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Fission Cross Sections of ^{237}Np from Pommard

by

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ABSTRACT

The ^{237}Np(n,f) cross section has been measured from 32 eV to 2.2 keV and from 100 keV to 2.8 MeV. Energies of neutrons from the underground nuclear explosion Pommard were determined by time of flight from the source to the target foil located near the surface. Signals produced by fission fragments in solid-state detectors were recorded photographically. The ^{235}U(n,f) and ^{6}Li(n,α) reactions were used to measure the neutron flux. Grouped subthreshold resonances were observed. Above threshold, the cross section reached a maximum of about 1.7 b in the vicinity of 2.2 MeV.

I. INTRODUCTION

The technique for measuring neutron-induced fission cross sections by using neutrons from nuclear explosions has been described in detail.[1,2] Cross sections measured in this way have also been reported.[3]

The Pommard explosion (March 1968) occurred 215.7 m below the ^{237}Np target foil located in an experimental tower at ground level. The neutron energy was determined by measuring the time of flight through a vacuum pipe leading from the explosion site to the foil-detector chamber. The target foil was mounted at a 45° angle relative to the collimated neutron beam. The beam had an area of 2.97 cm^2. Fission fragments were detected by two semiconductor detectors mounted at 55 and 90° angles relative to the neutron beam and at 45° relative to the target foil. Signals produced in the detectors were amplified logarithmically, displayed on oscilloscopes, and recorded as a function of time on moving-film cameras. Measurements were made in the neutron energy regions from 32 eV to 2.2 keV and from 100 keV to 2.8 MeV.

After subtraction of background, measured using a blank foil, the fission cross section as a function of neutron energy was calculated by means of a neutron flux determined from nuclear reactions having well-known cross sections.

II. EXPERIMENTAL ASPECTS

A. Neutron Flux

The neutron flux was determined by using known cross sections for the ^{235}U(n,f) reaction in the 100 keV to 2.8 MeV energy region and the ^{6}Li(n,α) reaction in the 32 eV to 2.2 keV energy region. Details of the flux determination are described by Brown et al.[4] A cross section of 940.8 b at 0.0253 eV with a 1/v energy dependence was assumed for the ^{6}Li(n,α) reaction. To verify results from the flux derived from the lithium reaction, this flux was used with the ^{235}U signal to calculate ^{235}U cross sections in the low-energy interval. Table I compares selected integrals of this cross section with those reported by de Saussure et al.[5]

In the high-energy interval, the ^{235}U(n,f) cross sections recommended by Davey[6] were used to determine the neutron flux. We assumed that neutrons with energies below 10^3 eV came from the polyethylene moderator placed above the explosive.

B. Target Foil

A 0.483 mg/cm^2 layer of $^{237}NpO_2$ was vacuum-deposited in a 4-cm-diam circle upon a 3.43 μm-thick stainless steel backing. The deposit thickness was determined from the alpha-particle emission rate as measured in a low-geometry counting system and by

TABLE I

^{235}U FISSION CROSS-SECTION INTEGRALS

$\int\sigma(E)dE$ in barns-eV for energy intervals indicated

Energy Interval (eV)	Pommard	ORNL-RPI[5]	Pommard / ORNL-RPI
15.0 - 20.5	486	320	1.52
20.5 - 33	570	443	1.29
33 - 41	483	498	0.97
41 - 60	994	924	1.08
60 - 73	342	305	1.12
73 - 100	753	662	1.14
100 - 113	245	215	1.14
113 - 200	2224	1875	1.19
200 - 300	2378	2080	1.14
300 - 1000	9343	8100	1.15

assuming the half-life to be 2.14×10^6 yr.[7] Scans of the foil showed that the deposit was essentially uniform. The $^{237}NpO_2$ was from a sample assayed by Smith and Balagna[8] and found to be isotopically pure, with ^{239}Pu and ^{238}Pu-^{241}Am alpha contaminants totaling less than 0.1%.

C. Detectors and Recording System

Details of the detectors and recording system have been described by Brown and Furnish.[9] Currents produced in the silicon solid-state detectors were fed into logarithmic preamplifiers having a resistive input of ~50 Ω. After amplification, the voltage signals were presented on oscilloscopes and photographed. In the present experiment, one detector, with a nominal area of 2 cm^2, was mounted at 90° relative to the beam and 2 in. from the beam center. The signal from this detector was amplified by a high-gain logarithmic preamplifier that accepts signals from 0 to 2 V. A high-speed drum camera with a resolution of 0.2 μsec, and a streak camera with a resolution of 1.0 μsec photographically recorded the data.[1,9] A second detector of equal area was mounted at 55° relative to the beam, and 1-1/8" from the beam center. Recording this signal was the same as that for the 90° detector except that the low-gain logarithmic preamplifier used had one-tenth as much gain. If both the preamplifier gains and the detector solid angles of the two signals are considered, the level of the 90° signal is a factor of ~3.2 higher than that of the 55° signal.

The 2.2-keV to 100-keV energy gap in the data reported here was due to an extraneous calibration signal that appeared about 50 μsec after the explosion and masked the detector signals in that energy range.

III. DATA

The data were read and processed according to the procedures outlined by Seeger and Bergen.[2] A background determined by the signal from a blank foil was subtracted from each signal. In the low-energy region, only the signals recorded with 1.0-μsec resolution were used, and in the high-energy region, only the data recorded with 0.2 μsec resolution were used. Contaminants in the target foil were so small that no subtractions were necessary.

Cross sections from the 55 and 90° detectors were averaged together with weights inversely proportional to the square of their random errors.

IV. ERRORS

The systematic or correlated errors (in standard deviations) that influence the level of the cross section are listed in Table II. Some of the systematic errors are reduced because of using the flux monitor reactions and averaging the two ^{237}Np signals. The resulting total correlated errors are those shown in the table.

Errors that vary with neutron energy or signal level are combined with the statistical errors and are treated as described in Ref. 2. Cross sections from two readings of each of the two detector signals were averaged with weighting factors inversely proportional to the square of the statistical errors. The final quoted errors are quadratic combinations of the statistical and the total correlated errors.

TABLE II

SYSTEMATIC (CORRELATED) ERRORS (%)

	32 eV to 2.2 keV		100 keV to 2.8 MeV	
	55° Signal	90° Signal	55° Signal	90° Signal
A. ^{237}Np signals				
Target density	2.0	2.0	2.0	2.0
Detector solid angle	1.9	1.6	1.9	1.6
Fragment energy deposited	1.8	1.6	1.8	1.6
Amplifier input resistance	1.0	1.0	1.0	1.0
B. Neutron flux				
Total correlated error for neutron flux[a]	2.9	2.9	4.8	4.8
C. Total correlated error	5.2	4.7	6.4	6.1
Total (55 and 90° combined)	4.5		5.9	

[a]These numbers have been obtained by combining the correlated errors from individual sources as described in Ref. 4.

V. CROSS SECTIONS

The results of the Pommard measurements of the $^{237}Np(n,f)$ cross sections are summarized in Figs. 1 through 3. A detailed tabulation of the cross sections and associated errors is given in the Appendix. Both the listed errors and the typical error bars in the figures represent the combined correlated and uncorrelated errors. In the region below 50 eV, imperfect subtraction of background and low neutron flux combine to give very large errors with negative cross sections indicated at some energies.

A smoothed curve of the low-energy data is presented in Fig. 4 to emphasize the groups of resonances that are of interest in the subthreshold region.[10] This curve was obtained by averaging over 7-eV intervals.

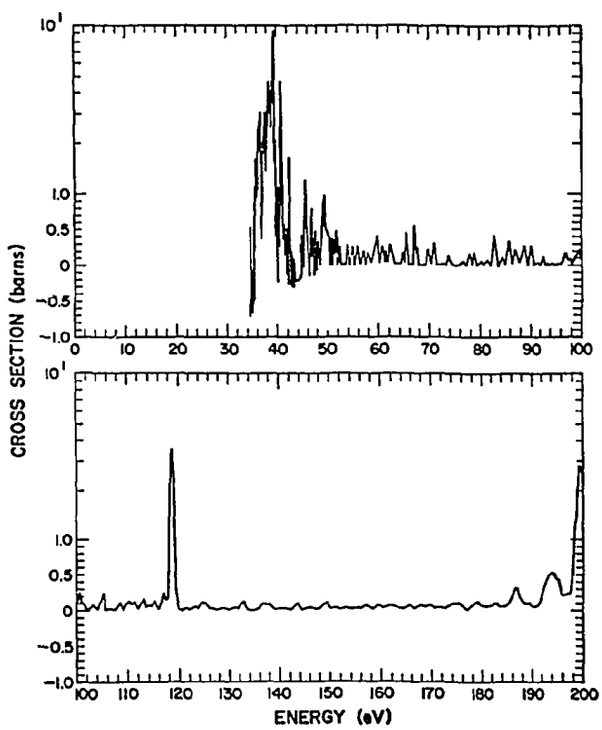

Fig. 1. The ^{237}Np fission cross section 30 to 200 eV as measured in the Pommard experiment of March 1968. The time channel width Δt = 1.0 μsec or one-tenth of the Doppler width, whichever is larger.

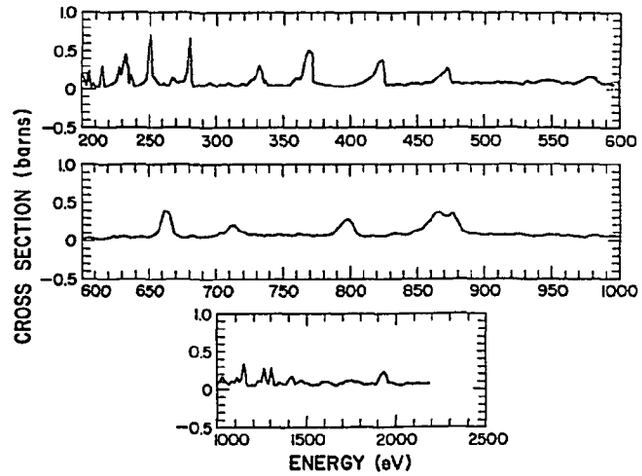

Fig. 2. The ^{237}Np fission cross section 200 to 2500 eV. Δt = 1.0 μsec.

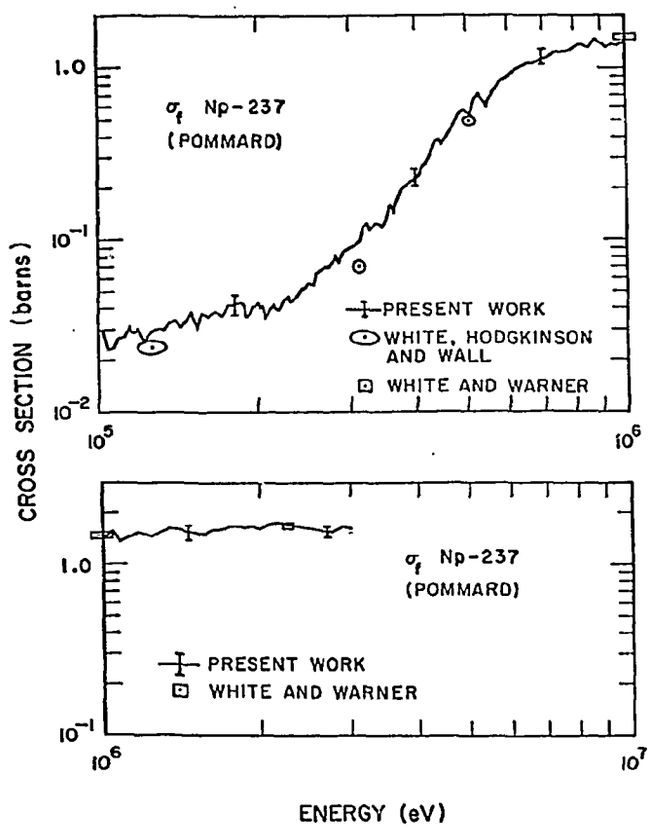

Fig. 3. The ^{237}Np fission cross section 100 keV to 3 MeV. Δt = 0.2 μsec. The data of White and Warner,[12] and of White, Hodgkinson, and Wall[13] are included for comparison. The dimensions of the symbols represent the uncertainties in cross section and energy.

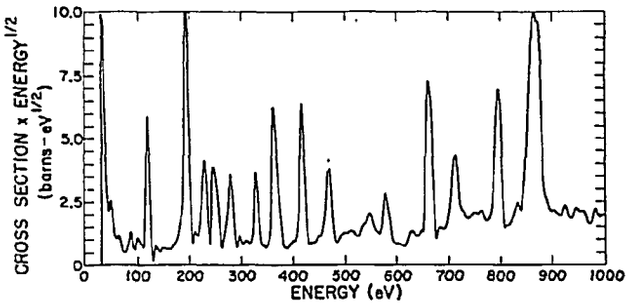

Fig. 4. The ^{237}Np fission cross section times the square root of the neutron energy from 30 to 1000 eV (averaged over 7-eV intervals). The figure emphasizes the groupings of resonances.

VI. COMPARISONS

The cross section of neutron-induced fission of ^{237}Np in the MeV region has been measured by several experimenters.[11-13] The cross sections reported here are in general agreement with these values. Figure 3 includes points representing the measurements of White et al.[12,13] In the threshold region of 100 keV to 1 MeV, these points are 11 to 29% lower than the present measurements, but the agreement at higher energies is good.

In the subthreshold region, the resonances reported here agree reasonably well with the measurements of Paya et al.[10] The smoothed curve of Fig. 4 shows that the average separation of maxima greater than 2 b-eV$^{1/2}$ is ~65 eV, but the separations may vary from this average by as much as 20 eV.

VII. ACKNOWLEDGMENTS

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APPENDIX

The ^{237}Np fission cross sections described in this report are tabulated in this Appendix for various neutron energies. On each page, the data are arranged in sets of three columns: The first column, E(EV), lists the neutron energy in electron volts of each data point in decreasing order. The second column, S(B), gives the cross section in barns, and the last column lists the corresponding errors in standard deviations expressed as decimal fractions. In calculating integrals from this table, the total correlated error from Table II should be separated quadratically from the listed errors and then recombined after the integral is computed.

E(EV)	S(B)	ERROR
2.8479E+06	1.648	.080
2.8479E+06	1.648	.080
2.7283E+06	1.548	.068
2.7283E+06	1.548	.068
2.6160E+06	1.556	.087
2.6160E+06	1.556	.087
2.5105E+06	1.600	.079
2.5105E+06	1.600	.079
2.4113E+06	1.616	.087
2.4113E+06	1.616	.087
2.3178E+06	1.656	.100
2.3178E+06	1.656	.100
2.2297E+06	1.705	.104
2.2297E+06	1.705	.104
2.1465E+06	1.733	.103
2.1465E+06	1.733	.103
2.0679E+06	1.692	.098
2.0679E+06	1.692	.098
1.9935E+06	1.610	.098
1.9935E+06	1.610	.098
1.9231E+06	1.660	.101
1.9231E+06	1.660	.101
1.8563E+06	1.631	.103
1.8563E+06	1.631	.103
1.7929E+06	1.659	.105
1.7929E+06	1.659	.105
1.7328E+06	1.646	.129
1.7328E+06	1.646	.129
1.6756E+06	1.586	.129
1.6756E+06	1.586	.129
1.6212E+06	1.579	.091
1.6212E+06	1.579	.091
1.5694E+06	1.498	.090
1.5694E+06	1.498	.090
1.5200E+06	1.498	.108
1.5200E+06	1.498	.108
1.4730E+06	1.530	.100
1.4730E+06	1.530	.100
1.4281E+06	1.556	.093
1.4281E+06	1.556	.093
1.3852E+06	1.608	.092
1.3852E+06	1.608	.092
1.3442E+06	1.618	.092
1.3442E+06	1.618	.092
1.3050E+06	1.581	.075
1.3050E+06	1.581	.075
1.2675E+06	1.513	.073
1.2675E+06	1.513	.073
1.2316E+06	1.462	.098
1.2316E+06	1.462	.098
1.1972E+06	1.497	.103
1.1972E+06	1.497	.103
1.1642E+06	1.529	.093
1.1642E+06	1.529	.093
1.1326E+06	1.470	.114
1.1326E+06	1.470	.114
1.1022E+06	1.421	.105
1.1022E+06	1.421	.105
1.0730E+06	1.354	.106
1.0730E+06	1.354	.106
1.0450E+06	1.554	.074
1.0450E+06	1.554	.074
1.0181E+06	1.464	.104
1.0181E+06	1.464	.104
9.9219E+05	1.400	.125
9.9219E+05	1.400	.125
9.6726E+05	1.370	.120
9.6726E+05	1.370	.120
9.4326E+05	1.373	.120
9.4326E+05	1.373	.120
9.2014E+05	1.337	.147
9.2014E+05	1.337	.147
8.9786E+05	1.403	.089
8.9786E+05	1.403	.089
8.7637E+05	1.474	.109
8.7637E+05	1.474	.109
8.5565E+05	1.323	.089
8.5565E+05	1.323	.089
8.3566E+05	1.352	.078
8.3566E+05	1.352	.078
8.1636E+05	1.378	.088
8.1636E+05	1.378	.088
7.9772E+05	1.313	.100
7.9772E+05	1.313	.100
7.7971E+05	1.252	.099
7.7971E+05	1.252	.099

E(EV)	S(B)	ERROR
7.6231E+05	1.255	.082
7.6231E+05	1.255	.082
7.4548E+05	1.238	.085
7.4548E+05	1.238	.085
7.2920E+05	1.229	.106
7.2920E+05	1.229	.106
7.1345E+05	1.141	.107
7.1345E+05	1.141	.107
6.9820E+05	1.146	.117
6.9820E+05	1.146	.117
6.8344E+05	1.103	.100
6.8344E+05	1.103	.100
6.6914E+05	1.053	.107
6.6914E+05	1.053	.107
6.5528E+05	1.064	.118
6.5528E+05	1.064	.118
6.4185E+05	1.020	.107
6.4185E+05	1.020	.107
6.2883E+05	1.008	.100
6.2883E+05	1.008	.100
6.1620E+05	.951	.108
6.1620E+05	.951	.108
6.0395E+05	.901	.098
6.0395E+05	.901	.098
5.9206E+05	.871	.092
5.9206E+05	.871	.092
5.8052E+05	.824	.081
5.8052E+05	.824	.081
5.6931E+05	.768	.098
5.6931E+05	.768	.098
5.5842E+05	.695	.108
5.5842E+05	.695	.108
5.4785E+05	.596	.113
5.4785E+05	.596	.113
5.3757E+05	.667	.119
5.3757E+05	.667	.119
5.2757E+05	.722	.106
5.2757E+05	.722	.106
5.1786E+05	.643	.093
5.1786E+05	.643	.093
5.0841E+05	.527	.099
5.0841E+05	.527	.099
4.9921E+05	.564	.099
4.9921E+05	.564	.099
4.9026E+05	.552	.083
4.9026E+05	.552	.083
4.8155E+05	.531	.087
4.8155E+05	.531	.087
4.7307E+05	.463	.082
4.7307E+05	.463	.082
4.6482E+05	.428	.080
4.6482E+05	.428	.080
4.5677E+05	.393	.085
4.5677E+05	.393	.085
4.4894E+05	.358	.096
4.4894E+05	.358	.096
4.4130E+05	.386	.107
4.4130E+05	.386	.107
4.3386E+05	.360	.113
4.3386E+05	.360	.113
4.2660E+05	.304	.119
4.2660E+05	.304	.119
4.1953E+05	.275	.118
4.1953E+05	.275	.118
4.1263E+05	.267	.072
4.1263E+05	.267	.072
4.0589E+05	.241	.094
4.0589E+05	.241	.094
3.9933E+05	.222	.166
3.9933E+05	.222	.166
3.9291E+05	.218	.119
3.9291E+05	.218	.119
3.8666E+05	.208	.116
3.8666E+05	.208	.116
3.8055E+05	.197	.083
3.8055E+05	.197	.083
3.7458E+05	.192	.088
3.7458E+05	.192	.088
3.6876E+05	.172	.108
3.6876E+05	.172	.108
3.6306E+05	.153	.083
3.6306E+05	.153	.083
3.5750E+05	.158	.075
3.5750E+05	.158	.075
3.5207E+05	.130	.145
3.5207E+05	.130	.145

E(EV)	S(B)	ERROR
3.4676E+05	.118	.149
3.4676E+05	.118	.149
3.4157E+05	.119	.080
3.4157E+05	.119	.080
3.3649E+05	.124	.112
3.3649E+05	.124	.112
3.3153E+05	.117	.129
3.3153E+05	.117	.129
3.2667E+05	.113	.090
3.2667E+05	.113	.090
3.2192E+05	.123	.104
3.2192E+05	.123	.104
3.1728E+05	.115	.139
3.1728E+05	.115	.139
3.1273E+05	.097	.097
3.1273E+05	.097	.097
3.0828E+05	.093	.073
3.0828E+05	.093	.073
3.0392E+05	.092	.075
3.0392E+05	.092	.075
2.9966E+05	.090	.097
2.9966E+05	.090	.097
2.9549E+05	.086	.079
2.9549E+05	.086	.079
2.9140E+05	.085	.075
2.9140E+05	.085	.075
2.8740E+05	.079	.103
2.8740E+05	.079	.103
2.8347E+05	.074	.089
2.8347E+05	.074	.089
2.7963E+05	.078	.082
2.7963E+05	.078	.082
2.7587E+05	.072	.081
2.7587E+05	.072	.081
2.7218E+05	.068	.098
2.7218E+05	.068	.098
2.6856E+05	.069	.081
2.6856E+05	.069	.081
2.6502E+05	.068	.079
2.6502E+05	.068	.079
2.6155E+05	.065	.094
2.6155E+05	.065	.094
2.5814E+05	.063	.086
2.5814E+05	.063	.086
2.5480E+05	.054	.128
2.5480E+05	.054	.128
2.5152E+05	.055	.119
2.5152E+05	.055	.119
2.4831E+05	.054	.115
2.4831E+05	.054	.115
2.4516E+05	.052	.089
2.4516E+05	.052	.089
2.4207E+05	.052	.086
2.4207E+05	.052	.086
2.3903E+05	.049	.103
2.3903E+05	.049	.103
2.3605E+05	.047	.091
2.3605E+05	.047	.091
2.3313E+05	.045	.092
2.3313E+05	.045	.092
2.3026E+05	.043	.110
2.3026E+05	.043	.110
2.2745E+05	.046	.083
2.2745E+05	.046	.083
2.2468E+05	.044	.125
2.2468E+05	.044	.125
2.2197E+05	.041	.127
2.2197E+05	.041	.127
2.1931E+05	.039	.128
2.1931E+05	.039	.128
2.1669E+05	.039	.095
2.1669E+05	.039	.095
2.1412E+05	.040	.132
2.1412E+05	.040	.132
2.1159E+05	.040	.109
2.1159E+05	.040	.109
2.0911E+05	.036	.092
2.0911E+05	.036	.092
2.0667E+05	.035	.088
2.0667E+05	.035	.088
2.0428E+05	.041	.097
2.0428E+05	.041	.097
2.0192E+05	.041	.095
2.0192E+05	.041	.095
1.9961E+05	.042	.129
1.9961E+05	.042	.129

E(EV)	S(B)	ERROR
1.9733E+05	.041	.129
1.9510E+05	.040	.134
1.9290E+05	.037	.183
1.9074E+05	.035	.164
1.8862E+05	.037	.118
1.8653E+05	.043	.124
1.8003E+05	.042	.088
1.7522E+05	.040	.109
1.7060E+05	.035	.128
1.6616E+05	.038	.131
1.6189E+05	.035	.101
1.5778E+05	.037	.141
1.5383E+05	.030	.129
1.5002E+05	.038	.138
1.4636E+05	.035	.249
1.4282E+05	.031	.129
1.3941E+05	.034	.131
1.3613E+05	.032	.152
1.3296E+05	.030	.103
1.2989E+05	.030	.107
1.2694E+05	.030	.146
1.2408E+05	.028	.094
1.2132E+05	.026	.086
1.1864E+05	.029	.153
1.1606E+05	.029	.122
1.1356E+05	.030	.102
1.1114E+05	.027	.113
1.0879E+05	.027	.105
1.0652E+05	.023	.151
1.0432E+05	.023	.110
1.0219E+05	.029	.096
1.0012E+05	.030	.100
2.1806E+03	.071	.264
2.1676E+03	.066	.281
2.1546E+03	.066	.281
2.1418E+03	.067	.280
2.1291E+03	.072	.277
2.1165E+03	.070	.274
2.1041E+03	.068	.277
2.0917E+03	.064	.288
2.0794E+03	.064	.343
2.0673E+03	.073	.283
2.0553E+03	.068	.280
2.0433E+03	.061	.297
2.0315E+03	.059	.361

E(EV)	S(B)	ERROR
2.0198E+03	.055	.318
2.0081E+03	.051	.335
1.9966E+03	.065	.295
1.9852E+03	.077	.260
1.9738E+03	.080	.255
1.9626E+03	.081	.302
1.9515E+03	.086	.246
1.9404E+03	.180	.304
1.9295E+03	.230	.168
1.9186E+03	.206	.230
1.9078E+03	.178	.268
1.8972E+03	.110	.253
1.8866E+03	.069	.259
1.8761E+03	.071	.328
1.8657E+03	.070	.277
1.8553E+03	.069	.260
1.8451E+03	.060	.302
1.8349E+03	.062	.302
1.8249E+03	.055	.327
1.8149E+03	.052	.403
1.8050E+03	.072	.266
1.7952E+03	.080	.264
1.7854E+03	.084	.254
1.7757E+03	.090	.287
1.7662E+03	.083	.246
1.7566E+03	.107	.223
1.7472E+03	.106	.223
1.7378E+03	.107	.221
1.7286E+03	.108	.220
1.7193E+03	.104	.231
1.7102E+03	.091	.251
1.7012E+03	.072	.283
1.6922E+03	.071	.280
1.6832E+03	.078	.264
1.6744E+03	.063	.297
1.6656E+03	.048	.352
1.6569E+03	.048	.360
1.6482E+03	.065	.308
1.6397E+03	.059	.376
1.6312E+03	.085	.255
1.6227E+03	.085	.251
1.6143E+03	.086	.250
1.6060E+03	.092	.252
1.5978E+03	.086	.251
1.5896E+03	.084	.253
1.5815E+03	.087	.273

E(EV)	S(B)	ERROR
1.5734E+03	.060	.313
1.5654E+03	.058	.317
1.5575E+03	.057	.339
1.5496E+03	.061	.312
1.5418E+03	.058	.323
1.5340E+03	.047	.373
1.5263E+03	.053	.408
1.5187E+03	.055	.336
1.5111E+03	.067	.293
1.5035E+03	.076	.272
1.4961E+03	.076	.271
1.4887E+03	.075	.275
1.4813E+03	.084	.257
1.4740E+03	.097	.235
1.4667E+03	.110	.222
1.4595E+03	.109	.224
1.4524E+03	.093	.241
1.4453E+03	.082	.269
1.4382E+03	.078	.317
1.4312E+03	.065	.300
1.4243E+03	.079	.269
1.4174E+03	.136	.192
1.4106E+03	.166	.181
1.4038E+03	.139	.182
1.3970E+03	.118	.217
1.3903E+03	.099	.243
1.3837E+03	.067	.280
1.3771E+03	.065	.362
1.3705E+03	.067	.299
1.3640E+03	.063	.314
1.3576E+03	.069	.293
1.3511E+03	.068	.350
1.3448E+03	.083	.261
1.3384E+03	.062	.324
1.3322E+03	.053	.401
1.3259E+03	.058	.336
1.3197E+03	.059	.330
1.3136E+03	.072	.287
1.3075E+03	.162	.334
1.3014E+03	.266	.148
1.2954E+03	.217	.156
1.2894E+03	.138	.229
1.2835E+03	.093	.266
1.2776E+03	.080	.293
1.2717E+03	.107	.226
1.2659E+03	.144	.200

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
1.2601E+03	.260	.145	1.0319E+03	.141	.201	8.6043E+02	.275	.193
1.2544E+03	.260	.142	1.0276E+03	.164	.181	8.5719E+02	.208	.188
1.2487E+03	.198	.249	1.0234E+03	.161	.184	8.5397E+02	.148	.205
1.2430E+03	.122	.235	1.0192E+03	.134	.206	8.5077E+02	.128	.221
1.2374E+03	.091	.277	1.0150E+03	.109	.239	8.4758E+02	.113	.246
1.2318E+03	.101	.245	1.0109E+03	.100	.255	8.4442E+02	.078	.315
1.2263E+03	.110	.206	1.0067E+03	.092	.265	8.4126E+02	.066	.346
1.2208E+03	.096	.252	1.0027E+03	.081	.327	8.3813E+02	.079	.296
1.2153E+03	.080	.287	9.9857E+02	.060	.380	8.3502E+02	.086	.288
1.2099E+03	.063	.331	9.9452E+02	.063	.371	8.3192E+02	.087	.327
1.2045E+03	.050	.388	9.9050E+02	.058	.424	8.2884E+02	.068	.343
1.1991E+03	.054	.371	9.8650E+02	.064	.365	8.2578E+02	.058	.384
1.1938E+03	.050	.406	9.8252E+02	.074	.327	8.2273E+02	.058	.390
1.1885E+03	.056	.371	9.7857E+02	.067	.358	8.1970E+02	.057	.403
1.1832E+03	.053	.375	9.7464E+02	.045	.467	8.1669E+02	.054	.418
1.1780E+03	.048	.387	9.7074E+02	.051	.469	8.1369E+02	.053	.414
1.1728E+03	.045	.415	9.6686E+02	.058	.383	8.1071E+02	.050	.347
1.1677E+03	.047	.479	9.6300E+02	.072	.330	8.0775E+02	.058	.329
1.1626E+03	.058	.349	9.5916E+02	.064	.349	8.0480E+02	.094	.415
1.1575E+03	.071	.308	9.5535E+02	.067	.381	8.0187E+02	.228	.270
1.1524E+03	.089	.279	9.5156E+02	.069	.341	7.9895E+02	.282	.273
1.1474E+03	.268	.217	9.4779E+02	.077	.345	7.9605E+02	.256	.338
1.1424E+03	.324	.138	9.4405E+02	.065	.343	7.9317E+02	.198	.323
1.1375E+03	.276	.200	9.4033E+02	.060	.353	7.9030E+02	.134	.223
1.1326E+03	.183	.249	9.3662E+02	.056	.377	7.8745E+02	.095	.217
1.1277E+03	.125	.218	9.3295E+02	.064	.402	7.8461E+02	.071	.259
1.1228E+03	.115	.222	9.2929E+02	.073	.325	7.8179E+02	.067	.264
1.1180E+03	.102	.246	9.2565E+02	.083	.330	7.7898E+02	.063	.272
1.1132E+03	.107	.234	9.2204E+02	.065	.349	7.7619E+02	.062	.280
1.1084E+03	.138	.183	9.1844E+02	.063	.340	7.7342E+02	.060	.294
1.1037E+03	.145	.198	9.1487E+02	.066	.391	7.7065E+02	.063	.281
1.0990E+03	.132	.221	9.1132E+02	.065	.335	7.6791E+02	.075	.314
1.0943E+03	.106	.263	9.0779E+02	.067	.345	7.6517E+02	.069	.279
1.0897E+03	.087	.268	9.0428E+02	.075	.358	7.6246E+02	.087	.307
1.0850E+03	.102	.236	9.0079E+02	.065	.346	7.5975E+02	.071	.315
1.0805E+03	.108	.224	8.9732E+02	.072	.338	7.5706E+02	.064	.293
1.0759E+03	.098	.252	8.9387E+02	.085	.329	7.5439E+02	.072	.282
1.0714E+03	.095	.274	8.9044E+02	.084	.294	7.5173E+02	.077	.278
1.0669E+03	.072	.309	8.8703E+02	.091	.278	7.4908E+02	.071	.351
1.0624E+03	.077	.335	8.8364E+02	.121	.260	7.4645E+02	.075	.302
1.0580E+03	.073	.315	8.8026E+02	.228	.199	7.4383E+02	.065	.296
1.0536E+03	.082	.273	8.7691E+02	.356	.124	7.4123E+02	.065	.288
1.0492E+03	.091	.254	8.7358E+02	.312	.232	7.3863E+02	.071	.301
1.0448E+03	.103	.238	8.7026E+02	.316	.136	7.3606E+02	.058	.293
1.0405E+03	.112	.246	8.6697E+02	.367	.123	7.3349E+02	.070	.318
1.0362E+03	.129	.241	8.6369E+02	.346	.160	7.3094E+02	.072	.285

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
7.2840E+02	.080	.299	6.2457E+02	.055	.333	5.4145E+02	.068	.327
7.2588E+02	.077	.322	6.2257E+02	.043	.438	5.3983E+02	.067	.277
7.2337E+02	.079	.298	6.2057E+02	.030	.476	5.3822E+02	.056	.348
7.2087E+02	.105	.295	6.1859E+02	.031	.461	5.3661E+02	.055	.357
7.1838E+02	.121	.268	6.1661E+02	.027	.573	5.3502E+02	.055	.333
7.1591E+02	.171	.142	6.1464E+02	.028	.527	5.3343E+02	.077	.293
7.1345E+02	.199	.134	6.1269E+02	.027	.539	5.3184E+02	.070	.344
7.1100E+02	.182	.180	6.1074E+02	.030	.475	5.3027E+02	.048	.376
7.0857E+02	.127	.294	6.0880E+02	.027	.528	5.2870E+02	.037	.489
7.0615E+02	.088	.293	6.0687E+02	.031	.482	5.2714E+02	.052	.380
7.0374E+02	.099	.262	6.0495E+02	.039	.363	5.2558E+02	.052	.360
7.0134E+02	.079	.218	6.0304E+02	.031	.498	5.2403E+02	.046	.352
6.9896E+02	.061	.264	6.0113E+02	.026	.496	5.2249E+02	.048	.380
6.9658E+02	.055	.286	5.9924E+02	.022	.684	5.2096E+02	.052	.334
6.9422E+02	.054	.293	5.9736E+02	.037	.478	5.1943E+02	.054	.363
6.9187E+02	.053	.308	5.9548E+02	.034	.538	5.1791E+02	.050	.396
6.8953E+02	.056	.306	5.9361E+02	.054	.380	5.1639E+02	.061	.360
6.8721E+02	.046	.323	5.9176E+02	.042	.437	5.1488E+02	.056	.384
6.8490E+02	.057	.310	5.8991E+02	.036	.471	5.1338E+02	.042	.443
6.8259E+02	.062	.310	5.8807E+02	.046	.438	5.1189E+02	.061	.337
6.8030E+02	.055	.293	5.8623E+02	.060	.297	5.1040E+02	.072	.312
6.7802E+02	.038	.377	5.8441E+02	.069	.292	5.0892E+02	.051	.426
6.7576E+02	.041	.371	5.8260E+02	.114	.229	5.0744E+02	.051	.368
6.7350E+02	.048	.330	5.8079E+02	.119	.169	5.0597E+02	.054	.364
6.7126E+02	.068	.259	5.7899E+02	.130	.164	5.0451E+02	.056	.331
6.6902E+02	.106	.276	5.7720E+02	.128	.168	5.0305E+02	.058	.347
6.6680E+02	.314	.374	5.7542E+02	.115	.163	5.0160E+02	.054	.329
6.6459E+02	.369	.331	5.7365E+02	.079	.237	5.0016E+02	.059	.343
6.6239E+02	.384	.293	5.7188E+02	.069	.364	4.9872E+02	.048	.331
6.6020E+02	.260	.381	5.7012E+02	.060	.333	4.9729E+02	.054	.300
6.5802E+02	.142	.285	5.6837E+02	.042	.372	4.9587E+02	.050	.310
6.5585E+02	.098	.216	5.6663E+02	.042	.353	4.9445E+02	.059	.304
6.5369E+02	.068	.248	5.6490E+02	.055	.311	4.9303E+02	.052	.321
6.5155E+02	.056	.321	5.6317E+02	.054	.385	4.9163E+02	.046	.366
6.4941E+02	.049	.331	5.6146E+02	.062	.301	4.9023E+02	.044	.455
6.4728E+02	.046	.353	5.5975E+02	.047	.320	4.8883E+02	.046	.400
6.4517E+02	.049	.320	5.5805E+02	.047	.316	4.8744E+02	.042	.432
6.4306E+02	.048	.318	5.5635E+02	.059	.314	4.8606E+02	.042	.425
6.4097E+02	.043	.368	5.5467E+02	.070	.260	4.8468E+02	.037	.481
6.3888E+02	.042	.361	5.5299E+02	.070	.239	4.8331E+02	.028	.527
6.3681E+02	.039	.426	5.5132E+02	.075	.294	4.8194E+02	.043	.465
6.3475E+02	.042	.362	5.4965E+02	.088	.297	4.8058E+02	.047	.343
6.3269E+02	.051	.373	5.4800E+02	.090	.282	4.7923E+02	.054	.284
6.3065E+02	.056	.306	5.4635E+02	.084	.309	4.7788E+02	.050	.355
6.2861E+02	.050	.365	5.4471E+02	.088	.299	4.7654E+02	.058	.327
6.2659E+02	.046	.376	5.4308E+02	.082	.344	4.7520E+02	.104	.401

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
4.7387E+02	.201	.237	4.1819E+02	.179	.261	3.7177E+02	.446	.190
4.7254E+02	.237	.219	4.1709E+02	.148	.231	3.7085E+02	.471	.175
4.7122E+02	.209	.216	4.1600E+02	.119	.176	3.6993E+02	.478	.112
4.6991E+02	.175	.194	4.1490E+02	.104	.201	3.6901E+02	.479	.096
4.6860E+02	.163	.137	4.1382E+02	.100	.283	3.6810E+02	.447	.193
4.6730E+02	.151	.138	4.1274E+02	.090	.300	3.6719E+02	.410	.205
4.6600E+02	.137	.152	4.1166E+02	.080	.309	3.6629E+02	.344	.160
4.6470E+02	.115	.218	4.1058E+02	.072	.299	3.6539E+02	.252	.201
4.6342E+02	.093	.254	4.0951E+02	.055	.305	3.6449E+02	.180	.254
4.6213E+02	.070	.222	4.0845E+02	.043	.329	3.6359E+02	.123	.229
4.6086E+02	.067	.271	4.0739E+02	.047	.319	3.6270E+02	.104	.240
4.5959E+02	.061	.277	4.0633E+02	.051	.316	3.6182E+02	.111	.302
4.5832E+02	.054	.313	4.0528E+02	.046	.323	3.6093E+02	.105	.233
4.5706E+02	.060	.322	4.0423E+02	.044	.339	3.6005E+02	.106	.190
4.5580E+02	.056	.371	4.0318E+02	.042	.355	3.5917E+02	.108	.219
4.5455E+02	.048	.398	4.0214E+02	.039	.378	3.5829E+02	.085	.214
4.5331E+02	.044	.385	4.0110E+02	.045	.329	3.5742E+02	.068	.246
4.5206E+02	.045	.374	4.0007E+02	.043	.341	3.5655E+02	.055	.311
4.5083E+02	.056	.337	3.9904E+02	.046	.357	3.5569E+02	.038	.341
4.4960E+02	.049	.346	3.9802E+02	.048	.375	3.5482E+02	.036	.347
4.4837E+02	.049	.371	3.9700E+02	.035	.406	3.5396E+02	.037	.300
4.4715E+02	.056	.309	3.9598E+02	.039	.454	3.5311E+02	.035	.315
4.4594E+02	.056	.364	3.9497E+02	.033	.433	3.5225E+02	.033	.327
4.4473E+02	.045	.378	3.9396E+02	.036	.436	3.5140E+02	.043	.288
4.4352E+02	.039	.456	3.9295E+02	.039	.413	3.5056E+02	.047	.309
4.4232E+02	.027	.543	3.9195E+02	.034	.534	3.4971E+02	.046	.279
4.4112E+02	.037	.495	3.9095E+02	.028	.526	3.4887E+02	.039	.315
4.3993E+02	.034	.544	3.8996E+02	.031	.548	3.4803E+02	.040	.294
4.3875E+02	.038	.510	3.8897E+02	.032	.451	3.4720E+02	.046	.272
4.3757E+02	.035	.537	3.8798E+02	.033	.420	3.4637E+02	.045	.286
4.3639E+02	.046	.441	3.8700E+02	.033	.461	3.4554E+02	.042	.323
4.3522E+02	.043	.404	3.8602E+02	.031	.431	3.4471E+02	.038	.306
4.3405E+02	.041	.449	3.8504E+02	.033	.383	3.4389E+02	.034	.314
4.3289E+02	.032	.535	3.8407E+02	.034	.386	3.4307E+02	.029	.367
4.3173E+02	.040	.501	3.8310E+02	.041	.294	3.4225E+02	.030	.346
4.3058E+02	.042	.467	3.8214E+02	.047	.263	3.4144E+02	.041	.341
4.2943E+02	.040	.474	3.8118E+02	.047	.287	3.4062E+02	.035	.320
4.2828E+02	.030	.625	3.8022E+02	.049	.261	3.3982E+02	.037	.347
4.2714E+02	.078	.510	3.7927E+02	.054	.231	3.3901E+02	.038	.339
4.2601E+02	.269	.269	3.7832E+02	.070	.200	3.3821E+02	.060	.261
4.2488E+02	.365	.205	3.7737E+02	.072	.226	3.3741E+02	.075	.286
4.2375E+02	.358	.241	3.7643E+02	.064	.209	3.3661E+02	.071	.276
4.2263E+02	.352	.222	3.7549E+02	.062	.234	3.3582E+02	.082	.296
4.2151E+02	.327	.240	3.7456E+02	.059	.286	3.3502E+02	.118	.278
4.2040E+02	.248	.239	3.7362E+02	.059	.244	3.3424E+02	.202	.136
4.1929E+02	.195	.244	3.7269E+02	.085	.832	3.3345E+02	.247	.242

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
3.3267E+02	.276	.221	2.9942E+02	.049	.200	2.7091E+02	.065	.287
3.3189E+02	.268	.157	2.9875E+02	.054	.203	2.7034E+02	.067	.242
3.3111E+02	.229	.232	2.9809E+02	.070	.189	2.6977E+02	.077	.233
3.3033E+02	.177	.280	2.9742E+02	.069	.190	2.6920E+02	.097	.190
3.2956E+02	.152	.241	2.9676E+02	.070	.202	2.6863E+02	.110	.169
3.2879E+02	.131	.132	2.9611E+02	.068	.169	2.6806E+02	.111	.121
3.2802E+02	.120	.167	2.9545E+02	.068	.167	2.6750E+02	.090	.207
3.2726E+02	.101	.221	2.9480E+02	.071	.165	2.6693E+02	.069	.188
3.2650E+02	.101	.233	2.9415E+02	.067	.184	2.6637E+02	.052	.294
3.2574E+02	.088	.261	2.9350E+02	.059	.183	2.6581E+02	.045	.265
3.2498E+02	.071	.299	2.9285E+02	.055	.186	2.6525E+02	.036	.274
3.2423E+02	.062	.271	2.9221E+02	.046	.233	2.6470E+02	.034	.317
3.2348E+02	.044	.277	2.9156E+02	.038	.243	2.6415E+02	.029	.323
3.2273E+02	.033	.334	2.9092E+02	.041	.239	2.6359E+02	.030	.283
3.2198E+02	.038	.270	2.9028E+02	.047	.255	2.6304E+02	.035	.251
3.2124E+02	.049	.226	2.8965E+02	.046	.230	2.6249E+02	.050	.229
3.2050E+02	.053	.219	2.8901E+02	.054	.255	2.6194E+02	.056	.215
3.1976E+02	.062	.203	2.8838E+02	.052	.250	2.6140E+02	.054	.171
3.1903E+02	.051	.223	2.8775E+02	.050	.290	2.6086E+02	.048	.182
3.1829E+02	.046	.268	2.8712E+02	.046	.268	2.6031E+02	.043	.211
3.1756E+02	.043	.261	2.8650E+02	.039	.301	2.5977E+02	.036	.258
3.1683E+02	.039	.282	2.8587E+02	.037	.291	2.5923E+02	.044	.248
3.1611E+02	.037	.337	2.8525E+02	.029	.309	2.5870E+02	.047	.193
3.1539E+02	.034	.311	2.8463E+02	.025	.335	2.5816E+02	.067	.160
3.1467E+02	.035	.350	2.8401E+02	.028	.299	2.5763E+02	.087	.127
3.1395E+02	.034	.304	2.8340E+02	.033	.283	2.5709E+02	.090	.113
3.1323E+02	.036	.327	2.8278E+02	.035	.283	2.5657E+02	.095	.124
3.1252E+02	.035	.295	2.8217E+02	.077	.608	2.5604E+02	.110	.121
3.1181E+02	.047	.265	2.8156E+02	.266	.321	2.5551E+02	.143	.102
3.1110E+02	.057	.231	2.8095E+02	.423	.280	2.5498E+02	.161	.102
3.1039E+02	.064	.207	2.8035E+02	.594	.103	2.5446E+02	.154	.155
3.0969E+02	.063	.189	2.7974E+02	.563	.201	2.5394E+02	.137	.243
3.0899E+02	.067	.219	2.7914E+02	.477	.309	2.5342E+02	.137	.281
3.0829E+02	.060	.215	2.7854E+02	.282	.219	2.5290E+02	.154	.248
3.0759E+02	.052	.215	2.7794E+02	.209	.239	2.5238E+02	.238	.110
3.0690E+02	.048	.303	2.7735E+02	.163	.237	2.5186E+02	.352	.073
3.0621E+02	.038	.286	2.7675E+02	.121	.261	2.5135E+02	.606	.147
3.0552E+02	.043	.226	2.7616E+02	.092	.203	2.5084E+02	.694	.059
3.0483E+02	.053	.196	2.7557E+02	.081	.141	2.5032E+02	.625	.072
3.0415E+02	.056	.182	2.7498E+02	.086	.140	2.4981E+02	.591	.109
3.0347E+02	.057	.203	2.7439E+02	.096	.182	2.4931E+02	.489	.213
3.0278E+02	.048	.207	2.7381E+02	.086	.266	2.4880E+02	.213	.283
3.0211E+02	.040	.247	2.7323E+02	.077	.252	2.4829E+02	.146	.198
3.0143E+02	.030	.310	2.7265E+02	.072	.297	2.4779E+02	.126	.156
3.0076E+02	.028	.317	2.7207E+02	.067	.282	2.4729E+02	.096	.256
3.0009E+02	.038	.276	2.7149E+02	.062	.263	2.4679E+02	.083	.256

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
2.4629E+02	.071	.252	2.2487E+02	.163	.173	2.0613E+02	.141	.150
2.4579E+02	.061	.233	2.2444E+02	.143	.205	2.0575E+02	.186	.084
2.4530E+02	.067	.262	2.2401E+02	.116	.212	2.0537E+02	.229	.073
2.4480E+02	.072	.267	2.2357E+02	.083	.244	2.0499E+02	.215	.085
2.4431E+02	.065	.263	2.2314E+02	.086	.184	2.0461E+02	.181	.139
2.4382E+02	.048	.242	2.2272E+02	.081	.233	2.0424E+02	.133	.172
2.4333E+02	.035	.215	2.2229E+02	.071	.232	2.0386E+02	.097	.295
2.4284E+02	.035	.209	2.2186E+02	.066	.246	2.0349E+02	.086	.159
2.4235E+02	.033	.233	2.2144E+02	.069	.214	2.0311E+02	.084	.123
2.4186E+02	.030	.249	2.2101E+02	.084	.168	2.0274E+02	.089	.126
2.4138E+02	.026	.260	2.2059E+02	.100	.172	2.0237E+02	.121	.239
2.4090E+02	.024	.292	2.2017E+02	.081	.181	2.0200E+02	.146	.230
2.4042E+02	.024	.309	2.1975E+02	.055	.248	2.0163E+02	.141	.244
2.3994E+02	.025	.285	2.1933E+02	.040	.172	2.0126E+02	.130	.239
2.3946E+02	.027	.262	2.1891E+02	.040	.181	2.0089E+02	.143	.201
2.3898E+02	.037	.208	2.1849E+02	.042	.170	2.0052E+02	.185	.744
2.3851E+02	.057	.178	2.1807E+02	.044	.198	2.0016E+02	1.355	.239
2.3803E+02	.084	.148	2.1766E+02	.051	.192	1.9979E+02	2.368	.078
2.3756E+02	.115	.179	2.1725E+02	.068	.146	1.9943E+02	2.853	.116
2.3709E+02	.150	.182	2.1684E+02	.105	.100	1.9907E+02	2.856	.142
2.3662E+02	.158	.168	2.1642E+02	.157	.183	1.9871E+02	1.448	.168
2.3615E+02	.149	.153	2.1601E+02	.266	.123	1.9835E+02	1.164	.224
2.3568E+02	.125	.140	2.1560E+02	.275	.067	1.9799E+02	.526	.228
2.3522E+02	.109	.178	2.1520E+02	.244	.127	1.9763E+02	.273	.452
2.3475E+02	.148	.281	2.1479E+02	.174	.236	1.9727E+02	.234	.265
2.3429E+02	.275	.255	2.1439E+02	.112	.176	1.9691E+02	.234	.182
2.3383E+02	.303	.191	2.1398E+02	.084	.224	1.9656E+02	.224	.139
2.3337E+02	.326	.180	2.1358E+02	.061	.239	1.9620E+02	.221	.145
2.3291E+02	.392	.174	2.1318E+02	.048	.233	1.9585E+02	.243	.196
2.3245E+02	.446	.162	2.1278E+02	.043	.276	1.9549E+02	.424	.152
2.3199E+02	.424	.127	2.1238E+02	.044	.271	1.9514E+02	.438	.129
2.3154E+02	.376	.108	2.1198E+02	.041	.295	1.9479E+02	.482	.079
2.3109E+02	.345	.091	2.1158E+02	.041	.248	1.9444E+02	.527	.088
2.3063E+02	.271	.163	2.1118E+02	.032	.255	1.9409E+02	.534	.093
2.3018E+02	.229	.134	2.1079E+02	.028	.277	1.9374E+02	.517	.106
2.2973E+02	.207	.135	2.1040E+02	.032	.266	1.9340E+02	.482	.128
2.2928E+02	.201	.165	2.1000E+02	.042	.209	1.9305E+02	.432	.145
2.2884E+02	.227	.170	2.0961E+02	.052	.186	1.9270E+02	.346	.216
2.2839E+02	.264	.207	2.0922E+02	.063	.173	1.9236E+02	.303	.218
2.2795E+02	.265	.201	2.0883E+02	.063	.200	1.9202E+02	.200	.269
2.2751E+02	.216	.168	2.0844E+02	.055	.186	1.9167E+02	.123	.401
2.2706E+02	.151	.174	2.0805E+02	.043	.213	1.9133E+02	.080	.341
2.2662E+02	.125	.127	2.0767E+02	.036	.229	1.9099E+02	.064	.234
2.2618E+02	.119	.161	2.0728E+02	.037	.181	1.9065E+02	.058	.211
2.2575E+02	.137	.168	2.0690E+02	.051	.153	1.9031E+02	.063	.179
2.2531E+02	.164	.152	2.0651E+02	.074	.190	1.8997E+02	.070	.130

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
1.8964E+02	.098	.172	1.7504E+02	.102	.147	1.6207E+02	.060	.116
1.8930E+02	.099	.147	1.7475E+02	.099	.121	1.6181E+02	.069	.108
1.8897E+02	.099	.214	1.7445E+02	.101	.121	1.6154E+02	.065	.128
1.8863E+02	.099	.197	1.7415E+02	.101	.132	1.6128E+02	.057	.138
1.8830E+02	.106	.208	1.7385E+02	.092	.138	1.6101E+02	.046	.228
1.8796E+02	.126	.183	1.7356E+02	.078	.211	1.6075E+02	.039	.207
1.8763E+02	.146	.114	1.7327E+02	.063	.189	1.6049E+02	.035	.175
1.8730E+02	.194	.190	1.7297E+02	.041	.272	1.6022E+02	.042	.135
1.8697E+02	.307	.203	1.7268E+02	.039	.211	1.5996E+02	.061	.115
1.8664E+02	.309	.203	1.7239E+02	.039	.152	1.5970E+02	.073	.101
1.8631E+02	.250	.256	1.7210E+02	.043	.140	1.5944E+02	.074	.137
1.8599E+02	.158	.243	1.7180E+02	.044	.163	1.5918E+02	.066	.223
1.8566E+02	.132	.239	1.7151E+02	.040	.172	1.5892E+02	.048	.257
1.8533E+02	.088	.277	1.7122E+02	.039	.252	1.5867E+02	.034	.266
1.8501E+02	.069	.296	1.7094E+02	.036	.251	1.5841E+02	.030	.298
1.8468E+02	.053	.332	1.7065E+02	.040	.200	1.5815E+02	.031	.319
1.8436E+02	.051	.307	1.7036E+02	.057	.154	1.5790E+02	.042	.136
1.8404E+02	.051	.281	1.7007E+02	.074	.168	1.5764E+02	.061	.114
1.8372E+02	.055	.149	1.6979E+02	.074	.164	1.5738E+02	.072	.102
1.8340E+02	.081	.149	1.6950E+02	.068	.158	1.5713E+02	.075	.114
1.8308E+02	.098	.154	1.6922E+02	.057	.135	1.5688E+02	.069	.178
1.8276E+02	.103	.140	1.6894E+02	.053	.139	1.5662E+02	.057	.213
1.8244E+02	.093	.151	1.6865E+02	.056	.126	1.5637E+02	.046	.216
1.8212E+02	.080	.103	1.6837E+02	.060	.112	1.5612E+02	.036	.171
1.8181E+02	.072	.112	1.6809E+02	.068	.118	1.5587E+02	.038	.151
1.8149E+02	.064	.136	1.6781E+02	.070	.143	1.5562E+02	.043	.140
1.8118E+02	.059	.158	1.6753E+02	.062	.190	1.5537E+02	.046	.175
1.8086E+02	.058	.201	1.6725E+02	.055	.224	1.5512E+02	.044	.184
1.8055E+02	.063	.236	1.6697E+02	.045	.252	1.5487E+02	.043	.191
1.8023E+02	.064	.224	1.6669E+02	.035	.273	1.5462E+02	.038	.165
1.7992E+02	.068	.167	1.6641E+02	.037	.153	1.5437E+02	.039	.208
1.7961E+02	.080	.148	1.6614E+02	.053	.125	1.5412E+02	.035	.247
1.7930E+02	.090	.140	1.6586E+02	.066	.111	1.5388E+02	.036	.215
1.7899E+02	.106	.169	1.6559E+02	.064	.110	1.5363E+02	.038	.157
1.7868E+02	.104	.201	1.6531E+02	.056	.224	1.5339E+02	.043	.139
1.7838E+02	.095	.229	1.6504E+02	.049	.296	1.5314E+02	.045	.138
1.7807E+02	.070	.314	1.6477E+02	.041	.320	1.5290E+02	.041	.196
1.7776E+02	.049	.282	1.6449E+02	.032	.298	1.5265E+02	.038	.243
1.7746E+02	.028	.320	1.6422E+02	.025	.251	1.5241E+02	.029	.237
1.7715E+02	.023	.328	1.6395E+02	.025	.198	1.5217E+02	.024	.252
1.7685E+02	.024	.207	1.6368E+02	.034	.163	1.5193E+02	.025	.204
1.7655E+02	.036	.183	1.6341E+02	.038	.149	1.5169E+02	.033	.152
1.7624E+02	.065	.137	1.6314E+02	.040	.150	1.5144E+02	.044	.136
1.7594E+02	.091	.119	1.6287E+02	.042	.229	1.5120E+02	.048	.135
1.7564E+02	.104	.111	1.6260E+02	.048	.201	1.5097E+02	.047	.178
1.7534E+02	.104	.109	1.6234E+02	.049	.126	1.5073E+02	.043	.227

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
1.5049E+02	.039	.221	1.4010E+02	.036	.218	1.3075E+02	.044	.192
1.5025E+02	.037	.142	1.3989E+02	.030	.224	1.3056E+02	.040	.222
1.5001E+02	.051	.125	1.3967E+02	.027	.213	1.3037E+02	.032	.190
1.4977E+02	.086	.093	1.3946E+02	.027	.196	1.3018E+02	.025	.206
1.4954E+02	.105	.092	1.3925E+02	.028	.192	1.2998E+02	.020	.287
1.4930E+02	.110	.087	1.3904E+02	.032	.160	1.2979E+02	.022	.307
1.4907E+02	.104	.113	1.3883E+02	.043	.138	1.2960E+02	.022	.242
1.4883E+02	.094	.152	1.3861E+02	.061	.125	1.2941E+02	.020	.223
1.4860E+02	.081	.229	1.3840E+02	.079	.101	1.2922E+02	.028	.168
1.4837E+02	.068	.289	1.3819E+02	.092	.101	1.2903E+02	.032	.160
1.4813E+02	.045	.324	1.3798E+02	.097	.097	1.2884E+02	.033	.163
1.4790E+02	.036	.213	1.3778E+02	.091	.098	1.2865E+02	.032	.209
1.4767E+02	.036	.246	1.3757E+02	.091	.144	1.2847E+02	.029	.226
1.4744E+02	.034	.255	1.3736E+02	.088	.159	1.2828E+02	.025	.276
1.4721E+02	.032	.257	1.3715E+02	.087	.118	1.2809E+02	.020	.321
1.4698E+02	.033	.232	1.3694E+02	.097	.089	1.2791E+02	.015	.286
1.4675E+02	.042	.186	1.3674E+02	.102	.097	1.2772E+02	.013	.376
1.4652E+02	.051	.170	1.3653E+02	.097	.168	1.2753E+02	.013	.317
1.4629E+02	.055	.183	1.3633E+02	.087	.229	1.2735E+02	.015	.279
1.4606E+02	.055	.180	1.3612E+02	.068	.289	1.2716E+02	.019	.222
1.4583E+02	.052	.199	1.3592E+02	.053	.296	1.2698E+02	.026	.196
1.4561E+02	.050	.233	1.3571E+02	.034	.318	1.2679E+02	.027	.194
1.4538E+02	.044	.249	1.3551E+02	.027	.328	1.2661E+02	.027	.176
1.4515E+02	.038	.224	1.3531E+02	.018	.312	1.2643E+02	.025	.185
1.4493E+02	.032	.252	1.3510E+02	.012	.353	1.2624E+02	.026	.191
1.4470E+02	.027	.264	1.3490E+02	.010	.412	1.2606E+02	.031	.168
1.4448E+02	.028	.259	1.3470E+02	.012	.424	1.2588E+02	.047	.130
1.4426E+02	.037	.194	1.3450E+02	.012	.392	1.2569E+02	.063	.106
1.4403E+02	.058	.142	1.3430E+02	.013	.395	1.2551E+02	.082	.121
1.4381E+02	.089	.093	1.3410E+02	.013	.326	1.2533E+02	.096	.155
1.4359E+02	.100	.113	1.3390E+02	.015	.271	1.2515E+02	.110	.096
1.4337E+02	.094	.153	1.3369E+02	.025	.189	1.2497E+02	.107	.091
1.4315E+02	.079	.227	1.3350E+02	.036	.150	1.2479E+02	.110	.107
1.4292E+02	.064	.291	1.3330E+02	.063	.163	1.2461E+02	.114	.103
1.4270E+02	.039	.360	1.3310E+02	.110	.080	1.2443E+02	.112	.085
1.4248E+02	.028	.317	1.3290E+02	.125	.081	1.2425E+02	.097	.131
1.4227E+02	.021	.349	1.3270E+02	.125	.083	1.2407E+02	.073	.142
1.4205E+02	.017	.302	1.3251E+02	.116	.178	1.2389E+02	.052	.221
1.4183E+02	.018	.262	1.3231E+02	.098	.223	1.2372E+02	.043	.225
1.4161E+02	.019	.235	1.3211E+02	.067	.286	1.2354E+02	.041	.139
1.4139E+02	.021	.258	1.3192E+02	.047	.305	1.2336E+02	.053	.168
1.4118E+02	.023	.196	1.3172E+02	.038	.170	1.2319E+02	.052	.122
1.4096E+02	.031	.157	1.3153E+02	.039	.147	1.2301E+02	.048	.156
1.4074E+02	.037	.147	1.3133E+02	.044	.138	1.2283E+02	.043	.190
1.4053E+02	.039	.158	1.3114E+02	.047	.139	1.2266E+02	.037	.225
1.4031E+02	.038	.189	1.3095E+02	.048	.170	1.2248E+02	.023	.194

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
1.2231E+02	.018	.249	1.1466E+02	.072	.260	1.0770E+02	.027	.320
1.2213E+02	.014	.306	1.1450E+02	.064	.160	1.0755E+02	.029	.334
1.2196E+02	.016	.249	1.1434E+02	.074	.099	1.0741E+02	.018	.362
1.2179E+02	.026	.213	1.1418E+02	.080	.099	1.0727E+02	.016	.352
1.2161E+02	.038	.166	1.1402E+02	.071	.101	1.0712E+02	.017	.344
1.2144E+02	.040	.138	1.1387E+02	.064	.115	1.0698E+02	.014	.361
1.2127E+02	.037	.150	1.1371E+02	.058	.143	1.0684E+02	.015	.315
1.2109E+02	.031	.168	1.1355E+02	.065	.103	1.0670E+02	.024	.216
1.2092E+02	.024	.209	1.1340E+02	.101	.086	1.0655E+02	.027	.200
1.2075E+02	.015	.274	1.1324E+02	.133	.078	1.0641E+02	.029	.242
1.2058E+02	.014	.334	1.1309E+02	.149	.078	1.0627E+02	.026	.269
1.2041E+02	.012	.337	1.1293E+02	.146	.079	1.0613E+02	.025	.269
1.2024E+02	.019	.275	1.1278E+02	.128	.133	1.0599E+02	.020	.264
1.2007E+02	.032	.200	1.1262E+02	.113	.170	1.0585E+02	.020	.267
1.1990E+02	.052	.195	1.1247E+02	.092	.189	1.0571E+02	.034	.221
1.1973E+02	.126	.284	1.1232E+02	.063	.254	1.0557E+02	.076	.142
1.1956E+02	.239	.114	1.1216E+02	.043	.168	1.0543E+02	.196	.258
1.1939E+02	.331	.272	1.1201E+02	.033	.155	1.0529E+02	.228	.071
1.1922E+02	1.813	.376	1.1186E+02	.040	.149	1.0515E+02	.212	.141
1.1906E+02	2.159	.154	1.1170E+02	.049	.131	1.0501E+02	.189	.146
1.1889E+02	3.428	.076	1.1155E+02	.069	.101	1.0487E+02	.160	.163
1.1872E+02	3.548	.071	1.1140E+02	.093	.090	1.0473E+02	.132	.170
1.1856E+02	3.432	.094	1.1125E+02	.110	.089	1.0459E+02	.107	.225
1.1839E+02	3.145	.153	1.1109E+02	.110	.085	1.0445E+02	.088	.277
1.1822E+02	2.004	.258	1.1094E+02	.101	.155	1.0432E+02	.055	.274
1.1806E+02	.840	.169	1.1079E+02	.093	.131	1.0418E+02	.042	.242
1.1789E+02	.243	.639	1.1064E+02	.099	.092	1.0404E+02	.036	.270
1.1773E+02	.173	.206	1.1049E+02	.113	.089	1.0391E+02	.034	.175
1.1756E+02	.145	.271	1.1034E+02	.120	.085	1.0377E+02	.047	.197
1.1740E+02	.147	.245	1.1019E+02	.119	.082	1.0363E+02	.059	.180
1.1723E+02	.191	.128	1.1005E+02	.112	.090	1.0350E+02	.073	.151
1.1707E+02	.216	.123	1.0990E+02	.102	.093	1.0336E+02	.080	.148
1.1691E+02	.220	.127	1.0975E+02	.092	.134	1.0322E+02	.078	.198
1.1674E+02	.195	.210	1.0960E+02	.078	.206	1.0309E+02	.070	.265
1.1658E+02	.116	.376	1.0945E+02	.065	.211	1.0295E+02	.057	.254
1.1642E+02	.078	.280	1.0930E+02	.047	.284	1.0282E+02	.033	.286
1.1626E+02	.059	.170	1.0916E+02	.035	.279	1.0268E+02	.026	.331
1.1609E+02	.054	.254	1.0901E+02	.040	.145	1.0255E+02	.017	.361
1.1593E+02	.051	.253	1.0886E+02	.063	.113	1.0242E+02	.016	.390
1.1577E+02	.053	.245	1.0872E+02	.083	.102	1.0228E+02	.015	.387
1.1561E+02	.061	.142	1.0857E+02	.099	.092	1.0215E+02	.015	.340
1.1545E+02	.095	.113	1.0842E+02	.097	.094	1.0202E+02	.023	.219
1.1529E+02	.118	.116	1.0828E+02	.084	.153	1.0188E+02	.045	.143
1.1513E+02	.119	.096	1.0813E+02	.071	.188	1.0175E+02	.066	.121
1.1497E+02	.106	.146	1.0799E+02	.051	.272	1.0162E+02	.085	.105
1.1481E+02	.090	.210	1.0784E+02	.039	.240	1.0149E+02	.104	.098

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
1.C136E+02	.110	.095	9.5555E+01	.015	.420	9.0238E+01	.209	.219
1.C122E+02	.110	.095	9.5434E+01	.017	.352	9.0127E+01	.145	.316
1.C109E+02	.116	.089	9.5314E+01	.018	.327	9.0017E+01	.087	.320
1.CC96E+02	.134	.094	9.5194E+01	.023	.267	8.9907E+01	.054	.295
1.CC83E+02	.184	.093	9.5074E+01	.025	.257	8.9797E+01	.036	.298
1.C070E+02	.225	.080	9.4954E+01	.027	.253	8.9687E+01	.031	.300
1.C057E+02	.223	.116	9.4835E+01	.023	.289	8.9577E+01	.037	.267
1.CC44E+02	.212	.186	9.4716E+01	.C24	.247	8.9468E+01	.059	.160
1.CC31E+02	.177	.224	9.4597E+01	.022	.263	8.9359E+01	.092	.122
1.C018E+02	.136	.150	9.4478E+01	.018	.334	8.9250E+01	.161	.103
1.CCC5E+02	.154	.096	9.4360E+01	.016	.368	8.9141E+01	.236	.C79
9.9921E+01	.206	.088	9.4241E+01	.021	.300	8.9032E+01	.259	.C94
9.9792E+01	.221	.074	9.4123E+01	.021	.285	8.8924E+01	.250	.127
9.9663E+01	.201	.131	9.4006E+01	.023	.271	8.8816E+01	.218	.176
9.9535E+01	.186	.173	9.3888E+01	.028	.270	8.8708E+01	.192	.189
9.9407E+01	.151	.192	9.3771E+01	.027	.254	8.8600E+01	.146	.148
9.9279E+01	.119	.143	9.3653E+01	.026	.276	8.8492E+01	.126	.148
9.9151E+01	.112	.101	9.3537E+01	.027	.311	8.8385E+01	.104	.165
9.9024E+01	.103	.121	9.3420E+01	.026	.262	8.8278E+01	.085	.208
9.8897E+01	.C89	.163	9.3303E+01	.042	.180	8.8171E+01	.069	.162
9.8770E+01	.C68	.221	9.3187E+01	.066	.143	8.8064E+01	.059	.210
9.8643E+01	.C56	.170	9.3071E+01	.090	.121	8.7957E+01	.065	.149
9.8517E+01	.C46	.167	9.2955E+01	.103	.110	8.7851E+01	.080	.132
9.8391E+01	.062	.149	9.2839E+01	.096	.128	8.7744E+01	.098	.116
9.8265E+01	.C85	.138	9.2724E+01	.084	.170	8.7638E+01	.115	.106
9.8139E+01	.C99	.127	9.2609E+01	.064	.229	8.7532E+01	.136	.103
9.8014E+01	.C98	.103	9.2494E+01	.044	.303	8.7427E+01	.163	.C92
9.7889E+01	.094	.116	9.2379E+01	.038	.317	8.7321E+01	.191	.C88
9.7764E+01	.C86	.111	9.2264E+01	.C26	.315	8.7216E+01	.195	.C94
9.7639E+01	.102	.097	9.2150E+01	.022	.348	8.7111E+01	.180	.157
9.7514E+01	.143	.140	9.2036E+01	.022	.341	8.7006E+01	.157	.222
9.7390E+01	.162	.110	9.1922E+01	.025	.271	8.6901E+01	.119	.291
9.7266E+01	.160	.112	9.1808E+01	.031	.225	8.6796E+01	.072	.303
9.7142E+01	.139	.199	9.1695E+01	.036	.201	8.6692E+01	.050	.282
9.7019E+01	.117	.179	9.1581E+01	.039	.203	8.6588E+01	.049	.175
9.6896E+01	.C74	.255	9.1468E+01	.041	.227	8.6484E+01	.088	.132
9.6773E+01	.C49	.237	9.1355E+01	.042	.292	8.6380E+01	.172	.116
9.6650E+01	.039	.243	9.1243E+01	.035	.328	8.6276E+01	.273	.C74
9.6527E+01	.C35	.265	9.1130E+01	.027	.271	8.6173E+01	.322	.C73
9.6405E+01	.C32	.280	9.1018E+01	.032	.248	8.6070E+01	.332	.C77
9.6283E+01	.C35	.213	9.0906E+01	.047	.164	8.5967E+01	.303	.130
9.6161E+01	.035	.203	9.0794E+01	.097	.119	8.5864E+01	.266	.181
9.6039E+01	.032	.215	9.0682E+01	.166	.093	8.5761E+01	.199	.186
9.5918E+01	.C28	.224	9.0571E+01	.230	.081	8.5659E+01	.141	.257
9.5796E+01	.021	.286	9.0460E+01	.256	.082	8.5556E+01	.115	.249
9.5675E+01	.C19	.323	9.0349E+01	.242	.105	8.5454E+01	.087	.223

E(EV)	S(B)	ERROR	E(E	S(B)	ERROR	E(EV)	S(B)	ERROR
8.5352E+01	.059	.205	8.0852E+01	.025	.517	7.6699E+01	.045	.349
8.5251E+01	.040	.230	8.0758E+01	.028	.390	7.6612E+01	.038	.351
8.5149E+01	.045	.194	8.0665E+01	.032	.346	7.6525E+01	.031	[illegible]8
8.5048E+01	.062	.173	8.0571E+01	.042	.334	7.6439E+01	.03[illegible]	.38
8.4946E+01	.077	.156	8.0478E+01	.047	.258	7.6353E+01	.023	.485
8.4845E+01	.091	.129	8.0385E+01	.052	.225	7.6266E+01	.021	.578
8.4744E+01	.088	.135	8.0292E+01	.051	.227	7.6180E+01	.012	.854
8.4644E+01	.082	.247	8.0199E+01	.043	.234	7.6095E+01	.009	1.334
8.4543E+01	.072	.245	8.0106E+01	.039	.276	7.6009E+01	.018	1.055
8.4443E+01	.051	.284	8.0014E+01	.040	.286	7.5923E+01	.013	.969
8.4343E+01	.032	.347	7.9921E+01	.033	.377	7.5838E+01	.014	1.012
8.4243E+01	.024	.434	7.9829E+01	.024	.432	7.5753E+01	.015	1.226
8.4143E+01	.023	.456	7.9737E+01	.015	.617	7.5668E+01	.007	1.746
8.4043E+01	.022	.452	7.9645E+01	.013	.671	7.5582E+01	.013	1.225
8.3944E+01	.018	.446	7.9553E+01	.013	.670	7.5498E+01	.017	1.464
8.3845E+01	.028	.286	7.9462E+01	.021	.536	7.5413E+01	.017	1.455
8.3745E+01	.057	.173	7.9370E+01	.036	.311	7.5328E+01	.001	9.073
8.3647E+01	.112	.116	7.9279E+01	.068	.269	7.5244E+01	.008	2.156
8.3548E+01	.208	.099	7.9188E+01	.102	.150	7.5160E+01	.011	1.614
8.3449E+01	.302	.078	7.9097E+01	.134	.148	7.5076E+01	.007	1.515
8.3351E+01	.372	.073	7.9006E+01	.149	.122	7.4992E+01	.012	.834
8.3253E+01	.404	.072	7.8915E+01	.145	.120	7.4908E+01	.023	.558
8.3155E+01	.392	.092	7.8825E+01	.130	.122	7.4824E+01	.025	.494
8.3057E+01	.365	.113	7.8735E+01	.107	.199	7.4740E+01	.020	.637
8.2959E+01	.317	.160	7.8644E+01	.073	.199	7.4657E+01	.023	.520
8.2861E+01	.269	.227	7.8554E+01	.051	.270	7.4574E+01	.047	.377
8.2764E+01	.193	.357	7.8464E+01	.049	.253	7.4491E+01	.058	.274
8.2667E+01	.118	.329	7.8375E+01	.069	.191	7.4408E+01	.061	.243
8.2570E+01	.066	.242	7.8285E+01	.099	.155	7.4325E+01	.065	.240
8.2473E+01	.040	.303	7.8196E+01	.138	.130	7.4242E+01	.077	.207
8.2376E+01	.023	.386	7.8106E+01	.149	.125	7.4159E+01	.099	.184
8.2280E+01	.022	.447	7.8017E+01	.152	.120	7.4077E+01	.119	.163
8.2184E+01	.025	.429	7.7928E+01	.141	.123	7.3995E+01	.114	.167
8.2087E+01	.028	.321	7.7840E+01	.122	.206	7.3912E+01	.096	.176
8.1991E+01	.040	.254	7.7751E+01	.090	.183	7.3830E+01	.077	.226
8.1896E+01	.058	.173	7.7662E+01	.055	.246	7.3749E+01	.064	.243
8.1800E+01	.066	.196	7.7574E+01	.035	.347	7.3667E+01	.042	.335
8.1704E+01	.068	.178	7.7486E+01	.028	.405	7.3585E+01	.034	.397
8.1609E+01	.063	.239	7.7398E+01	.028	.449	7.3504E+01	.026	.485
8.1514E+01	.054	.236	7.7310E+01	.030	.490	7.3422E+01	.022	.575
8.1419E+01	.056	.207	7.7222E+01	.022	.628	7.3341E+01	.015	.799
8.1324E+01	.054	.231	7.7134E+01	.019	.669	7.3260E+01	.013	.917
8.1229E+01	.052	.222	7.7047E+01	.015	.705	7.3179E+01	.015	.944
8.1135E+01	.039	.272	7.6960E+01	.027	.500	7.3098E+01	.015	1.366
8.1041E+01	.027	.347	7.6872E+01	.023	.506	7.3017E+01	.015	1.087
8.0946E+01	-.023	.463	7.6785E+01	.032	.364	7.2937E+01	.014	1.275

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
7.2856E+01	.008	1.800	6.9295E+01	.016	1.434	6.5989E+01	.067	.706
7.2776E+01	.012	1.419	6.9221E+01	.062	.679	6.5919E+01	.091	.502
7.2696E+01	.008	2.323	6.9146E+01	.060	.669	6.5850E+01	.093	.331
7.2616E+01	.025	1.267	6.9072E+01	.008	2.670	6.5781E+01	.156	.213
7.2536E+01	-.010	1.652	6.8998E+01	.065	.688	6.5712E+01	.267	.227
7.2456E+01	.017	1.380	6.8924E+01	.008	3.674	6.5644E+01	.368	.243
7.2376E+01	.026	1.219	6.8850E+01	.065	.695	6.5575E+01	.408	.197
7.2297E+01	.002	7.488	6.8776E+01	.046	.649	6.5506E+01	.433	.178
7.2218E+01	.002	12.345	6.8703E+01	.025	.771	6.5438E+01	.434	.162
7.2138E+01	.017	1.364	6.8629E+01	.050	.559	6.5369E+01	.360	.162
7.2059E+01	.027	1.254	6.8556E+01	.025	.723	6.5301E+01	.270	.181
7.1980E+01	-.004	2.650	6.8482E+01	.052	.538	6.5233E+01	.201	.222
7.1901E+01	.021	1.300	6.8409E+01	.048	.629	6.5165E+01	.122	.267
7.1823E+01	.002	5.507	6.8336E+01	.018	.948	6.5097E+01	.076	.377
7.1744E+01	.021	1.075	6.8263E+01	.017	1.047	6.5029E+01	.076	.420
7.1666E+01	.026	.918	6.8190E+01	.059	.629	6.4961E+01	.099	.328
7.1587E+01	.028	.508	6.8118E+01	.061	.646	6.4894E+01	.100	.346
7.1509E+01	.059	.271	6.8045E+01	.045	.535	6.4826E+01	.120	.278
7.1431E+01	.109	.181	6.7972E+01	.062	.374	6.4759E+01	.142	.248
7.1353E+01	.161	.148	6.7900E+01	.114	.220	6.4691E+01	.117	.273
7.1275E+01	.223	.118	6.7828E+01	.189	.263	6.4624E+01	.085	.361
7.1198E+01	.253	.116	6.7756E+01	.199	.196	6.4557E+01	.077	.433
7.1120E+01	.280	.136	6.7684E+01	.225	.145	6.4490E+01	.047	.626
7.1042E+01	.272	.117	6.7612E+01	.224	.144	6.4423E+01	.071	.678
7.0965E+01	.266	.116	6.7540E+01	.211	.153	6.4356E+01	.019	1.337
7.0888E+01	.244	.133	6.7468E+01	.232	.134	6.4290E+01	.080	.724
7.0811E+01	.188	.144	6.7397E+01	.330	.111	6.4223E+01	.030	1.219
7.0734E+01	.135	.217	6.7325E+01	.441	.101	6.4157E+01	.081	.709
7.0657E+01	.082	.247	6.7254E+01	.523	.099	6.4090E+01	.082	.712
7.0580E+01	.066	.305	6.7183E+01	.537	.091	6.4024E+01	.005	4.816
7.0504E+01	.063	.330	6.7111E+01	.468	.106	6.3958E+01	.085	.714
7.0427E+01	.070	.292	6.7040E+01	.344	.181	6.3892E+01	.060	.768
7.0351E+01	.075	.259	6.6970E+01	.226	.243	6.3826E+01	.034	.901
7.0275E+01	.087	.247	6.6899E+01	.150	.384	6.3760E+01	.054	.688
7.0199E+01	.134	.255	6.6828E+01	.060	.438	6.3694E+01	.060	.723
7.0123E+01	.171	.209	6.6758E+01	.036	.598	6.3628E+01	.060	.736
7.0047E+01	.178	.157	6.6687E+01	.048	.583	6.3563E+01	.028	1.105
6.9971E+01	.173	.180	6.6617E+01	.026	.859	6.3497E+01	.064	.843
6.9896E+01	.168	.196	6.6546E+01	.060	.798	6.3432E+01	.032	1.347
6.9820E+01	.133	.191	6.6476E+01	.059	.770	6.3367E+01	.067	.701
6.9745E+01	.088	.227	6.6406E+01	.063	.788	6.3302E+01	.059	.588
6.9670E+01	.046	.422	6.6336E+01	.024	1.933	6.3236E+01	.034	.807
6.9595E+01	.043	.552	6.6267E+01	.066	.792	6.3172E+01	.062	.755
6.9519E+01	.048	.555	6.6197E+01	.022	1.680	6.3107E+01	.034	.996
6.9445E+01	.049	.703	6.6127E+01	.072	.833	6.3042E+01	.076	.699
6.9370E+01	.057	.660	6.6058E+01	.063	.778	6.2977E+01	.086	.513

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
6.2913E+01	.103	.348	6.0047E+01	.252	.276	5.7372E+01	.073	1.143
6.2848E+01	.146	.290	5.9986E+01	.316	.187	5.7315E+01	.079	1.074
6.2784E+01	.190	.268	5.9926E+01	.368	.180	5.7259E+01	.105	.931
6.2720E+01	.222	.204	5.9867E+01	.400	.179	5.7203E+01	.117	.678
6.2655E+01	.231	.197	5.9807E+01	.385	.164	5.7148E+01	.131	.743
6.2591E+01	.212	.246	5.9747E+01	.331	.184	5.7092E+01	.151	.662
6.2527E+01	.214	.211	5.9687E+01	.289	.213	5.7036E+01	.176	.600
6.2464E+01	.198	.232	5.9628E+01	.248	.248	5.6980E+01	.139	.725
6.2400E+01	.228	.246	5.9568E+01	.221	.292	5.6925E+01	.055	1.281
6.2336E+01	.259	.219	5.9509E+01	.234	.297	5.6869E+01	.048	1.307
6.2273E+01	.249	.186	5.9449E+01	.185	.279	5.6814E+01	.078	1.045
6.2209E+01	.197	.223	5.9390E+01	.206	.281	5.6758E+01	.100	.870
6.2146E+01	.165	.258	5.9331E+01	.207	.262	5.6703E+01	.068	1.245
6.2082E+01	.146	.290	5.9272E+01	.208	.313	5.6648E+01	.056	1.396
6.2019E+01	.133	.336	5.9213E+01	.169	.313	5.6593E+01	.056	1.272
6.1956E+01	.118	.406	5.9154E+01	.154	.349	5.6538E+01	.050	1.257
6.1893E+01	.078	.584	5.9095E+01	.165	.367	5.6483E+01	.045	1.523
6.1830E+01	.103	.606	5.9037E+01	.134	.443	5.6428E+01	.040	1.967
6.1767E+01	.113	.573	5.8978E+01	.127	.506	5.6373E+01	.047	1.290
6.1705E+01	.108	.530	5.8919E+01	.110	.618	5.6319E+01	.082	.976
6.1642E+01	.120	.450	5.8861E+01	.111	.564	5.6264E+01	.141	.692
6.1579E+01	.088	.481	5.8803E+01	.105	.595	5.6209E+01	.101	.712
6.1517E+01	.125	.370	5.8745E+01	.099	.616	5.6155E+01	.115	.600
6.1455E+01	.098	.447	5.8686E+01	.099	.579	5.6101E+01	.139	.520
6.1392E+01	.138	.494	5.8628E+01	.125	.530	5.6046E+01	.147	.474
6.1330E+01	.150	.518	5.8570E+01	.156	.420	5.5992E+01	.178	.404
6.1268E+01	.055	.747	5.8512E+01	.108	.523	5.5938E+01	.208	.369
6.1206E+01	.130	.490	5.8454E+01	.101	.571	5.5884E+01	.215	.395
6.1144E+01	.116	.537	5.8397E+01	.102	.575	5.5830E+01	.196	.414
6.1083E+01	.120	.431	5.8339E+01	.100	.553	5.5776E+01	.190	.459
6.1021E+01	.161	.432	5.8281E+01	.100	.590	5.5722E+01	.152	.618
6.0959E+01	.181	.383	5.8224E+01	.123	.542	5.5668E+01	.113	.677
6.0898E+01	.215	.346	5.8167E+01	.095	.596	5.5615E+01	.088	.851
6.0836E+01	.185	.297	5.8109E+01	.070	.781	5.5561E+01	.084	.936
6.0775E+01	.235	.285	5.8052E+01	.088	.687	5.5507E+01	.049	1.290
6.0714E+01	.221	.240	5.7995E+01	.118	.605	5.5454E+01	.070	1.004
6.0653E+01	.191	.308	5.7938E+01	.153	.573	5.5401E+01	.103	.891
6.0592E+01	.197	.265	5.7881E+01	.106	.679	5.5347E+01	.118	1.014
6.0531E+01	.126	.378	5.7824E+01	.056	1.040	5.5294E+01	.176	.609
6.0470E+01	.097	.487	5.7767E+01	.075	.879	5.5241E+01	.195	.577
6.0409E+01	.072	.642	5.7710E+01	.082	.835	5.5188E+01	.177	.627
6.0349E+01	.090	.588	5.7654E+01	.077	.983	5.5135E+01	.149	.674
6.0288E+01	.098	.620	5.7597E+01	.059	1.484	5.5082E+01	.131	.778
6.0227E+01	.108	.528	5.7541E+01	.082	.876	5.5029E+01	.138	.617
6.0167E+01	.123	.400	5.7484E+01	.085	.839	5.4976E+01	.194	.561
6.0107E+01	.193	.342	5.7428E+01	.048	1.362	5.4924E+01	.212	.505

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
5.4871E+01	.135	.638	5.2530E+01	.263	.659	5.0336E+01	1.991	.223
5.4819E+01	.179	.546	5.2481E+01	.097	1.101	5.0290E+01	2.186	.238
5.4766E+01	.164	.551	5.2432E+01	.283	.762	5.0244E+01	2.450	.214
5.4714E+01	.111	.868	5.2383E+01	.286	.585	5.0197E+01	2.417	.260
5.4661E+01	.146	.732	5.2334E+01	.106	1.353	5.0151E+01	1.986	.281
5.4609E+01	.105	1.083	5.2285E+01	.282	.752	5.0106E+01	1.764	.250
5.4557E+01	.097	1.167	5.2236E+01	.093	1.185	5.0060E+01	1.493	.278
5.4505E+01	.127	.900	5.2187E+01	.323	.800	5.0014E+01	1.084	.285
5.4453E+01	.143	.846	5.2139E+01	.224	.895	4.9968E+01	.805	.302
5.4401E+01	.129	.980	5.2090E+01	.316	.752	4.9923E+01	.766	.393
5.4349E+01	.098	1.100	5.2041E+01	.071	2.326	4.9877E+01	.599	.354
5.4297E+01	.139	.906	5.1993E+01	.398	.838	4.9831E+01	.858	.363
5.4246E+01	.204	.721	5.1944E+01	.467	.696	4.9786E+01	.845	.255
5.4194E+01	.222	.651	5.1896E+01	.157	1.223	4.9741E+01	.896	.234
5.4142E+01	.140	.928	5.1848E+01	.432	.667	4.9695E+01	.873	.267
5.4091E+01	.186	.750	5.1799E+01	.116	1.725	4.9650E+01	.838	.256
5.4040E+01	.205	.739	5.1751E+01	.375	.710	4.9605E+01	.841	.248
5.3988E+01	.239	.617	5.1703E+01	.114	1.658	4.9560E+01	.842	.245
5.3937E+01	.258	.609	5.1655E+01	.391	.685	4.9514E+01	.668	.325
5.3886E+01	.240	.683	5.1607E+01	.178	1.252	4.9469E+01	.525	.381
5.3835E+01	.167	.824	5.1559E+01	.157	1.417	4.9424E+01	.323	.563
5.3784E+01	.090	1.239	5.1511E+01	.361	.785	4.9379E+01	.288	.813
5.3733E+01	.063	1.254	5.1463E+01	.313	.825	4.9334E+01	.362	.660
5.3682E+01	.085	1.288	5.1416E+01	.304	.734	4.9290E+01	.355	.712
5.3631E+01	.104	1.233	5.1368E+01	.250	.933	4.9245E+01	.280	1.000
5.3580E+01	.111	1.154	5.1320E+01	.218	1.073	4.9200E+01	.321	.884
5.3529E+01	.097	1.462	5.1273E+01	.317	.733	4.9156E+01	.181	1.573
5.3479E+01	.052	2.891	5.1225E+01	.320	.733	4.9111E+01	.129	2.117
5.3428E+01	.107	1.686	5.1178E+01	.331	.841	4.9067E+01	.103	2.684
5.3378E+01	.098	1.725	5.1131E+01	.172	1.396	4.9022E+01	.164	1.689
5.3327E+01	.115	1.137	5.1083E+01	.030	5.804	4.8978E+01	.186	1.286
5.3277E+01	.102	1.472	5.1036E+01	.364	.946	4.8934E+01	.248	.756
5.3227E+01	.117	1.125	5.0989E+01	.104	2.277	4.8889E+01	.152	1.161
5.3176E+01	.147	.995	5.0942E+01	.334	.722	4.8845E+01	.051	3.260
5.3126E+01	.113	1.478	5.0895E+01	.206	1.171	4.8801E+01	.167	1.862
5.3076E+01	.109	1.312	5.0848E+01	.337	.799	4.8757E+01	.136	2.277
5.3026E+01	.089	1.800	5.0801E+01	.288	.900	4.8713E+01	.122	2.523
5.2976E+01	.147	1.115	5.0754E+01	.353	.901	4.8669E+01	.305	.957
5.2927E+01	.142	1.189	5.0707E+01	.029	4.937	4.8625E+01	.355	.666
5.2877E+01	.090	1.834	5.0661E+01	.342	.830	4.8581E+01	.300	.746
5.2827E+01	.149	1.287	5.0614E+01	.384	.698	4.8537E+01	.109	1.804
5.2777E+01	.152	1.020	5.0568E+01	.376	.529	4.8494E+01	.090	3.493
5.2728E+01	.136	1.242	5.0521E+01	.499	.356	4.8450E+01	.289	1.089
5.2678E+01	.163	.831	5.0475E+01	.829	.247	4.8406E+01	.226	1.506
5.2629E+01	.127	1.013	5.0428E+01	1.065	.209	4.8363E+01	.377	.892
5.2580E+01	.110	1.008	5.0382E+01	1.444	.171	4.8319E+01	.145	1.957

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
4.8276E+01	.144	1.874	4.6339E+01	.324	1.112	4.4482E+01	.090	3.309
4.8232E+01	.163	1.717	4.6299E+01	.477	.668	4.4442E+01	-.092	2.399
4.8189E+01	.159	1.677	4.6258E+01	.573	.620	4.4402E+01	-.276	.665
4.8146E+01	.020	9.176	4.6217E+01	.849	.407	4.4362E+01	-.268	.619
4.8103E+01	.189	1.628	4.6176E+01	.838	.411	4.4322E+01	-.252	.702
4.8060E+01	-.010	15.546	4.6136E+01	.861	.401	4.4282E+01	-.225	.859
4.8016E+01	.486	.964	4.6095E+01	.940	.346	4.4243E+01	-.204	1.001
4.7973E+01	-.082	1.478	4.6054E+01	1.106	.265	4.4203E+01	-.269	.890
4.7930E+01	.326	1.078	4.6014E+01	1.043	.302	4.4163E+01	-.248	.904
4.7888E+01	-.052	2.658	4.5973E+01	1.076	.303	4.4123E+01	-.207	1.440
4.7845E+01	.433	.953	4.5932E+01	1.143	.274	4.4083E+01	-.182	1.183
4.7802E+01	-.108	1.196	4.5892E+01	1.144	.304	4.4043E+01	-.228	1.022
4.7759E+01	-.102	1.350	4.5851E+01	1.094	.290	4.4004E+01	-.283	.718
4.7716E+01	-.107	1.175	4.5811E+01	1.204	.283	4.3964E+01	-.304	.627
4.7674E+01	.314	1.046	4.5770E+01	1.064	.313	4.3924E+01	-.285	.651
4.7631E+01	-.035	4.017	4.5729E+01	.792	.426	4.3885E+01	-.044	6.810
4.7589E+01	.225	1.287	4.5689E+01	.513	.814	4.3845E+01	-.240	.899
4.7546E+01	-.127	1.034	4.5649E+01	.585	.731	4.3805E+01	-.081	3.667
4.7504E+01	.190	1.485	4.5608E+01	.497	.826	4.3766E+01	-.207	1.175
4.7462E+01	.583	.641	4.5568E+01	.321	1.186	4.3726E+01	.055	7.479
4.7419E+01	.639	.536	4.5527E+01	-.004	63.848	4.3686E+01	-.242	.866
4.7377E+01	.743	.739	4.5487E+01	.340	1.550	4.3647E+01	-.257	.968
4.7335E+01	.232	1.281	4.5446E+01	.257	1.897	4.3607E+01	-.263	.780
4.7293E+01	.445	.864	4.5406E+01	.248	1.698	4.3568E+01	.083	5.207
4.7251E+01	.807	.442	4.5366E+01	.439	1.052	4.3528E+01	-.196	1.101
4.7209E+01	.637	.526	4.5325E+01	.368	.893	4.3489E+01	.012	43.035
4.7167E+01	.377	.947	4.5285E+01	.462	.959	4.3449E+01	-.214	1.075
4.7125E+01	.437	.813	4.5245E+01	-.078	2.590	4.3410E+01	-.134	1.945
4.7083E+01	.410	.969	4.5204E+01	-.053	4.224	4.3370E+01	.086	5.656
4.7041E+01	.286	1.172	4.5164E+01	.250	1.252	4.3331E+01	-.319	1.266
4.7000E+01	.257	1.322	4.5124E+01	.080	3.426	4.3291E+01	-.103	3.536
4.6958E+01	.050	4.130	4.5083E+01	.001	305.769	4.3252E+01	-.142	2.145
4.6916E+01	-.088	1.670	4.5043E+01	-.154	1.224	4.3213E+01	.184	2.784
4.6875E+01	-.034	4.775	4.5003E+01	-.044	6.115	4.3173E+01	-.234	.980
4.6833E+01	-.086	1.604	4.4963E+01	-.120	1.774	4.3134E+01	-.188	1.768
4.6792E+01	-.134	1.065	4.4923E+01	.254	1.309	4.3094E+01	-.270	.606
4.6750E+01	-.075	2.044	4.4882E+01	.292	1.778	4.3055E+01	-.122	2.507
4.6709E+01	-.108	1.446	4.4842E+01	-.194	.965	4.3016E+01	.359	1.880
4.6668E+01	-.094	1.609	4.4802E+01	.125	2.939	4.2976E+01	.189	3.030
4.6627E+01	-.107	1.572	4.4762E+01	-.217	.858	4.2937E+01	.713	1.111
4.6585E+01	-.094	1.846	4.4722E+01	-.011	32.869	4.2898E+01	.241	1.961
4.6544E+01	.011	22.192	4.4682E+01	-.293	.615	4.2859E+01	.015	22.337
4.6503E+01	-.023	7.489	4.4642E+01	-.147	2.025	4.2820E+01	.121	3.950
4.6462E+01	.238	1.199	4.4602E+01	-.266	.653	4.2780E+01	.362	1.482
4.6421E+01	.254	1.627	4.4562E+01	-.207	1.023	4.2741E+01	.582	1.111
4.6380E+01	.225	1.711	4.4522E+01	-.217	.866	4.2702E+01	1.191	.533

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
4.2663E+01	1.366	.544	4.0652E+01	1.067	.926	3.8915E+01	3.877	.230
4.2624E+01	1.624	.574	4.0614E+01	.973	.804	3.8877E+01	4.477	.203
4.2585E+01	.994	.715	4.0576E+01	.256	2.806	3.8840E+01	4.560	.190
4.2545E+01	.166	2.673	4.0538E+01	.923	1.131	3.8803E+01	4.319	.201
4.2506E+01	.712	1.083	4.0500E+01	.600	1.300	3.8765E+01	4.351	.205
4.2467E+01	-.246	1.057	4.0462E+01	.240	1.986	3.8728E+01	3.691	.224
4.2428E+01	.519	1.392	4.0424E+01	.001	462.841	3.8691E+01	3.340	.257
4.2389E+01	-.115	3.732	4.0386E+01	-.205	1.913	3.8654E+01	2.682	.335
4.2350E+01	.148	3.331	4.0348E+01	.695	1.877	3.8616E+01	2.445	.439
4.2195E+01	-.074	5.972	4.0310E+01	.474	1.088	3.8579E+01	2.556	.411
4.2156E+01	-.126	2.346	4.0271E+01	.450	1.173	3.8542E+01	2.414	.418
4.2117E+01	.142	3.417	4.0233E+01	.412	1.243	3.8505E+01	2.376	.450
4.2078E+01	-.060	5.571	4.0196E+01	.460	1.875	3.8468E+01	1.947	.635
4.2039E+01	.518	1.393	4.0158E+01	.679	1.356	3.8431E+01	1.855	.498
4.2000E+01	.412	1.761	4.0120E+01	2.082	.464	3.8393E+01	2.078	.433
4.1845E+01	.153	3.023	4.0082E+01	1.563	.547	3.8356E+01	2.403	.413
4.1806E+01	.246	2.001	4.0044E+01	1.835	.429	3.8319E+01	2.596	.474
4.1768E+01	.553	1.357	4.0006E+01	2.947	.276	3.8282E+01	2.157	.500
4.1729E+01	.464	2.673	3.9968E+01	4.780	.172	3.8245E+01	1.877	.551
4.1690E+01	.712	1.298	3.9930E+01	6.387	.152	3.8208E+01	1.380	.724
4.1652E+01	.734	1.290	3.9892E+01	7.786	.164	3.8171E+01	1.746	.610
4.1613E+01	.686	1.339	3.9854E+01	9.367	.262	3.8134E+01	2.299	.415
4.1574E+01	.403	1.228	3.9817E+01	9.080	.282	3.8097E+01	3.096	.338
4.1536E+01	1.276	.625	3.9779E+01	8.391	.270	3.8060E+01	2.517	.378
4.1497E+01	1.676	.464	3.9741E+01	7.647	.193	3.8023E+01	1.937	.522
4.1458E+01	1.661	.383	3.9703E+01	6.496	.230	3.7986E+01	1.912	.655
4.1420E+01	1.874	.336	3.9666E+01	6.185	.215	3.7949E+01	2.001	.703
4.1381E+01	1.998	.318	3.9628E+01	5.137	.157	3.7913E+01	1.793	.719
4.1343E+01	2.781	.265	3.9590E+01	4.662	.172	3.7876E+01	1.935	.623
4.1304E+01	4.220	.228	3.9553E+01	3.975	.206	3.7839E+01	2.210	.621
4.1266E+01	4.478	.178	3.9515E+01	3.948	.200	3.7802E+01	1.799	.693
4.1227E+01	4.644	.191	3.9477E+01	3.524	.215	3.7765E+01	.933	1.174
4.1189E+01	3.550	.255	3.9440E+01	4.091	.284	3.7728E+01	2.059	.708
4.1150E+01	2.933	.275	3.9402E+01	3.975	.258	3.7692E+01	2.358	.716
4.1112E+01	2.099	.333	3.9364E+01	4.023	.202	3.7655E+01	2.342	.693
4.1074E+01	1.588	.530	3.9327E+01	3.720	.210	3.7618E+01	2.442	.572
4.1035E+01	1.737	.503	3.9289E+01	3.103	.262	3.7581E+01	2.104	.513
4.0997E+01	1.037	.640	3.9252E+01	2.680	.310	3.7545E+01	1.657	.730
4.0959E+01	.766	.722	3.9214E+01	2.573	.305	3.7508E+01	2.079	.632
4.0920E+01	.711	.702	3.9177E+01	3.224	.282	3.7471E+01	.921	1.087
4.0882E+01	.846	.771	3.9139E+01	4.303	.291	3.7435E+01	1.911	.716
4.0844E+01	.944	.679	3.9102E+01	4.644	.301	3.7398E+01	2.309	.712
4.0805E+01	.826	.814	3.9064E+01	3.956	.346	3.7361E+01	2.177	.772
4.0767E+01	.265	1.926	3.9027E+01	3.378	.271	3.7325E+01	.381	2.052
4.0729E+01	.820	1.067	3.8989E+01	3.266	.277	3.7288E+01	.816	1.041
4.0691E+01	1.002	.708	3.8952E+01	3.487	.253	3.7252E+01	1.234	.742

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
3.7215E+01	2.793	.506	3.5554E+01	-.499	.948	3.3931E+01	-.992	.425
3.7179E+01	2.805	.528	3.5518E+01	-.421	1.174	3.3896E+01	-1.094	.323
3.7142E+01	2.838	.501	3.5483E+01	-.075	11.942	3.3861E+01	-.960	.475
3.7106E+01	2.478	.583	3.5447E+01	-.632	.705	3.3826E+01	-1.050	.360
3.7069E+01	3.085	.399	3.5411E+01	-.238	2.815	3.3791E+01	-1.219	.311
3.7033E+01	2.541	.488	3.5376E+01	-.160	4.142	3.3757E+01	-1.194	.320
3.6996E+01	2.499	.487	3.5340E+01	-.479	.977	3.3722E+01	-1.335	.293
3.6960E+01	2.386	.565	3.5304E+01	-.521	.977	3.3687E+01	-1.085	.366
3.6924E+01	2.438	.592	3.5269E+01	-.576	.844	3.3652E+01	-.984	.457
3.6887E+01	2.319	.574	3.5233E+01	-.498	1.006	3.3618E+01	-1.011	.421
3.6851E+01	1.627	.820	3.5198E+01	-.461	1.365	3.3583E+01	-1.163	.321
3.6814E+01	2.268	.615	3.5162E+01	-.610	.811	3.3548E+01	-.727	.809
3.6778E+01	1.533	.666	3.5127E+01	-.448	1.117	3.3514E+01	-.989	.474
3.6742E+01	1.620	.628	3.5091E+01	.510	2.510	3.3479E+01	-1.141	.322
3.6706E+01	2.382	.519	3.5056E+01	-.503	1.064	3.3444E+01	-1.323	.303
3.6669E+01	1.940	.627	3.5020E+01	-.714	.619	3.3410E+01	-.926	1.042
3.6633E+01	2.067	.565	3.4985E+01	-.654	.690	3.3375E+01	-1.117	.512
3.6597E+01	1.458	.910	3.4950E+01	-.520	.943	3.3341E+01	-1.306	.471
3.6561E+01	1.730	.723	3.4914E+01	-.536	1.076	3.3306E+01	-1.347	.282
3.6524E+01	1.621	.788	3.4879E+01	-.492	1.005	3.3272E+01	-1.383	.282
3.6488E+01	1.054	.894	3.4843E+01	-.588	.810	3.3237E+01	-1.301	.325
3.6452E+01	1.681	.558	3.4808E+01	-.566	.832	3.3203E+01	-1.438	.278
3.6416E+01	1.054	1.107	3.4773E+01	-.424	1.361	3.3168E+01	-1.484	.275
3.6380E+01	1.764	.723	3.4738E+01	-.555	.958	3.3133E+01	-1.346	.306
3.6344E+01	1.203	1.009	3.4702E+01	-.730	.637	3.3099E+01	-1.176	.430
3.6308E+01	1.563	.713	3.4667E+01	-.234	4.896	3.3065E+01	-1.434	.281
3.6272E+01	1.422	.865	3.4632E+01	-.924	.499	3.3030E+01	-1.095	.392
3.6236E+01	1.180	.830	3.4597E+01	-.749	.599	3.2996E+01	-1.089	.428
3.6199E+01	.964	1.132	3.4561E+01	-.770	.601	3.2961E+01	-1.101	.385
3.6163E+01	1.309	1.131	3.4526E+01	-.360	2.491	3.2927E+01	-1.346	.293
3.6127E+01	1.604	.956	3.4491E+01	-.735	.805	3.2893E+01	-1.303	.323
3.6091E+01	1.428	.898	3.4456E+01	-.629	.837	3.2858E+01	-1.368	.309
3.6055E+01	.979	1.322	3.4421E+01	-.763	.616	3.2824E+01	-1.324	.317
3.6020E+01	.644	1.629	3.4386E+01	-.830	.532	3.2790E+01	-1.483	.298
3.5984E+01	.234	3.505	3.4351E+01	-.817	.589	3.2756E+01	-1.348	.317
3.5948E+01	.397	2.062	3.4315E+01	-.762	.580	3.2721E+01	-1.258	.325
3.5912E+01	1.085	1.049	3.4280E+01	-.842	.569	3.2687E+01	-1.510	.280
3.5876E+01	.018	44.816	3.4245E+01	-.871	.504	3.2653E+01	-1.227	.332
3.5840E+01	.004	198.224	3.4210E+01	-.994	.378	3.2619E+01	-1.318	.323
3.5804E+01	.416	2.235	3.4175E+01	-1.047	.325	3.2584E+01	-1.339	.322
3.5768E+01	.487	1.826	3.4140E+01	-.905	.466	3.2550E+01	-1.349	.321
3.5733E+01	-.028	29.805	3.4105E+01	-1.117	.342	3.2516E+01	-1.427	.339
3.5697E+01	-.458	1.118	3.4070E+01	-1.193	.303	3.2482E+01	-1.256	.330
3.5661E+01	-.420	1.274	3.4035E+01	-1.089	.357	3.2448E+01	-1.348	.379
3.5625E+01	-.471	1.010	3.4001E+01	-.898	.493	3.2414E+01	-1.300	.325
3.5590E+01	-.338	1.694	3.3966E+01	-.965	.558	3.2380E+01	-1.310	.397

E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR	E(EV)	S(B)	ERROR
3.2346E+01	-1.533	.310	3.2074E+01	-1.518	.298	3.1803E+01	-1.339	.347
3.2312E+01	-1.285	.407	3.2040E+01	-1.402	.324	3.1770E+01	-1.252	.408
3.2278E+01	-1.232	.355	3.2006E+01	-1.585	.289	3.1736E+01	-1.355	.335
3.2244E+01	-1.275	.414	3.1972E+01	-1.530	.301	3.1702E+01	-1.647	.290
3.2210E+01	-1.557	.286	3.1939E+01	-1.552	.303	3.1669E+01	-1.455	.324
3.2176E+01	-1.525	.266	3.1905E+01	-1.639	.286	3.1635E+01	-1.457	.325
3.2142E+01	-1.588	.285	3.1871E+01	-1.496	.387	0.	-0.000	0.000
3.2108E+01	-1.442	.322	3.1837E+01	-1.561	.303	0.	-0.000	0.000