOM

Stanley Cohen

February 10, 1959

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THE NORMAL URANIUM ATOM

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RAND Corporation
Santa Monica, California

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ABSTRACT

The relativistic self-consistent solution for the normal uranium atom is presented. A comparison is made between the energy eigenvalues for each of the subshells with corresponding experimentally determined energy-term values.

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INTRODUCTION

A previous paper¹ described a method for obtaining the relativistic self-consistent solution without exchange for an atom of arbitrary atomic number and electron configuration. This method involved the use of a rather flexible routine programmed for an IBM type-704 computing machine. The routine described therein has been used to obtain the self-consistent solution for the normal uranium atom, and the results of this calculation are presented in this report. For comparison the experimentally determined energy-term values for each of the subshells of the atom has been included. For a complete description of the method by which these results have been obtained the reader is referred to the previous report.

DETAILS OF THE CALCULATIONS

In this calculation 613 grid points were used for the numerical integrations. For reasons mentioned in the previous report the calculation was carried out by using equal grid spaces in the variable ρ defined as $\rho = \ln(1000 r/a_0)$, where a_0 is the Bohr radius in hydrogen and r is the distance from the origin. The grid spacing chosen was $\Delta\rho = 1/36$ with an innermost value of $\rho = \rho_0 = -4$. The range of values of r is therefore from $r_{\min} = r_0 = 1.83156 \times 10^{-4} a_0$ to $r_{\max} = 442.413 a_0$. As will be noted, however, values of r larger than 59.8741 are of no importance because the electron cloud has an insignificant density beyond this value. The iterations

*Work done under the auspices of the U. S. Atomic Energy Commission.

of the calculation were repeated until successive values of the individual subshell contributions to the potential at the origin were constant to at least 1 part in 10^6 . Six-figure accuracy for all energy eigenvalues was obtained as indicated by their values in successive iterations.

RESULTS FOR THE URANIUM ATOM

The energy eigenvalues obtained from this calculation are given in Table I. Also included in this table are experimental energy-term values for each of the subshells of the atom.² The Appendix contains the edited tabulations of the various potentials and the individual electronic wave functions for this solution. The relativistic radial wave functions consist of two parts--F, the large component, and G, the small component. These wave functions have been normalized and satisfy the condition

$$\int_0^{\infty} (F^2 + G^2) dr = 1;$$

Included in the tabulations are parameters which define the behavior of the wave function for values of r less than r_0 . The normalized wave functions for this region are expressed as power series of the form

$$F = \left(\frac{r}{r_0} \right)^{\lambda} (a_0 + a_1 r + a_2 r^2 + a_3 r^3 + \dots)$$

and

(1)

$$G = \left(\frac{r}{r_0} \right)^{\lambda} (\beta_0 + \beta_1 r + \beta_2 r^2 + \beta_3 r^3 + \dots)$$

TABLE I

Comparison of energy eigenvalues with experimentally determined term values for uranium		
Subshell	Experimental energy-term value	Calculated eigenvalue
1S	8515.0 (Ry)	8562.76
2S	1602.44	1589.79
P _{1/2}	1542.73	1537.77
P _{3/2}	1264.32	1255.32
3S	408.66	399.48
P _{1/2}	381.66	373.79
P _{3/2}	316.90	309.50
D _{3/2}	274.42	270.05
D _{5/2}	261.51	256.95
4S	106.00	101.02
P _{1/2}	93.69	89.40
P _{3/2}	76.79	72.71
D _{3/2}	57.43	54.45
D _{5/2}	54.36	51.40
F _{5/2}	28.5	27.69
F _{7/2}	27.6	26.89
5S	23.94	22.62
P _{1/2}	18.86	18.11
P _{3/2}	13.59	14.11
D _{3/2}	7.12	7.58
D _{5/2}		7.00
F _{5/2}		0.274

TABLE I (Cont.)

<u>Subshell</u>	<u>Experimental energy-term value</u>	<u>Calculated eigenvalue</u>
6S	5.32	3.598
P _{1/2}	2.04	2.287
P _{3/2}		1.625
D _{3/2}	0.27	0.225
7S		0.379

REFERENCES

1. Stanley Cohen, "Relativistic Self-Consistent Calculation for the Normal Mercury Atom," UCRL-8389, July 28, 1958.
2. Landolt and Boernstein, Zahlenwerte und Funktionen, 6 Auflage (Springer, Berlin, 1950), p. 228.

APPENDIX

This appendix contains edited results of the self-consistent calculation for the normal uranium atom. Because these tabulations were printed by the computing machine, a description of the notation is necessary. All numbers are written in decimal form consisting of two parts: The first seven digits preceded by a decimal point are a decimal number between 0.0 and 1.0. The sign and two-digit number that follow are the power of ten by which this number is multiplied. The sign of the number is to the left of the decimal point; thus $-.9072915-07$ is to be read as $-.9072915 \times 10^{-7}$. Zero is represented as $.0000000-39$.

The first two pages of the tabulation contain information about the atom and its configuration. The entries at the top of the page are as follows: the problem identification number, the atomic number, the number of electrons in the atom, the number of shells in the atom, the values of r_0 , ρ_0 , and $\Delta\rho$, and the number of grid points used. Following this is the electric potential at r_0 due to the electrons of the atom. A tabulation of r , ρ , and r times the total atomic potential follows. Note that in this and other tabulations, values of the functions at every ninth grid point are given. All potentials and energies are expressed in Rydbergs.

Each electron subshell has a separate tabulation which is identified by the designation in the upper left-hand corner. Following this are the number of electrons in the subshell, the eigenvalue in Rydbergs, the potential contribution at r_0 for one electron of this subshell, and λ , the parameter used in the power series for the wave function at r_0 (see Eq. (1)). The next two lines contain α 's and β 's for this power-series expression, starting with α_0 and followed by $\alpha_1, \alpha_2, \dots$ etc. In general, only five values are given and are sufficient to express the wave function to eight significant figures for values of r near r_0 . A tabulation of the quantities $r v_i(r)$, v_i , $\int_0^r (F^2 + G^2) dr$, F , G , and ρ follows. Here v_i is the potential due to one electron in this subshell.

Although eight-figure results are tabulated here, small errors due to rounding may be present. These are sometimes manifested in inconsistencies of the monotonic behavior of some results for large values of r . Because these results are in fact not accurate to eight figures, these variations are not significant.

PROB. NO.	ATOMIC NO.	SUM NP	NO. SHELLS
.1310000 03	.9200000 02	.9200000 02	.7000000 01
R(0)	RHO(0)	DELTA RHO	GRID PTS.
.1831564-04-	.4000000 01	.2777778-01	.6130000 03

ELEC. POT.	AT ORIGIN	RHO	R TIMES V(R)
.1831564-04-	.4000000 01-	.1839713 03	
.2351775-04-	.3750000 01-	.1839632 03	
.3019738-04-	.3500000 01-	.1839527 03	
.3877421-04-	.3250000 01-	.1839393 03	
.4978707-04-	.3000000 01-	.1839220 03	
.6392786-04-	.2750000 01-	.1838998 03	
.8208499-04-	.2500000 01-	.1838714 03	
.1053992-03-	.2250000 01-	.1838349 03	
.1353353-03-	.2000000 01-	.1837880 03	
.1737739-03-	.1750000 01-	.1837279 03	
.2231301-03-	.1500000 01-	.1836507 03	
.2865048-03-	.1250000 01-	.1835516 03	
.3678794-03-	.1000000 01-	.1834247 03	
.4723665-03-	.7500000 00-	.1832619 03	
.6065306-03-	.5000000 00-	.1830535 03	
.7788007-03-	.2500000 00-	.1827870 03	
.9999999-03	.0000000-39-	.1824467 03	
.1284025-02	.2500000 00-	.1820130 03	
.1648721-02	.5000000 00-	.1814621 03	
.2117000-02	.7500000 00-	.1807649 03	
.2718281-02	.1000000 01-	.1798872 03	
.3490342-02	.1250000 01-	.1787890 03	
.4481688-02	.1500000 01-	.1774253 03	
.5754602-02	.1750000 01-	.1757462 03	
.7389055-02	.2000000 01-	.1736959 03	
.9487734-02	.2250000 01-	.1712099 03	
.1218249-01	.2500000 01-	.1682085 03	
.1564263-01	.2750000 01-	.1645885 03	
.2008553-01	.3000000 01-	.1602229 03	
.2579033-01	.3250000 01-	.1549798 03	
.3311544-01	.3500000 01-	.1487668 03	
.4252107-01	.3750000 01-	.1415621 03	
.5459813-01	.4000000 01-	.1333682 03	
.7010539-01	.4250000 01-	.1241061 03	
.9001710-01	.4500000 01-	.1136635 03	
.1155843 00	.4750000 01-	.1022094 03	
.1484131 00	.5000000 01-	.9024661 02	
.1905662 00	.5250000 01-	.7798167 02	
.2446918 00	.5500000 01-	.6526854 02	
.3141905 00	.5750000 01-	.5282602 02	
.4034286 00	.6000000 01-	.4200341 02	
.5180126 00	.6250000 01-	.3288420 02	
.6651413 00	.6500000 01-	.2479631 02	
.8540584 00	.6750000 01-	.1791846 02	
.1096633 01	.7000000 01-	.1254063 02	
.1408104 01	.7250000 01-	.8404855 01	
.1808042 01	.7500000 01-	.5337310 01	
.2321571 01	.7750000 01-	.3267099 01	
.2980957 01	.8000000 01-	.1918202 01	
.3827624 01	.8250000 01-	.1005866 01	
.4914767 01	.8500000 01-	.4260032 00	
.6310686 01	.8750000 01-	.1332571 00	

.8103080	01	.9000000	01-	.2853189-01
.1040456	02	.9250000	01-	.3905481-02
.1335972	02	.9500000	01-	.3214259-03
.1715422	02	.9750000	01-	.2511040-04
.2202645	02	.1000000	02-	.1142252-04
.2828253	02	.1025000	02-	.9029534-05
.3631548	02	.1050000	02-	.8263779-05
.4663000	02	.1075000	02-	.7976621-05
.5987411	02	.1100000	02-	.7466117-05
.7687987	02	.1125000	02-	.7274678-05
.9871572	02	.1150000	02-	.7274678-05
.1267535	03	.1175000	02-	.7274678-05
.1627547	03	.1200000	02+	.7274678-05
.2089812	03	.1225000	02-	.7274678-05
.2683371	03	.1250000	02-	.7274678-05
.3445517	03	.1275000	02-	.7274678-05
.4424131	03	.1300000	02-	.7274678-05

DESIGNATION	NP	RIND	ENERGY	V(O)	LAMBDA
1 S 1/2	.2000000	01-	.8562761	04 .2461755	03 .7411404 00

ALPHA S	.1610523	00-	.1475071	02 .6815104	03-.2096852	05 .4848828	06
	.0000000	-39	.0000000	-39 .0000000	-39 .0000000	-39 .0000000	-39
BETA S	-.6209865	-01	.5731521	01-.2644877	03 .8152987	04-.1884141	06
	.0000000	-39	.0000000	-39 .0000000	-39 .0000000	-39 .0000000	-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.4508862-02	.2461755	03 .2193116-06	.1607824	00-.6199376-01-	.4000000 01
.5789323-02	.2461683	03 .4076396-06	.1934193	00-.7457749-01-	.3750000 01
.7433322-02	.2461578	03 .7575438-06	.2326496	00-.8970328-01-	.3500000 01
.9543985-02	.2461426	03 .1407444-05	.2797882	00-.1078780	00-.3250000 01
.1225363-01	.2461207	03 .2614067-05	.3364029	00-.1297059	00-.3000000 01
.1573194-01	.2460889	03 .4853161-05	.4043575	00-.1559054	00-.2750000 01
.2019644-01	.2460431	03 .9005443-05	.4858605	00-.1873275	00-.2500000 01
.2592576-01	.2459768	03 .1669911-04	.5835157	00-.2249756	00-.2250000 01
.3327638-01	.2458811	03 .3093903-04	.7003743	00-.2700248	00-.2000000 01
.4270374-01	.2457431	03 .5725838-04	.8399814	00-.3238406	00-.1750000 01
.5478834-01	.2455443	03 .1058167-03	.1006410	01-.3879906	00-.1500000 01
.7026773-01	.2452585	03 .1951993-03	.1204267	01-.4642472	00-.1250000 01
.9007467-01	.2448484	03 .3592426-03	.1438650	01-.5545695	00-.1000000 01
.1153809 00	.2442614	03 .6591700-03	.1715017	01-.6610533	00-.7500000 00
.1476443 00	.2434243	03 .1204876-02	.2038928	01-.7858287	00-.5000000 00
.1886533 00	.2422356	03 .2191580-02	.2415578	01-.9308775	00-.2500000 00
.2405571 00	.2405571	03 .3961404-02	.2849022	01-.1097735	01 .0000000-39
.3058596 00	.2382038	03 .7103376-02	.3340984	01-.1287023	01 .2500000 00
.3873411 00	.2349343	03 .1260813-01	.3889100	01-.1497775	01 .5000000 00
.4878507 00	.2304444	03 .2209043-01	.4484471	01-.1726484	01 .7500000 00
.6098968 00	.2243686	03 .3807317-01	.5108515	01-.1965902	01 .1000000 01
.7549540 00	.2162980	03 .6427239-01	.5729325	01-.2203638	01 .1250000 01
.9224459 00	.2058255	03 .1057121 00	.6298227	01-.2420867	01 .1500000 01
.1108493 01	.1926272	03 .1683274 00	.6748026	01-.2591701	01 .1750000 01
.1304779 01	.1765826	03 .2575571 00	.6995526	01-.2684225	01 .2000000 01
.1498271 01	.1579166	03 .3755348 00	.6951812	01-.2664526	01 .2250000 01
.1672777 01	.1373099	03 .5172768 00	.6543571	01-.2504908	01 .2500000 01
.1812964 01	.1158989	03 .6679700 00	.5745291	01-.2196189	01 .2750000 01
.1909929 01	.9508978	02 .8050538 00	.4613820	01-.1760786	01 .3000000 01
.1965258 01	.7620133	02 .9073197 00	.3304811	01-.1258790	01 .3250000 01
.1989939 01	.6009097	02 .9666289 00	.2044646	01-.7769856	00 .3500000 01
.1997986 01	.4698814	02 .9916376 00	.1048691	01-.3974040	00 .3750000 01
.1999749 01	.3662670	02 .9986900 00	.4230941	00-.1598225	00 .4000000 01
.1999983 01	.2852823	02 .9998881 00	.1255423	00-.4726074-01	.4250000 01
.1999999 01	.2221799	02 .9999957 00	.2513638-01-	.9428791-02	.4500000 01
.2000000 01	.1730340	02 .9999999 00	.3041824-02-	.1136672-02	.4750000 01
.2000000 01	.1347590	02 .1000000 01	.1932784-03-	.7193198-04	.5000000 01
.2000000 01	.1049504	02 .1000000 01	.5386552-05-	.1996486-05	.5250000 01
.2000000 01	.8173546	01 .1000000 01	.5230382-07-	.1931003-07	.5500000 01
.2000000 01	.6365564	01 .1000000 01	.0000000-39	.0000000-39	.5750000 01
.2000000 01	.4957506	01 .1000000 01	.0000000-39	.0000000-39	.6000000 01
.2000000 01	.3860910	01 .1000000 01	.0000000-39	.0000000-39	.6250000 01
.2000000 01	.3006880	01 .1000000 01	.0000000-39	.0000000-39	.6500000 01
.2000000 01	.2341760	01 .1000000 01	.0000000-39	.0000000-39	.6750000 01
.2000000 01	.1823765	01 .1000000 01	.0000000-39	.0000000-39	.7000000 01
.2000000 01	.1420349	01 .1000000 01	.0000000-39	.0000000-39	.7250000 01
.2000000 01	.1106169	01 .1000000 01	.0000000-39	.0000000-39	.7500000 01
.2000000 01	.8614855	00 .1000000 01	.0000000-39	.0000000-39	.7750000 01
.2000000 01	.6709256	00 .1000000 01	.0000000-39	.0000000-39	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991	-01	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504	-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293	-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084	-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342	-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461	-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020	-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866	-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843	-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240	-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311	-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644	-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661	-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
2 P 3/2	.4000000	01-	.1255321	04 .4548443	02 .1883956 01

ALPHA S	.1203937-04-	.5454619-03	.1313527-01-	.2137796 00	.2644314 01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.2081031-05	.9995789-04-	.2438068-02	.4018323-01-	.4999359 00
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R	TIMES	V(R)	V(R)	INTEGRAL	F	G	RHO
.8330765-03	.4548444	02	.5726516-15	.1202939-04-	.2079201-05-	.4000000	01
.1069691-02	.4548444	02	.1885337-14	.1926145-04-	.3329170-05-	.3750000	01
.1373511-02	.4548443	02	.6206443-14	.3083937-04-	.5330212-05-	.3500000	01
.1763623-02	.4548444	02	.2042832-13	.4937244-04-	.8533230-05-	.3250000	01
.2264537-02	.4548443	02	.6722693-13	.7903433-04-	.1365940-04-	.3000000	01
.2907723-02	.4548444	02	.2211831-12	.1264985-03-	.2186173-04-	.2750000	01
.3733590-02	.4548443	02	.7274948-12	.2024306-03-	.3498273-04-	.2500000	01
.4794024-02	.4548444	02	.2391883-11	.3238660-03-	.5596484-04-	.2250000	01
.6155648-02	.4548443	02	.7860211-11	.5179937-03-	.8950325-04-	.2000000	01
.7904009-02	.4548444	02	.2581380-10	.8281639-03-	.1430820-03-	.1750000	01
.1014895-01	.4548443	02	.8470604-10	.1323407-02-	.2286145-03-	.1500000	01
.1303151-01	.4548444	02	.2776649-09	.2113466-02-	.3650314-03-	.1250000	01
.1673279-01	.4548444	02	.9089554-09	.3372434-02-	.5823469-03-	.1000000	01
.2148532-01	.4548443	02	.2970391-08	.5375732-02-	.9280087-03-	.7500000	00
.2758770-01	.4548443	02	.9685493-08	.8557548-02-	.1476743-02-	.5000000	00
.3542330-01	.4548442	02	.3149162-07	.1359921-01-	.2345663-02-	.2500000	00
.4548438-01	.4548439	02	.1020200-06	.2156349-01-	.3717157-02	.0000000-39	
.5840299-01	.4548430	02	.3289627-06	.3409528-01-	.5872926-02	.2500000	00
.7499058-01	.4548410	02	.1054411-05	.5371457-01-	.9243388-02	.5000000	00
.9628871-01	.4548358	02	.3353877-05	.8423017-01-	.1447687-01	.7500000	00
.1236337 00	.4548229	02	.1056407-04	.1312960 00-	.2253156-01	.1000000	01
.1587379 00	.4547917	02	.3286110-04	.2031025 00-	.3478778-01	.1250000	01
.2037898 00	.4547166	02	.1006008-03	.3111195 00-	.5316474-01	.1500000	01
.2615694 00	.4545395	02	.3017810-03	.4706493 00-	.8019914-01	.1750000	01
.3355604 00	.4541316	02	.8821890-03	.7006565 00-	.1189949 00	.2000000	01
.4300027 00	.4532196	02	.2495792-02	.1021903 01-	.1728823 00	.2250000	01
.5497407 00	.4512547	02	.6774714-02	.1451894 01-	.2445420 00	.2500000	01
.6995637 00	.4472162	02	.1745802-01	.1994924 01-	.3343223 00	.2750000	01
.8825354 00	.4393886	02	.4216206-01	.2626478 01-	.4376515 00	.3000000	01
.1096812 01	.4252804	02	.9398385-01	.3274891 01-	.5420956 00	.3250000	01
.1331279 01	.4020114	02	.1900650 00	.3810480 01-	.6258868 00	.3500000	01
.1562640 01	.3674978	02	.3424828 00	.4060963 01-	.6610893 00	.3750000	01
.1759298 01	.3222267	02	.5411472 00	.3871787 01-	.6240364 00	.4000000	01
.1895327 01	.2703540	02	.7434409 00	.3205156 01-	.5110517 00	.4250000	01
.1966789 01	.2184906	02	.8945953 00	.2218435 01-	.3495834 00	.4500000	01
.1993040 01	.1724318	02	.9713392 00	.1224675 01-	.1904289 00	.4750000	01
.1999149 01	.1347016	02	.9954558 00	.5084762 00-	.7789320-01	.5000000	01
.1999948 01	.1049477	02	.9996408 00	.1474095 00-	.2223425-01	.5250000	01
.1999998 01	.8173540	01	.9999884 00	.2712701-01-	.4029292-02	.5500000	01
.2000000 01	.6365563	01	.9999999 00	.2809169-02-	.4107408-03	.5750000	01
.2000000 01	.4957506	01	.1000000 01	.1408146-03-	.2025775-04	.6000000	01
.2000000 01	.3860909	01	.1000000 01	.2820003-05-	.3994547-06	.6250000	01
.2000000 01	.3006879	01	.1000000 01	.1761085-07-	.2460300-08	.6500000	01
.2000000 01	.2341760	01	.1000000 01	.2507213-10-	.3460105-11	.6750000	01
.2000000 01	.1823765	01	.1000000 01	.0000000-39	.0000000-39	.7000000	01
.2000000 01	.1420349	01	.1000000 01	.0000000-39	.0000000-39	.7250000	01
.2000000 01	.1106169	01	.1000000 01	.0000000-39	.0000000-39	.7500000	01
.2000000 01	.8614855	00	.1000000 01	.0000000-39	.0000000-39	.7750000	01
.2000000 01	.6709256	00	.1000000 01	.0000000-39	.0000000-39	.8000000	01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169278	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
2 P 1/2	.2000000	01-	.1537767 04	.6174333 02	.7411404 00
ALPHA S	.8348209-02	.1725015 01-	.9265859 02	.2453594 04-	.4296480 05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.2165101-01-	.1437500 01	.4672866 02-	.9762779 03	.1499262 05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1130869-02	.6174333 02	.3969831-08	.8379773-02	.2162469-01-	.4000000 01
.1452061-02	.6174320 02	.7382143-08	.1009635-01	.2601766-01-	.3750000 01
.1864477-02	.6174301 02	.1372667-07	.1216822-01	.3129997-01-	.3500000 01
.2394026-02	.6174274 02	.2552181-07	.1467090-01	.3764999-01-	.3250000 01
.3073970-02	.6174234 02	.4744736-07	.1769700-01	.4528095-01-	.3000000 01
.3947019-02	.6174176 02	.8819694-07	.2136066-01	.5444726-01-	.2750000 01
.5068004-02	.6174093 02	.1639155-06	.2580333-01	.6545167-01-	.2500000 01
.6507319-02	.6173972 02	.3045725-06	.3120154-01	.7865324-01-	.2250000 01
.8355326-02	.6173798 02	.5657699-06	.3777742-01	.9447601-01-	.2000000 01
.1072801-01	.6173545 02	.1050594-05	.4581304-01	.1134178 00-	.1750000 01
.1377422-01	.6173180 02	.1950004-05	.5567036-01	.1360586 00-	.1500000 01
.1768494-01	.6172652 02	.3617362-05	.6781918-01	.1630670 00-	.1250000 01
.2270511-01	.6171889 02	.6705698-05	.8287652-01	.1952031 00-	.1000000 01
.2914874-01	.6170788 02	.1241995-04	.1016624 00	.2333135 00-	.7500000 00
.3741809-01	.6169201 02	.2297928-04	.1252790 00	.2783146 00-	.5000000 00
.4802798-01	.6166916 02	.4246215-04	.1552218 00	.3311545 00-	.2500000 00
.6163629-01	.6163630 02	.7834676-04	.1935356 00	.3927446 00	.0000000-39
.7908198-01	.6158912 02	.1443136-03	.2430268 00	.4638427 00	.2500000 00
.1014318 00	.6152150 02	.2653407-03	.3075452 00	.5448689 00	.5000000 00
.1300362 00	.6142477 02	.4869854-03	.3923386 00	.6356291 00	.7500000 00
.1665943 00	.6128663 02	.8923986-03	.5044588 00	.7349203 00	.1000000 01
.2132236 00	.6108958 02	.1633854-02	.6531448 00	.8400026 00	.1250000 01
.2725253 00	.6080862 02	.2992055-02	.8500040 00	.9459520 00	.1500000 01
.3476216 00	.6040758 02	.5489233-02	.1108632 01	.1044971 01	.1750000 01
.4421138 00	.5983361 02	.1010525-01	.1443033 01	.1125857 01	.2000000 01
.5598604 00	.5900887 02	.1868005-01	.1863899 01	.1174021 01	.2250000 01
.7043885 00	.5781974 02	.3460737-01	.2371601 01	.1172670 01	.2500000 01
.8776555 00	.5610665 02	.6383531-01	.2945279 01	.1105943 01	.2750000 01
.1077883 01	.5366465 02	.1157513 00	.3529409 01	.9645336 00	.3000000 01
.1296605 01	.5027482 02	.2024717 00	.4023800 01	.7532124 00	.3250000 01
.1516307 01	.4578853 02	.3338355 00	.4289306 01	.4972463 00	.3500000 01
.1711861 01	.4025912 02	.5066483 00	.4184591 01	.2420192 00	.3750000 01
.1858913 01	.3404718 02	.6943280 00	.3638162 01	.4034531-01	.4000000 01
.1946935 01	.2777155 02	.8528288 00	.2726494 01-	.7119679-01	.4250000 01
.1985931 01	.2206170 02	.9497410 00	.1689118 01-	.9353833-01	.4500000 01
.1997638 01	.1728296 02	.9891108 00	.8211056 00-	.6409460-01	.4750000 01
.1999781 01	.1347442 02	.9986944 00	.2935058 00-	.2799523-01	.5000000 01
.1999990 01	.1049499 02	.9999270 00	.7106628-01-	.7712074-02	.5250000 01
.2000000 01	.8173544 01	.9999985 00	.1049291-01-	.1242574-02	.5500000 01
.2000000 01	.6365563 01	.1000000 01	.8269721-03-	.1039520-03	.5750000 01
.2000000 01	.4957506 01	.1000000 01	.2943799-04-	.3853463-05	.6000000 01
.2000000 01	.3860909 01	.1000000 01	.3826321-06-	.5150833-07	.6250000 01
.2000000 01	.3006879 01	.1000000 01	.1382273-08-	.1897808-09	.6500000 01
.2000000 01	.2341760 01	.1000000 01	.0000000-39	.0000000-39	.6750000 01
.2000000 01	.1823765 01	.1000000 01	.0000000-39	.0000000-39	.7000000 01
.2000000 01	.1420340 01	.1000000 01	.0000000-39	.0000000-39	.7250000 01
.2000000 01	.1106169 01	.1000000 01	.0000000-39	.0000000-39	.7500000 01
.2000000 01	.8614855 00	.1000000 01	.0000000-39	.0000000-39	.7750000 01
.2000000 01	.6709256 00	.1000000 01	.0000000-39	.0000000-39	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
2 S 1/2	.2000000	01-	.1589790	04 .6193459	02 .7411404

ALPHA S	.6636768-01-	.7223150	01 .2804510	03-.6525026	04 .1072677	06
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	
BETA S	-.2559009-01	.2042497	01-.7213140	02 .1591976	04-.2537876	05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	

R. TIMES	V(I)	V(R)	INTEGRAL	F	G	RHO
.1134372-02	.6193460	02	.3722964-07	.6623548-01-	.2555271-01-	.4000000 01
.1456533-02	.6193337	02	.6919271-07	.7967332-01-	.3074149-01-	.3750000 01
.1870172-02	.6193159	02	.1285690-06	.9582199-01-	.3697955-01-	.3500000 01
.2401248-02	.6192901	02	.2388296-06	.1152199	00-.4447669-01-	.3250000 01
.3083079-02	.6192529	02	.4434877-06	.1385079	00-.5348338-01-	.3000000 01
.3958407-02	.6191991	02	.8231355-06	.1664460	00-.6429789-01-	.2750000 01
.5082057-02	.6191213	02	.1526861-05	.1999316	00-.7727432-01-	.2500000 01
.6524305-02	.6190089	02	.2830035-05	.2400184	00-.9283134-01-	.2250000 01
.8375180-02	.6188468	02	.5240256-05	.2879336	00-.1114613	00-.2000000 01
.1074988-01	.6186131	02	.9690781-05	.3450920	00-.1337390	00-.1750000 01
.1379562-01	.6182769	02	.1789175-04	.4131004	00-.1603292	00-.1500000 01
.1770009-01	.6177939	02	.3296338-04	.4937466	00-.1919902	00-.1250000 01
.2270191-01	.6171019	02	.6056674-04	.5889601	00-.2295718	00-.1000000 01
.2910314-01	.6161135	02	.1108981-03	.7007266	00-.2740006	00-.7500000 00
.3728386-01	.6147071	02	.2021478-03	.8309299	00-.3262475	00-.5000000 00
.4771840-01	.6127164	02	.3663624-03	.9810815	00-.3872647	00-.2500000 00
.6099171-01	.6099172	02	.6590678-03	.1151885	01-.4578773	00 .0000000-39
.7781378-01	.6060144	02	.1174349-02	.1342560	01-.5386095	00 .2500000 00
.9902748-01	.6006321	02	.2066850-02	.1549850	01-.6294170	00 .5000000 00
.1256045 00	.5933137	02	.3580189-02	.1766603	01-.7292985	00 .7500000 00
.1586233 00	.5835426	02	.6075211-02	.1979890	01-.8357600	00 .1000000 01
.1992290 00	.5708008	02	.1003774-01	.2168687	01-.9441289	00 .1250000 01
.2485925 00	.5546849	02	.1602090-01	.2301396	01-.1046768	01 .1500000 01
.3079245 00	.5350926	02	.2444737-01	.2333966	01-.1132342	01 .1750000 01
.3786624 00	.5124639	02	.3519703-01	.2210086	01-.1185486	01 .2000000 01
.4629973 00	.4879956	02	.4703398-01	.1866014	01-.1187440	01 .2250000 01
.5648274 00	.4636387	02	.5735362-01	.1243539	01-.1118542	01 .2500000 01
.6907739 00	.4415971	02	.6352357-01	.3144172	00-.9634695	00 .2750000 01
.8498742 00	.4231276	02	.6761736-01-	.8838802	00-.7195745	00 .3000000 01
.1049488 01	.4069309	02	.8442004-01-	.2210728	01-.4066803	00 .3250000 01
.1285967 01	.3883284	02	.1456227	00-.3408474	01-.7318136-01	.3500000 01
.1534645 01	.3609140	02	.2853109	00-.4149948	01 .2100771	00 .3750000 01
.1752101 01	.3209086	02	.5022599	00-.4171013	01 .3745145	00 .4000000 01
.1899733 01	.2709825	02	.7350098	00-.3447130	01 .3907022	00 .4250000 01
.1971864 01	.2190544	02	.9021753	00-.2280331	01 .2924512	00 .4500000 01
.1995094 01	.1726095	02	.9776554	00-.1155680	01 .1592661	00 .4750000 01
.1999536 01	.1347277	02	.9972471	00-.4225352	00 .6078607-01	.5000000 01
.1999980 01	.1049493	02	.9998457	00-.1029337	00 .1519562-01	.5250000 01
.1999999 01	.8173544	01	.9999969	00-.1505716-01	.2256901-02	.5500000 01
.2000000 01	.6365563	01	.1000000	01-.1157504-02	.1748154-03	.5750000 01
.2000000 01	.4957506	01	.1000000	01-.3951616-04	.5980044-05	.6000000 01
.2000000 01	.3860909	01	.1000000	01-.4831352-06	.7303546-07	.6250000 01
.2000000 01	.3006879	01	.1000000	01-.1604706-08	.2419990-09	.6500000 01
.2000000 01	.2341760	01	.1000000	01-.1024861-11	.1540968-12	.6750000 01
.2000000 01	.1823765	01	.1000000	01 .0000000-39	.0000000-39	.7000000 01
.2000000 01	.1420349	01	.1000000	01 .0000000-39	.0000000-39	.7250000 01
.2000000 01	.1106169	01	.1000000	01 .0000000-39	.0000000-39	.7500000 01
.2000000 01	.8614855	00	.1000000	01 .0000000-39	.0000000-39	.7750000 01
.2000000 01	.6709256	00	.1000000	01 .0000000-39	.0000000-39	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01	.1000000	01	.0000000-39	.0000000-39	.1000000	02	
.2000000	01	.7071504-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02	
.2000000	01	.5507293-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02	
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02	
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02	
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02	
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02	
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02	
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02	
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02	
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02	
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02	
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02	

DESIGNATION	NP	BIND. ENERGY	V(O)	LAMBDA
3 D 5/2	.6000000	01-.2569469	03 .1690412	02 .2923917

ALPHA S	.4822012-09-	.1446771-07	.2473659-06-	.2926177-05	.2682344-04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.5464726-10	.1862063-08-	.3299837-07	.4029332-06-	.3759058-05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R	TIMES	V(R)	V(R)	INTEGRAL	F	G	RHO
.3096098-03	.1690412	02	.6292895-24	.4819363-09-	.5461317-10-	.4000000	01
.3975469-03	.1690413	02	.3485166-23	.1000880-08-	.1134176-09-	.3750000	01
.5104603-03	.1690412	02	.1930061-22	.2078525-08-	.2355277-09-	.3500000	01
.6554440-03	.1690413	02	.1068734-21	.4316222-08-	.4890748-09-	.3250000	01
.8416068-03	.1690412	02	.5917157-21	.8962321-08-	.1015483-08-	.3000000	01
.1080645-02	.1690413	02	.3275557-20	.1860786-07-	.2108257-08-	.2750000	01
.1387575-02	.1690412	02	.1812866-19	.3862960-07-	.4376381-08-	.2500000	01
.1781682-02	.1690413	02	.1003065-18	.8018197-07-	.9083024-08-	.2250000	01
.2287724-02	.1690412	02	.5548064-18	.1663976-06-	.1884724-07-	.2000000	01
.2937496-02	.1690413	02	.3067330-17	.3452286-06-	.3909664-07-	.1750000	01
.3771820-02	.1690412	02	.1694850-16	.7160187-06-	.8107179-07-	.1500000	01
.4843112-02	.1690413	02	.9358007-16	.1484430-05-	.1680324-06-	.1250000	01
.6218679-02	.1690412	02	.5162100-15	.3075820-05-	.3480570-06-	.1000000	01
.7984942-02	.1690413	02	.2844100-14	.6368863-05-	.7203888-06-	.7500000	00
.1025287-01	.1690412	02	.1564552-13	.1317582-04-	.1489520-05-	.5000000	00
.1316494-01	.1690413	02	.8589574-13	.2722696-04-	.3075850-05-	.2500000	00
.1690412-01	.1690412	02	.4703773-12	.5618068-04-	.6341122-05	.0000000-39	
.2170532-01	.1690413	02	.2567451-11	.1157077-03-	.1304513-04	.2500000	00
.2787019-01	.1690412	02	.1395534-10	.2377369-03-	.2676428-04	.5000000	00
.3578603-01	.1690413	02	.7544870-10	.4869646-03-	.5472217-04	.7500000	00
.4595016-01	.1690412	02	.4051223-09	.9935533-03-	.1113935-03	.1000000	01
.5900118-01	.1690413	02	.2156330-08	.2016979-02-	.2254895-03	.1250000	01
.7575901-01	.1690412	02	.1134974-07	.4068370-02-	.4532207-03	.1500000	01
.9727648-01	.1690412	02	.5889261-07	.8139076-02-	.9027988-03	.1750000	01
.1249054	.1690411	02	.3000864-06	.1611322-01-	.1778044-02	.2000000	01
.1603813	.1690407	02	.1494183-05	.3147706-01-	.3452005-02	.2250000	01
.2059317	.1690390	02	.7225067-05	.6045490-01-	.6581785-02	.2500000	01
.2644120	.1690330	02	.3366604-04	.1136321	.1226545-01	.2750000	01
.3394687	.1690115	02	.1497165-03	.2078266	.2220538-01	.3000000	01
.4357014	.1689398	02	.6279594-03	.3672069	.3875895-01	.3250000	01
.5587074	.1687151	02	.2448733-02	.6212414	.6462410-01	.3500000	01
.7146377	.1680667	02	.8726748-02	.9953116	.1017869	.3750000	01
.9083790	.1663755	02	.2785626-01	.1489553	.1494227	.4000000	01
.1139003	.1624701	02	.7783453-01	.2047144	.2010114	.4250000	01
.1392307	.1546713	02	.1857356	.2530185	.2425106	.4500000	01
.1635654	.1415119	02	.3699468	.2742711	.2556330	.4750000	01
.1826793	.1230884	02	.6061073	.2530243	.2285616	.5000000	01
.1940137	.1018091	02	.8197839	.1913118	.1672644	.5250000	01
.1986450	.8118170	01	.9461698	.1130550	.9555195-01	.5500000	01
.1998222	.6359904	01	.9907572	.4936772	.4018445-01	.5750000	01
.1999883	.4957216	01	.9992105	.1493024	.1166235-01	.6000000	01
.1999997	.3860903	01	.9999720	.2879144-01-	.2159452-02	.6250000	01
.2000000	.3006879	01	.9999997	.3166369-02-	.2287924-03	.6500000	01
.2000000	.2341760	01	.1000000	.1718990-03-	.1200392-04	.6750000	01
.2000000	.1823765	01	.1000000	.3836691-05-	.2597846-06	.7000000	01
.2000000	.1420349	01	.1000000	.2782507-07-	.1834075-08	.7250000	01
.2000000	.1106169	01	.1000000	.4857685-10-	.3129380-11	.7500000	01
.2000000	.8614854	00	.1000000	.1459680-13-	.9257913-15	.7750000	01
.2000000	.6709256	00	.1000000	.0000000-39	.0000000-39	.8000000	01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.0000000-39	.1300000	02

DESIGNATION NP BIND. ENERGY V(O) LAMBDA
3 D 3/2 .4000000 01-.2700575 03 .1776562 02 .1883956 01

ALPHA S .1102192-06 .3402105-04-.1076589-02 .1889135-01-.2271543 00
.0000000-39 .0000000-39 .0000000-39 .0000000-39 .0000000-39
BETA S .6839327-06-.2495052-04 .5035364-03-.6876105-02 .7155674-01
.0000000-39 .0000000-39 .0000000-39 .0000000-39 .0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.3253887-03	.1776562 02	.1849058-17	.1188420-06	.5834759-06-	.4000000 01
.4178074-03	.1776562 02	.6088603-17	.1906177-06	.1094432-05-	.3750000 01
.5364753-03	.1776562 02	.2004747-16	.3058709-06	.1752390-05-	.3500000 01
.6888480-03	.1776562 02	.6600285-16	.4210720-06	.2805710-05-	.3250000 01
.8844983-03	.1776562 02	.2172797-15	.7889479-06	.4491756-05-	.3000000 01
.1135718-02	.1776562 02	.7151797-15	.1268612-05	.7190184-05-	.2750000 01
.1458291-02	.1776562 02	.2353608-14	.2042158-05	.1150801-04-	.2500000 01
.1872483-02	.1776562 02	.7743808-14	.3291985-05	.1841531-04-	.2250000 01
.2404316-02	.1776562 02	.2547118-13	.5316123-05	.2946136-04-	.2000000 01
.3087202-02	.1776562 02	.8374958-13	.8603967-05	.4711855-04-	.1750000 01
.3964046-02	.1776562 02	.2752400-12	.1396405-04	.7532834-04-	.1500000 01
.5089936-02	.1776562 02	.9040244-12	.2274181-04	.1203658-03-	.1250000 01
.6535607-02	.1776562 02	.2967011-11	.3719515-04	.1922044-03-	.1000000 01
.8391886-02	.1776562 02	.9728412-11	.6114998-04	.3066608-03-	.7500000 00
.1077539-01	.1776562 02	.3185977-10	.1011593-03	.4887476-03-	.5000000 00
.1383588-01	.1776562 02	.1041819-09	.1685783-03	.7778749-03-	.2500000 00
.1776562-01	.1776562 02	.3400464-09	.2833223-03	.1235845-02	.0000000-39
.2281151-01	.1776562 02	.1107400-08	.4807411-03	.1958977-02	.2500000 00
.2929056-01	.1776562 02	.3596642-08	.8242899-03	.3096190-02	.5000000 00
.3760982-01	.1776562 02	.1164448-07	.1428986-02	.4875308-02	.7500000 00
.4829195-01	.1776562 02	.3756656-07	.2504851-02	.7640058-02	.1000000 01
.6200805-01	.1776561 02	.1207380-06	.4436982-02	.1189950-01	.1250000 01
.7961979-01	.1776558 02	.3866364-06	.7931533-02	.1838881-01	.1500000 01
.1022334 00	.1776551 02	.1234495-05	.1427675-01	.2813330-01	.1750000 01
.1312690 00	.1776534 02	.3936261-05	.2579569-01	.4249282-01	.2000000 01
.1685487 00	.1776490 02	.1256547-04	.4659513-01	.6313762-01	.2250000 01
.2164076 00	.1776382 02	.4028170-04	.8371584-01	.9186726-01	.2500000 01
.2778304 00	.1776111 02	.1299753-03	.1486901 00	.1301406 00	.2750000 01
.3566039 00	.1775427 02	.4216853-03	.2591678 00	.1781724 00	.3000000 01
.4574427 00	.1773698 02	.1365475-02	.4394731 00	.2335476 00	.3250000 01
.5859370 00	.1769377 02	.4344189-02	.7175744 00	.2896222 00	.3500000 01
.7479020 00	.1758897 02	.1325887-01	.1114442 01	.3345757 00	.3750000 01
.9472304 00	.1734914 02	.3768350-01	.1622065 01	.3527110 00	.4000000 01
.1181066 01	.1684700 02	.9650948-01	.2172902 01	.3298428 00	.4250000 01
.1432706 01	.1591593 02	.2154985 00	.2620846 01	.2627431 00	.4500000 01
.1668139 01	.1443223 02	.4076157 00	.2772970 01	.1670437 00	.4750000 01
.1847134 01	.1244590 02	.6415403 00	.2494894 01	.7355034-01	.5000000 01
.1949226 01	.1022861 02	.8426406 00	.1836361 01	.1091162-01	.5250000 01
.1989065 01	.8128856 01	.9553457 00	.1053170 01-	.1252153-01	.5500000 01
.1998651 01	.6361271 01	.9928028 00	.4442386 00-	.1111612-01	.5750000 01
.1999918 01	.4957302 01	.9994316 00	.1289141 00-	.4441762-02	.6000000 01
.1999998 01	.3860905 01	.9999817 00	.2363720-01-	.9758165-03	.6250000 01
.2000000 01	.3006879 01	.9999998 00	.2441953-02-	.1130453-03	.6500000 01
.2000000 01	.2341760 01	.1000000 01	.1225688-03-	.6118540-05	.6750000 01
.2000000 01	.1823765 01	.1000000 01	.2477200-05-	.1300998-06	.7000000 01
.2000000 01	.1420349 01	.1000000 01	.1583736-07-	.8615885-09	.7250000 01
.2000000 01	.1106169 01	.1000000 01	.2356407-10-	.1314044-11	.7500000 01
.2000000 01	.8614855 00	.1000000 01	.0000000-39	.0000000-39	.7750000 01
.2000000 01	.6709256 00	.1000000 01	.0000000-39	.0000000-39	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991	-01	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504	-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293	-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084	-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342	-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461	-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020	-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866	-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843	-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240	-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311	-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644	-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661	-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND. ENERGY	V(O)	LAMBDA
3 P 3/2	.4000000	01-.3095053	03 .1793944	02 .1883956

ALPHA S	.6463014-05-	.2996996-03	.6721918-02-	.9930621-01	.1091447	01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000	-39
BETA S	-.1117146-05	.5017216-04-	.1112426-02	.1630756-01-	.1783731	00
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000	-39

R. TIMES	V(R)	INTEGRAL	F	G	RHO	
.3285723-03	.1793944	02 .1650215-15	.6457527-05-	.1116227-05-	.4000000	01
.4218951-03	.1793944	02 .5432947-15	.1033973-04-	.1787307-05-	.3750000	01
.5417241-03	.1793944	02 .1788483-14	.1655475-04-	.2861651-05-	.3500000	01
.6955874-03	.1793944	02 .5886656-14	.2650317-04-	.4581390-05-	.3250000	01
.8931520-03	.1793944	02 .1937189-13	.4242520-04-	.7333821-05-	.3000000	01
.1146830-02	.1793944	02 .6373396-13	.6790269-04-	.1173822-04-	.2750000	01
.1472559-02	.1793944	02 .2096218-12	.1086599-03-	.1878435-04-	.2500000	01
.1890803-02	.1793944	02 .6891762-12	.1738391-03-	.3005310-04-	.2250000	01
.2427839-02	.1793944	02 .2264665-11	.2780304-03-	.4806769-04-	.2000000	01
.3117407-02	.1793944	02 .7436950-11	.4444939-03-	.7685134-04-	.1750000	01
.4002829-02	.1793944	02 .2440185-10	.7102634-03-	.1228109-03-	.1500000	01
.5139734-02	.1793944	02 .7998058-10	.1134202-02-	.1961322-03-	.1250000	01
.6599550-02	.1793944	02 .2617869-09	.1809667-02-	.3129752-03-	.1000000	01
.8473989-02	.1793944	02 .8553483-09	.2884302-02-	.4989083-03-	.7500000	00
.1088082-01	.1793944	02 .2788379-08	.4590754-02-	.7942432-03-	.5000000	00
.1397124-01	.1793943	02 .9063468-08	.7293872-02-	.1262248-02-	.2500000	00
.1793942-01	.1793942	02 .2935024-07	.1156229-01-	.2001633-02	.0000000	-39
.2303464-01	.1793940	02 .9458941-07	.1827508-01-	.3165223-02	.2500000	00
.2957697-01	.1793934	02 .3029671-06	.2877669-01-	.4987246-02	.5000000	00
.3797726-01	.1793919	02 .9627447-06	.4509424-01-	.7821946-02	.7500000	00
.4876277-01	.1793882	02 .3028413-05	.7022564-01-	.1219568-01	.1000000	01
.6260951-01	.1793793	02 .9402786-05	.1084885	00-.1887208-01	.1250000	01
.8038259-01	.1793578	02 .2870970-04	.1658712	00-.2892315-01	.1500000	01
.1031843	00 .1793074	02 .8579587-04	.2502283	00-.4378465-01	.1750000	01
.1324058	00 .1791918	02 .2494083-03	.3709766	00-.6524730-01	.2000000	01
.1697689	00 .1789351	02 .6997329-03	.5376547	00-.9529163-01	.2250000	01
.2173209	00 .1783879	02 .1875391-02	.7563420	00-.1356167	00 .2500000	01
.2773146	00 .1772814	02 .4738285-02	.1022690	01-.1866676	00 .2750000	01
.3518796	00 .1751906	02 .1109147-01	.1310799	01-.2460168	00 .3000000	01
.4424894	00 .1715718	02 .2351333-01	.1559448	01-.3062635	00 .3250000	01
.5496519	00 .1659805	02 .4381565-01	.1662592	01-.3533731	00 .3500000	01
.6740457	00 .1585204	02 .6908297-01	.1479183	01-.3674593	00 .3750000	01
.8203568	00 .1502536	02 .8851765-01	.8827766	00-.3285667	00 .4000000	01
.1001192	01 .1428125	02 .9337433-01-	.1403761	00-.2285036	00 .4250000	01
.1230262	01 .1366698	02 .1087501	00-.1383314	01-.8464952-01	.4500000	01
.1496570	01 .1294787	02 .2090819	00-.2411180	01 .5677663-01	.4750000	01
.1744842	01 .1175666	02 .4430801	00-.2766876	01 .1420506	00 .5000000	01
.1909878	01 .1002212	02 .7278310	00-.2315715	01 .1475510	00 .5250000	01
.1980315	01 .8093097	01 .9191014	00-.1408101	01 .9818970-01	.5500000	01
.1997674	01 .6358162	01 .9872436	00-.5979226	00 .4325030-01	.5750000	01
.1999873	01 .4957191	01 .9990845	00-.1669576	00 .1217855-01	.6000000	01
.1999997	01 .3860904	01 .9999753	00-.2816588-01	.2044430-02	.6250000	01
.2000000	01 .3006879	01 .9999998	00-.2550175-02	.1831745-03	.6500000	01
.2000000	01 .2341760	01 .9999999	00-.1060503-03	.7515963-05	.6750000	01
.2000000	01 .1823765	01 .1000000	01-.1659620-05	.1159288-06	.7000000	01
.2000000	01 .1420349	01 .9999999	00-.7562477-08	.5209752-09	.7250000	01
.2000000	01 .1106169	01 .1000000	01-.7250453-11	.4932493-12	.7500000	01
.2000000	01 .8614855	00 .1000000	01 .0000000-39	.0000000-39	.7750000	01
.2000000	01 .6709256	00 .1000000	01 .0000000-39	.0000000-39	.8000000	01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991	-01	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504	-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293	-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084	-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342	-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461	-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020	-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866	-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843	-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240	-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311	-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644	-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661	-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
3 P 1/2	.2000000	01-	.3737920	03 .2221389	02 .7411404 00
ALPHA S	.4297465-02	.8968821	00-	.5092837	02 .1247642 04-
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.1114544-01-	.7718286	00	.2324352	02-.4356497 03 .5848952
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.4068616-03	.2221389	02 .1051925-08	.4313875-02	.1113131-01-	.4000000 01
.5224198-03	.2221386	02 .1956087-08	.5197616-02	.1339239-01-	.3750000 01
.6707989-03	.2221381	02 .3637154-08	.6264302-02	.1611111-01-	.3500000 01
.8613199-03	.2221373	02 .6762328-08	.7552832-02	.1937919-01-	.3250000 01
.1105952-02	.2221363	02 .1257134-07	.9110919-02	.2330626-01-	.3000000 01
.1420060-02	.2221348	02 .2336703-07	.1099738-01	.2802304-01-	.2750000 01
.1823375-02	.2221326	02 .4342552-07	.1328511-01	.3368504-01-	.2500000 01
.2341226-02	.2221294	02 .8068328-07	.1606513-01	.4047656-01-	.2250000 01
.3006132-02	.2221248	02 .1498619-06	.1945198-01	.4861503-01-	.2000000 01
.3859833-02	.2221181	02 .2782487-06	.2359116-01	.5835541-01-	.1750000 01
.4955908-02	.2221084	02 .5163751-06	.2866943-01	.6999424-01-	.1500000 01
.6363111-02	.2220944	02 .9577092-06	.3492925-01	.8387258-01-	.1250000 01
.8169654-02	.2220742	02 .1774893-05	.4268907-01	.1003768	00-.1000000 01
.1048867-01	.2220451	02 .3286256-05	.5237209-01	.1199352	00-.7500000 00
.1346517-01	.2220031	02 .6077555-05	.6454688-01	.1430077	00-.5000000 00
.1728491-01	.2219427	02 .1122405-04	.7998438-01	.1700639	00-.2500000 00
.2218559-01	.2218559	02 .2069432-04	.9973702-01	.2015442	00 .0000000-39
.2847086-01	.2217313	02 .3808240-04	.1252459	00 .2377936	00 .2500000 00
.3652791-01	.2215530	02 .6993281-04	.1584805	00 .2789579	00 .5000000 00
.4684884-01	.2212983	02 .1281397-03	.2021099	00 .3248263	00 .7500000 00
.6005640-01	.2209352	02 .2343078-03	.2596876	00 .3746059	00 .1000000 01
.7693363-01	.2204186	02 .4277411-03	.3357991	00 .4266151	00 .1250000 01
.9845574-01	.2196845	02 .7802286-03	.4360542	00 .4778983	00 .1500000 01
.1258195	00 .2186416	02 .1423569-02	.5666897	00 .5237985	00 .1750000 01
.1604599	00 .2171589	02 .2600209-02	.7333675	00 .5575902	00 .2000000 01
.2040326	00 .2150488	02 .4751495-02	.9385241	00 .5703931	00 .2250000 01
.2583299	00 .2120502	02 .8650337-02	.1176461	01 .5517421	00 .2500000 01
.3250928	00 .2078249	02 .1552878-01	.1425573	01 .4913545	00 .2750000 01
.4057432	00 .2020077	02 .2697390-01	.1638371	01 .3826226	00 .3000000 01
.5012781	00 .1943667	02 .4404619-01	.1733102	01 .2278606	00 .3250000 01
.6129917	00 .1851075	02 .6504087-01	.1596312	01 .4394427-01	.3500000 01
.7448655	00 .1751756	02 .8310085-01	.1111107	01-.1351847	00 .3750000 01
.9067505	00 .1660772	02 .9004765-01	.2235778	00-.2642738	00 .4000000 01
.1112383	01 .1586730	02 .9546046-01-	.9635523	00-.3042552	00 .4250000 01
.1363365	01 .1514562	02 .1498140	00-.2132470	01-.2472187	00 .4500000 01
.1625739	01 .1406540	02 .3186847	00-.2834481	01-.1310655	00 .4750000 01
.1835593	01 .1236813	02 .5880029	00-.2758577	01-.2140207-01	.5000000 01
.1951556	01 .1024083	02 .8341709	00-.2006144	01 .3397225-01	.5250000 01
.1991543	01 .8138985	01 .9610480	00-.1059399	01 .3573408-01	.5500000 01
.1999242	01 .6363151	01 .9953775	00-.3851373	00 .1741316-01	.5750000 01
.1999970	01 .4957433	01 .9997655	00-.8971782-01	.4752166-02	.6000000 01
.1999999	01 .3860909	01 .9999959	00-.1215836-01	.7086307-03	.6250000 01
.2000000	01 .3006879	01 .1000000	01-.8400033-03	.5208215-04	.6500000 01
.2000000	01 .2341760	01 .1000000	01-.2490032-04	.1607811-05	.6750000 01
.2000000	01 .1823765	01 .1000000	01-.2541223-06	.1685351-07	.7000000 01
.2000000	01 .1420349	01 .1000000	01-.6738249-09	.4550235-10	.7250000 01
.2000000	01 .1106169	01 .1000000	01-.3262844-12	.2233618-13	.7500000 01
.2000000	01 .8614855	00 .1000000	01 .0000000-39	.0000000-39	.7750000 01
.2000000	01 .6709256	00 .1000000	01 .0000000-39	.0000000-39	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
3 S 1/2	.2000000	01-	.3994825	03 .2243225	02 .7411404 00

ALPHA S	.3226278-01-	.3605650	01 .1361550	03-.2895363	04 .4226816	05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.1243990-01	.9665824	00-.3127055	02 .6137210	03-.8520528	04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R-TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.4108610-03	.2243225	02 .8797382-08	.3219679-01-	.1242221-01-	.4000000 01
.5275491-03	.2243196	02 .1634999-07	.3872827-01-	.1494485-01-	.3750000 01
.6773738-03	.2243154	02 .3037973-07	.4657704-01-	.1797771-01-	.3500000 01
.8697416-03	.2243093	02 .5643178-07	.5600455-01-	.2162286-01-	.3250000 01
.1116727-02	.2243005	02 .1047856-06	.6732188-01-	.2600217-01-	.3000000 01
.1433824-02	.2242878	02 .1944784-06	.8089781-01-	.3126082-01-	.2750000 01
.1840915-02	.2242694	02 .3607229-06	.9716758-01-	.3757123-01-	.2500000 01
.2363502-02	.2242429	02 .6685481-06	.1166418	00-.4513734-01-	.2250000 01
.3034279-02	.2242046	02 .1237800-05	.1399146	00-.5419915-01-	.2000000 01
.3895132-02	.2241494	02 .2288766-05	.1676699	00-.6503710-01-	.1750000 01
.4999677-02	.2240700	02 .4224974-05	.2006829	00-.7797578-01-	.1500000 01
.6416446-02	.2239560	02 .7782339-05	.2398135	00-.9338616-01-	.1250000 01
.8232870-02	.2237926	02 .1429527-04	.2859857	00-.1116847	00-.1000000 01
.1056020-01	.2235594	02 .2616530-04	.3401430	00-.1333267	00-.7500000 00
.1353944-01	.2232276	02 .4767229-04	.4031675	00-.1587916	00-.5000000 00
.1734843-01	.2227583	02 .8634542-04	.4757421	00-.1885523	00-.2500000 00
.2220988-01	.2220989	02 .1552044-03	.5581291	00-.2230242	00 .0000000-39
.2840011-01	.2211803	02 .2762486-03	.6498274	00-.2624807	00 .2500000 00
.3625787-01	.2199151	02 .4854909-03	.7490662	00-.3069229	00 .5000000 00
.4619246-01	.2181978	02 .8393148-03	.8520866	00-.3558875	00 .7500000 00
.5869045-01	.2159101	02 .1420411-02	.9521810	00-.4081779	00 .1000000 01
.7432213-01	.2129365	02 .2338169-02	.1038511	01-.4615101	00 .1250000 01
.9375334-01	.2091920	02 .3712540-02	.1094852	01-.5120906	00 .1500000 01
.1177783	.2046680	02 .5623849-02	.1098654	01-.5541870	00 .1750000 01
.1474030	.1994884	02 .8013370-02	.1021262	01-.5798436	00 .2000000 01
.1840198	.1939555	02 .1055682-01	.8307369	00-.5790273	00 .2250000 01
.2296830	.1885353	02 .1264728-01	.4994594	00-.5406652	00 .2500000 01
.2873741	.1837122	02 .1381839-01	.1887081-01-	.4551671	00 .2750000 01
.3608886	.1796759	02 .1498916-01-	.5777774	00-.3189148	00 .3000000 01
.4538112	.1759618	02 .2011698-01-	.1189144	01-.1404107	00 .3250000 01
.5676962	.1714294	02 .3552866-01-	.1631186	01 .5411335-01	.3500000 01
.7017538	.1650367	02 .6267887-01-	.1662671	01 .2204945	00 .3750000 01
.8579296	.1571353	02 .8814584-01-	.1081526	01 .3078995	00 .4000000 01
.1048754	.1495967	02 .9537236-01	.1113492	00 .2834774	00 .4250000 01
.1289577	.1432591	02 .1151825	00 .1571513	01 .1605633	00 .4500000 01
.1563104	.1352350	02 .2421201	00 .2674033	01 .5490671-02	.4750000 01
.1800943	.1213466	02 .5124767	00 .2884089	01-.9947816-01	.5000000 01
.1940311	.1018182	02 .7963336	00 .2199546	01-.1165232	00 .5250000 01
.1989666	.8131314	01 .9519302	00 .1179350	01-.7485984-01	.5500000 01
.1999109	.6362728	01 .9944680	00 .4248326	00-.2951320-01	.5750000 01
.1999968	.4957426	01 .9997381	00 .9591409-01-	.6971628-02	.6000000 01
.1999999	.3860909	01 .9999959	00 .1231221-01-	.9152070-03	.6250000 01
.2000000	.3006879	01 .1000000	01 .7853183-03-	.5899595-04	.6500000 01
.2000000	.2341760	01 .1000000	01 .2084929-04-	.1571458-05	.6750000 01
.2000000	.1823765	01 .1000000	01 .1836526-06-	.1382836-07	.7000000 01
.2000000	.1420349	01 .1000000	01 .4017164-09-	.3015705-10	.7250000 01
.2000000	.1106169	01 .1000000	01 .1521241-12-	.1137496-13	.7500000 01
.2000000	.8614855	00 .1000000	01 .0000000-39	.0000000-39	.7750000 01
.2000000	.6709256	00 .1000000	01 .0000000-39	.0000000-39	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.0000000-39	.0000000-39	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991	-01	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504	-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293	-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084	-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342	-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461	-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020	-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866	-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843	-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240	-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311	-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644	-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661	-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(0)	LAMBDA
4 F 7/2	.8000000	01-	.2689193	02 .6538696	01 .3943259

ALPHA S	.6085995-14-	.1362158-12	.1884564-11-	.1834766-10	.1415836-09
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.5143776-15	.1416756-13-	.2066013-12	.2123210-11-	.1685795-10
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO	
.1197604-03	.6538697	01 .7682885-34	.6083501-14-	.5141182-15-	.4000000	01
.1537754-03	.6538697	01 .7083914-33	.1630185-13-	.1377636-14-	.3750000	01
.1974515-03	.6538697	01 .6531424-32	.4368233-13-	.3691378-14-	.3500000	01
.2535328-03	.6538697	01 .6021423-31	.1170459-12-	.9890535-14-	.3250000	01
.3255425-03	.6538697	01 .5550702-30	.3136052-12-	.2649854-13-	.3000000	01
.4180049-03	.6538697	01 .5116133-29	.8401941-12-	.7098829-13-	.2750000	01
.5367289-03	.6538697	01 .4714824-28	.2250801-11-	.1901531-12-	.2500000	01
.6891736-03	.6538697	01 .4344092-27	.6028988-11-	.5092822-12-	.2250000	01
.8849163-03	.6538697	01 .4001444-26	.1614684-10-	.1363749-11-	.2000000	01
.1136255-02	.6538697	01 .3684562-25	.4323625-10-	.3650974-11-	.1750000	01
.1458980-02	.6538697	01 .3391284-24	.1157451-09-	.9771309-11-	.1500000	01
.1873368-02	.6538697	01 .3119591-23	.3097571-09-	.2614143-10-	.1250000	01
.2405452-02	.6538697	01 .2867591-22	.8286393-09-	.6990228-10-	.1000000	01
.3088662-02	.6538697	01 .2633501-21	.2215572-08-	.1868005-09-	.7500000	00
.3965920-02	.6538697	01 .2415644-20	.5919965-08-	.4987831-09-	.5000000	00
.5092342-02	.6538697	01 .2212429-19	.1580463-07-	.1330434-08-	.2500000	00
.6538696-02	.6538697	01 .2022349-18	.4214805-07-	.3544020-08	.0000000-39	
.8395852-02	.6538697	01 .1843970-17	.1122447-06-	.9424515-08	.2500000	00
.1078049-01	.6538697	01 .1675936-16	.2983870-06-	.2500789-07	.5000000	00
.1384242-01	.6538697	01 .1516967-15	.7914121-06-	.6617461-07	.7500000	00
.1777402-01	.6538697	01 .1365883-14	.2092945-05-	.1744920-06	.1000000	01
.2282229-01	.6538697	01 .1221619-13	.5514340-05-	.4580578-06	.1250000	01
.2930440-01	.6538697	01 .1083277-12	.1445981-04-	.1195679-05	.1500000	01
.3762760-01	.6538697	01 .9501780-12	.3768748-04-	.3099005-05	.1750000	01
.4831479-01	.6538697	01 .8219480-11	.9747186-04-	.7960717-05	.2000000	01
.6203742-01	.6538697	01 .6986084-10	.2496335-03-	.2022164-04	.2250000	01
.7965762-01	.6538697	01 .5806787-09	.6314349-03-	.5064918-04	.2500000	01
.1022824	00 .6538697	01 .4692542-08	.1572291-02-	.1246380-03	.2750000	01
.1313332	00 .6538697	01 .3660196-07	.3838398-02-	.2999668-03	.3000000	01
.1686351	00 .6538695	01 .2731323-06	.9141413-02-	.7021068-03	.3250000	01
.2165313	00 .6538680	01 .1929119-05	.2111004-01-	.1587615-02	.3500000	01
.2780286	00 .6538607	01 .1273198-04	.4692398-01-	.3441644-02	.3750000	01
.3569760	00 .6538244	01 .7733567-04	.9951599-01-	.7088931-02	.4000000	01
.4582533	00 .6536634	01 .4246816-03	.1992481	00-.1372128-01	.4250000	01
.5878318	00 .6530224	01 .2066014-02	.3720352	00-.2461815-01	.4500000	01
.7522109	00 .6507902	01 .8711745-02	.6390843	00-.4033022-01	.4750000	01
.9559715	00 .6441287	01 .3113438-01	.9947059	00-.5946554-01	.5000000	01
.1195730	01 .6274615	01 .9217787-01	.1377482	01-.7763363-01	.5250000	01
.1451587	01 .5932308	01 .2213534	00 .1662753	01-.8767199-01	.5500000	01
.1685399	01 .5364259	01 .4262157	00 .1718155	01-.8362761-01	.5750000	01
.1857375	01 .4603973	01 .6625863	00 .1496574	01-.6652243-01	.6000000	01
.1952625	01 .3769454	01 .8544527	00 .1073376	01-.4356017-01	.6250000	01
.1989442	01 .2991007	01 .9581318	00 .6104597	00-.2269971-01	.6500000	01
.1998571	01 .2340087	01 .9927517	00 .2632985	00-.8977053-02	.6750000	01
.1999896	01 .1823670	01 .9993281	00 .8185880-01-	.2563606-02	.7000000	01
.1999996	01 .1420347	01 .9999713	00 .1713785-01-	.4956929-03	.7250000	01
.2000000	01 .1106169	01 .9999996	00 .2204766-02-	.5930110-04	.7500000	01
.2000000	01 .8614854	00 .1000000	01 .1547530-03-	.3900650-05	.7750000	01
.2000000	01 .6709255	00 .1000000	01 .5063446-05-	.1206907-06	.8000000	01

.2000000	01	.5225173	00	.1000000	01	.6269425-07-	.1426330-08	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.2244978-09-	.4915789-11	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(I)	LAMBDA
4 F 5/2	.6000000	01-	.2769234	02 .6652467	01 .2923917

ALPHA S	.1161379-11	.3715972-09-	.8547690-08	.1199736-06-	.1177084-05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.1024788-10-	.2627305-09	.4102078-08-	.4448890-07	.3785845-06
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1218442-03	.6652469	01 .2843047-27	.1168182-11	.1024307-10-	.4000000 01
.1564511-03	.6652469	01 .1574678-26	.2430459-11	.2127317-10-	.3750000 01
.2008872-03	.6652469	01 .8721359-26	.5059034-11	.4417923-10-	.3500000 01
.2579442-03	.6652469	01 .4829924-25	.1053671-10	.9174510-10-	.3250000 01
.3312069-03	.6652469	01 .2674593-24	.2196195-10	.1905112-09-	.3000000 01
.4252781-03	.6652469	01 .1480897-23	.4582010-10	.3955700-09-	.2750000 01
.5460679-03	.6652469	01 .8198377-23	.9571359-10	.8212615-09-	.2500000 01
.7011650-03	.6652469	01 .4537836-22	.2002469-09	.1704835-08-	.2250000 01
.9003137-03	.6652469	01 .2511104-21	.4197687-09	.3538420-08-	.2000000 01
.1156026-02	.6652469	01 .1389140-20	.8821144-09	.7342467-08-	.1750000 01
.1484366-02	.6652469	01 .7681675-20	.1859420-08	.1523187-07-	.1500000 01
.1905964-02	.6652469	01 .4245678-19	.3934501-08	.3158703-07-	.1250000 01
.2447306-02	.6652469	01 .2345092-18	.8364527-08	.6547335-07-	.1000000 01
.3142404-02	.6652469	01 .1294254-17	.1788430-07	.1356326-06-	.7500000 00
.4034926-02	.6652469	01 .7135633-17	.3850114-07	.2807596-06-	.5000000 00
.5180947-02	.6652469	01 .3929015-16	.8355573-07	.5806090-06-	.2500000 00
.6652468-02	.6652469	01 .2159892-15	.1830293-06	.1199202-05	.0000000-39
.8541938-02	.6652469	01 .1184973-14	.4051521-06	.2472913-05	.2500000 00
.1096807-01	.6652469	01 .6485091-14	.9071882-06	.5089070-05	.5000000 00
.1408327-01	.6652469	01 .3538608-13	.2056098-05	.1044560-04	.7500000 00
.1808328-01	.6652469	01 .1924083-12	.4717760-05	.2136868-04	.1000000 01
.2321939-01	.6652469	01 .1042003-11	.1095444-04	.4352796-04	.1250000 01
.2981429-01	.6652469	01 .5618368-11	.2571123-04	.8818474-04	.1500000 01
.3828231-01	.6652469	01 .3015987-10	.6088742-04	.1774204-03	.1750000 01
.4915545-01	.6652469	01 .1612747-09	.1451020-03	.3538144-03	.2000000 01
.6311685-01	.6652469	01 .8603122-09	.3468243-03	.6977021-03	.2250000 01
.8104364-01	.6652469	01 .4590246-08	.8280770-03	.1356373-02	.2500000 01
.1040621 00	.6652469	01 .2458509-07	.1965506-02	.2589802-02	.2750000 01
.1336183 00	.6652467	01 .1326435-06	.4612190-02	.4833949-02	.3000000 01
.1715692 00	.6652460	01 .7216353-06	.1063161-01	.8769836-02	.3250000 01
.2202981 00	.6652428	01 .3940106-05	.2389914-01	.1535651-01	.3500000 01
.2828627 00	.6652295	01 .2131072-04	.5195357-01	.2573322-01	.3750000 01
.3631728 00	.6651744	01 .1117484-03	.1081603 00	.4083730-01	.4000000 01
.4661705 00	.6649568	01 .5524977-03	.2132088 00	.6060278-01	.4250000 01
.5978585 00	.6641609	01 .2496762-02	.3928330 00	.8287396-01	.4500000 01
.7646465 00	.6615490	01 .9995704-02	.6669887 00	.1027027 00	.4750000 01
.9707359 00	.6540769	01 .3441675-01	.1027333 01	.1130039 00	.5000000 01
.1211907 01	.6359508	01 .9911524-01	.1408920 01	.1074337 00	.5250000 01
.1467149 01	.5995903	01 .2329720 00	.1684677 01	.8548857-01	.5500000 01
.1697777 01	.5403654	01 .4409585 00	.1723899 01	.5515089-01	.5750000 01
.1864991 01	.4622853	01 .6761136 00	.1485859 01	.2732639-01	.6000000 01
.1955989 01	.3775949	01 .8629329 00	.1053277 01	.8789138-02	.6250000 01
.1990422 01	.2992481	01 .9615081 00	.5910182 00	.5244047-03	.6500000 01
.1998742 01	.2340287	01 .9935343 00	.2508666 00-	.1126155-02	.6750000 01
.1999912 01	.1823684	01 .9994230 00	.7648222-01-	.6357909-03	.7000000 01
.1999997 01	.1420347	01 .9999765 00	.1562603-01-	.1728926-03	.7250000 01
.2000000 01	.1106169	01 .9999997 00	.1949169-02-	.2543047-04	.7500000 01
.2000000 01	.8614854	00 .1000000 01	.1315300-03-	.1904532-05	.7750000 01
.2000000 01	.6709255	00 .1000000 01	.4091803-05-	.6360078-07	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.4748730-07-	.7765822-09	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.1565420-09-	.2656243-11	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND. ENERGY	V(0)	LAMBDA
4 D 5/2	.6000000	01-.5139902 02	.7188504 01	.2923917 01

ALPHA S	.2648957-09-	.7988037-08	.1333186-06-	.1533110-05	.1357457-04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.3002031-10	.9994846-09-	.1722290-07	.2031801-06-	.1826691-05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R. TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1316621-03	.7188504 01	.1899074-24	.2647495-09-	.3000201-10-	.4000000 01
.1690574-03	.7188504 01	.1051755-23	.5498284-09-	.6230678-10-	.3750000 01
.2170740-03	.7188504 01	.5824535-23	.1141826-08-	.1293895-09-	.3500000 01
.2787286-03	.7188504 01	.3225217-22	.2371089-08-	.2686799-09-	.3250000 01
.3578946-03	.7188504 01	.1785670-21	.4923386-08-	.5578740-09-	.3000000 01
.4595457-03	.7188504 01	.9884887-21	.1022207-07-	.1158222-08-	.2750000 01
.5900683-03	.7188504 01	.5470794-20	.2122079-07-	.2404306-08-	.2500000 01
.7576627-03	.7188504 01	.3026990-19	.4404701-07-	.4990142-08-	.2250000 01
.9728582-03	.7188504 01	.1674250-18	.9140811-07-	.1035477-07-	.2000000 01
.1249175-02	.7188504 01	.9256252-18	.1896452-06-	.2148053-07-	.1750000 01
.1603972-02	.7188504 01	.5114469-17	.3933291-06-	.4454429-07-	.1500000 01
.2059541-02	.7188504 01	.2823876-16	.8154304-06-	.9232869-07-	.1250000 01
.2644503-02	.7188504 01	.1557685-15	.1689595-05-	.1912589-06-	.1000000 01
.3395609-02	.7188504 01	.8581948-15	.3498453-05-	.3958890-06-	.7500000 00
.4360048-02	.7188504 01	.4720798-14	.7237390-05-	.8186494-06-	.5000000 00
.5598412-02	.7188504 01	.2591651-13	.1495515-04-	.1690732-05-	.2500000 00
.7188504-02	.7188504 01	.1419136-12	.3085755-04-	.3486183-05	.0000000-39
.9230221-02	.7188504 01	.7745394-12	.6354977-04-	.7173440-05	.2500000 00
.1185184-01	.7188504 01	.4209523-11	.1305622-03-	.1472166-04	.5000000 00
.1521806-01	.7188504 01	.2275504-10	.2674092-03-	.3011064-04	.7500000 00
.1954038-01	.7188504 01	.1221575-09	.5455217-03-	.6132185-04	.1000000 01
.2509034-01	.7188504 01	.6500120-09	.1107238-02-	.1242037-03	.1250000 01
.3221664-01	.7188504 01	.3419877-08	.2232770-02-	.2498270-03	.1500000 01
.4136697-01	.7188504 01	.1773469-07	.4465091-02-	.4981119-03	.1750000 01
.5311622-01	.7188501 01	.9028706-07	.8834643-02-	.9821748-03	.2000000 01
.6820246-01	.7188488 01	.4489629-06	.1724357-01-	.1909648-02	.2250000 01
.8757309-01	.7188439 01	.2166604-05	.3307431-01-	.3647596-02	.2500000 01
.1124432 00	.7188257 01	.1006439-04	.6203870-01-	.6812201-02	.2750000 01
.1443671 00	.7187618 01	.4454060-04	.1130912 00-	.1236406-01	.3000000 01
.1853163 00	.7185493 01	.1853749-03	.1987461 00-	.2164169-01	.3250000 01
.2377326 00	.7178905 01	.7138372-03	.3332280 00-	.3618446-01	.3500000 01
.3044600 00	.7160216 01	.2491789-02	.5257016 00-	.5710970-01	.3750000 01
.3883458 00	.7112804 01	.7682893-02	.7655095 00-	.8381144-01	.4000000 01
.4913210 00	.7008320 01	.2024000-01	.9999232 00-	.1120490 00	.4250000 01
.6135158 00	.6815547 01	.4365684-01	.1116706 01-	.1324937 00	.4500000 01
.7548937 00	.6531112 01	.7316538-01	.9613554 00-	.1323996 00	.4750000 01
.9218623 00	.6211461 01	.9112734-01	.4197171 00-	.1025620 00	.5000000 01
.1131171 01	.5935843 01	.9407729-01-	.4494667 00-	.4661858-01	.5250000 01
.1390040 01	.5680779 01	.1443973 00-	.1337933 01	.1496539-01	.5500000 01
.1658929 01	.5280009 01	.3328303 00-	.1826411 01	.5484663-01	.5750000 01
.1862643 01	.4617033 01	.6266649 00-	.1707106 01	.6050224-01	.6000000 01
.1964260 01	.3791916 01	.8675107 00-	.1154234 01	.4245092-01	.6250000 01
.1994669 01	.2998864 01	.9736211 00-	.5551996 00	.2029615-01	.6500000 01
.1999601 01	.2341293 01	.9974182 00-	.1815102 00	.6456987-02	.6750000 01
.1999987 01	.1823753 01	.9998938 00-	.3777357-01	.1294582-02	.7000000 01
.2000000 01	.1420349 01	.9999985 00-	.4558345-02	.1501697-03	.7250000 01
.2000000 01	.1106169 01	.1000000 01-	.2807907-03	.8902857-05	.7500000 01
.2000000 01	.8614854 00	.9999999 00-	.7467896-05	.2285912-06	.7750000 01
.2000000 01	.6709255 00	.1000000 01-	.6884546-07	.2043830-08	.8000000 01

.2000000	01	.5225173	00	.9999999	00-	.1654320-09	.4787251-11	.8250000	01
.2000000	01	.4069369	00	.1000000	01-	.7253746-13	.2055517-14	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
4 D 3/2	.4000000	01-	.5445149	02 .7493818	01 .1883956
ALPHA S	.6492194-07	.1872851-04-	.5976189-03	.1022647-01-	.1194196 00
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.3755924-06-	.1379141-04-	.2715150-03-	.3601134-02	.3615031-01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1372541-03	.7493819	01 .5576409-18	.6526477-07	.3753399-06-	.4000000 01
.1762377-03	.7493819	01 .1836204-17	.1046824-06	.6010209-06-	.3750000 01
.2262937-03	.7493819	01 .6045912-17	.1679773-06	.9623454-06-	.3500000 01
.2905669-03	.7493819	01 .1990507-16	.2696871-06	.1540785-05-	.3250000 01
.3730953-03	.7493819	01 .6552671-16	.4332779-06	.2466689-05-	.3000000 01
.4790638-03	.7493819	01 .2156812-15	.6967085-06	.3948542-05-	.2750000 01
.6151301-03	.7493819	01 .7097877-15	.1121545-05	.6319681-05-	.2500000 01
.7898427-03	.7493819	01 .2335314-14	.1807973-05	.1011280-04-	.2250000 01
.1014178-02	.7493819	01 .7681307-14	.2919693-05	.1617864-04-	.2000000 01
.1302230-02	.7493819	01 .2525590-13	.4725536-05	.2587481-04-	.1750000 01
.1672097-02	.7493819	01 .8300115-13	.7669662-05	.4136550-04-	.1500000 01
.2147015-02	.7493819	01 .2726107-12	.1249124-04	.6609615-04-	.1250000 01
.2756822-02	.7493819	01 .8946829-12	.2043080-04	.1055425-03-	.1000000 01
.3539829-02	.7493819	01 .2933428-11	.3359058-04	.1683878-03-	.7500000 00
.4545230-02	.7493819	01 .9606267-11	.5557158-04	.2683624-03-	.5000000 00
.5836191-02	.7493819	01 .3141061-10	.9261412-04	.4270973-03-	.2500000 00
.7493818-02	.7493819	01 .1025146-09	.1556636-03	.6785069-03	.0000000-39
.9622252-02	.7493819	01 .3338134-09	.2641486-03	.1075435-02	.2500000 00
.1235522-01	.7493819	01 .1084010-08	.4529443-03	.1699551-02	.5000000 00
.1586441-01	.7493818	01 .3508902-08	.7852581-03	.2675733-02	.7500000 00
.2037030-01	.7493817	01 .1131719-07	.1376481-02	.4192245-02	.1000000 01
.2615598-01	.7493814	01 .3636017-07	.2438113-02	.6527564-02	.1250000 01
.3358490-01	.7493805	01 .1163780-06	.4357724-02	.1008310-01	.1500000 01
.4312374-01	.7493785	01 .3713281-06	.7841607-02	.1541689-01	.1750000 01
.5537159-01	.7493732	01 .1182835-05	.1416118-01	.2326481-01	.2000000 01
.7109730-01	.7493602	01 .3770455-05	.2555767-01	.3452064-01	.2250000 01
.9128679-01	.7493277	01 .1206109-04	.4585490-01	.5012253-01	.2500000 01
.1172019 00	.7492467	01 .3878831-04	.8126234-01	.7076690-01	.2750000 01
.1504493 00	.7490431	01 .1251888-03	.1411292 00	.9635916-01	.3000000 01
.1930490 00	.7485323	01 .4020032-03	.2378983 00	.1251623 00	.3250000 01
.2474615 00	.7472692	01 .1261645-02	.3846084 00	.1527883 00	.3500000 01
.3164680 00	.7442617	01 .3764997-02	.5872486 00	.1715516 00	.3750000 01
.4027068 00	.7375834	01 .1030550-01	.8293187 00	.1712243 00	.4000000 01
.5077667 00	.7242906	01 .2476348-01	.1050183 01	.1425404 00	.4250000 01
.6316118 00	.7016575	01 .4958980-01	.1131153 01	.8380641-01	.4500000 01
.7748973 00	.6704177	01 .7801143-01	.9197905 00	.7356967-02	.4750000 01
.9457239 00	.6372240	01 .9248547-01	.3193777 00-	.6117365-01	.5000000 01
.1161233 01	.6093592	01 .9643189-01-	.5808261 00-	.9497875-01	.5250000 01
.1424192 01	.5820348	01 .1604147 00-	.1447720 01-	.8484535-01	.5500000 01
.1688497 01	.5374120	01 .3667233 00-	.1869129 01-	.4843063-01	.5750000 01
.1879935 01	.4659895	01 .6618032 00-	.1679087 01-	.1409415-01	.6000000 01
.1970441 01	.3803848	01 .8867823 00-	.1093715 01	.2885759-02	.6250000 01
.1995884 01	.3000691	01 .9790033 00-	.5055087 00	.5082933-02	.6500000 01
.1999717 01	.2341429	01 .9981161 00-	.1578476 00	.2377313-02	.6750000 01
.1999992 01	.1823757	01 .9999304 00-	.3108268-01	.5732547-03	.7000000 01
.2000000 01	.1420349	01 .9999992 00-	.3503098-02	.7276754-04	.7250000 01
.2000000 01	.1106169	01 .1000000 01-	.1980269-03	.4433682-05	.7500000 01
.2000000 01	.8614854	00 .1000000 01-	.4722859-05	.1110778-06	.7750000 01
.2000000 01	.6709255	00 .1000000 01-	.3789291-07	.9220054-09	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.7630034-10	.1902485-11	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.2678137-13	.6792639-15	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND. ENERGY	V(O)	LAMBDA
4 P 3/2	.4000000	01-.7271385	02 .7853933 01	.1883956 01

ALPHA S	.3355309-05-	.1564729-03	.3446764-02-	.4946847-01	.5246966 00
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.5799723-06	.2560015-04-	.5516408-03	.7806155-02-	.8204706-01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1438498-03	.7853933 01	.4447667-16	.3352444-05-	.5795037-06-	.4000000 01
.1847068-03	.7853934 01	.1464288-15	.5367896-05-	.9279068-06-	.3750000 01
.2371682-03	.7853933 01	.4820305-15	.8594422-05-	.1485676-05-	.3500000 01
.3045300-03	.7853934 01	.1586562-14	.1375913-04-	.2378525-05-	.3250000 01
.3910243-03	.7853933 01	.5221057-14	.2202499-04-	.3807540-05-	.3000000 01
.5020851-03	.7853934 01	.1717730-13	.3525146-04-	.6094263-05-	.2750000 01
.6446900-03	.7853933 01	.5649596-13	.5641013-04-	.9752613-05-	.2500000 01
.8277984-03	.7853934 01	.1857408-12	.9024698-04-	.1560350-04-	.2250000 01
.1062914-02	.7853933 01	.6103457-12	.1443358-03-	.2495720-04-	.2000000 01
.1364809-02	.7853934 01	.2004289-11	.2307508-03-	.3990313-04-	.1750000 01
.1752449-02	.7853933 01	.6576270-11	.3687150-03-	.6376887-04-	.1500000 01
.2250190-02	.7853934 01	.2155412-10	.5887817-03-	.1018455-03-	.1250000 01
.2889300-02	.7853933 01	.7054712-10	.9394043-03-	.1625286-03-	.1000000 01
.3709935-02	.7853934 01	.2304919-09	.1497207-02-	.2591047-03-	.7500000 00
.4763650-02	.7853933 01	.7513458-09	.2382913-02-	.4125270-03-	.5000000 00
.6116648-02	.7853932 01	.2442025-08	.3785821-02-	.6556923-03-	.2500000 00
.7853928-02	.7853929 01	.7907235-08	.6000897-02-	.1039949-02	.0000000-39
.1008464-01	.7853924 01	.2547994-07	.9484006-02-	.1644842-02	.2500000 00
.1294890-01	.7853907 01	.8159707-07	.1493207-01-	.2592374-02	.5000000 00
.1662663-01	.7853867 01	.2592304-06	.2339521-01-	.4067244-02	.7500000 00
.2134875-01	.7853768 01	.8151660-06	.3642503-01-	.6344230-02	.1000000 01
.2741150-01	.7853527 01	.2529803-05	.5625286-01-	.9822637-02	.1250000 01
.3519447-01	.7852950 01	.7719233-05	.8596600-01-	.1506423-01	.1500000 01
.4518280-01	.7851595 01	.2304629-04	.1295961 00-	.2282356-01	.1750000 01
.5799293-01	.7848492 01	.6690251-04	.1919344 00-	.3404542-01	.2000000 01
.7439914-01	.7841614 01	.1873101-03	.2777289 00-	.4978051-01	.2250000 01
.9535223-01	.7826990 01	.5004307-03	.3897184 00-	.7093853-01	.2500000 01
.1219740 00	.7797538 01	.1258153-02	.5248222 00-	.9776928-01	.2750000 01
.1555070 00	.7742242 01	.2922233-02	.6680640 00-	.1289806 00	.3000000 01
.1972315 00	.7647497 01	.6117788-02	.7850890 00-	.1605557 00	.3250000 01
.2484805 00	.7503462 01	.1117073-01	.8172565 00-	.1847338 00	.3500000 01
.3110923 00	.7316193 01	.1705216-01	.6883026 00-	.1902405 00	.3750000 01
.3885486 00	.7116517 01	.2089361-01	.3356119 00-	.1653163 00	.4000000 01
.4867789 00	.6943530 01	.2164988-01-	.2265021 00-	.1045768 00	.4250000 01
.6115891 00	.6794144 01	.2838893-01-	.8332166 00-	.1807575-01	.4500000 01
.7626802 00	.6598479 01	.5645163-01-	.1159982 01	.6463821-01	.4750000 01
.9363734 00	.6309237 01	.9460092-01-	.8732195 00	.1058955 00	.5000000 01
.1144050 01	.6003424 01	.1058485 00	.7244562-01	.8608083-01	.5250000 01
.1404472 01	.5739759 01	.1378711 00	.1232728 01	.2443866-01	.5500000 01
.1682219 01	.5354136 01	.3301016 00	.1913213 01-	.3179827-01	.5750000 01
.1885741 01	.4674287 01	.6541917 00	.1772363 01-	.4998668-01	.6000000 01
.1975696 01	.3813992 01	.8976623 00	.1102854 01-	.3638453-01	.6250000 01
.1997337 01	.3002877 01	.9848602 00	.4579177 00-	.1603850-01	.6500000 01
.1999871 01	.2341610 01	.9990369 00	.1207039 00-	.4301243-02	.6750000 01
.1999997 01	.1823762 01	.9999781 00	.1868763-01-	.6634596-03	.7000000 01
.2000000 01	.1420349 01	.9999999 00	.1519652-02-	.5326236-04	.7250000 01
.2000000 01	.1106169 01	.1000000 01	.5571381-04-	.1920764-05	.7500000 01
.2000000 01	.8614854 00	.1000000 01	.7535586-06-	.2553628-07	.7750000 01
.2000000 01	.6709255 00	.1000000 01	.2896660-08-	.9661601-10	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.2269247-11-	.7466409-13	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.2141606-15-	.6733582-17	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(0)	LAMBDA
4 P 1/2	.2000000	01-	.8940379	02 .9344612	01 .7411404 00
ALPHA S	.2232281-02	.4669920	00-	.2686506	02 .6460802 03-.9811615 04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.5789401-02-	.4049130	00	.1197080	02-.2171453 03 .2798737 04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1711526-03	.9344613	01 .2838258-09	.2240825-02	.5781989-02-	.4000000 01
.2197640-03	.9344603	01 .5277806-09	.2699888-02	.6956448-02-	.3750000 01
.2821822-03	.9344590	01 .9813519-09	.3253986-02	.8368600-02-	.3500000 01
.3623283-03	.9344570	01 .1824553-08	.3923328-02	.1006608-01-	.3250000 01
.4652374-03	.9344543	01 .3391862-08	.4732703-02	.1210582-01-	.3000000 01
.5973739-03	.9344501	01 .6304570-08	.5712667-02	.1455568-01-	.2750000 01
.7670385-03	.9344442	01 .1171631-07	.6901104-02	.1749641-01-	.2500000 01
.9848878-03	.9344356	01 .2176815-07	.8345304-02	.2102366-01-	.2250000 01
.1264604-02	.9344232	01 .4043146-07	.1010479-01	.2525027-01-	.2000000 01
.1623753-02	.9344051	01 .7506688-07	.1225518-01	.3030852-01-	.1750000 01
.2084881-02	.9343790	01 .1393041-06	.1489354-01	.3635219-01-	.1500000 01
.2676932-02	.9343413	01 .2583515-06	.1814589-01	.4355805-01-	.1250000 01
.3437049-02	.9342869	01 .4787646-06	.2217774-01	.5212618-01-	.1000000 01
.4412887-02	.9342083	01 .8863719-06	.2720906-01	.6227811-01-	.7500000 00
.5665573-02	.9340951	01 .1639071-05	.3353534-01	.7425121-01-	.5000000 00
.7273470-02	.9339322	01 .3026628-05	.4155715-01	.8828718-01-	.2500000 00
.9336980-02	.9336981	01 .5579354-05	.5182114-01	.1046111	00 .0000000-39
.1198461-01	.9333623	01 .1026496-04	.6507539-01	.1233967	00 .2500000 00
.1538062-01	.9328818	01 .1884444-04	.8234136-01	.1447106	00 .5000000 00
.1973458-01	.9321955	01 .3451549-04	.1050013	00 .1684297	00 .7500000 00
.2531312-01	.9312178	01 .6307960-04	.1348913	00 .1941202	00 .1000000 01
.3245416-01	.9298275	01 .1150741-03	.1743715	00 .2208751	00 .1250000 01
.4158350-01	.9278536	01 .2097014-03	.2263094	00 .2471069	00 .1500000 01
.5323308-01	.9250525	01 .3821002-03	.2938483	00 .2703176	00 .1750000 01
.6805885-01	.9210765	01 .6965897-03	.3797348	00 .2868984	00 .2000000 01
.8685371-01	.9154316	01 .1269336-02	.4848523	00 .2920762	00 .2250000 01
.1105485	00 .9074377	01 .2301048-02	.6055182	00 .2802155	00 .2500000 01
.1401947	00 .8962348	01 .4103449-02	.7292143	00 .2457787	00 .2750000 01
.1769417	00 .8809412	01 .7053446-02	.8291297	00 .1852655	00 .3000000 01
.2220857	00 .8611201	01 .1132713-01	.8597436	00 .1002106	00 .3250000 01
.2773758	00 .8376025	01 .1629487-01	.7590195	00 .5792783-03	.3500000 01
.3457632	00 .8131573	01 .2006089-01	.4665159	00-.9337216-01	.3750000 01
.4321802	00 .7915658	01 .2111292-01-	.3363018-01-	.1539121	00 .4000000 01
.5425127	00 .7738530	01 .2393638-01-	.6494350	00-.1561979	00 .4250000 01
.6791693	00 .7544891	01 .4182878-01-	.1137454	01-.9506038-01	.4500000 01
.8387380	00 .7256508	01 .7880790-01-	.1160137	01 .2143463-02	.4750000 01
.1023561	01 .6896703	01 .1052082	00-.5012720	00 .8368182-01	.5000000 01
.1253409	01 .6577290	01 .1107719	00 .6607371	00 .1065543	00 .5250000 01
.1529598	01 .6251120	01 .2008671	00 .1715384	01 .7089310-01	.5500000 01
.1784207	01 .5678742	01 .4691097	00 .2046305	01 .1858883-01	.5750000 01
.1936482	01 .4800062	01 .7792754	00 .1591620	01-.1112044-01	.6000000 01
.1989476	01 .3840593	01 .9498605	00 .8416538	00-.1391653-01	.6250000 01
.1999152	01 .3005605	01 .9946026	00 .2934899	00-.6645928-02	.6500000 01
.1999972	01 .2341727	01 .9997668	00 .6322292-01-	.1680642-02	.6750000 01
.1999999	01 .1823764	01 .9999967	00 .7670225-02-	.2233332-03	.7000000 01
.2000000	01 .1420349	01 .9999999	00 .4610713-03-	.1419039-04	.7250000 01
.2000000	01 .1106169	01 .1000000	01 .1156028-04-	.3684400-06	.7500000 01
.2000000	01 .8614854	00 .9999999	00 .9659620-07-	.3148551-08	.7750000 01
.2000000	01 .6709255	00 .1000000	01 .2014752-09-	.6666742-11	.8000000 01

.2000000	01	.5225173	00	.9999999	00	.7299237-13-	.2443250-14	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	RIND.	ENERGY	V(O)	LAMBDA
4 S 1/2	.2000000	01-	.1010211	03 .9579615	01 .7411404 00
ALPHA S	.1679801-01-	.1889514	01 .7086427	02-.1469182	04 .2067330 05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.6476988-02	.4998619	00-.1577344	02 .2984994	03-.3966278 04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1754568-03	.9579614	01 .2384840-08	.1676343-01-	.6467838-02-	.4000000 01
.2252891-03	.9579536	01 .4432222-08	.2016400-01-	.7781316-02-	.3750000 01
.2892735-03	.9579421	01 .8235415-08	.2425037-01-	.9360464-02-	.3500000 01
.3714281-03	.9579257	01 .1529757-07	.2915863-01-	.1125844-01-	.3250000 01
.4769113-03	.9579019	01 .2840510-07	.3505069-01-	.1353870-01-	.3000000 01
.6123441-03	.9578675	01 .5271826-07	.4211847-01-	.1627687-01-	.2750000 01
.7862245-03	.9578176	01 .9778157-07	.5058845-01-	.1956276-01-	.2500000 01
.1009457-02	.9577457	01 .1812207-06	.6072628-01-	.2350260-01-	.2250000 01
.1296027-02	.9576419	01 .3355173-06	.7284099-01-	.2822144-01-	.2000000 01
.1663872-02	.9574923	01 .6203719-06	.8728816-01-	.3386541-01-	.1750000 01
.2135974-02	.9572771	01 .1145136-05	.1044707	00-.4060372-01-	.1500000 01
.2741759-02	.9569681	01 .2109211-05	.1248350	00-.4862981-01-	.1250000 01
.3518860-02	.9565254	01 .3874113-05	.1488605	00-.5816092-01-	.1000000 01
.4515320-02	.9558933	01 .7090337-05	.1770356	00-.6943482-01-	.7500000 00
.5792333-02	.9549944	01 .1291684-04	.2098151	00-.8270193-01-	.5000000 00
.7427601-02	.9537229	01 .2339176-04	.2475481	00-.9820991-01-	.2500000 00
.9519365-02	.9519366	01 .4203776-04	.2903606	00-.1161768	00 .0000000-39
.1219116-01	.9494490	01 .7480291-04	.3379762	00-.1367472	00 .2500000 00
.1559729-01	.9460237	01 .1314143-03	.3894485	00-.1599245	00 .5000000 00
.1992893-01	.9413763	01 .2270774-03	.4427841	00-.1854703	00 .7500000 00
.2542107-01	.9351892	01 .3840369-03	.4944364	00-.2127628	00 .1000000 01
.3236081-01	.9271530	01 .6315869-03	.5386835	00-.2406103	00 .1250000 01
.4109909-01	.9170449	01 .1001537-02	.5669675	00-.2670252	00 .1500000 01
.5207058-01	.9048511	01 .1514390-02	.5674072	00-.2889902	00 .1750000 01
.6583061-01	.8909206	01 .2152317-02	.5249296	00-.3022943	00 .2000000 01
.8312057-01	.8760846	01 .2825570-02	.4228141	00-.3015860	00 .2250000 01
.1049652	00 .8616072	01 .3370898-02	.2468345	00-.2808924	00 .2500000 01
.1327704	00 .8487730	01 .3673242-02-	.6660363-02-	.2349374	00 .2750000 01
.1683215	00 .8380236	01 .4009347-02-	.3181792	00-.1615627	00 .3000000 01
.2135453	00 .8280054	01 .5471561-02-	.6304258	00-.6517844-01	.3250000 01
.2701047	00 .8156456	01 .9666775-02-	.8401710	00 .3982600-01	.3500000 01
.3395201	00 .7984749	01 .1656956-01-	.8137256	00 .1283404	00 .3750000 01
.4248244	00 .7780932	01 .2214470-01-	.4464550	00 .1701523	00 .4000000 01
.5324691	00 .7595265	01 .2335434-01	.2309924	00 .1441388	00 .4250000 01
.6689579	00 .7431453	01 .3213789-01	.9529426	00 .5707494-01	.4500000 01
.8324375	00 .7201998	01 .6707997-01	.1253341	01-.4754668-01	.4750000 01
.1019223	01 .6867474	01 .1051439	00 .7467242	00-.1092304	00 .5000000 01
.1246446	01 .6540749	01 .1118939	00-.4622539	00-.9479757-01	.5250000 01
.1523927	01 .6227942	01 .1876555	00-.1666510	01-.2904459-01	.5500000 01
.1784967	01 .5681162	01 .4583133	00-.2087978	01 .2792927-01	.5750000 01
.1939602	01 .4807795	01 .7821932	00-.1617930	01 .4178915-01	.6000000 01
.1990825	01 .3843199	01 .9542828	00-.8257897	00 .2644755-01	.6250000 01
.1999354	01 .3005908	01 .9956790	00-.2701970	00 .9549886-02	.6500000 01
.1999982	01 .2341739	01 .9998454	00-.5298614-01	.1962211-02	.6750000 01
.2000000	01 .1823764	01 .9999984	00-.5647131-02	.2133484-03	.7000000 01
.2000000	01 .1420349	01 .9999999	00-.2854716-03	.1085665-04	.7250000 01
.2000000	01 .1106169	01 .1000000	01-.5699866-05	.2166967-06	.7500000 01
.2000000	01 .8614854	00 .9999999	00-.3541792-07	.1341448-08	.7750000 01
.2000000	01 .6709255	00 .1000000	01-.5046057-10	.1901929-11	.8000000 01

.2000000	01	.5225173	00	.9999999	00-	.1128658-13	.4235525-15	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.0000000-39	.0000000-39	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.0000000-39	.0000000-39	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.0000000-39	.0000000-39	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	RIND.	ENERGY	V(O)	LAMBDA
5 F 5/2	.3000000	01-	.2741853	00 .1566290	01 .2923917

ALPHA S	.2988607-12	.9565067-10-	.2202104-08	.3079523-07-	.3010596-06
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.2637113-11-	.6765480-10	.1052502-08-	.1137416-07	.9635237-07
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.2868759-04	.1566289	01 .1882667-28	.3006119-12	.2635874-11-	.4000000 01
.3683559-04	.1566289	01 .1042753-27	.6254376-12	.5474279-11-	.3750000 01
.4729783-04	.1566289	01 .5775285-27	.1301858-11	.1136875-10-	.3500000 01
.6073162-04	.1566289	01 .3198376-26	.2711447-11	.2360899-10-	.3250000 01
.7798094-04	.1566289	01 .1771115-25	.5651551-11	.4902470-10-	.3000000 01
.1001295-03	.1566289	01 .9806492-25	.1179107-10	.1017930-09-	.2750000 01
.1285688-03	.1566289	01 .5428959-24	.2463040-10	.2113371-09-	.2500000 01
.1650857-03	.1566289	01 .3004949-23	.5153053-10	.4387087-09-	.2250000 01
.2119742-03	.1566289	01 .1662848-22	.1080214-09	.9105487-09-	.2000000 01
.2721802-03	.1566289	01 .9198851-22	.2270001-09	.1889450-08-	.1750000 01
.3494863-03	.1566289	01 .5086778-21	.4784982-09	.3919642-08-	.1500000 01
.4487493-03	.1566289	01 .2811468-20	.1012498-08	.8128332-08-	.1250000 01
.5762055-03	.1566289	01 .1552905-19	.2152526-08	.1684832-07-	.1000000 01
.7398625-03	.1566289	01 .8570441-19	.4602374-08	.3490239-07-	.7500000 00
.9500022-03	.1566289	01 .4725138-18	.9908022-08	.7224780-07-	.5000000 00
.1219827-02	.1566289	01 .2601737-17	.2150272-07	.1494075-06-	.2500000 00
.1566289-02	.1566289	01 .1430239-16	.4710229-07	.3085880-06	.0000000-39
.2011155-02	.1566289	01 .7846598-16	.1042663-06	.6363451-06	.2500000 00
.2582374-02	.1566289	01 .4294214-15	.2334681-06	.1309540-05	.5000000 00
.3315833-02	.1566289	01 .2343112-14	.5291488-06	.2687876-05	.7500000 00
.4257614-02	.1566289	01 .1274016-13	.1214150-05	.5498532-05	.1000000 01
.5466885-02	.1566289	01 .6899333-13	.2819210-05	.1120026-04	.1250000 01
.7019619-02	.1566289	01 .3719889-12	.6616940-05	.2269030-04	.1500000 01
.9013370-02	.1566289	01 .1996750-11	.1566946-04	.4564898-04	.1750000 01
.1157340-01	.1566289	01 .1067637-10	.3734085-04	.9102801-04	.2000000 01
.1486054-01	.1566289	01 .5694555-10	.8924684-04	.1794847-03	.2250000 01
.1908130-01	.1566289	01 .3037802-09	.2130632-03	.3488770-03	.2500000 01
.2450088-01	.1566289	01 .1626570-08	.5056365-03	.6659775-03	.2750000 01
.3145975-01	.1566289	01 .8771951-08	.1186185-02	.1242615-02	.3000000 01
.4039510-01	.1566289	01 .4768977-07	.2733077-02	.2253047-02	.3250000 01
.5186827-01	.1566287	01 .2600919-06	.6139325-02	.3941402-02	.3500000 01
.6659981-01	.1566278	01 .1404167-05	.1333013-01	.6593990-02	.3750000 01
.8551387-01	.1566242	01 .7340781-05	.2769579-01	.1043532-01	.4000000 01
.1097920 00	.1566099	01 .3610994-04	.5440733-01	.1541083-01	.4250000 01
.1409291 00	.1565581	01 .1617881-03	.9964309-01	.2088933-01	.4500000 01
.1807625 00	.1563903	01 .6382629-03	.1673638 00	.2546180-01	.4750000 01
.2314051 00	.1559196	01 .2142273-02	.2526464 00	.2710776-01	.5000000 01
.2950293 00	.1548172	01 .5898722-02	.3331000 00	.2399276-01	.5250000 01
.3737362 00	.1527375	01 .1280388-01	.3663639 00	.1591518-01	.5500000 01
.4703262 00	.1496946	01 .2106389-01	.3056643 00	.5130647-02	.5750000 01
.5903971 00	.1463449	01 .2573379-01	.1281914 00-	.4940702-02	.6000000 01
.7432935 00	.1434895	01 .2646728-01-	.1442906 00-	.1148560-01	.6250000 01
.9368364 00	.1408477	01 .4089014-01-	.4411888 00-	.1335266-01	.6500000 01
.1165782 01	.1364991	01 .1032277 00-	.6725829 00-	.1160269-01	.6750000 01
.1405403 01	.1281562	01 .2362339 00-	.7796364 00-	.8291175-02	.7000000 01
.1629832 01	.1151074	01 .4243165 00-	.7556790 00-	.5050731-02	.7250000 01
.1785855 01	.9877289	00 .6209120 00-	.6390351 00-	.2706751-02	.7500000 01
.1893976 01	.8158164	00 .7829865 00-	.4854430 00-	.1306131-02	.7750000 01
.1954684 01	.6557236	00 .8930415 00-	.3362764 00-	.5554149-03	.8000000 01

.1983634	01	.5182416	00	.9554327	00-	.2122177	00-	.1947048-03	.8250000	01
.1995153	01	.4059507	00	.9846852	00-	.1210502	00-	.4843140-04	.8500000	01
.1998878	01	.3167449	00	.9958272	00-	.6163849-01-	.1554313-05	.8750000	01	
.1999812	01	.2467965	00	.9991602	00-	.2723325-01	.7545720-05	.9000000	01	
.1999980	01	.1922214	00	.9998887	00-	.9877900-02	.5381257-05	.9250000	01	
.1999999	01	.1497036	00	.9999918	00-	.2706463-02	.2125821-05	.9500000	01	
.2000000	01	.1165894	00	.9999997	00-	.5025317-03	.5006387-06	.9750000	01	
.2000000	01	.9079990-01	.1000000	01-	.5521603-04	.6489896-07	.1000000	02		
.2000000	01	.7071503-01	.9999999	00-	.3031661-05	.4013508-08	.1025000	02		
.2000000	01	.5507293-01	.1000000	01-	.6669048-07	.9806762-10	.1050000	02		
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02		
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02		
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02		
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02		
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02		
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02		
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02		
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02		
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02		
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02		

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
5 D 5/2	.6000000	01-	.7001284	01	.2868313 01
					.2923917 01

ALPHA S	.1171307-09-	.3535764-08	.5871687-07-	.6711042-06	.5897987-05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.1327427-10	.4398280-09-	.7533236-08	.8821388-07-	.7867410-06
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.5253498-04	.2868313 01	.3713067-25	.1170659-09-	.1326622-10-	.4000000 01
.6745624-04	.2868313 01	.2056388-24	.2431210-09-	.2755070-10-	.3750000 01
.8661553-04	.2868313 01	.1138812-23	.5048882-09-	.5721326-10-	.3500000 01
.1112165-03	.2868313 01	.6305933-23	.1048439-08-	.1188047-09-	.3250000 01
.1428049-03	.2868313 01	.3491334-22	.2177002-08-	.2466807-09-	.3000000 01
.1833651-03	.2868313 01	.1932687-21	.4519951-08-	.5121439-09-	.2750000 01
.2354454-03	.2868313 01	.1069646-20	.9383308-08-	.1063141-08-	.2500000 01
.3023179-03	.2868313 01	.5918342-20	.1947649-07-	.2206560-08-	.2250000 01
.3881839-03	.2868313 01	.3273472-19	.4041835-07-	.4578734-08-	.2000000 01
.4984380-03	.2868313 01	.1809767-18	.8385618-07-	.9498450-08-	.1750000 01
.6400070-03	.2868313 01	.9999698-18	.1739196-06-	.1969714-07-	.1500000 01
.8217852-03	.2868313 01	.5521162-17	.3605609-06-	.4082744-07-	.1250000 01
.1055193-02	.2868313 01	.3045528-16	.7470901-06-	.8457514-07-	.1000000 01
.1354895-02	.2868313 01	.1677902-15	.1546910-05-	.1750660-06-	.7500000 00
.1739719-02	.2868313 01	.9229811-15	.3200140-05-	.3620225-06-	.5000000 00
.2233844-02	.2868313 01	.5066987-14	.6612642-05-	.7476947-06-	.2500000 00
.2868312-02	.2868313 01	.2774544-13	.1364402-04-	.1541753-05	.0000000-39
.3682986-02	.2868313 01	.1514271-12	.2809896-04-	.3172572-05	.2500000 00
.4729047-02	.2868313 01	.8229682-12	.5772812-04-	.6511268-05	.5000000 00
.6072216-02	.2868313 01	.4448506-11	.1182327-03-	.1331867-04	.7500000 00
.7796880-02	.2868313 01	.2388020-10	.2411912-03-	.2712667-04	.1000000 01
.1001139-01	.2868313 01	.1270612-09	.4895235-03-	.5494997-04	.1250000 01
.1285488-01	.2868313 01	.6684436-09	.9870811-03-	.1105446-03	.1500000 01
.1650600-01	.2868312 01	.3465966-08	.1973807-02-	.2204487-03	.1750000 01
.2119411-01	.2868312 01	.1764199-07	.3904923-02-	.4347831-03	.2000000 01
.2721376-01	.2868309 01	.8770314-07	.7620333-02-	.8456005-03	.2250000 01
.3494304-01	.2868300 01	.4230639-06	.1461234-01-	.1615753-02	.2500000 01
.4486719-01	.2868264 01	.1963985-05	.2739727-01-	.3018855-02	.2750000 01
.5760811-01	.2868140 01	.8683089-05	.4990896-01-	.5481886-02	.3000000 01
.7395961-01	.2867726 01	.3608094-04	.8761264-01-	.9600412-02	.3250000 01
.9492362-01	.2866446 01	.1385810-03	.1466233 00-	.1605952-01	.3500000 01
.1217304 00	.2862826 01	.4816868-03	.2305744 00-	.2535333-01	.3750000 01
.1558064 00	.2853695 01	.1474609-02	.3338370 00-	.3719346-01	.4000000 01
.1986623 00	.2833766 01	.3837878-02	.4313597 00-	.4962845-01	.4250000 01
.2518308 00	.2797588 01	.8107944-02	.4709614 00-	.5835105-01	.4500000 01
.3173521 00	.2745635 01	.1312699-01	.3824960 00-	.5742043-01	.4750000 01
.3991669 00	.2689566 01	.1562708-01	.1196845 00-	.4247414-01	.5000000 01
.5035564 00	.2642423 01	.1647075-01-	.2708154 00-	.1528418-01	.5250000 01
.6348714 00	.2594576 01	.2847706-01-	.6060079 00	.1383848-01	.5500000 01
.7913350 00	.2518647 01	.5850881-01-	.6382514 00	.3055392-01	.5750000 01
.9759177 00	.2419059 01	.7925410-01-	.2443647 00	.2765512-01	.6000000 01
.1207292 01	.2330623 01	.8479674-01	.4295381 00	.1063329-01	.6250000 01
.1484850 01	.2232383 01	.1741585 00	.1019263 01-	.7513666-02	.6500000 01
.1745388 01	.2043640 01	.4279075 00	.1209311 01-	.1623923-01	.6750000 01
.1912869 01	.1744311 01	.7323332 00	.9822700 00-	.1467617-01	.7000000 01
.1981126 01	.1406946 01	.9230408 00	.5761846 00-	.8631829-02	.7250000 01
.1997645 01	.1104867 01	.9875558 00	.2428197 00-	.3504899-02	.7500000 01
.1999849 01	.8614203 00	.9989806 00	.7118640-01-	.9738143-03	.7750000 01
.1999996 01	.6709240 00	.9999634 00	.1366374-01-	.1766899-03	.8000000 01

.2000000	01	.5225173	00	.9999995	00	.1561560-02-	.1916709-04	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.9323705-04-	.1092704-05	.8500000	01
.2000000	01	.3169228	00	.9999999	00	.2450705-05-	.2760072-07	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.2267318-07-	.2470757-09	.9000000	01
.2000000	01	.1922234	00	.9999999	00	.5527883-10-	.5867017-12	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.2472641-13-	.2570169-15	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01	.1000000	01	.0000000-39	.0000000-39	.1000000	02	
.2000000	01	.7071504-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02	
.2000000	01	.5507293-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02	
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02	
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02	
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02	
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02	
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02	
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02	
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02	
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02	
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02	
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02	

DESIGNATION	NP	RIND.	ENERGY	V(O)	LAMBDA
5 D 3/2	.4000000	01-	.7588672	01 .2983440	01 .1883956

ALPHA S	.2884991-07	.8326701-05-	.2661563-03	.4530756-02-	.5257047-01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.1669052-06-	.6136805-05	.1201948-03-	.1584024-02	.1577752-01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.5464361-04	.2983440	01 .1101184-18	.2900233-07	.1667928-06-	.4000000 01
.7016378-04	.2983440	01 .3625986-18	.4651876-07	.2670804-06-	.3750000 01
.9009208-04	.2983440	01 .1193897-17	.7464581-07	.4276449-06-	.3500000 01
.1156805-03	.2983440	01 .3930686-17	.1198438-06	.6846904-06-	.3250000 01
.1485367-03	.2983440	01 .1293966-16	.1925407-06	.1096141-05-	.3000000 01
.1907249-03	.2983440	01 .4259084-16	.3096050-06	.1754641-05-	.2750000 01
.2448957-03	.2983440	01 .1401625-15	.4983961-06	.2808319-05-	.2500000 01
.3144522-03	.2983440	01 .4611561-15	.8034357-06	.4493886-05-	.2250000 01
.4037647-03	.2983440	01 .1516830-14	.1297472-05	.7189389-05-	.2000000 01
.5184441-03	.2983440	01 .4987276-14	.2099975-05	.1149811-04-	.1750000 01
.6656954-03	.2983440	01 .1639016-13	.3408332-05	.1838173-04-	.1500000 01
.8547697-03	.2983440	01 .5383191-13	.5551039-05	.2937128-04-	.1250000 01
.1097546-02	.2983440	01 .1766702-12	.9079419-05	.4689993-04-	.1000000 01
.1409277-02	.2983440	01 .5792504-12	.1492777-04	.7482610-04-	.7500000 00
.1809548-02	.2983440	01 .1896886-11	.2469649-04	.1192507-03-	.5000000 00
.2323505-02	.2983440	01 .6202361-11	.4115908-04	.1897850-03-	.2500000 00
.2983440-02	.2983440	01 .2024225-10	.6918019-04	.3014976-03	.0000000-39
.3830812-02	.2983440	01 .6591238-10	.1173950-03	.4778663-03	.2500000 00
.4918860-02	.2983440	01 .2140342-09	.2013037-03	.7551731-03	.5000000 00
.6315941-02	.2983440	01 .6927934-09	.3489983-03	.1188890-02	.7500000 00
.8109828-02	.2983440	01 .2234331-08	.6117610-03	.1862630-02	.1000000 01
.1041322-01	.2983439	01 .7177991-08	.1083580-02	.2900046-02	.1250000 01
.1337084-01	.2983438	01 .2297225-07	.1936661-02	.4479301-02	.1500000 01
.1716847-01	.2983433	01 .7328729-07	.3484758-02	.6847910-02	.1750000 01
.2204468-01	.2983423	01 .2334031-06	.6292463-02	.1033189-01	.2000000 01
.2830568-01	.2983397	01 .7437841-06	.1135444-01	.1532627-01	.2250000 01
.3634443-01	.2983334	01 .2378187-05	.2036598-01	.2224336-01	.2500000 01
.4666468-01	.2983174	01 .7642981-05	.3607513-01	.3138310-01	.2750000 01
.5991058-01	.2982773	01 .2464103-04	.6260510-01	.4268423-01	.3000000 01
.7690080-01	.2981768	01 .7898981-04	.1054021 00	.5533804-01	.3250000 01
.9866052-01	.2979290	01 .2472024-03	.1700510 00	.6732951-01	.3500000 01
.1264327 00	.2973412	01 .7342657-03	.2587233 00	.7514248-01	.3750000 01
.1616345 00	.2960440	01 .1994176-02	.3630450 00	.7410991-01	.4000000 01
.2057516 00	.2934890	01 .4728834-02	.4541707 00	.6004787-01	.4250000 01
.2603427 00	.2892146	01 .9258813-02	.4767361 00	.3238029-01	.4500000 01
.3276624 00	.2834836	01 .1404082-01	.3615863 00-	.2705884-02	.4750000 01
.4120554 00	.2776408	01 .1594400-01	.7153812-01-	.3239557-01	.5000000 01
.5198752 00	.2728056	01 .1735039-01-	.3297387 00-	.4304220-01	.5250000 01
.6546554 00	.2675428	01 .3204174-01-	.6436008 00-	.2998930-01	.5500000 01
.8141932 00	.2591400	01 .6320216-01-	.6242632 00-	.3340981-02	.5750000 01
.1003389 01	.2487154	01 .8072826-01-	.1750002 00	.1948650-01	.6000000 01
.1241595 01	.2396843	01 .8932519-01	.5220466 00	.2700656-01	.6250000 01
.1521682 01	.2287757	01 .1979247 00	.1085797 01	.2013616-01	.6500000 01
.1773733 01	.2076829	01 .4685924 00	.1220865 01	.8730395-02	.6750000 01
.1926938 01	.1757140	01 .7659701 00	.9496404 00	.1068534-02	.7000000 01
.1985301 01	.1409911	01 .9376308 00	.5329659 00-	.1336186-02	.7250000 01
.1998329 01	.1105245	01 .9908215 00	.2136039 00-	.1022081-02	.7500000 01
.1999905 01	.8614444	00 .9993317 00	.5894657-01-	.3679757-03	.7750000 01
.1999998 01	.6709247	00 .9999793 00	.1049593-01-	.7580291-04	.8000000 01

.2000000	01	.5225173	00	.9999998	00	.1091160-02-	.8634859-05	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.5775983-04-	.4857784-06	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.1301751-05-	.1141994-07	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.9893073-08-	.8949440-10	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.1877321-10-	.1738253-12	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.6000189-14-	.5850491-16	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01	.1000000	.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02	.1000000	.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
5 P 3/2	.4000000	01-	.1411995	02 .3448384	01 .1883956

ALPHA S	.1631821-05-	.7620159-04	.1671285-02-	.2381285-01	.2503104	00
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.2820638-06	.1239842-04-	.2652561-03	.3720150-02-	.3870529-01	
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO	
.6315935-04	.3448384	01 .1051990-16	.1630426-05-	.2818368-06-	.4000000	01
.8109821-04	.3448384	01 .3463423-16	.2610619-05-	.4512802-06-	.3750000	01
.1041322-03	.3448384	01 .1140127-15	.4179803-05-	.7225479-06-	.3500000	01
.1337083-03	.3448384	01 .3752628-15	.6691597-05-	.1156780-05-	.3250000	01
.1716849-03	.3448384	01 .1234913-14	.1071160-04-	.1851776-05-	.3000000	01
.2204478-03	.3448384	01 .4062866-14	.1714413-04-	.2963919-05-	.2750000	01
.2830605-03	.3448384	01 .1336270-13	.2743436-04-	.4743158-05-	.2500000	01
.3634569-03	.3448384	01 .4393222-13	.4389043-04-	.7588752-05-	.2250000	01
.4666879-03	.3448384	01 .1443612-12	.7019567-04-	.1213799-04-	.2000000	01
.5992392-03	.3448384	01 .4740599-12	.1122221-03-	.1940711-04-	.1750000	01
.7694383-03	.3448384	01 .1555430-11	.1793183-03-	.3101462-04-	.1500000	01
.9879784-03	.3448384	01 .5097986-11	.2863428-03-	.4953414-04-	.1250000	01
.1268589-02	.3448384	01 .1668569-10	.4568590-03-	.7904951-04-	.1000000	01
.1628901-02	.3448384	01 .5451500-10	.7281289-03-	.1260239-03-	.7500000	00
.2091550-02	.3448384	01 .1777028-09	.1158859-02-	.2006506-03-	.5000000	00
.2685603-02	.3448384	01 .5775598-09	.1841099-02-	.3189347-03-	.2500000	00
.3448382-02	.3448383	01 .1870084-08	.2918275-02-	.5058608-03	.0000000-39	
.4427809-02	.3448382	01 .6025892-08	.4612033-02-	.8001381-03	.2500000	00
.5685413-02	.3448378	01 .1929653-07	.7261189-02-	.1261149-02	.5000000	00
.7300194-02	.3448368	01 .6130070-07	.1137620-01-	.1978811-02	.7500000	00
.9373571-02	.3448345	01 .1927486-06	.1771111-01-	.3086936-02	.1000000	01
.1203571-01	.3448288	01 .5981138-06	.2734994-01-	.4780054-02	.1250000	01
.1545354-01	.3448152	01 .1824749-05	.4179162-01-	.7331976-02	.1500000	01
.1984090-01	.3447831	01 .5446679-05	.6299158-01-	.1111073-01	.1750000	01
.2547080-01	.3447098	01 .1580624-04	.9326862-01-	.1657754-01	.2000000	01
.3268973-01	.3445473	01 .4423145-04	.1349083	00-.2424595-01	.2250000	01
.4193240-01	.3442022	01 .1180821-03	.1891943	00-.3456146-01	.2500000	01
.5373362-01	.3435076	01 .2965247-03	.2545334	00-.4764730-01	.2750000	01
.6873382-01	.3422057	01 .6874330-03	.3234671	00-.6287038-01	.3000000	01
.8768203-01	.3399802	01 .1434845-02	.3789979	00-.7825481-01	.3250000	01
.1114699	00 .3366101	01 .2607234-02	.3922189	00-.8996673-01	.3500000	01
.1412785	00 .3322553	01 .3949554-02	.3257692	00-.9240600-01	.3750000	01
.1788926	00 .3276534	01 .4790720-02	.1497524	00-.7968666-01	.4000000	01
.2269286	00 .3236963	01 .4959641-02-	.1259792	00-.4907879-01	.4250000	01
.2882610	00 .3202292	01 .6691419-02-	.4142089	00-.5693800-02	.4500000	01
.3647882	00 .3156038	01 .1324489-01-	.5467426	00 .3518027-01	.4750000	01
.4585920	00 .3089969	01 .2095711-01-	.3579645	00 .5362914-01	.5000000	01
.5762967	00 .3024129	01 .2251980-01	.1457659	00 .3896783-01	.5250000	01
.7253195	00 .2964216	01 .3396832-01	.6635402	00 .2130086-02	.5500000	01
.9020346	00 .2870980	01 .7384945-01	.7422059	00-.2874533-01	.5750000	01
.1107524	01 .2745278	01 .9854256-01	.1815657	00-.3274471-01	.6000000	01
.1364351	01 .2633819	01 .1150051	00-.7015342	00-.1370358-01	.6250000	01
.1651046	01 .2482248	01 .2839864	00-.1295559	01 .7893631-02	.6500000	01
.1870884	01 .2190581	01 .6172590	00-.1259525	01 .1619524-01	.6750000	01
.1971434	01 .1797715	01 .8826381	00-.8004343	00 .1226190-01	.7000000	01
.1996641	01 .1417964	01 .9815339	00-.3413452	00 .5515200-02	.7250000	01
.1999816	01 .1106068	01 .9986812	00-.9481907-01	.1541255-02	.7500000	01
.1999996	01 .8614837	00 .9999636	00-.1611614-01	.2580961-03	.7750000	01
.2000000	01 .6709255	00 .9999997	00-.1519310-02	.2380419-04	.8000000	01

.2000000	01	.5225173	00	.1000000	01	.6896141	-04	.1056488	-05	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.1246588	-05	.1870400	-07	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.7018343	-08	.1033906	-09	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.8994491	-11	.1304877	-12	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.1846430	-14	.2634323	-16	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000	-39	.0000000	-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000	-39	.0000000	-39	.9750000	01
.2000000	01	.9079991	-01	.1000000	01	.0000000	-39	.0000000	-39	.1000000	02
.2000000	01	.7071504	-01	.1000000	01	.0000000	-39	.0000000	-39	.1025000	02
.2000000	01	.5507293	-01	.1000000	01	.0000000	-39	.0000000	-39	.1050000	02
.2000000	01	.4289084	-01	.1000000	01	.0000000	-39	.0000000	-39	.1075000	02
.2000000	01	.3340342	-01	.1000000	01	.0000000	-39	.0000000	-39	.1100000	02
.2000000	01	.2601461	-01	.1000000	01	.0000000	-39	.0000000	-39	.1125000	02
.2000000	01	.2026020	-01	.1000000	01	.0000000	-39	.0000000	-39	.1150000	02
.2000000	01	.1577866	-01	.1000000	01	.0000000	-39	.0000000	-39	.1175000	02
.2000000	01	.1228843	-01	.1000000	01	.0000000	-39	.0000000	-39	.1200000	02
.2000000	01	.9570240	-02	.1000000	01	.0000000	-39	.0000000	-39	.1225000	02
.2000000	01	.7453311	-02	.1000000	01	.0000000	-39	.0000000	-39	.1250000	02
.2000000	01	.5804644	-02	.1000000	01	.0000000	-39	.0000000	-39	.1275000	02
.2000000	01	.4520661	-02	.1000000	01	.0000000	-39	.0000000	-39	.1300000	02

DESIGNATION	NP	PIND.	ENERGY	V(O)	LAMBDA
5 P 1/2	.2000000	01-	.1811061 02	.3996965 01	.7411404 00

ALPHA S	.1090647-02	.2282950 00-	.1317462 02	.3154229 03-	.4749775 04
BETA S	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
	.2828583-02-	.1983061 00	.5836451 01-	.1049851 03	.1338844 04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.7320696-04	.3996965 01	.6775184-10	.1094824-02	.2824953-02-	.4000000 01
.9399955-04	.3996963 01	.1259860-09	.1319114-02	.3398765-02-	.3750000 01
.1206977-03	.3996960 01	.2342572-09	.1589837-02	.4088707-02-	.3500000 01
.1549788-03	.3996955 01	.4355360-09	.1916867-02	.4918051-02-	.3250000 01
.1989963-03	.3996948 01	.8096639-09	.2312316-02	.5914606-02-	.3000000 01
.2555157-03	.3996938 01	.1504946-08	.2791114-02	.7111533-02-	.2750000 01
.3280875-03	.3996924 01	.2796758-08	.3371770-02	.8548269-02-	.2500000 01
.4212705-03	.3996904 01	.5196174-08	.4077395-02	.1027155-01-	.2250000 01
.5409180-03	.3996874 01	.9651150-08	.4937070-02	.1233648-01-	.2000000 01
.6945451-03	.3996831 01	.1791864-07	.5987746-02	.1480769-01-	.1750000 01
.8917995-03	.3996769 01	.3325191-07	.7276854-02	.1776026-01-	.1500000 01
.1145068-02	.3996679 01	.6166779-07	.8865971-02	.2128052-01-	.1250000 01
.1470248-02	.3996549 01	.1142780-06	.1083598-01	.2546616-01-	.1000000 01
.1887747-02	.3996361 01	.2115671-06	.1329437-01	.3042529-01-	.7500000 00
.2423751-02	.3996091 01	.3912179-06	.1638551-01	.3627372-01-	.5000000 00
.3111856-02	.3995702 01	.7223800-06	.2030516-01	.4312926-01-	.2500000 00
.3995143-02	.3995144 01	.1331594-05	.2532037-01	.5110147-01	.0000000-39
.5128836-02	.3994342 01	.2449745-05	.3179658-01	.6027448-01	.2500000 00
.6583665-02	.3993195 01	.4496919-05	.4023268-01	.7067992-01	.5000000 00
.8450126-02	.3991558 01	.8235769-05	.5130351-01	.8225588-01	.7500000 00
.1084384-01	.3989225 01	.1504955-04	.6590495-01	.9478795-01	.1000000 01
.1391218-01	.3985908 01	.2744971-04	.8518755-01	.1078289 00	.1250000 01
.1784250-01	.3981200 01	.5001039-04	.1105468 00	.1205970 00	.1500000 01
.2287179-01	.3974521 01	.9109508-04	.1435070 00	.1318625 00	.1750000 01
.2929793-01	.3965045 01	.1659941-03	.1853870 00	.1398485 00	.2000000 01
.3749171-01	.3951597 01	.3022697-03	.2365731 00	.1422044 00	.2250000 01
.4790851-01	.3932571 01	.5473841-03	.2951808 00	.1361539 00	.2500000 01
.6109920-01	.3905942 01	.9745714-03	.3549420 00	.1189701 00	.2750000 01
.7772427-01	.3869665 01	.1670925-02	.4025097 00	.8893898-01	.3000000 01
.9859131-01	.3822801 01	.2672481-02	.4153009 00	.4685920-01	.3250000 01
.1247618 00	.3767480 01	.3820412-02	.3626950 00-	.2240733-02	.3500000 01
.1577704 00	.3710405 01	.4662930-02	.2153403 00-	.4812600-01	.3750000 01
.1998503 00	.3660387 01	.4883203-02-	.3276029-01-	.7672611-01	.4000000 01
.2537206 00	.3619131 01	.5646653-02-	.3316237 00-	.7541590-01	.4250000 01
.3216204 00	.3572881 01	.1002939-01-	.5530954 00-	.4183321-01	.4500000 01
.4050999 00	.3504802 01	.1821229-01-	.5234544 00	.8959743-02	.4750000 01
.5082161 00	.3424334 01	.2277696-01-	.1456533 00	.4819616-01	.5000000 01
.6393530 00	.3355018 01	.2514494-01	.4386695 00	.5141996-01	.5250000 01
.8013272 00	.3274843 01	.5056813-01	.8209082 00	.1956108-01	.5500000 01
.9884563 00	.3146041 01	.9146575-01	.5993586 00-	.1927428-01	.5750000 01
.1213425 01	.3007780 01	.1005551 00-	.2075101 00-	.3633569-01	.6000000 01
.1491253 01	.2878796 01	.1619989 00-	.1081712 01-	.2690436-01	.6250000 01
.1761575 01	.2648423 01	.4211253 00-	.1433126 01-	.7820052-02	.6500000 01
.1928953 01	.2258573 01	.7546010 00-	.1147654 01	.3542804-02	.6750000 01
.1988056 01	.1812873 01	.9436223 00-	.6108544 00	.4731388-02	.7000000 01
.1999002 01	.1419641 01	.9937546 00-	.2151328 00	.2260036-02	.7250000 01
.1999964 01	.1106149 01	.9997102 00-	.4778475-01	.5820868-03	.7500000 01
.1999999 01	.8614852 00	.9999953 00-	.6181518-02	.8165415-04	.7750000 01
.2000000 01	.6709255 00	.1000000 01-	.4143216-03	.5745573-05	.8000000 01

.2000000	01	.5225173	00	.1000000	01-	.1221807-04	.1748490-06	.8250000	01
.2000000	01	.4069369	00	.1000000	01-	.1276362-06	.1865495-08	.8500000	01
.2000000	01	.3169228	00	.1000000	01-	.3575788-09	.5302631-11	.8750000	01
.2000000	01	.2468197	00	.1000000	01-	.1895038-12	.2837901-14	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND. ENERGY	V(O)	LAMBDA
5 5 1/2	.2000000	01-.2262320 02	.4231341 01	.7411404 00

ALPHA S	.8468383-02-	.9541322 00	.3572129 02-	.7356332 03	.1024812 05
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.3265245-02	.2515569 00-	.7885798 01	.1477582 03-	.1939733 04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.7749972-04	.4231341 01	.6060979-09	.8450919-02-	.3260640-02-	.4000000 01
.9951114-04	.4231321 01	.1126431-08	.1016524-01-	.3922808-02-	.3750000 01
.1277740-03	.4231293 01	.2092994-08	.1222527-01-	.4718911-02-	.3500000 01
.1640634-03	.4231251 01	.3887802-08	.1469964-01-	.5675746-02-	.3250000 01
.2106586-03	.4231190 01	.7219002-08	.1766994-01-	.6825312-02-	.3000000 01
.2704853-03	.4231102 01	.1339802-07	.2123293-01-	.8205731-02-	.2750000 01
.3472996-03	.4230976 01	.2485049-07	.2550277-01-	.9862283-02-	.2500000 01
.4459223-03	.4230793 01	.4605571-07	.3061334-01-	.1184853-01-	.2250000 01
.5725399-03	.4230529 01	.8526836-07	.3672040-01-	.1422753-01-	.2000000 01
.7350897-03	.4230149 01	.1576601-06	.4400314-01-	.1707297-01-	.1750000 01
.9437518-03	.4229602 01	.2910194-06	.5266456-01-	.2047016-01-	.1500000 01
.1211576-02	.4228817 01	.5960177-06	.6292964-01-	.2451668-01-	.1250000 01
.1555281-02	.4227692 01	.9845184-06	.7503972-01-	.2932208-01-	.1000000 01
.1996261-02	.4226085 01	.1801808-05	.8924069-01-	.3500633-01-	.7500000 00
.2561865-02	.4223801 01	.3282349-05	.1057614 00-	.4169578-01-	.5000000 00
.3286983-02	.4220570 01	.5943939-05	.1247767 00-	.4951545-01-	.2500000 00
.4216031-02	.4216031 01	.1068141-04	.1463491 00-	.5857549-01	.0000000-39
.5405375-02	.4209711 01	.1900542-04	.1703370 00-	.6894912-01	.2500000 00
.6926291-02	.4201009 01	.3338576-04	.1962603 00-	.8063838-01	.5000000 00
.8868540-02	.4189202 01	.5768175-04	.2231093 00-	.9352340-01	.7500000 00
.1134471-01	.4173487 01	.9753558-04	.2490891 00-	.1072909 00	.1000000 01
.1449567-01	.4153080 01	.1603690-03	.2713049 00-	.1213398 00	.1250000 01
.1849780-01	.4127418 01	.2542204-03	.2854284 00-	.1346663 00	.1500000 01
.2357357-01	.4096474 01	.3842190-03	.2854519 00-	.1457451 00	.1750000 01
.3000799-01	.4061141 01	.5457108-03	.2637574 00-	.1524441 00	.2000000 01
.3817429-01	.4023541 01	.7157729-03	.2119045 00-	.1520488 00	.2250000 01
.4857021-01	.3986886 01	.8530088-03	.1227435 00-	.1415209 00	.2500000 01
.6185756-01	.3954422 01	.9289276-03-	.5458146-02-	.1181639 00	.2750000 01
.7888037-01	.3927224 01	.1015632-02-	.1625862 00-	.8085544-01	.3000000 01
.1006285 00	.3901792 01	.1391820-02-	.3191642 00-	.3182146-01	.3250000 01
.1281679 00	.3870336 01	.2458430-02-	.4222074 00	.2157664-01	.3500000 01
.1627203 00	.3826816 01	.4182478-02-	.4033685 00	.6638029-01	.3750000 01
.2061451 00	.3775681 01	.5520180-02-	.2103012 00	.8684049-01	.4000000 01
.2614628 00	.3729567 01	.5806381-02	.1368867 00	.7179903-01	.4250000 01
.3320014 00	.3688203 01	.8253178-02	.4922499 00	.2485759-01	.4500000 01
.4195021 00	.3629405 01	.1695063-01	.6046661 00-	.3024733-01	.4750000 01
.5265368 00	.3547778 01	.2470923-01	.2805843 00-	.5959044-01	.5000000 01
.6616976 00	.3472272 01	.2645186-01-	.3685172 00-	.4396160-01	.5250000 01
.8297718 00	.3391089 01	.5108747-01-	.8495560 00	.1069707-02	.5500000 01
.1023399 01	.3257256 01	.9694930-01-	.6405270 00	.3584054-01	.5750000 01
.1254686 01	.3110057 01	.1072640 00	.2484150 00	.3559628-01	.6000000 01
.1537953 01	.2968948 01	.1826783 00	.1179682 01	.1109947-01	.6250000 01
.1800995 01	.2707688 01	.4730670 00	.1478483 01-	.1024958-01	.6500000 01
.1948383 01	.2281323 01	.8042528 00	.1096182 01-	.1444354-01	.6750000 01
.1992917 01	.1817305 01	.9631808 00	.5248102 00-	.8414541-02	.7000000 01
.1999553 01	.1420032 01	.9969108 00	.1603502 00-	.2786893-02	.7250000 01
.1999989 01	.1106163 01	.9999013 00	.2951799-01-	.5299178-03	.7500000 01
.2000000 01	.8614853 00	.9999991 00	.2984764-02-	.5408289-04	.7750000 01
.2000000 01	.6709255 00	.1000000 01	.1451033-03-	.2627107-05	.8000000 01

.2000000	01	.5225173	00	.1000000	01	.2821638-05-	.5085177-07	.8250000	01
.2000000	01	.4069369	00	.1000000	01	.1722674-07-	.3086308-09	.8500000	01
.2000000	01	.3169228	00	.1000000	01	.2425452-10-	.4319295-12	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.5385387-14-	.9539605-16	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.0000000-39	.0000000-39	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.0000000-39	.0000000-39	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.0000000-39	.0000000-39	.9750000	01
.2000000	01	.9079991-01		.1000000	01	.0000000-39	.0000000-39	.1000000	02
.2000000	01	.7071504-01		.1000000	01	.0000000-39	.0000000-39	.1025000	02
.2000000	01	.5507293-01		.1000000	01	.0000000-39	.0000000-39	.1050000	02
.2000000	01	.4289084-01		.1000000	01	.0000000-39	.0000000-39	.1075000	02
.2000000	01	.3340342-01		.1000000	01	.0000000-39	.0000000-39	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39	.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39	.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39	.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39	.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39	.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39	.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39	.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39	.0000000-39	.1300000	02

DESIGNATION	NP	BIND.	ENERGY	V(0)	LAMBDA
6 D 3/2	.1000000	01-	.2256375	00 .6301349	00 .1883956

ALPHA S	.5310630-08	.1532852-05-	.4900628-04	.8337138-03-	.9666200-02
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	.3072354-07-	.1129828-05	.2211515-04-	.2912291-03	.2898051-02
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R	TIMES	V(R)	INTEGRAL	F	G	RHO
.1154132-04	.6301348	00	.3731324-20	.5338688-08	.3070286-07-	.4000000 01
.1481935-04	.6301348	00	.1228653-19	.8563076-08	.4916359-07-	.3750000 01
.1902842-04	.6301348	00	.4045478-19	.1374065-07	.7871994-07-	.3500000 01
.2443298-04	.6301348	00	.1331899-18	.2206060-07	.1260363-06-	.3250000 01
.3137256-04	.6301348	00	.4384556-18	.3544251-07	.2017752-06-	.3000000 01
.4028317-04	.6301348	00	.1443175-17	.5699149-07	.3229905-06-	.2750000 01
.5172461-04	.6301348	00	.4749355-17	.9174380-07	.5169490-06-	.2500000 01
.6641571-04	.6301348	00	.1562610-16	.1478950-06	.8272243-06-	.2250000 01
.8527946-04	.6301348	00	.5139719-16	.2388364-06	.1323406-05-	.2000000 01
.1095010-03	.6301348	00	.1689919-15	.3865600-06	.2116545-05-	.1750000 01
.1406021-03	.6301347	00	.5553737-15	.6274007-06	.3383665-05-	.1500000 01
.1805366-03	.6301348	00	.1824071-14	.1021828-05	.5406593-05-	.1250000 01
.2318136-03	.6301348	00	.5986391-14	.1671329-05	.8633220-05-	.1000000 01
.2976546-03	.6301348	00	.1962762-13	.2747889-05	.1377379-04-	.7500000 00
.3821960-03	.6301348	00	.6427497-13	.4546114-05	.2195134-04-	.5000000 00
.4907494-03	.6301348	00	.2101634-12	.7576549-05	.3493505-04-	.2500000 00
.6301347-03	.6301348	00	.6858957-12	.1273469-04	.5549868-04	.0000000-39
.8091089-03	.6301348	00	.2233392-11	.2161010-04	.8796386-04	.2500000 00
.1038916-02	.6301348	00	.7252365-11	.3705609-04	.1390091-03	.5000000 00
.1333995-02	.6301348	00	.2347460-10	.6424386-04	.2188451-03	.7500000 00
.1712884-02	.6301348	00	.7570754-10	.1126135-03	.3428622-03	.1000000 01
.2199386-02	.6301348	00	.2432152-09	.1994659-03	.5338198-03	.1250000 01
.2824067-02	.6301347	00	.7783702-09	.3565003-03	.8245093-03	.1500000 01
.3626174-02	.6301346	00	.2483156-08	.6414693-03	.1260483-02	.1750000 01
.4656096-02	.6301342	00	.7908089-08	.1158293-02	.1901731-02	.2000000 01
.5978538-02	.6301334	00	.2519976-07	.2090039-02	.2820922-02	.2250000 01
.7676568-02	.6301312	00	.8056987-07	.3748688-02	.4093857-02	.2500000 01
.9856825-02	.6301259	00	.2589132-06	.6639846-02	.5775537-02	.2750000 01
.1265614-01	.6301123	00	.8346316-06	.1152183-01	.7854269-02	.3000000 01
.1624993-01	.6300783	00	.2674965-05	.1939533-01	.1018039-01	.3250000 01
.2086254-01	.6299944	00	.8368631-05	.3128391-01	.1238157-01	.3500000 01
.2677958-01	.6297955	00	.2484363-04	.4757664-01	.1380840-01	.3750000 01
.3436171-01	.6293568	00	.6740980-04	.6670964-01	.1359922-01	.4000000 01
.4406081-01	.6284938	00	.1595995-03	.8333263-01	.1098263-01	.4250000 01
.5644550-01	.6270531	00	.3116546-03	.8720020-01	.5856982-02	.4500000 01
.7225495-01	.6251280	00	.4705866-03	.6556096-01-	.6223425-03	.4750000 01
.9248729-01	.6231746	00	.5319029-03	.1172102-01-	.6063704-02	.5000000 01
.1184481 00	.6215590	00	.5827074-03-	.6203116-01-	.7917680-02	.5250000 01
.1516550 00	.6197796	00	.1085657-02-	.1180223 00-	.5325949-02	.5500000 01
.1938421 00	.6169572	00	.2098665-02-	.1099996 00-	.2343633-03	.5750000 01
.2475252 00	.6135539	00	.2594181-02-	.2131328-01	.3969997-02	.6000000 01
.3163111 00	.6106243	00	.2999626-02	.1078679 00	.4973250-02	.6250000 01
.4036302 00	.6068338	00	.6853990-02	.1936044 00	.2911332-02	.6500000 01
.5125064 00	.6000836	00	.1367981-01	.1656585 00-	.1592707-03	.6750000 01
.6492523 00	.5920417	00	.1645745-01	.2124431-01-	.2329615-02	.7000000 01
.8239563 00	.5851529	00	.1960223-01-	.1791814 00-	.3018130-02	.7250000 01
.1040404 01	.5754312	00	.5147683-01-	.3596820 00-	.2674918-02	.7500000 01
.1284630 01	.5533449	00	.1449568 00-	.4733955 00-	.1954079-02	.7750000 01
.1525617 01	.5117878	00	.3084836 00-	.5079437 00-	.1225157-02	.8000000 01

.1728405	01	.4515609	00	.5151482	00-	.4709788	00-	.6442474-03	.8250000	01
.1870645	01	.3806172	00	.7155687	00-	.3838445	00-	.2644120-03	.8500000	01
.1951351	01	.3092138	00	.8667953	00-	.2745395	00-	.5959267-04	.8750000	01
.1986614	01	.2451677	00	.9536948	00-	.1682619	00	.2471050-04	.9000000	01
.1997579	01	.1919907	00	.9892788	00-	.8399992-01		.3774586-04	.9250000	01
.1999751	01	.1496851	00	.9985725	00-	.3170557-01		.2231105-04	.9500000	01
.1999988	01	.1165887	00	.9999095	00-	.8224297-02		.7517624-05	.9750000	01
.2000000	01	.9079989-01		.9999979	00-	.1301388-02		.1412212-05	.1000000	02
.2000000	01	.7071503-01		.1000000	01-	.1081407-03		.1322114-06	.1025000	02
.2000000	01	.5507293-01		.1000000	01-	.3903035-05		.5198978-08	.1050000	02
.2000000	01	.4289084-01		.1000000	01-	.4806763-07		.6820060-10	.1075000	02
.2000000	01	.3340342-01		.1000000	01-	.1598434-09		.1490579-12	.1100000	02
.2000000	01	.2601461-01		.1000000	01	.0000000-39		.0000000-39	.1125000	02
.2000000	01	.2026020-01		.1000000	01	.0000000-39		.0000000-39	.1150000	02
.2000000	01	.1577866-01		.1000000	01	.0000000-39		.0000000-39	.1175000	02
.2000000	01	.1228843-01		.1000000	01	.0000000-39		.0000000-39	.1200000	02
.2000000	01	.9570240-02		.1000000	01	.0000000-39		.0000000-39	.1225000	02
.2000000	01	.7453311-02		.1000000	01	.0000000-39		.0000000-39	.1250000	02
.2000000	01	.5804644-02		.1000000	01	.0000000-39		.0000000-39	.1275000	02
.2000000	01	.4520661-02		.1000000	01	.0000000-39		.0000000-39	.1300000	02

DESIGNATION	NP	BIND. ENERGY	V(0)	LAMBDA
6 P 3/2	.4000000	01-.1625036	01 .1294828	01 .1883956

ALPHA S	.6213430-06-	.2902248-04	.6360047-03-	.9049237-02	.9495601-01
BETA S	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
	.1074005-06	.4717127-05-	.1007802-03	.1410972-02-	.1465117-01
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V.(R)	V.(R)	INTEGRAL	F	G	RHO
.2371559-04	.1294828	01 .1525209-17	.6208117-06-	.1073141-06-	.4000000 01
.3045142-04	.1294828	01 .5021380-17	.9940363-06-	.1718326-06-	.3750000 01
.3910040-04	.1294828	01 .1652993-16	.1591529-05-	.2751224-06-	.3500000 01
.5020591-04	.1294828	01 .5440678-16	.2547936-05-	.4404639-06-	.3250000 01
.6446567-04	.1294828	01 .1790416-15	.4078617-05-	.7050957-06-	.3000000 01
.8277555-04	.1294828	01 .5890468-15	.6527906-05-	.1128564-05-	.2750000 01
.1062859-03	.1294828	01 .1937365-14	.1044608-04-	.1806042-05-	.2500000 01
.1364738-03	.1294828	01 .6369424-14	.1671199-04-	.2889555-05-	.2250000 01
.1752358-03	.1294828	01 .2092991-13	.2672813-04-	.4621764-05-	.2000000 01
.2250073-03	.1294828	01 .6873053-13	.4273034-04-	.7389625-05-	.1750000 01
.2889150-03	.1294828	01 .2255104-12	.6827825-04-	.1180943-04-	.1500000 01
.3709743-03	.1294828	01 .7391187-12	.1090294-03-	.1886114-04-	.1250000 01
.4763404-03	.1294828	01 .2419129-11	.1739559-03-	.3009981-04-	.1000000 01
.6116331-03	.1294828	01 .7903694-11	.2772456-03-	.4798648-04-	.7500000 00
.7853525-03	.1294828	01 .2576365-10	.4412516-03-	.7640267-04-	.5000000 00
.1008413-02	.1294828	01 .8373527-10	.7010222-03-	.1214430-03-	.2500000 00
.1294827-02	.1294828	01 .2711257-09	.1111167-02-	.1926216-03	.0000000-39
.1662591-02	.1294827	01 .8736315-09	.1756078-02-	.3046794-03	.2500000 00
.2134808-02	.1294827	01 .2797580-08	.2764755-02-	.4802307-03	.5000000 00
.2741145-02	.1294825	01 .8887182-08	.4331544-02-	.7535196-03	.7500000 00
.3519691-02	.1294822	01 .2794366-07	.6743522-02-	.1175510-02	.1000000 01
.4519343-02	.1294814	01 .8670951-07	.1041336-01-	.1820297-02	.1250000 01
.5802863-02	.1294794	01 .2645288-06	.1591161-01-	.2792182-02	.1500000 01
.7450757-02	.1294748	01 .7895559-06	.2398246-01-	.4231375-02	.1750000 01
.9566176-02	.1294641	01 .2291143-05	.3550800-01-	.6313616-02	.2000000 01
.1228098-01	.1294406	01 .6410818-05	.5135679-01-	.9234641-02	.2250000 01
.1576300-01	.1293906	01 .1711210-04	.7201407-01-	.1316429-01	.2500000 01
.2022434-01	.1292899	01 .4296178-04	.9686636-01-	.1814961-01	.2750000 01
.2593069-01	.1291013	01 .9956270-04	.1230610 00-	.2394919-01	.3000000 01
.3321256-01	.1287791	01 .2076930-03	.1441051 00-	.2980902-01	.3250000 01
.4248430-01	.1282915	01 .3770454-03	.1489640 00-	.3426492-01	.3500000 01
.5428333-01	.1276622	01 .5703311-03	.1233935 00-	.3517592-01	.3750000 01
.6933869-01	.1269983	01 .6904862-03	.5605363-01-	.3028864-01	.4000000 01
.8863297-01	.1264282	01 .7148146-03-	.4908792-01-	.1855584-01	.4250000 01
.1133560 00	.1259272	01 .9696123-03-	.1583034 00-	.1941709-02	.4500000 01
.1447771 00	.1252568	01 .1916649-02-	.2068198 00	.1366119-01	.4750000 01
.1844858 00	.1243056	01 .2999814-02-	.1314646 00	.2054802-01	.5000000 01
.2350965 00	.1233674	01 .3208075-02	.6290745-01	.1457211-01	.5250000 01
.2997530 00	.1225022	01 .4965480-02	.2551959 00	.6120416-04	.5500000 01
.3806488 00	.1211522	01 .1050113-01	.2660471 00-	.1176987-01	.5750000 01
.4817717 00	.1194193	01 .1321667-01	.2589777-01-	.1244322-01	.6000000 01
.6106521 00	.1178836	01 .1695312-01-	.3068317 00-	.3539693-02	.6250000 01
.7689163 00	.1156020	01 .4093290-01-	.4349248 00	.5965188-02	.6500000 01
.9567284 00	.1120214	01 .6347873-01-	.1902630 00	.8629706-02	.6750000 01
.1191500 01	.1086508	01 .6907268-01	.2943056 00	.4727125-02	.7000000 01
.1473135 01	.1046183	01 .1606362 00	.7091661 00-	.6922944-03	.7250000 01
.1736944 01	.9606767 00	.4178395 00	.8332367 00-	.3654892-02	.7500000 01
.1907565 01	.8216697 00	.7228511 00	.6766431 00-	.3676752-02	.7750000 01
.1979004 01	.6638821 00	.9168037 00	.4041144 00-	.2311434-02	.8000000 01

.1997202	01	.5217864	00	.9856241	00	.1762103	00-	.1006759-02	.8250000	01
.1999806	01	.4068974	00	.9987216	00	.5394617-01-	.3010742-03	.8500000	01	
.1999994	01	.3169218	00	.9999495	00	.1088334-01-	.5884086-04	.8750000	01	
.2000000	01	.2468197	00	.9999993	00	.1316153-02-	.6897838-05	.9000000	01	
.2000000	01	.1922234	00	.9999999	00	.8334776-04-	.4255122-06	.9250000	01	
.2000000	01	.1497037	00	.1000000	01	.2304108-05-	.1152139-07	.9500000	01	
.2000000	01	.1165894	00	.9999999	00	.2196664-07-	.1080821-09	.9750000	01	
.2000000	01	.9079990-01	.1000000	01	.5355365-10-	.2602205-12	.1000000	02		
.2000000	01	.7071504-01	.9999999	00	.2305887-13-	.1109631-15	.1025000	02		
.2000000	01	.5507293-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02		
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02		
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02		
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02		
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02		
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02		
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02		
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02		
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02		
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02		
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02		

DESIGNATION	NP	BIND.	ENERGY	V(O)	LAMBDA
6 P 1/2	.2000000	01-	.2287704	01 .1531420	01 .7411404

ALPHA S	.4379428-03	.9168125-01-	.5294170	01 .1266367	03-.1903643	04
BETA S	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
	.1135801-02-	.7966717-01	.2342596	01-.4206561	02 .5352787	03
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO			
.2804892-04	.1531419	01 .1092414-10	.4396202-03	.1134342-02-	.4000000	01		
.3601553-04	.1531419	01 .2031366-10	.5296826-03	.1364753-02-	.3750000	01		
.4624483-04	.1531419	01 .3777102-10	.6383900-03	.1641794-02-	.3500000	01		
.5937952-04	.1531418	01 .7022466-10	.7697070-03	.1974811-02-	.3250000	01		
.7624475-04	.1531417	01 .1305480-09	.9284976-03	.2374970-02-	.3000000	01		
.9790011-04	.1531415	01 .2426533-09	.1120757-02	.2855587-02-	.2750000	01		
.1257060-03	.1531413	01 .4509411-09	.1353917-02	.3432497-02-	.2500000	01		
.1614094-03	.1531410	01 .8378153-09	.1637257-02	.4124463-02-	.2250000	01		
.2072531-03	.1531405	01 .1556120-08	.1982457-02	.4953618-02-	.2000000	01		
.2661171-03	.1531398	01 .2889139-08	.2404353-02	.5945902-02-	.1750000	01		
.3416988-03	.1531388	01 .5361412-08	.2921991-02	.7131470-02-	.1500000	01		
.4387459-03	.1531374	01 .9943058-08	.3560098-02	.8544981-02-	.1250000	01		
.5633531-03	.1531353	01 .1842566-07	.4351154-02	.1022565-01-	.1000000	01		
.7233455-03	.1531323	01 .3411195-07	.5338319-02	.1221689-01-	.7500000	00		
.9287674-03	.1531279	01 .6307756-07	.6579572-02	.1456518-01-	.5000000	00		
.1192512-02	.1531216	01 .1164713-06	.8153509-02	.1731780-01-	.2500000	00		
.1531126-02	.1531126	01 .2146947-06	.1016737-01	.2051872-01	.0000000-39			
.1965839-02	.1530997	01 .3949712-06	.1276789-01	.2420167-01	.2500000	00		
.2523882-02	.1530812	01 .7250254-06	.1615538-01	.2837925-01	.5000000	00		
.3240170-02	.1530548	01 .1327804-05	.2060078-01	.3302647-01	.7500000	00		
.4159438-02	.1530172	01 .2426287-05	.2646372-01	.3805704-01	.1000000	01		
.5338958-02	.1529638	01 .4425284-05	.3420600-01	.4329103-01	.1250000	01		
.6851956-02	.1528878	01 .8062005-05	.4438750-01	.4841406-01	.1500000	01		
.8791891-02	.1527802	01 .1468416-04	.5761940-01	.5293156-01	.1750000	01		
.1127772-01	.1526274	01 .2675506-04	.7442932-01	.5612895-01	.2000000	01		
.1446032-01	.1524107	01 .4871330-04	.9496879-01	.5706081-01	.2250000	01		
.1853007-01	.1521041	01 .8819694-04	.1184741	.00	.5461052-01	.2500000	01	
.2372598-01	.1516751	01 .1569758-03	.1424161	.00	.4768137-01	.2750000	01	
.3034742-01	.1510909	01 .2689993-03	.1614151	.00	.3558489-01	.3000000	01	
.3877236-01	.1503368	01 .4298845-03	.1663758	.00	.1864588-01	.3250000	01	
.4949019-01	.1494475	01 .6137530-03	.1449781	.00-	.1103175-02	.3500000	01	
.6315711-01	.1485313	01 .7478078-03	.8545315-01-	.1952453-01	.3750000	01		
.8065766-01	.1477297	01 .7824288-03-	.1445873-01-	.3092544-01	.4000000	01		
.1031024	.1470677	01 .9084904-03-	.1342687	.00-	.3019776-01	.4250000	01	
.1317147	.1463218	01 .1618227-02-	.2217714	.00-	.1641230-01	.4500000	01	
.1678596	.1452270	01 .2915942-02-	.2065696	.00	.4229638-02	.4750000	01	
.2136359	.1439468	01 .3602450-02-	.5067308-01	.1987279-01	.5000000	01		
.2722190	.1428475	01 .4033123-02	.1840805	.00	.2043010-01	.5250000	01	
.3463534	.1415468	01 .8194281-02	.3247750	.00	.6488831-02	.5500000	01	
.4383307	.1395111	01 .1403953-01	.2066451	.00-	.9675373-02	.5750000	01	
.5544641	.1374380	01 .1510332-01-	.1410979	.00-	.1524109-01	.6000000	01	
.7011034	.1353449	01 .2777804-01-	.4495141	.00-	.8026551-02	.6250000	01	
.8758769	.1316828	01 .5975479-01-	.4103104	.00	.3458407-02	.6500000	01	
.1086128	.1271726	01 .7112285-01	.2305879-01	.9573663-02	.6750000	01		
.1350161	.1231188	01 .1014173	.00	.5710663	.00	.8259035-02	.7000000	01
.1634853	.1161032	01 .2860642	.00	.8856633	.00	.3630172-02	.7250000	01
.1852804	.1024757	01 .6015222	.00	.8369855	.00	.7650127-04	.7500000	01
.1960962	.8446700	00 .8582070	.00	.5604096	.00-	.1093727-02	.7750000	01
.1993791	.6688426	00 .9704490	.00	.2721880	.00-	.8510130-03	.8000000	01

.1999471	01	.5223791	00	.9967529	00	.9340269-01-	.3597208-03	.8250000	01
.1999979	01	.4069326	00	.9998360	00	.2139966-01-	.9219456-04	.8500000	01
.2000000	01	.3169227	00	.9999969	00	.3011883-02-	.1386396-04	.8750000	01
.2000000	01	.2468197	00	.1000000	01	.2314299-03-	.1112491-05	.9000000	01
.2000000	01	.1922234	00	.1000000	01	.8248777-05-	.4091383-07	.9250000	01
.2000000	01	.1497037	00	.1000000	01	.1098806-06-	.5581584-09	.9500000	01
.2000000	01	.1165894	00	.1000000	01	.4144877-09-	.2144645-11	.9750000	01
.2000000	01	.9079990-01	.1000000	01	.3130509-12-	.1642063-14	.1000000	02	
.2000000	01	.7071504-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02	
.2000000	01	.5507293-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02	
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02	
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02	
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02	
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02	
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02	
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02	
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02	
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02	
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02	
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02	

DESIGNATION	NP	RIND.	ENERGY	V(O)	LAMBDA	
6 S 1/2	.2000000	01-	.3598756	01	.1753419 01	.7411404 00

ALPHA S	.3725550-02-	.4199141	00	.1571474	02-	.3231289	03	.4491141	04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.1436500-02	.1106253	00-	.3462652	01	.6473247	02-	.8474220	03
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO					
.3211500-04	.1753419	01	.1173065-09	.3717864-02-	.1434475-02-	.4000000	01			
.4123638-04	.1753415	01	.2180138-09	.4472053-02-	.1725787-02-	.3750000	01			
.5294839-04	.1753410	01	.4050860-09	.5378336-02-	.2076022-02-	.3500000	01			
.6798676-04	.1753402	01	.7524594-09	.6466895-02-	.2496970-02-	.3250000	01			
.8729616-04	.1753390	01	.1397191-08	.7773634-02-	.3002708-02-	.3000000	01			
.1120894-03	.1753373	01	.2593099-08	.9341114-02-	.3610007-02-	.2750000	01			
.1439236-03	.1753349	01	.4809645-08	.1121956-01-	.4338788-02-	.2500000	01			
.1847979-03	.1753313	01	.8913763-08	.1346786-01-	.5212618-02-	.2250000	01			
.2372782-03	.1753262	01	.1650308-07	.1615455-01-	.6259235-02-	.2000000	01			
.3046585-03	.1753189	01	.3051391-07	.1935844-01-	.7511058-02-	.1750000	01			
.3911657-03	.1753083	01	.5632446-07	.2316883-01-	.9005629-02-	.1500000	01			
.5022231-03	.1752931	01	.1037416-06	.2768469-01-	.1078587-01-	.1250000	01			
.6447871-03	.1752713	01	.1905443-06	.3301217-01-	.1289999-01-	.1000000	01			
.8277762-03	.1752402	01	.3487211-06	.3925940-01-	.1540077-01-	.7500000	00			
.1062618-02	.1751960	01	.6352603-06	.4652699-01-	.1834381-01-	.5000000	00			
.1363941-02	.1751335	01	.1150369-05	.5489186-01-	.2178413-01-	.2500000	00			
.1750456-02	.1750457	01	.2067219-05	.6438125-01-	.2577021-01	.0000000-39				
.2246060-02	.1749233	01	.3678143-05	.7493274-01-	.3033430-01	.2500000	00			
.2881221-02	.1747549	01	.6461053-05	.8633480-01-	.3547731-01	.5000000	00			
.3694724-02	.1745265	01	.1116267-04	.9814276-01-	.4114656-01	.7500000	00			
.4735853-02	.1742223	01	.1887452-04	.1095663	00-	.4720425-01	.1000000	01		
.6067172-02	.1738274	01	.3103202-04	.1193308	00-	.5338586-01	.1250000	01		
.7768150-02	.1733309	01	.4918893-04	.1255308	00-	.5924965-01	.1500000	01		
.9940048-02	.1727322	01	.7433441-04	.1255214	00-	.6412415-01	.1750000	01		
.1271277-01	.1720487	01	.1055624-03	.1159492	00-	.6707048-01	.2000000	01		
.1625452-01	.1713214	01	.1384312-03	.9310005-01-	.6689271-01	.2250000	01			
.2078486-01	.1706126	01	.1649332-03	.5383072-01-	.6225150-01	.2500000	01			
.2659011-01	.1699849	01	.1795871-03-	.2610171-02-	.5195690-01	.2750000	01			
.3403675-01	.1694591	01	.1964254-03-	.7174400-01-	.3551171-01	.3000000	01			
.4357714-01	.1689670	01	.2694335-03-	.1405438	00-	.1389557-01	.3250000	01		
.5575249-01	.1683580	01	.4758795-03-	.1856055	00	.9641925-02	.3500000	01		
.7122967-01	.1675162	01	.8082237-03-	.1767682	00	.2936924-01	.3750000	01		
.9092195-01	.1665294	01	.1063727-02-	.9105099-01	.3830525-01	.4000000	01			
.1161236	00	.1656415	01	.1118456-02	.6221671-01	.3149061-01	.4250000	01		
.1483859	00	.1648419	01	.1601241-02	.2176116	00	.1053436-01	.4500000	01	
.1892139	00	.1637021	01	.3274524-02	.2631074	00-	.1392306-01	.4750000	01	
.2406332	00	.1621374	01	.4698116-02	.1140121	00-	.2659223-01	.5000000	01	
.3062472	00	.1607038	01	.5065785-02-	.1738831	00-	.1879734-01	.5250000	01	
.3893587	00	.1591221	01	.9985528-02-	.3698829	00	.2122739-02	.5500000	01	
.4919546	00	.1565784	01	.1781310-01-	.2380953	00	.1738282-01	.5750000	01	
.6210579	00	.1539449	01	.1929928-01	.1840267	00	.1499803-01	.6000000	01	
.7830753	00	.1511692	01	.3778768-01	.5265741	00	.5437791-03	.6250000	01	
.9731826	00	.1463122	01	.7613070-01	.4034240	00-	.1087413-01	.6500000	01	
.1202803	01	.1408339	01	.8462456-01-	.1701826	00-	.1076367-01	.6750000	01	
.1485250	01	.1354374	01	.1529236	00-	.7689240	00-	.3433000-02	.7000000	01
.1756682	01	.1247551	01	.4187902	00-	.9855814	00	.2774881-02	.7250000	01
.1924731	01	.1064539	01	.7488319	00-	.7835916	00	.4260129-02	.7500000	01
.1986213	01	.8555468	00	.9381094	00-	.4273176	00	.2791654-02	.7750000	01
.1998663	01	.6704770	00	.9921235	00-	.1603357	00	.1121786-02	.8000000	01

.1999940	01	.5225018	00	.9995466	00-	.3958386-01	.2840429-03	.8250000	01
.1999999	01	.4069367	00	.9999901	00-	.5942732-02	.4286735-04	.8500000	01
.2000000	01	.3169228	00	.1000000	01-	.4853533-03	.3486955-05	.8750000	01
.2000000	01	.2468197	00	.1000000	01-	.1850838-04	.1320666-06	.9000000	01
.2000000	01	.1922234	00	.1000000	01-	.2682341-06	.1901648-08	.9250000	01
.2000000	01	.1497037	00	.1000000	01-	.1129300-08	.7964145-11	.9500000	01
.2000000	01	.1165894	00	.1000000	01-	.9841842-12	.6912176-14	.9750000	01
.2000000	01	.9079991-01	.1000000	01-	.1175322-15	.8275605-18	.1000000	02	
.2000000	01	.7071504-01	.1000000	01	.0000000-39	.0000000-39	.1025000	02	
.2000000	01	.5507293-01	.1000000	01	.0000000-39	.0000000-39	.1050000	02	
.2000000	01	.4289084-01	.1000000	01	.0000000-39	.0000000-39	.1075000	02	
.2000000	01	.3340342-01	.1000000	01	.0000000-39	.0000000-39	.1100000	02	
.2000000	01	.2601461-01	.1000000	01	.0000000-39	.0000000-39	.1125000	02	
.2000000	01	.2026020-01	.1000000	01	.0000000-39	.0000000-39	.1150000	02	
.2000000	01	.1577866-01	.1000000	01	.0000000-39	.0000000-39	.1175000	02	
.2000000	01	.1228843-01	.1000000	01	.0000000-39	.0000000-39	.1200000	02	
.2000000	01	.9570240-02	.1000000	01	.0000000-39	.0000000-39	.1225000	02	
.2000000	01	.7453311-02	.1000000	01	.0000000-39	.0000000-39	.1250000	02	
.2000000	01	.5804644-02	.1000000	01	.0000000-39	.0000000-39	.1275000	02	
.2000000	01	.4520661-02	.1000000	01	.0000000-39	.0000000-39	.1300000	02	

DESIGNATION	NP	BIND. ENERGY	V(0)	LAMBDA
7 5 1/2	.2000000	01-.3797547 00	.5460183 00	.7411404 00

ALPHA S	.1069013-02-	.1204960 00	.4509189 01-	.9270133 02	.1288086 04
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39
BETA S	-.4121906-03	.3174141-01-	.9933461 00	.1856491 02-	.2429531 03
	.0000000-39	.0000000-39	.0000000-39	.0000000-39	.0000000-39

R TIMES V(R)	V(R)	INTEGRAL	F	G	RHO
.1000067-04	.5460183 00	.9658439-11	.1066807-02-	.4116095-03-	.4000000 01
.1284112-04	.5460181 00	.1795018-10	.1283215-02-	.4951989-03-	.3750000 01
.1648830-04	.5460176 00	.3335277-10	.1543264-02-	.5956958-03-	.3500000 01
.2117138-04	.5460170 00	.6195378-10	.1855616-02-	.7164829-03-	.3250000 01
.2718453-04	.5460160 00	.1150378-09	.2230573-02-	.8615997-03-	.3000000 01
.3490555-04	.5460147 00	.2135029-09	.2680347-02-	.1035859-02-	.2750000 01
.4481944-04	.5460126 00	.3960022-09	.3219348-02-	.1244976-02-	.2500000 01
.5754900-04	.5460098 00	.7339149-09	.3864478-02-	.1495714-02-	.2250000 01
.7389380-04	.5460055 00	.1358781-08	.4635397-02-	.1796031-02-	.2000000 01
.9488049-04	.5459995 00	.2512362-08	.5554722-02-	.2155231-02-	.1750000 01
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