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Reporting Date: February 1976

Issued: March 1976


**Fission Cross Section of ^{243}Cm
from the Underground Nuclear Explosion, Physics-8
Table of Values**

by

M. G. Silbert



**Los Alamos
scientific laboratory**
of the University of California
LOS ALAMOS, NEW MEXICO 87545



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ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
CONTRACT W-7405-ENG. 36

Printed in the United States of America. Available from
National Technical Information Service
U S Department of Commerce
5285 Port Royal Road
Springfield, VA 22151
Price: Printed Copy \$4.00 Microfiche \$2.25

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FISSION CROSS SECTION OF ^{243}Cm
FROM THE UNDERGROUND NUCLEAR EXPLOSION, PHYSICS-8

Table of Values

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ABSTRACT

The neutron-induced fission cross section of ^{243}Cm was measured from 15 eV to 3 MeV in a time-of-flight experiment which used the intense, single-pulse neutron source provided by the underground nuclear explosion Physics-8 and a 240-m, evacuated flight path. The cross section reported here has been channelized into 1 μs bins. Typical uncertainties for each data point are $\pm 10\%$ nonsystematic and $\pm 10\%$ systematic.

A number of neutron time-of-flight cross-section measurements were carried out during the Physics-8 underground nuclear explosion. These measurements were made on an elaborate experimental tower situated at ground level above the explosive, which was buried at a depth of 240 m. This report presents the fission cross section measured for ^{243}Cm over the neutron energy range 15 eV to 3 MeV. This nuclide is of special interest as its fission cross section was heretofore known only poorly and in limited energy regions.

Experimental techniques employed for cross-section measurement using a nuclear explosion source have been described in detail elsewhere.¹ To summarize, a thin sample of ^{243}Cm in a well-collimated neutron beam was viewed by silicon semiconductor detectors which responded to the emitted fission fragments. Similar detectors and thin samples of ^6LiF or ^{235}U provided a measurement of the neutron flux. To furnish a background signal, detectors viewed a bare sample backing at a different position in the neutron beam.

The 210- μg Cm sample was deposited on 4- μm -thick stainless steel; it contained 89% ^{243}Cm , 11% ^{244}Cm , and traces of $^{242,245,246}\text{Cm}$, and $^{239,240}\text{Pu}$. The sample was prepared and assayed at the Lawrence Livermore Laboratory.

The fission cross section presented in Table I derives from a single detector oriented at 90° to the neutron beam. The ^{243}Cm cross section has been normalized to the areas (14.0 and 23.7 b-eV, respectively) of the fission resonances at 22.85 and 34.99 eV in ^{244}Cm . These areas were measured by Moore and Keyworth² simultaneously with the present measurement and were visible in the ^{243}Cm signal. Table I lists the values of neutron energy E, fission cross section S, and nonsystematic fractional uncertainty (standard deviation) DS/S. In addition to the listed uncertainties, there is a systematic uncertainty of $\pm 10\%$ in the cross section which is dominated by the normalization error.

A formal report of this measurement, to include an analysis of the resonance structure in the region 15 to 80 eV, is being prepared.³

ACKNOWLEDGMENTS

I am indebted to many people who were involved in the complex measurements made with the underground explosion source. Special thanks are extended to R. W. Loughheed, J. E. Evans, and R. W. Hoff of the Lawrence Livermore Laboratory of the University of California, who prepared and assayed



the ^{243}Cm sample. I thank P. A. Seeger for data reduction and G. A. Keyworth and M. S. Moore for valuable discussions. R. R. Fullwood and J. H. McNally were responsible for the initial stages of this measurement.

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2. M. S. Moore and G. A. Keyworth, "Analysis of the Fission and Capture Cross Sections of the Curium Isotopes," Phys. Rev. C 3, 1656 (1971).

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TABLE I

FISSION CROSS SECTION OF ^{243}CM

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
3.2456E+06	2.332	.107	2.5634E+06	2.184	.120	2.0761E+06	2.285	.108
1.7158E+06	2.353	.086	1.4420E+06	2.429	.080	1.2288E+06	2.425	.079
1.0598E+06	2.417	.088	9.2337E+05	2.548	.099	8.1172E+05	2.595	.091
7.1918E+05	2.581	.086	6.4161E+05	2.522	.083	5.7596E+05	2.482	.086
5.1990E+05	2.432	.089	4.7164E+05	2.400	.091	4.2981E+05	2.352	.084
3.9331E+05	2.518	.093	3.6127E+05	2.530	.087	3.3299E+05	2.552	.086
3.0791E+05	2.574	.085	2.8556E+05	2.610	.080	2.6556E+05	2.652	.084
2.4759E+05	2.680	.089	2.3139E+05	2.906	.085	2.1672E+05	3.043	.085
2.0341E+05	2.981	.088	1.9128E+05	2.844	.094	1.8021E+05	2.733	.087
1.7008E+05	2.685	.083	1.6077E+05	2.707	.082	1.5221E+05	2.921	.087
1.4432E+05	2.997	.094	1.3702E+05	2.801	.099	1.3027E+05	2.605	.093
1.2400E+05	2.765	.086	1.1817E+05	2.893	.091	1.1274E+05	2.901	.103
1.0768E+05	2.824	.098	1.0296E+05	2.948	.084	9.8535E+04	2.972	.111
9.4392E+04	3.003	.152	9.0504E+04	3.305	.143	8.6852E+04	3.375	.119
8.3417E+04	2.888	.088	8.0181E+04	2.618	.103	7.7130E+04	2.873	.122
7.4251E+04	2.893	.093	7.1529E+04	2.892	.087	6.8954E+04	3.004	.092
6.6516E+04	2.973	.107	6.4205E+04	2.893	.112	6.2013E+04	2.876	.103
5.9930E+04	2.943	.090	5.7951E+04	2.992	.096	5.6069E+04	3.185	.102
5.4276E+04	3.329	.097	5.2569E+04	3.301	.094	5.0940E+04	3.252	.085
4.9387E+04	3.129	.090	4.7903E+04	3.081	.107	4.6485E+04	3.076	.090
4.5129E+04	3.105	.086	4.3831E+04	3.122	.098	4.2589E+04	3.305	.098
4.1399E+04	3.285	.097	4.0258E+04	2.958	.091	3.9164E+04	3.019	.090
3.8113E+04	3.262	.100	3.7104E+04	3.303	.111	3.6135E+04	3.786	.101
3.5203E+04	3.731	.101	3.4307E+04	2.930	.110	3.3445E+04	2.260	.118
3.2615E+04	2.391	.105	3.1815E+04	2.760	.091	3.1044E+04	3.132	.095
2.9585E+04	3.391	.089	2.8893E+04	3.382	.093	2.8226E+04	3.345	.086
2.7581E+04	3.266	.088	2.6958E+04	3.181	.093	2.6356E+04	3.082	.103
2.5774E+04	3.362	.099	2.5211E+04	3.456	.090	2.4667E+04	3.314	.085
2.4140E+04	3.352	.089	2.3629E+04	3.466	.094	2.3135E+04	3.666	.091
2.2655E+04	3.736	.086	2.2191E+04	3.942	.087	2.1741E+04	3.946	.097
2.1304E+04	3.733	.096	2.0880E+04	3.639	.087	2.0469E+04	3.658	.084
2.0070E+04	3.740	.085	1.9683E+04	3.877	.088	1.9306E+04	3.928	.089

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.8940E+04	3.838	.087	1.8585E+04	3.929	.087	1.8239E+04	3.899	.090
1.7903E+04	4.016	.100	1.7577E+04	4.015	.098	1.7259E+04	4.119	.090
1.6949E+04	4.288	.092	1.6648E+04	4.201	.099	1.6355E+04	3.844	.103
1.6070E+04	3.910	.118	1.5791E+04	4.145	.118	1.5521E+04	4.110	.106
1.5256E+04	4.214	.107	1.4999E+04	4.174	.098	1.4748E+04	4.185	.091
1.4504E+04	4.125	.090	1.4265E+04	4.118	.097	1.4032E+04	4.104	.100
1.3805E+04	4.184	.094	1.3584E+04	4.237	.092	1.3367E+04	4.206	.093
1.3156E+04	4.253	.104	1.2950E+04	4.336	.102	1.2748E+04	4.379	.091
1.2552E+04	4.437	.089	1.2359E+04	4.398	.092	1.2171E+04	4.583	.093
1.1988E+04	4.670	.091	1.1808E+04	4.612	.087	1.1633E+04	4.429	.088
1.1461E+04	4.344	.099	1.1293E+04	4.483	.103	1.1129E+04	4.402	.094
1.0969E+04	4.332	.091	1.0811E+04	4.555	.090	1.0658E+04	4.875	.098
1.0507E+04	5.137	.103	1.0360E+04	4.970	.097	1.0215E+04	5.098	.091
1.0074E+04	5.056	.095	9.9356E+03	4.927	.093	9.8001E+03	4.652	.094
9.6672E+03	4.582	.094	9.5371E+03	4.459	.096	9.4096E+03	4.356	.100
9.2846E+03	4.718	.104	9.1621E+03	4.729	.099	9.0420E+03	4.761	.095
8.9243E+03	5.308	.111	8.8088E+03	5.750	.119	8.6955E+03	5.298	.111
8.5845E+03	5.074	.098	8.4755E+03	5.160	.093	8.3686E+03	5.180	.103
8.2637E+03	4.983	.105	8.1608E+03	4.986	.098	8.0598E+03	5.118	.092
7.9607E+03	5.086	.097	7.8633E+03	5.064	.107	7.7678E+03	5.364	.113
7.6740E+03	5.380	.105	7.5818E+03	5.474	.095	7.4913E+03	5.563	.094
7.4025E+03	5.443	.100	7.3151E+03	5.273	.099	7.2294E+03	5.321	.092
7.1451E+03	5.565	.092	7.0623E+03	5.833	.102	6.9809E+03	5.896	.102
6.9010E+03	5.713	.097	6.8224E+03	5.307	.095	6.7451E+03	5.317	.098
6.6691E+03	5.318	.104	6.5944E+03	5.209	.110	6.5210E+03	4.999	.100
6.4487E+03	4.897	.096	6.3777E+03	5.055	.104	6.3079E+03	5.184	.101
6.2391E+03	5.338	.100	6.1715E+03	5.361	.096	6.1050E+03	5.106	.096
6.0396E+03	5.195	.105	5.9752E+03	5.823	.119	5.9118E+03	6.266	.114
5.8495E+03	5.074	.108	5.7881E+03	4.815	.101	5.7276E+03	5.404	.108
5.6682E+03	5.679	.114	5.6096E+03	5.554	.099	5.5520E+03	5.691	.093
5.4952E+03	5.704	.098	5.4393E+03	5.780	.107	5.3842E+03	5.650	.104
5.3300E+03	5.938	.099	5.2766E+03	5.683	.097	5.2240E+03	5.624	.102
5.1721E+03	6.225	.102	5.1211E+03	6.600	.097	5.0708E+03	6.712	.095
5.0212E+03	6.838	.099	4.9723E+03	7.029	.104	4.9242E+03	6.927	.100

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
4.8768E+03	6.744	.092	4.8300E+03	6.628	.095	4.7839E+03	6.335	.106
4.7385E+03	5.975	.103	4.6937E+03	5.679	.098	4.6495E+03	5.765	.097
4.6060E+03	5.602	.097	4.5631E+03	5.557	.106	4.5207E+03	5.607	.111
4.4790E+03	5.354	.105	4.4378E+03	5.166	.100	4.3972E+03	5.194	.097
4.3572E+03	4.865	.108	4.3176E+03	5.140	.109	4.2787E+03	6.039	.096
4.2402E+03	6.361	.091	4.2023E+03	6.602	.092	4.1649E+03	7.055	.095
4.1280E+03	7.339	.103	4.0915E+03	7.288	.095	4.0556E+03	7.044	.094
4.0201E+03	6.709	.106	3.9851E+03	6.201	.110	3.9505E+03	5.923	.101
3.9164E+03	6.045	.095	3.8827E+03	6.535	.100	3.8495E+03	7.036	.107
3.8166E+03	7.039	.104	3.7842E+03	7.889	.093	3.7522E+03	8.382	.091
3.7207E+03	8.481	.103	3.6895E+03	7.892	.109	3.6587E+03	7.211	.105
3.6283E+03	7.787	.095	3.5982E+03	8.219	.091	3.5686E+03	7.439	.094
3.5393E+03	7.065	.100	3.5103E+03	7.502	.099	3.4817E+03	6.959	.094
3.4535E+03	6.558	.101	3.4256E+03	6.595	.103	3.3980E+03	6.981	.101
3.3708E+03	6.439	.099	3.3439E+03	5.958	.096	3.3173E+03	6.373	.110
3.2911E+03	7.552	.117	3.2651E+03	8.504	.104	3.2395E+03	8.241	.091
3.2141E+03	7.980	.102	3.1891E+03	7.364	.109	3.1643E+03	7.077	.099
3.1398E+03	7.003	.095	3.1156E+03	7.424	.094	3.0917E+03	8.526	.102
3.0681E+03	9.473	.111	3.0447E+03	9.095	.113	3.0216E+03	8.495	.099
2.9988E+03	8.076	.095	2.9762E+03	8.149	.099	2.9539E+03	7.518	.105
2.9318E+03	7.618	.104	2.9100E+03	8.360	.092	2.8884E+03	8.402	.093
2.8670E+03	7.797	.099	2.8459E+03	7.662	.106	2.8250E+03	8.822	.101
2.8044E+03	9.975	.095	2.7839E+03	10.762	.102	2.7637E+03	10.838	.103
2.7438E+03	10.500	.100	2.7240E+03	9.731	.095	2.7044E+03	8.571	.093
2.6851E+03	7.365	.102	2.6660E+03	7.093	.107	2.6470E+03	6.906	.100
2.6283E+03	7.293	.097	2.6097E+03	8.085	.101	2.5914E+03	9.743	.109
2.5733E+03	10.260	.112	2.5553E+03	9.648	.100	2.5375E+03	9.044	.097
2.5199E+03	8.292	.101	2.5026E+03	7.409	.113	2.4853E+03	7.271	.121
2.4683E+03	10.281	.158	2.4514E+03	11.553	.095	2.4347E+03	9.833	.105
2.4182E+03	8.944	.110	2.4018E+03	8.635	.106	2.3856E+03	8.795	.092
2.3696E+03	8.769	.094	2.3537E+03	8.458	.105	2.3380E+03	8.464	.111
2.3224E+03	8.171	.102	2.3071E+03	7.430	.095	2.2918E+03	7.340	.103
2.2767E+03	7.550	.106	2.2618E+03	7.847	.102	2.2470E+03	8.189	.096
2.2323E+03	8.159	.093	2.2178E+03	8.050	.098	2.2034E+03	8.807	.104

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
2.1892E+03	10.433	.097	2.1751E+03	11.256	.088	2.1611E+03	11.221	.090
2.1473E+03	10.297	.097	2.1336E+03	9.690	.099	2.1200E+03	10.122	.092
2.1066E+03	10.663	.090	2.0933E+03	10.293	.094	2.0801E+03	10.729	.101
2.0671E+03	12.278	.094	2.0541E+03	13.027	.087	2.0413E+03	12.059	.091
2.0286E+03	10.586	.099	2.0160E+03	9.120	.107	2.0036E+03	9.040	.098
1.9912E+03	9.404	.092	1.9790E+03	8.412	.096	1.9669E+03	7.325	.103
1.9549E+03	8.796	.101	1.9430E+03	9.290	.097	1.9312E+03	8.381	.094
1.9195E+03	8.250	.103	1.9079E+03	9.519	.107	1.8964E+03	9.674	.101
1.8851E+03	10.131	.094	1.8738E+03	11.161	.092	1.8627E+03	11.694	.098
1.8516E+03	12.200	.097	1.8406E+03	12.592	.098	1.8297E+03	11.756	.091
1.8190E+03	11.137	.091	1.8083E+03	10.845	.101	1.7977E+03	11.843	.100
1.7872E+03	12.972	.090	1.7768E+03	13.746	.088	1.7665E+03	13.586	.093
1.7563E+03	11.699	.101	1.7461E+03	10.342	.100	1.7361E+03	10.749	.090
1.7261E+03	12.275	.090	1.7162E+03	12.306	.092	1.7065E+03	11.694	.100
1.6968E+03	11.970	.099	1.6871E+03	11.374	.095	1.6776E+03	9.801	.095
1.6681E+03	8.919	.108	1.6587E+03	7.883	.108	1.6494E+03	10.423	.106
1.6402E+03	11.159	.092	1.6311E+03	10.729	.096	1.6220E+03	10.175	.101
1.6130E+03	10.637	.098	1.6041E+03	12.432	.089	1.5952E+03	13.080	.094
1.5865E+03	12.461	.106	1.5778E+03	10.978	.109	1.5691E+03	9.667	.099
1.5606E+03	9.105	.093	1.5521E+03	8.388	.096	1.5437E+03	8.862	.104
1.5353E+03	10.675	.104	1.5270E+03	11.038	.098	1.5188E+03	9.736	.094
1.5107E+03	10.457	.094	1.5026E+03	10.116	.095	1.4945E+03	9.803	.096
1.4866E+03	10.031	.093	1.4787E+03	9.153	.094	1.4709E+03	10.456	.108
1.4631E+03	13.272	.103	1.4554E+03	13.495	.091	1.4477E+03	12.916	.088
1.4402E+03	12.067	.093	1.4326E+03	10.797	.105	1.4252E+03	12.409	.100
1.4177E+03	14.443	.088	1.4104E+03	15.748	.089	1.4031E+03	14.666	.097
1.3958E+03	13.837	.106	1.3887E+03	12.086	.100	1.3815E+03	11.173	.092
1.3745E+03	10.802	.094	1.3674E+03	9.142	.110	1.3605E+03	9.204	.112
1.3536E+03	9.761	.098	1.3467E+03	11.157	.095	1.3399E+03	15.485	.138
1.3331E+03	13.578	.102	1.3264E+03	12.918	.102	1.3198E+03	12.022	.096
1.3132E+03	10.877	.092	1.3066E+03	10.778	.096	1.3001E+03	11.056	.099
1.2937E+03	10.947	.094	1.2872E+03	10.257	.092	1.2809E+03	9.812	.108
1.2746E+03	12.480	.098	1.2683E+03	13.087	.099	1.2621E+03	12.931	.098
1.2559E+03	12.415	.090	1.2498E+03	13.548	.096	1.2437E+03	14.155	.104

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.2376E+03	11.837	.100	1.2316E+03	12.966	.091	1.2257E+03	15.213	.091
1.2198E+03	15.624	.093	1.2139E+03	13.222	.102	1.2081E+03	11.021	.106
1.2023E+03	12.023	.096	1.1965E+03	15.132	.091	1.1908E+03	14.622	.100
1.1852E+03	12.450	.107	1.1796E+03	12.274	.101	1.1740E+03	14.319	.091
1.1684E+03	16.214	.090	1.1629E+03	16.525	.094	1.1575E+03	14.830	.095
1.1520E+03	12.723	.092	1.1467E+03	11.206	.099	1.1413E+03	10.472	.113
1.1360E+03	11.391	.113	1.1307E+03	10.922	.106	1.1255E+03	10.122	.097
1.1203E+03	11.184	.094	1.1151E+03	11.097	.095	1.1100E+03	8.384	.140
1.1049E+03	7.949	.105	1.0998E+03	8.715	.099	1.0948E+03	9.872	.096
1.0898E+03	11.319	.094	1.0848E+03	11.335	.098	1.0799E+03	10.849	.098
1.0750E+03	10.277	.095	1.0702E+03	10.560	.101	1.0653E+03	11.252	.100
1.0606E+03	12.648	.096	1.0558E+03	12.397	.094	1.0511E+03	11.678	.100
1.0464E+03	10.948	.112	1.0417E+03	12.086	.111	1.0371E+03	16.362	.115
1.0325E+03	13.663	.099	1.0279E+03	10.828	.100	1.0233E+03	9.682	.104
1.0188E+03	10.593	.106	1.0144E+03	11.413	.096	1.0099E+03	11.711	.099
1.0055E+03	12.684	.107	1.0011E+03	13.880	.108	9.9672E+02	20.335	.094
9.9239E+02	16.810	.091	9.8808E+02	14.235	.093	9.8380E+02	13.261	.100
9.7954E+02	13.147	.103	9.7532E+02	13.250	.095	9.7112E+02	13.921	.094
9.6695E+02	14.243	.097	9.6281E+02	14.786	.103	9.5869E+02	14.880	.098
9.5460E+02	16.513	.093	9.5053E+02	16.335	.102	9.4649E+02	14.816	.107
9.4248E+02	13.328	.107	9.3849E+02	13.254	.101	9.3453E+02	14.423	.092
9.3059E+02	13.316	.095	9.2668E+02	13.353	.106	9.2279E+02	14.010	.107
9.1892E+02	11.699	.100	9.1508E+02	10.380	.095	9.1127E+02	12.220	.100
9.0748E+02	15.217	.103	9.0371E+02	16.660	.097	8.9997E+02	16.968	.096
8.9624E+02	16.233	.092	8.9254E+02	17.730	.103	8.8887E+02	15.464	.104
8.8522E+02	17.867	.089	8.8159E+02	17.592	.105	8.7798E+02	15.885	.104
8.7439E+02	19.064	.095	8.7083E+02	16.151	.115	8.6728E+02	16.464	.147
8.6376E+02	21.661	.131	8.6026E+02	19.740	.094	8.5679E+02	14.977	.103
8.5333E+02	10.189	.116	8.4989E+02	9.467	.161	8.4648E+02	12.523	.114
8.4308E+02	14.488	.102	8.3971E+02	14.881	.110	8.3635E+02	13.719	.104
8.3302E+02	11.859	.095	8.2970E+02	10.828	.099	8.2641E+02	11.295	.106
8.2313E+02	12.813	.108	8.1988E+02	12.489	.102	8.1664E+02	14.051	.093
8.1342E+02	13.904	.093	8.1023E+02	10.171	.104	8.0705E+02	9.851	.126
8.0389E+02	14.279	.094	8.0074E+02	13.798	.094	7.9762E+02	12.716	.105

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
7.9451E+02	13.967	.109	7.9143E+02	16.912	.126	7.8836E+02	22.475	.158
7.8531E+02	15.022	.115	7.8227E+02	10.563	.106	7.7926E+02	11.362	.123
7.7626E+02	12.715	.111	7.7327E+02	14.107	.091	7.7031E+02	12.883	.098
7.6736E+02	9.611	.105	7.6443E+02	9.819	.123	7.6152E+02	12.597	.092
7.5862E+02	14.349	.091	7.5574E+02	15.322	.094	7.5287E+02	13.698	.096
7.5003E+02	14.104	.095	7.4719E+02	18.101	.087	7.4438E+02	18.421	.089
7.4158E+02	14.072	.139	7.3879E+02	14.034	.101	7.3603E+02	15.692	.097
7.3327E+02	13.392	.095	7.3053E+02	13.831	.110	7.2781E+02	18.859	.101
7.2510E+02	23.133	.089	7.2241E+02	21.274	.093	7.1974E+02	16.873	.088
7.1707E+02	13.457	.095	7.1442E+02	14.178	.101	7.1179E+02	19.793	.135
7.0917E+02	17.144	.100	7.0657E+02	12.506	.099	7.0398E+02	10.402	.110
7.0140E+02	12.264	.103	6.9884E+02	14.643	.093	6.9629E+02	16.331	.092
6.9376E+02	16.761	.107	6.9124E+02	26.856	.107	6.8874E+02	21.322	.111
6.8624E+02	16.461	.096	6.8376E+02	14.588	.093	6.8130E+02	16.035	.093
6.7885E+02	22.652	.120	6.7641E+02	25.917	.090	6.7398E+02	23.420	.087
6.7157E+02	21.377	.090	6.6917E+02	24.009	.144	6.6678E+02	21.261	.114
6.6441E+02	16.652	.094	6.6205E+02	14.598	.095	6.5970E+02	13.771	.096
6.5736E+02	15.528	.100	6.5504E+02	18.432	.098	6.5272E+02	17.940	.092
6.5043E+02	15.060	.092	6.4814E+02	11.797	.102	6.4586E+02	9.846	.112
6.4360E+02	11.452	.164	6.4135E+02	15.526	.091	6.3911E+02	13.449	.094
6.3688E+02	11.167	.105	6.3466E+02	11.099	.103	6.3246E+02	14.445	.092
6.3026E+02	17.249	.091	6.2808E+02	15.791	.100	6.2591E+02	12.688	.101
6.2375E+02	12.356	.189	6.2160E+02	16.750	.228	6.1947E+02	12.487	.112
6.1734E+02	8.636	.116	6.1522E+02	9.669	.155	6.1312E+02	19.272	.124
6.1103E+02	23.870	.066	6.0894E+02	19.863	.087	6.0687E+02	16.482	.101
6.0481E+02	13.512	.106	6.0276E+02	20.523	.112	6.0072E+02	19.594	.106
5.9869E+02	12.467	.106	5.9667E+02	17.224	.178	5.9466E+02	24.632	.097
5.9266E+02	18.904	.106	5.9067E+02	12.036	.105	5.8869E+02	9.457	.110
5.8672E+02	10.365	.148	5.8476E+02	16.321	.098	5.8281E+02	23.799	.093
5.8087E+02	33.128	.123	5.7894E+02	28.068	.134	5.7701E+02	21.330	.099
5.7510E+02	22.564	.095	5.7320E+02	15.896	.100	5.7131E+02	12.618	.104
5.6942E+02	13.345	.110	5.6755E+02	14.358	.099	5.6569E+02	14.270	.097
5.6383E+02	11.369	.099	5.6198E+02	12.787	.124	5.6015E+02	14.981	.111
5.5832E+02	11.315	.135	5.5650E+02	9.740	.110	5.5469E+02	9.908	.101

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
5.5289E+02	11.660	.106	5.5109E+02	17.153	.217	5.4931E+02	14.143	.210
5.4753E+02	8.994	.144	5.4577E+02	6.550	.116	5.4401E+02	8.479	.155
5.4226E+02	13.562	.167	5.4052E+02	11.546	.123	5.3878E+02	7.543	.107
5.3534E+02	8.868	.285	5.3193E+02	18.382	.140	5.3024E+02	16.267	.094
5.2856E+02	12.582	.105	5.2688E+02	8.878	.119	5.2521E+02	11.683	.099
5.2355E+02	15.901	.095	5.2190E+02	16.684	.096	5.2026E+02	16.871	.101
5.1699E+02	27.196	.114	5.1537E+02	16.750	.113	5.1375E+02	14.179	.104
5.1215E+02	18.200	.113	5.1055E+02	20.936	.092	5.0896E+02	18.725	.091
5.0737E+02	16.121	.093	5.0580E+02	15.063	.102	5.0423E+02	18.132	.097
5.0267E+02	18.209	.092	5.0111E+02	28.033	.178	4.9957E+02	26.215	.140
4.9802E+02	13.065	.182	4.9649E+02	19.828	.188	4.9497E+02	15.517	.131
4.9345E+02	15.603	.107	4.9193E+02	15.014	.108	4.9043E+02	12.438	.116
4.8893E+02	17.478	.102	4.8744E+02	19.123	.106	4.8596E+02	13.601	.107
4.8448E+02	10.641	.122	4.8301E+02	10.303	.115	4.8154E+02	12.504	.096
4.8008E+02	13.608	.100	4.7863E+02	11.998	.109	4.7719E+02	30.396	.414
4.7575E+02	37.092	.185	4.7432E+02	16.979	.166	4.7290E+02	10.984	.098
4.7148E+02	11.480	.102	4.7007E+02	18.819	.130	4.6866E+02	23.417	.091
4.6726E+02	21.633	.089	4.6587E+02	17.562	.092	4.6448E+02	14.616	.106
4.6310E+02	12.503	.107	4.6172E+02	11.034	.100	4.6035E+02	10.602	.101
4.5899E+02	10.046	.110	4.5764E+02	10.562	.113	4.5628E+02	10.935	.106
4.5494E+02	11.093	.101	4.5360E+02	15.675	.156	4.5227E+02	18.940	.128
4.5094E+02	12.552	.104	4.4962E+02	12.028	.110	4.4831E+02	16.797	.112
4.4700E+02	14.963	.111	4.4569E+02	10.077	.113	4.4440E+02	14.014	.189
4.4310E+02	11.785	.135	4.4182E+02	9.721	.120	4.4053E+02	13.219	.107
4.3926E+02	12.081	.111	4.3799E+02	8.550	.113	4.3673E+02	6.511	.111
4.3547E+02	7.025	.117	4.3421E+02	8.684	.118	4.3296E+02	8.171	.123
4.3172E+02	11.873	.167	4.3048E+02	24.760	.126	4.2925E+02	27.022	.086
4.2802E+02	23.508	.096	4.2680E+02	19.681	.102	4.2559E+02	18.346	.093
4.2437E+02	17.215	.093	4.2317E+02	15.371	.095	4.2197E+02	18.364	.113
4.2077E+02	27.162	.098	4.1958E+02	30.363	.085	4.1840E+02	23.605	.112
4.1722E+02	14.971	.107	4.1604E+02	13.143	.111	4.1487E+02	17.985	.113
4.1370E+02	26.475	.116	4.1254E+02	25.840	.088	4.1139E+02	21.426	.095
4.1024E+02	18.958	.096	4.0909E+02	16.340	.092	4.0795E+02	14.711	.100
4.0681E+02	16.704	.103	4.0568E+02	17.126	.107	4.0455E+02	16.490	.104

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
4.0343E+02	13.970	.098	4.0231E+02	10.713	.101	4.0120E+02	9.081	.118
4.0009E+02	11.354	.115	3.9899E+02	12.501	.100	3.9789E+02	11.076	.099
3.9679E+02	16.185	.190	3.9570E+02	31.774	.158	3.9461E+02	36.279	.100
3.9353E+02	26.961	.104	3.9245E+02	14.985	.138	3.9138E+02	10.469	.108
3.9031E+02	13.054	.112	3.8925E+02	17.344	.096	3.8819E+02	17.389	.091
3.8714E+02	15.239	.093	3.8608E+02	12.432	.103	3.8504E+02	11.593	.106
3.8400E+02	12.661	.101	3.8296E+02	15.864	.096	3.8192E+02	17.739	.092
3.8089E+02	14.645	.096	3.7987E+02	13.312	.099	3.7885E+02	14.391	.093
3.7783E+02	14.229	.093	3.7682E+02	14.060	.099	3.7581E+02	19.997	.138
3.7480E+02	26.969	.090	3.7380E+02	26.507	.086	3.7280E+02	23.842	.088
3.7181E+02	19.966	.098	3.7082E+02	16.503	.102	3.6984E+02	14.153	.100
3.6885E+02	12.780	.094	3.6788E+02	13.215	.099	3.6690E+02	15.767	.101
3.6593E+02	20.103	.091	3.6497E+02	21.199	.099	3.6401E+02	14.812	.117
3.6305E+02	10.070	.107	3.6209E+02	8.575	.117	3.6114E+02	8.338	.111
3.6020E+02	10.866	.134	3.5925E+02	18.985	.103	3.5831E+02	21.189	.095
3.5738E+02	19.641	.106	3.5644E+02	16.480	.105	3.5552E+02	14.431	.093
3.5459E+02	13.939	.095	3.5367E+02	14.491	.104	3.5275E+02	20.568	.103
3.5184E+02	28.761	.087	3.5093E+02	32.912	.084	3.5002E+02	31.075	.089
3.4912E+02	27.596	.094	3.4822E+02	26.840	.097	3.4732E+02	21.058	.101
3.4643E+02	17.402	.113	3.4554E+02	19.362	.116	3.4465E+02	14.650	.109
3.4377E+02	13.427	.098	3.4289E+02	13.941	.094	3.4201E+02	14.628	.096
3.4114E+02	15.651	.099	3.4027E+02	17.579	.094	3.3941E+02	20.254	.088
3.3854E+02	23.804	.087	3.3768E+02	21.696	.093	3.3683E+02	16.173	.098
3.3597E+02	13.686	.097	3.3512E+02	14.149	.092	3.3428E+02	16.216	.094
3.3343E+02	15.376	.098	3.3259E+02	13.934	.101	3.3176E+02	14.955	.096
3.3092E+02	16.022	.089	3.3009E+02	16.485	.095	3.2926E+02	16.206	.110
3.2844E+02	14.297	.109	3.2762E+02	13.939	.096	3.2680E+02	13.179	.093
3.2599E+02	12.445	.101	3.2517E+02	11.866	.111	3.2436E+02	10.714	.107
3.2356E+02	12.015	.094	3.2276E+02	13.964	.093	3.2196E+02	13.242	.101
3.2116E+02	11.608	.102	3.2036E+02	13.330	.094	3.1957E+02	15.865	.089
3.1878E+02	18.086	.092	3.1800E+02	15.808	.096	3.1722E+02	14.153	.104
3.1644E+02	17.147	.126	3.1566E+02	14.759	.095	3.1489E+02	10.865	.104
3.1412E+02	10.863	.113	3.1335E+02	19.396	.156	3.1258E+02	26.123	.084
3.1182E+02	24.259	.088	3.1106E+02	20.394	.096	3.1030E+02	16.508	.107

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
3.0955E+02	14.972	.100	3.0880E+02	13.322	.093	3.0805E+02	18.033	.144
3.0730E+02	19.637	.101	3.0656E+02	17.666	.132	3.0582E+02	20.021	.092
3.0508E+02	14.031	.098	3.0434E+02	9.912	.105	3.0361E+02	8.340	.115
3.0288E+02	9.760	.113	3.0216E+02	18.121	.125	3.0143E+02	25.739	.092
3.0071E+02	24.006	.087	2.9999E+02	18.017	.116	2.9927E+02	17.346	.092
2.9856E+02	19.268	.091	2.9784E+02	14.384	.097	2.9714E+02	11.060	.111
2.9643E+02	18.129	.133	2.9502E+02	14.859	.094	2.9432E+02	11.906	.097
2.9363E+02	14.324	.097	2.9293E+02	21.303	.122	2.9224E+02	28.754	.089
2.9155E+02	26.671	.083	2.9086E+02	21.730	.093	2.9018E+02	17.471	.094
2.8950E+02	17.468	.111	2.8882E+02	23.164	.130	2.8814E+02	20.665	.099
2.8747E+02	16.441	.096	2.8679E+02	18.334	.097	2.8612E+02	16.856	.091
2.8545E+02	19.457	.123	2.8479E+02	26.802	.097	2.8413E+02	28.832	.105
2.8347E+02	34.821	.095	2.8281E+02	28.460	.086	2.8215E+02	23.821	.087
2.8150E+02	23.698	.089	2.8084E+02	21.171	.091	2.8019E+02	17.337	.088
2.7955E+02	15.673	.097	2.7890E+02	20.293	.100	2.7826E+02	27.756	.090
2.7762E+02	26.580	.097	2.7698E+02	29.301	.092	2.7634E+02	30.667	.081
2.7571E+02	29.629	.082	2.7508E+02	28.153	.087	2.7445E+02	32.825	.096
2.7382E+02	44.413	.097	2.7320E+02	41.124	.087	2.7257E+02	30.462	.091
2.7195E+02	26.729	.093	2.7133E+02	25.121	.087	2.7072E+02	24.933	.091
2.7010E+02	27.315	.090	2.6949E+02	22.134	.100	2.6888E+02	19.373	.093
2.6827E+02	23.507	.099	2.6767E+02	27.739	.098	2.6706E+02	25.499	.088
2.6646E+02	22.615	.093	2.6586E+02	22.994	.088	2.6526E+02	27.271	.099
2.6466E+02	41.065	.104	2.6407E+02	47.266	.090	2.6348E+02	45.096	.084
2.6289E+02	41.542	.081	2.6230E+02	37.923	.080	2.6171E+02	35.191	.083
2.6113E+02	32.552	.087	2.6055E+02	28.660	.095	2.5997E+02	27.944	.091
2.5939E+02	33.623	.083	2.5881E+02	41.978	.089	2.5824E+02	44.099	.092
2.5766E+02	40.339	.098	2.5709E+02	34.916	.088	2.5652E+02	31.465	.083
2.5596E+02	32.399	.091	2.5539E+02	29.904	.091	2.5483E+02	23.489	.087
2.5427E+02	21.087	.087	2.5371E+02	27.876	.126	2.5315E+02	35.230	.094
2.5259E+02	33.848	.089	2.5204E+02	28.202	.086	2.5149E+02	33.334	.096
2.5094E+02	31.222	.110	2.5039E+02	21.681	.089	2.4984E+02	18.508	.090
2.4930E+02	16.107	.089	2.4875E+02	13.796	.089	2.4821E+02	12.414	.095
2.4767E+02	13.550	.093	2.4713E+02	14.651	.088	2.4660E+02	15.352	.088
2.4606E+02	14.997	.086	2.4553E+02	14.088	.092	2.4500E+02	13.010	.092

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
2.4447E+02	11.884	.089	2.4394E+02	12.086	.090	2.4342E+02	13.888	.094
2.4289E+02	16.406	.093	2.4237E+02	22.273	.088	2.4185E+02	24.664	.084
2.4133E+02	24.694	.085	2.4081E+02	24.574	.099	2.4030E+02	24.617	.095
2.3978E+02	25.327	.087	2.3927E+02	24.394	.085	2.3876E+02	22.812	.092
2.3825E+02	23.930	.099	2.3774E+02	24.249	.092	2.3724E+02	23.373	.087
2.3673E+02	21.021	.083	2.3623E+02	20.317	.093	2.3573E+02	21.304	.097
2.3523E+02	20.407	.087	2.3473E+02	18.032	.088	2.3424E+02	17.738	.094
2.3374E+02	18.266	.099	2.3325E+02	20.419	.098	2.3276E+02	24.051	.089
2.3227E+02	24.730	.084	2.3178E+02	23.796	.091	2.3129E+02	23.078	.096
2.3081E+02	22.394	.086	2.3032E+02	21.896	.084	2.2984E+02	20.563	.086
2.2936E+02	19.142	.092	2.2888E+02	18.962	.097	2.2840E+02	18.226	.093
2.2793E+02	16.513	.087	2.2745E+02	17.256	.087	2.2698E+02	18.294	.091
2.2651E+02	17.434	.093	2.2603E+02	15.015	.088	2.2556E+02	14.056	.086
2.2510E+02	12.164	.091	2.2463E+02	11.140	.099	2.2417E+02	13.154	.092
2.2370E+02	17.342	.089	2.2324E+02	18.644	.084	2.2278E+02	17.189	.086
2.2232E+02	15.801	.089	2.2186E+02	15.153	.089	2.2141E+02	14.435	.089
2.2095E+02	12.863	.087	2.2050E+02	10.525	.095	2.2005E+02	9.404	.106
2.1960E+02	8.560	.099	2.1915E+02	7.853	.095	2.1870E+02	7.142	.101
2.1826E+02	6.115	.110	2.1781E+02	5.559	.107	2.1737E+02	5.858	.100
2.1692E+02	8.427	.104	2.1648E+02	8.720	.108	2.1604E+02	8.977	.108
2.1560E+02	10.550	.099	2.1517E+02	12.042	.093	2.1473E+02	13.364	.097
2.1430E+02	14.513	.099	2.1387E+02	19.142	.101	2.1343E+02	29.802	.101
2.1300E+02	37.454	.088	2.1257E+02	35.566	.088	2.1215E+02	31.412	.092
2.1172E+02	26.703	.089	2.1130E+02	26.444	.085	2.1087E+02	26.194	.086
2.1045E+02	33.841	.095	2.1003E+02	34.562	.098	2.0961E+02	40.060	.091
2.0919E+02	51.346	.094	2.0877E+02	53.629	.081	2.0835E+02	46.201	.091
2.0794E+02	40.607	.089	2.0753E+02	37.476	.086	2.0711E+02	33.878	.086
2.0670E+02	32.736	.085	2.0629E+02	30.366	.091	2.0588E+02	28.625	.090
2.0546E+02	26.291	.087	2.0507E+02	24.269	.086	2.0466E+02	22.478	.093
2.0426E+02	20.998	.099	2.0386E+02	19.870	.094	2.0345E+02	20.784	.086
2.0305E+02	19.786	.086	2.0265E+02	19.728	.107	2.0226E+02	29.837	.115
2.0186E+02	45.142	.126	2.0146E+02	44.370	.087	2.0107E+02	34.720	.093
2.0068E+02	30.227	.106	2.0028E+02	27.957	.102	1.9989E+02	25.254	.089
1.9950E+02	25.204	.086	1.9911E+02	25.146	.094	1.9873E+02	25.496	.099

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.9834E+02	26.604	.092	1.9795E+02	25.916	.086	1.9757E+02	22.920	.088
1.9719E+02	19.466	.092	1.9680E+02	17.897	.095	1.9642E+02	16.538	.093
1.9604E+02	15.280	.088	1.9566E+02	13.530	.090	1.9528E+02	13.077	.098
1.9491E+02	13.753	.100	1.9453E+02	14.235	.090	1.9416E+02	14.497	.092
1.9378E+02	16.425	.099	1.9341E+02	18.948	.098	1.9304E+02	20.060	.093
1.9267E+02	20.602	.087	1.9230E+02	22.291	.090	1.9193E+02	23.389	.096
1.9157E+02	21.759	.096	1.9120E+02	20.833	.091	1.9084E+02	20.920	.090
1.9047E+02	19.265	.092	1.9011E+02	17.829	.099	1.8975E+02	16.504	.099
1.8939E+02	14.954	.096	1.8903E+02	13.535	.093	1.8867E+02	13.003	.101
1.8831E+02	15.200	.130	1.8795E+02	22.001	.111	1.8760E+02	24.492	.092
1.8724E+02	25.731	.093	1.8689E+02	28.267	.095	1.8654E+02	27.312	.097
1.8619E+02	23.642	.089	1.8584E+02	20.822	.087	1.8549E+02	18.674	.089
1.8514E+02	17.592	.104	1.8479E+02	15.415	.104	1.8444E+02	15.347	.090
1.8410E+02	17.812	.091	1.8375E+02	22.169	.106	1.8341E+02	27.090	.098
1.8306E+02	26.176	.096	1.8272E+02	25.607	.092	1.8238E+02	28.497	.091
1.8204E+02	28.223	.092	1.8170E+02	26.379	.099	1.8137E+02	29.387	.093
1.8103E+02	34.014	.086	1.8069E+02	37.712	.096	1.8036E+02	39.232	.101
1.8002E+02	42.137	.097	1.7969E+02	49.482	.098	1.7936E+02	51.334	.086
1.7902E+02	50.327	.099	1.7869E+02	45.066	.102	1.7836E+02	43.032	.096
1.7804E+02	39.322	.089	1.7771E+02	35.641	.088	1.7738E+02	32.942	.097
1.7706E+02	29.991	.096	1.7673E+02	29.437	.093	1.7641E+02	28.921	.087
1.7608E+02	27.075	.096	1.7576E+02	24.580	.106	1.7544E+02	22.450	.096
1.7512E+02	22.283	.091	1.7480E+02	23.023	.090	1.7448E+02	23.905	.093
1.7416E+02	22.458	.104	1.7384E+02	21.445	.096	1.7353E+02	20.643	.093
1.7321E+02	19.482	.089	1.7290E+02	18.302	.093	1.7258E+02	17.754	.094
1.7227E+02	21.972	.108	1.7196E+02	30.262	.106	1.7165E+02	31.865	.093
1.7134E+02	29.148	.104	1.7103E+02	26.034	.111	1.7072E+02	22.439	.099
1.7041E+02	18.777	.095	1.7010E+02	15.273	.103	1.6980E+02	14.104	.113
1.6949E+02	12.594	.101	1.6919E+02	11.615	.099	1.6888E+02	10.659	.102
1.6858E+02	10.438	.111	1.6828E+02	11.837	.116	1.6798E+02	15.427	.108
1.6768E+02	18.282	.094	1.6738E+02	21.037	.106	1.6708E+02	22.651	.107
1.6678E+02	23.602	.100	1.6648E+02	23.390	.092	1.6619E+02	22.401	.095
1.6589E+02	21.240	.104	1.6560E+02	19.141	.107	1.6530E+02	16.903	.096
1.6472E+02	15.009	.088	1.6442E+02	14.291	.093	1.6413E+02	13.897	.099

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.6384E+02	28.846	.192	1.6355E+02	47.876	.091	1.6326E+02	49.442	.082
1.6298E+02	51.794	.091	1.6269E+02	61.516	.097	1.6240E+02	63.601	.084
1.6212E+02	58.239	.081	1.6183E+02	55.247	.078	1.6155E+02	56.808	.080
1.6126E+02	56.200	.080	1.6098E+02	50.563	.079	1.6070E+02	45.265	.080
1.6042E+02	40.719	.093	1.6014E+02	34.543	.091	1.5986E+02	29.676	.086
1.5958E+02	24.221	.085	1.5930E+02	20.627	.091	1.5902E+02	18.035	.096
1.5875E+02	16.226	.095	1.5847E+02	13.919	.088	1.5819E+02	12.066	.088
1.5792E+02	11.293	.092	1.5765E+02	10.771	.097	1.5737E+02	10.473	.097
1.5710E+02	9.675	.087	1.5683E+02	8.818	.087	1.5656E+02	8.058	.093
1.5629E+02	7.497	.095	1.5602E+02	7.122	.092	1.5575E+02	7.127	.087
1.5548E+02	7.890	.090	1.5521E+02	9.465	.097	1.5495E+02	14.005	.109
1.5468E+02	20.057	.093	1.5441E+02	26.138	.087	1.5415E+02	29.029	.082
1.5389E+02	29.520	.099	1.5362E+02	25.110	.089	1.5336E+02	22.775	.081
1.5310E+02	20.989	.080	1.5284E+02	19.584	.085	1.5257E+02	19.606	.090
1.5231E+02	22.721	.086	1.5206E+02	28.836	.087	1.5180E+02	32.732	.082
1.5154E+02	29.995	.088	1.5128E+02	25.634	.083	1.5102E+02	22.618	.082
1.5077E+02	19.123	.088	1.5051E+02	15.381	.096	1.5026E+02	13.058	.091
1.5000E+02	10.705	.087	1.4975E+02	9.130	.086	1.4950E+02	8.387	.090
1.4924E+02	8.142	.095	1.4899E+02	8.784	.093	1.4874E+02	11.213	.089
1.4849E+02	12.751	.083	1.4824E+02	12.480	.085	1.4799E+02	12.223	.096
1.4774E+02	11.477	.094	1.4750E+02	10.302	.087	1.4725E+02	9.514	.087
1.4700E+02	10.807	.119	1.4676E+02	15.191	.109	1.4651E+02	20.445	.095
1.4627E+02	21.777	.082	1.4602E+02	21.893	.088	1.4578E+02	21.784	.099
1.4553E+02	21.863	.101	1.4529E+02	21.605	.091	1.4505E+02	20.732	.085
1.4481E+02	20.037	.088	1.4457E+02	18.157	.098	1.4433E+02	16.536	.096
1.4409E+02	14.962	.090	1.4385E+02	13.286	.089	1.4361E+02	11.552	.095
1.4338E+02	9.625	.104	1.4314E+02	7.884	.100	1.4290E+02	6.874	.094
1.4267E+02	6.769	.094	1.4243E+02	7.133	.097	1.4220E+02	7.330	.102
1.4196E+02	7.764	.096	1.4173E+02	8.311	.090	1.4150E+02	9.162	.088
1.4126E+02	10.014	.091	1.4103E+02	11.111	.092	1.4080E+02	11.903	.086
1.4057E+02	13.436	.089	1.4034E+02	16.285	.089	1.4011E+02	20.124	.091
1.3988E+02	20.814	.094	1.3965E+02	21.216	.086	1.3943E+02	21.166	.084
1.3920E+02	21.197	.087	1.3897E+02	21.129	.092	1.3875E+02	21.027	.090
1.3852E+02	22.326	.097	1.3830E+02	29.167	.100	1.3807E+02	36.960	.087

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.3785E+02	43.437	.095	1.3762E+02	48.775	.088	1.3740E+02	48.716	.083
1.3718E+02	46.758	.086	1.3696E+02	45.549	.092	1.3673E+02	41.663	.096
1.3651E+02	37.930	.088	1.3629E+02	34.943	.085	1.3607E+02	32.191	.093
1.3585E+02	32.029	.103	1.3564E+02	35.688	.091	1.3542E+02	38.428	.083
1.3520E+02	39.823	.083	1.3498E+02	38.752	.086	1.3477E+02	35.298	.089
1.3455E+02	30.657	.091	1.3434E+02	27.935	.082	1.3412E+02	27.360	.084
1.3391E+02	30.426	.095	1.3369E+02	29.636	.094	1.3348E+02	32.270	.089
1.3327E+02	42.783	.091	1.3305E+02	51.307	.089	1.3284E+02	52.604	.088
1.3263E+02	51.511	.082	1.3242E+02	48.567	.080	1.3221E+02	45.140	.080
1.3200E+02	40.771	.089	1.3179E+02	36.083	.094	1.3158E+02	37.376	.090
1.3137E+02	39.383	.082	1.3117E+02	40.400	.082	1.3096E+02	39.437	.087
1.3075E+02	39.324	.088	1.3055E+02	49.665	.101	1.3034E+02	81.072	.111
1.3013E+02	107.430	.087	1.2993E+02	114.100	.081	1.2973E+02	104.750	.085
1.2952E+02	91.910	.082	1.2932E+02	80.913	.085	1.2911E+02	74.054	.091
1.2891E+02	68.342	.092	1.2871E+02	64.817	.082	1.2851E+02	59.403	.081
1.2831E+02	52.877	.089	1.2811E+02	49.831	.089	1.2791E+02	52.078	.084
1.2771E+02	57.006	.080	1.2751E+02	54.647	.080	1.2731E+02	49.980	.086
1.2711E+02	43.604	.094	1.2672E+02	35.905	.084	1.2652E+02	34.089	.084
1.2632E+02	34.899	.094	1.2613E+02	37.681	.102	1.2593E+02	37.927	.091
1.2574E+02	35.418	.084	1.2554E+02	33.240	.084	1.2535E+02	30.835	.091
1.2515E+02	26.323	.099	1.2496E+02	21.718	.097	1.2477E+02	18.439	.086
1.2457E+02	17.196	.094	1.2438E+02	18.578	.096	1.2419E+02	18.889	.088
1.2400E+02	20.220	.085	1.2381E+02	22.326	.090	1.2362E+02	25.417	.095
1.2343E+02	29.805	.095	1.2324E+02	36.542	.090	1.2305E+02	42.156	.083
1.2286E+02	47.722	.083	1.2268E+02	49.761	.086	1.2249E+02	48.553	.089
1.2230E+02	45.818	.083	1.2211E+02	40.543	.082	1.2193E+02	35.380	.088
1.2174E+02	31.530	.087	1.2156E+02	27.412	.084	1.2137E+02	25.117	.082
1.2119E+02	23.895	.082	1.2100E+02	23.525	.086	1.2082E+02	24.842	.085
1.2064E+02	26.712	.084	1.2045E+02	27.146	.082	1.2027E+02	25.445	.081
1.2009E+02	23.200	.088	1.1991E+02	21.320	.089	1.1972E+02	20.679	.084
1.1954E+02	20.533	.082	1.1936E+02	22.393	.086	1.1918E+02	27.156	.094
1.1900E+02	33.532	.087	1.1882E+02	37.440	.080	1.1865E+02	38.476	.083
1.1847E+02	37.330	.087	1.1829E+02	35.340	.089	1.1811E+02	31.670	.084
1.1793E+02	28.830	.079	1.1776E+02	27.196	.081	1.1758E+02	26.641	.087

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.1741E+02	28.763	.084	1.1723E+02	31.097	.081	1.1705E+02	33.609	.080
1.1688E+02	37.007	.079	1.1671E+02	39.348	.085	1.1653E+02	34.741	.091
1.1636E+02	30.211	.082	1.1618E+02	25.147	.080	1.1601E+02	20.513	.095
1.1584E+02	16.561	.093	1.1567E+02	14.873	.092	1.1549E+02	14.847	.082
1.1532E+02	15.927	.088	1.1515E+02	17.986	.091	1.1498E+02	19.600	.088
1.1481E+02	18.589	.084	1.1464E+02	17.193	.078	1.1447E+02	15.388	.087
1.1430E+02	12.995	.093	1.1414E+02	11.325	.088	1.1397E+02	9.728	.083
1.1380E+02	8.647	.088	1.1363E+02	8.084	.093	1.1346E+02	7.639	.097
1.1330E+02	6.890	.091	1.1313E+02	6.847	.089	1.1297E+02	8.165	.101
1.1280E+02	11.254	.122	1.1263E+02	15.456	.099	1.1247E+02	18.051	.087
1.1230E+02	20.095	.084	1.1214E+02	23.583	.094	1.1198E+02	31.354	.101
1.1181E+02	42.609	.093	1.1165E+02	59.822	.093	1.1149E+02	77.763	.099
1.1132E+02	98.652	.092	1.1116E+02	112.940	.092	1.1100E+02	115.030	.087
1.1084E+02	112.100	.079	1.1068E+02	105.560	.083	1.1052E+02	99.530	.090
1.1036E+02	92.507	.087	1.1020E+02	85.167	.083	1.1004E+02	80.604	.080
1.0988E+02	88.030	.093	1.0972E+02	99.866	.099	1.0956E+02	99.090	.090
1.0940E+02	93.377	.085	1.0924E+02	84.540	.086	1.0909E+02	73.983	.096
1.0893E+02	61.209	.101	1.0877E+02	49.121	.101	1.0861E+02	37.984	.090
1.0846E+02	33.017	.069	1.0830E+02	30.679	.093	1.0815E+02	28.991	.095
1.0799E+02	26.902	.092	1.0784E+02	25.371	.082	1.0768E+02	26.624	.087
1.0753E+02	24.179	.094	1.0737E+02	21.016	.089	1.0722E+02	17.242	.091
1.0707E+02	15.267	.091	1.0691E+02	13.722	.102	1.0676E+02	12.004	.099
1.0661E+02	10.700	.093	1.0646E+02	9.906	.090	1.0631E+02	10.419	.090
1.0616E+02	12.987	.095	1.0600E+02	19.280	.134	1.0585E+02	30.853	.125
1.0570E+02	43.951	.092	1.0555E+02	55.836	.088	1.0540E+02	57.187	.087
1.0525E+02	51.677	.091	1.0511E+02	42.038	.095	1.0496E+02	33.681	.087
1.0481E+02	27.604	.090	1.0466E+02	23.128	.092	1.0451E+02	21.176	.090
1.0436E+02	20.736	.086	1.0422E+02	20.058	.085	1.0407E+02	18.629	.096
1.0392E+02	17.419	.097	1.0378E+02	15.686	.091	1.0363E+02	14.688	.084
1.0349E+02	14.688	.094	1.0334E+02	14.597	.103	1.0320E+02	15.032	.095
1.0305E+02	14.067	.081	1.0291E+02	14.370	.088	1.0276E+02	16.516	.095
1.0262E+02	17.924	.092	1.0247E+02	17.845	.083	1.0233E+02	17.418	.081
1.0219E+02	15.585	.085	1.0205E+02	13.779	.092	1.0190E+02	12.650	.091
1.0176E+02	11.173	.089	1.0162E+02	10.013	.086	1.0148E+02	9.881	.094

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.0134E+02	9.618	.092	1.0120E+02	9.500	.091	1.0106E+02	10.190	.087
1.0092E+02	11.619	.087	1.0078E+02	14.892	.120	1.0064E+02	21.736	.091
1.0050E+02	29.290	.107	1.0036E+02	43.503	.106	1.0022E+02	71.189	.122
1.0008E+02	103.330	.087	9.9943E+01	107.510	.086	9.9805E+01	105.640	.081
9.9667E+01	98.678	.080	9.9530E+01	88.629	.084	9.9393E+01	78.323	.102
9.9256E+01	67.254	.093	9.9119E+01	57.832	.087	9.8983E+01	53.736	.083
9.8847E+01	48.577	.092	9.8711E+01	43.141	.119	9.8576E+01	34.352	.089
9.8441E+01	32.954	.080	9.8306E+01	30.074	.082	9.8172E+01	28.101	.092
9.8037E+01	24.387	.091	9.7903E+01	27.537	.091	9.7770E+01	31.405	.079
9.7636E+01	34.029	.090	9.7503E+01	39.163	.091	9.7370E+01	39.826	.083
9.7238E+01	41.272	.082	9.7105E+01	46.259	.086	9.6973E+01	58.834	.092
9.6841E+01	90.700	.127	9.6710E+01	134.370	.093	9.6447E+01	232.100	.084
9.6317E+01	233.520	.088	9.6186E+01	207.780	.096	9.6056E+01	182.840	.093
9.5926E+01	154.050	.082	9.5796E+01	132.470	.084	9.5667E+01	116.830	.090
9.5538E+01	99.514	.088	9.5409E+01	89.139	.080	9.5280E+01	82.554	.081
9.5152E+01	75.720	.085	9.5024E+01	66.015	.102	9.4896E+01	59.217	.086
9.4768E+01	55.018	.078	9.4641E+01	50.640	.083	9.4514E+01	45.719	.089
9.4387E+01	42.106	.090	9.4260E+01	44.767	.082	9.4134E+01	48.856	.078
9.4008E+01	51.113	.083	9.3882E+01	50.511	.084	9.3756E+01	48.001	.083
9.3631E+01	49.013	.080	9.3506E+01	54.858	.079	9.3381E+01	60.636	.085
9.3257E+01	70.635	.094	9.3132E+01	72.460	.088	9.3008E+01	73.600	.081
9.2885E+01	72.301	.079	9.2761E+01	70.163	.086	9.2638E+01	65.257	.095
9.2515E+01	60.732	.089	9.2392E+01	57.488	.082	9.2269E+01	54.541	.082
9.2147E+01	51.862	.084	9.2025E+01	46.465	.087	9.1903E+01	42.255	.082
9.1781E+01	39.223	.082	9.1660E+01	37.149	.083	9.1539E+01	35.263	.085
9.1418E+01	34.501	.086	9.1297E+01	35.485	.081	9.1177E+01	39.372	.090
9.1057E+01	47.185	.103	9.0937E+01	58.393	.091	9.0817E+01	67.473	.080
9.0697E+01	75.265	.078	9.0578E+01	75.095	.080	9.0459E+01	70.247	.083
9.0340E+01	63.048	.081	9.0222E+01	57.472	.080	9.0104E+01	52.248	.078
8.9986E+01	49.533	.082	8.9868E+01	44.401	.088	8.9750E+01	41.313	.088
8.9633E+01	36.046	.094	8.9516E+01	31.530	.080	8.9399E+01	28.768	.086
8.9282E+01	23.758	.106	8.9166E+01	19.899	.091	8.9049E+01	18.221	.084
8.8933E+01	15.683	.085	8.8818E+01	13.528	.087	8.8702E+01	12.759	.101
8.8587E+01	12.622	.084	8.8472E+01	14.878	.097	8.8357E+01	17.925	.091

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
8.8242E+01	20.258	.087	8.8128E+01	20.504	.087	8.8014E+01	18.913	.087
8.7899E+01	15.774	.087	8.7786E+01	12.525	.085	8.7672E+01	10.197	.098
8.7559E+01	8.970	.091	8.7446E+01	8.576	.087	8.7333E+01	9.545	.090
8.7220E+01	11.288	.096	8.7108E+01	12.654	.087	8.6996E+01	12.601	.088
8.6884E+01	11.552	.085	8.6772E+01	11.158	.089	8.6660E+01	11.168	.096
8.6549E+01	11.698	.088	8.6438E+01	14.025	.085	8.6327E+01	17.128	.087
8.6216E+01	20.971	.087	8.6106E+01	23.728	.088	8.5995E+01	24.007	.083
8.5885E+01	23.489	.081	8.5775E+01	22.850	.082	8.5666E+01	20.076	.086
8.5556E+01	18.484	.088	8.5447E+01	18.205	.085	8.5338E+01	19.259	.082
8.5229E+01	21.589	.081	8.5120E+01	27.033	.086	8.5012E+01	36.657	.099
8.4904E+01	51.714	.092	8.4796E+01	70.761	.095	8.4688E+01	99.298	.101
8.4581E+01	134.980	.103	8.4473E+01	154.500	.092	8.4366E+01	154.150	.086
8.4259E+01	135.170	.082	8.4152E+01	116.410	.086	8.4046E+01	92.272	.100
8.3939E+01	76.288	.088	8.3833E+01	59.215	.096	8.3727E+01	44.392	.090
8.3621E+01	35.297	.093	8.3516E+01	33.066	.087	8.3410E+01	30.929	.084
8.3305E+01	27.201	.084	8.3200E+01	24.001	.085	8.3096E+01	21.494	.095
8.2991E+01	20.160	.093	8.2887E+01	23.186	.102	8.2783E+01	31.612	.093
8.2679E+01	40.128	.125	8.2575E+01	53.058	.097	8.2471E+01	55.606	.086
8.2368E+01	51.865	.085	8.2265E+01	42.004	.087	8.2162E+01	35.565	.086
8.2059E+01	30.282	.082	8.1956E+01	24.322	.096	8.1854E+01	20.402	.084
8.1752E+01	19.179	.089	8.1650E+01	18.642	.097	8.1548E+01	17.066	.093
8.1446E+01	16.016	.087	8.1345E+01	14.668	.084	8.1243E+01	13.694	.090
8.1142E+01	12.686	.090	8.1041E+01	11.822	.086	8.0840E+01	12.908	.085
8.0740E+01	14.562	.085	8.0640E+01	17.727	.089	8.0540E+01	21.655	.087
8.0440E+01	25.090	.086	8.0340E+01	28.907	.085	8.0241E+01	34.311	.097
8.0142E+01	40.823	.088	8.0043E+01	47.872	.084	7.9944E+01	58.548	.089
7.9845E+01	71.765	.094	7.9747E+01	80.598	.101	7.9648E+01	99.618	.097
7.9550E+01	112.910	.085	7.9452E+01	119.670	.080	7.9355E+01	115.760	.087
7.9257E+01	104.600	.101	7.9160E+01	90.068	.087	7.9062E+01	79.112	.086
7.8965E+01	67.213	.096	7.8869E+01	59.003	.094	7.8772E+01	51.274	.087
7.8675E+01	45.172	.082	7.8579E+01	41.280	.086	7.8483E+01	42.848	.097
7.8387E+01	51.640	.105	7.8291E+01	64.628	.092	7.8195E+01	80.748	.091
7.8100E+01	100.740	.088	7.8005E+01	108.190	.095	7.7910E+01	100.230	.095
7.7815E+01	87.830	.088	7.7720E+01	74.760	.093	7.7625E+01	62.954	.088

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
7.7531E+01	54.523	.092	7.7437E+01	50.894	.090	7.7343E+01	48.972	.084
7.7249E+01	46.168	.083	7.7155E+01	45.147	.087	7.7061E+01	45.042	.087
7.6968E+01	45.373	.082	7.6782E+01	39.408	.082	7.6689E+01	37.531	.089
7.6596E+01	36.449	.094	7.6504E+01	31.806	.088	7.6411E+01	28.635	.082
7.6319E+01	24.822	.093	7.6227E+01	20.740	.090	7.6135E+01	18.659	.088
7.6044E+01	18.399	.086	7.5952E+01	17.358	.086	7.5861E+01	17.383	.101
7.5769E+01	17.897	.088	7.5588E+01	20.510	.083	7.5497E+01	22.459	.088
7.5406E+01	25.414	.094	7.5316E+01	29.074	.101	7.5226E+01	33.245	.089
7.5135E+01	38.199	.084	7.5046E+01	46.138	.110	7.4956E+01	59.019	.089
7.4866E+01	73.095	.098	7.4777E+01	92.452	.094	7.4688E+01	109.300	.082
7.4599E+01	124.470	.088	7.4510E+01	146.370	.087	7.4421E+01	150.730	.084
7.4332E+01	138.300	.081	7.4244E+01	126.120	.087	7.4155E+01	117.540	.088
7.4067E+01	115.170	.086	7.3979E+01	113.250	.087	7.3892E+01	124.680	.081
7.3804E+01	140.570	.083	7.3716E+01	145.660	.095	7.3629E+01	141.670	.092
7.3542E+01	125.810	.086	7.3455E+01	110.630	.080	7.3368E+01	98.650	.096
7.3281E+01	88.878	.097	7.3194E+01	85.771	.092	7.3108E+01	84.365	.081
7.3022E+01	83.919	.086	7.2936E+01	90.083	.088	7.2850E+01	99.192	.083
7.2764E+01	115.690	.081	7.2678E+01	140.850	.091	7.2593E+01	187.350	.111
7.2507E+01	260.560	.106	7.2422E+01	325.310	.091	7.2337E+01	378.860	.087
7.2252E+01	396.820	.081	7.2167E+01	378.160	.083	7.2082E+01	345.020	.084
7.1998E+01	301.860	.078	7.1914E+01	251.340	.084	7.1745E+01	193.850	.082
7.1662E+01	152.310	.099	7.1578E+01	120.550	.082	7.1494E+01	98.611	.084
7.1327E+01	69.310	.127	7.1244E+01	56.931	.087	7.1161E+01	47.336	.083
7.1079E+01	40.394	.084	7.0996E+01	38.396	.092	7.0913E+01	36.826	.092
7.0831E+01	30.549	.091	7.0749E+01	26.152	.089	7.0666E+01	23.900	.082
7.0584E+01	21.311	.087	7.0503E+01	19.985	.088	7.0421E+01	18.901	.092
7.0339E+01	17.940	.085	7.0258E+01	16.894	.093	7.0177E+01	16.521	.088
7.0095E+01	16.358	.086	7.0014E+01	16.026	.086	6.9934E+01	15.919	.088
6.9853E+01	16.320	.086	6.9772E+01	16.005	.092	6.9692E+01	15.746	.101
6.9611E+01	14.041	.093	6.9531E+01	13.490	.087	6.9451E+01	13.451	.091
6.9371E+01	12.889	.093	6.9291E+01	12.824	.091	6.9212E+01	12.817	.087
6.9132E+01	12.959	.085	6.9053E+01	14.314	.094	6.8974E+01	16.957	.107
6.8895E+01	20.057	.087	6.8816E+01	22.991	.095	6.8737E+01	31.377	.104
6.8658E+01	42.295	.085	6.8580E+01	49.528	.084	6.8501E+01	49.668	.081

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
6.8423E+01	48.324	.082	6.8345E+01	46.439	.085	6.8267E+01	42.196	.086
6.8189E+01	37.385	.082	6.8111E+01	34.776	.086	6.7956E+01	30.271	.090
6.7879E+01	28.849	.097	6.7802E+01	25.557	.086	6.7725E+01	24.252	.085
6.7648E+01	25.131	.086	6.7571E+01	27.260	.088	6.7494E+01	31.298	.089
6.7418E+01	35.119	.124	6.7341E+01	45.121	.113	6.7265E+01	52.380	.094
6.7189E+01	64.334	.101	6.7113E+01	83.320	.093	6.7037E+01	104.020	.083
6.6961E+01	128.190	.085	6.6886E+01	156.910	.087	6.6810E+01	171.660	.088
6.6735E+01	170.970	.088	6.6660E+01	162.770	.083	6.6584E+01	143.520	.087
6.6510E+01	123.040	.087	6.6435E+01	104.780	.094	6.6360E+01	84.694	.095
6.6285E+01	69.497	.089	6.6211E+01	66.135	.092	6.6136E+01	70.080	.094
6.6062E+01	83.316	.089	6.5988E+01	105.510	.087	6.5914E+01	130.920	.087
6.5840E+01	152.600	.091	6.5767E+01	174.640	.085	6.5693E+01	189.740	.086
6.5619E+01	207.270	.086	6.5546E+01	214.080	.084	6.5473E+01	214.190	.091
6.5400E+01	212.440	.106	6.5254E+01	208.700	.084	6.5181E+01	193.860	.083
6.5108E+01	170.190	.092	6.5036E+01	144.790	.085	6.4963E+01	130.200	.082
6.4891E+01	112.560	.088	6.4819E+01	92.648	.102	6.4747E+01	76.477	.107
6.4675E+01	66.049	.097	6.4603E+01	58.943	.085	6.4532E+01	53.886	.085
6.4460E+01	50.783	.091	6.4389E+01	45.682	.096	6.4317E+01	42.180	.086
6.4246E+01	40.963	.086	6.4175E+01	40.276	.084	6.4104E+01	38.707	.090
6.4033E+01	35.977	.089	6.3962E+01	33.776	.085	6.3892E+01	30.396	.086
6.3821E+01	27.505	.092	6.3751E+01	25.070	.088	6.3681E+01	22.691	.086
6.3611E+01	20.884	.086	6.3541E+01	19.826	.091	6.3471E+01	19.813	.096
6.3401E+01	21.665	.092	6.3331E+01	23.727	.087	6.3262E+01	26.307	.091
6.3192E+01	30.600	.092	6.3123E+01	32.023	.095	6.3053E+01	27.837	.102
6.2984E+01	24.828	.089	6.2915E+01	22.390	.088	6.2847E+01	21.588	.091
6.2778E+01	19.997	.086	6.2640E+01	18.292	.088	6.2572E+01	18.459	.090
6.2504E+01	19.303	.100	6.2436E+01	19.363	.104	6.2368E+01	18.068	.094
6.2300E+01	17.563	.089	6.2232E+01	17.312	.087	6.2164E+01	18.218	.097
6.2096E+01	20.435	.095	6.2029E+01	22.721	.093	6.1961E+01	24.784	.086
6.1894E+01	28.076	.088	6.1827E+01	29.116	.091	6.1760E+01	28.102	.095
6.1693E+01	26.110	.090	6.1626E+01	23.818	.087	6.1559E+01	21.212	.094
6.1492E+01	18.367	.097	6.1426E+01	16.175	.089	6.1359E+01	14.458	.087
6.1293E+01	13.064	.092	6.1227E+01	12.687	.097	6.1160E+01	12.812	.091
6.1094E+01	13.171	.088	6.1029E+01	13.968	.089	6.0963E+01	14.947	.089

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
6.0897E+01	16.585	.090	6.0832E+01	19.499	.088	6.0766E+01	22.505	.092
6.0701E+01	27.151	.092	6.0635E+01	33.111	.091	6.0570E+01	40.020	.098
6.0505E+01	45.993	.084	6.0440E+01	53.021	.086	6.0375E+01	60.361	.088
6.0311E+01	62.588	.091	6.0246E+01	63.661	.092	6.0181E+01	61.729	.083
6.0117E+01	55.041	.086	6.0053E+01	48.325	.088	5.9988E+01	46.415	.091
5.9924E+01	44.160	.091	5.9860E+01	41.584	.087	5.9796E+01	40.560	.083
5.9732E+01	40.820	.084	5.9669E+01	40.381	.089	5.9605E+01	38.595	.084
5.9542E+01	37.738	.083	5.9478E+01	37.795	.085	5.9415E+01	36.335	.083
5.9352E+01	35.750	.086	5.9289E+01	35.018	.085	5.9225E+01	34.120	.083
5.9162E+01	34.286	.083	5.9100E+01	34.458	.085	5.9037E+01	34.299	.084
5.8974E+01	33.493	.082	5.8912E+01	31.814	.083	5.8850E+01	30.919	.086
5.8787E+01	30.790	.087	5.8725E+01	30.775	.084	5.8663E+01	31.325	.081
5.8601E+01	32.921	.091	5.8539E+01	36.583	.102	5.8477E+01	42.742	.090
5.8415E+01	47.556	.079	5.8354E+01	51.789	.082	5.8292E+01	59.693	.090
5.8231E+01	67.859	.088	5.8169E+01	79.845	.085	5.8108E+01	92.602	.081
5.8047E+01	103.200	.082	5.7986E+01	115.660	.086	5.7925E+01	133.070	.092
5.7864E+01	135.330	.096	5.7803E+01	136.100	.082	5.7743E+01	136.170	.085
5.7682E+01	133.300	.097	5.7622E+01	124.790	.099	5.7561E+01	120.670	.094
5.7501E+01	116.270	.087	5.7441E+01	108.380	.083	5.7381E+01	95.904	.082
5.7321E+01	84.415	.082	5.7261E+01	78.536	.088	5.7201E+01	71.545	.089
5.7141E+01	63.807	.085	5.7082E+01	57.174	.085	5.7022E+01	49.636	.086
5.6963E+01	46.945	.089	5.6903E+01	43.723	.097	5.6844E+01	42.456	.107
5.6726E+01	40.845	.085	5.6667E+01	39.361	.084	5.6608E+01	42.559	.084
5.6549E+01	48.562	.084	5.6491E+01	56.011	.087	5.6432E+01	65.395	.106
5.6373E+01	79.660	.091	5.6315E+01	93.478	.083	5.6257E+01	109.930	.086
5.6198E+01	134.170	.110	5.6140E+01	161.680	.105	5.6082E+01	160.350	.090
5.6024E+01	152.800	.081	5.5966E+01	147.700	.082	5.5909E+01	126.790	.097
5.5851E+01	114.690	.086	5.5793E+01	103.020	.083	5.5736E+01	89.413	.084
5.5678E+01	76.464	.081	5.5621E+01	63.525	.082	5.5507E+01	49.269	.083
5.5449E+01	43.218	.083	5.5392E+01	36.173	.089	5.5336E+01	30.876	.103
5.5279E+01	25.925	.099	5.5222E+01	23.928	.086	5.5165E+01	21.227	.088
5.5109E+01	18.734	.095	5.5052E+01	16.755	.092	5.4996E+01	17.284	.099
5.4940E+01	14.940	.109	5.4883E+01	13.194	.094	5.4827E+01	12.695	.088
5.4771E+01	11.141	.090	5.4715E+01	9.492	.092	5.4660E+01	9.265	.091

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
5.4604E+01	8.963	.095	5.4548E+01	8.916	.105	5.4493E+01	8.981	.109
5.4437E+01	8.523	.100	5.4381E+01	7.337	.097	5.4326E+01	6.590	.103
5.4271E+01	6.244	.099	5.4216E+01	6.037	.098	5.4161E+01	5.917	.107
5.4106E+01	5.870	.121	5.4051E+01	6.057	.119	5.3996E+01	6.221	.110
5.3941E+01	6.165	.102	5.3886E+01	5.763	.098	5.3832E+01	5.969	.098
5.3777E+01	6.535	.097	5.3723E+01	6.816	.095	5.3668E+01	6.948	.096
5.3614E+01	7.023	.109	5.3560E+01	7.758	.122	5.3506E+01	7.458	.118
5.3452E+01	8.297	.107	5.3398E+01	9.319	.096	5.3344E+01	9.594	.095
5.3290E+01	10.183	.096	5.3237E+01	11.863	.089	5.3183E+01	13.951	.094
5.3130E+01	16.247	.091	5.3076E+01	19.066	.091	5.3023E+01	23.752	.096
5.2969E+01	27.321	.092	5.2916E+01	31.262	.096	5.2863E+01	35.557	.085
5.2810E+01	40.178	.085	5.2757E+01	47.439	.087	5.2704E+01	57.172	.085
5.2651E+01	67.158	.081	5.2599E+01	71.560	.084	5.2493E+01	74.403	.081
5.2441E+01	70.497	.084	5.2388E+01	67.226	.089	5.2336E+01	57.120	.090
5.2284E+01	47.406	.083	5.2232E+01	42.289	.088	5.2179E+01	36.444	.096
5.2128E+01	31.239	.091	5.2075E+01	26.445	.096	5.2024E+01	22.400	.086
5.1972E+01	19.765	.086	5.1920E+01	16.917	.085	5.1869E+01	14.869	.089
5.1817E+01	13.026	.090	5.1765E+01	11.347	.092	5.1714E+01	9.811	.097
5.1663E+01	8.626	.106	5.1611E+01	8.027	.105	5.1560E+01	7.713	.102
5.1509E+01	7.309	.100	5.1458E+01	6.616	.098	5.1407E+01	6.222	.100
5.1356E+01	5.914	.110	5.1306E+01	5.319	.107	5.1255E+01	5.036	.105
5.1204E+01	4.989	.106	5.1154E+01	4.852	.100	5.1103E+01	4.804	.108
5.1053E+01	4.828	.105	5.1002E+01	4.826	.102	5.0952E+01	4.765	.104
5.0902E+01	4.920	.107	5.0852E+01	4.998	.105	5.0802E+01	5.003	.109
5.0752E+01	5.007	.123	5.0702E+01	4.870	.132	5.0652E+01	4.872	.126
5.0602E+01	5.093	.116	5.0553E+01	5.113	.122	5.0503E+01	5.174	.131
5.0453E+01	5.767	.127	5.0404E+01	6.809	.117	5.0354E+01	7.549	.116
5.0305E+01	9.190	.110	5.0256E+01	13.075	.113	5.0207E+01	18.807	.111
5.0158E+01	26.458	.102	5.0109E+01	36.692	.100	5.0060E+01	50.390	.101
5.0011E+01	67.904	.104	4.9962E+01	83.098	.083	4.9865E+01	74.047	.089
4.9816E+01	62.049	.093	4.9767E+01	51.118	.090	4.9719E+01	43.572	.084
4.9671E+01	36.736	.086	4.9622E+01	30.678	.088	4.9574E+01	26.282	.088
4.9526E+01	23.086	.091	4.9478E+01	21.196	.091	4.9430E+01	18.969	.090
4.9382E+01	17.338	.093	4.9334E+01	16.565	.100	4.9286E+01	16.202	.096

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
4.9238E+01	15.144	.090	4.9191E+01	14.057	.094	4.9143E+01	13.859	.098
4.9095E+01	14.125	.101	4.9048E+01	14.867	.100	4.9001E+01	15.346	.096
4.8953E+01	15.975	.096	4.8906E+01	16.267	.094	4.8859E+01	16.418	.095
4.8812E+01	17.161	.098	4.8764E+01	18.786	.097	4.8717E+01	20.615	.097
4.8671E+01	22.885	.095	4.8624E+01	25.105	.091	4.8577E+01	28.671	.090
4.8484E+01	34.907	.087	4.8437E+01	39.028	.111	4.8390E+01	50.842	.119
4.8344E+01	61.710	.098	4.8297E+01	74.988	.095	4.8251E+01	90.861	.099
4.8205E+01	108.980	.097	4.8159E+01	119.070	.089	4.8113E+01	119.200	.083
4.8021E+01	108.310	.081	4.7975E+01	100.480	.082	4.7929E+01	91.273	.084
4.7883E+01	80.107	.093	4.7837E+01	68.644	.086	4.7792E+01	59.078	.087
4.7746E+01	50.880	.091	4.7700E+01	44.470	.085	4.7655E+01	38.473	.087
4.7610E+01	34.185	.087	4.7564E+01	32.116	.084	4.7474E+01	29.768	.084
4.7429E+01	29.315	.084	4.7339E+01	30.138	.084	4.7249E+01	38.728	.094
4.7204E+01	46.419	.090	4.7159E+01	57.581	.090	4.7070E+01	81.217	.091
4.7025E+01	90.632	.088	4.6981E+01	96.961	.094	4.6936E+01	98.493	.101
4.6892E+01	97.026	.102	4.6848E+01	95.652	.095	4.6803E+01	95.794	.098
4.6759E+01	88.746	.102	4.6715E+01	87.111	.097	4.6671E+01	82.130	.099
4.6627E+01	76.748	.091	4.6583E+01	72.200	.087	4.6539E+01	64.939	.092
4.6495E+01	56.102	.090	4.6451E+01	50.496	.083	4.6408E+01	46.021	.081
4.6321E+01	37.615	.081	4.6277E+01	33.505	.083	4.6190E+01	27.620	.082
4.6147E+01	24.880	.083	4.6060E+01	21.591	.088	4.6017E+01	20.335	.088
4.5974E+01	19.412	.089	4.5931E+01	18.659	.105	4.5888E+01	18.522	.108
4.5845E+01	18.839	.098	4.5802E+01	20.514	.097	4.5760E+01	24.052	.098
4.5717E+01	26.580	.091	4.5674E+01	32.880	.091	4.5632E+01	36.758	.083
4.5547E+01	45.507	.081	4.5504E+01	49.862	.081	4.5462E+01	52.698	.083
4.5419E+01	53.116	.088	4.5377E+01	51.151	.092	4.5335E+01	48.068	.088
4.5293E+01	46.056	.087	4.5251E+01	43.125	.094	4.5209E+01	38.347	.100
4.5167E+01	34.076	.104	4.5125E+01	29.859	.110	4.5083E+01	26.668	.092
4.5041E+01	24.055	.089	4.4958E+01	20.202	.085	4.4916E+01	19.072	.084
4.4833E+01	16.282	.090	4.4792E+01	15.249	.091	4.4751E+01	14.395	.099
4.4709E+01	13.640	.109	4.4668E+01	12.315	.111	4.4627E+01	15.165	.148
4.4586E+01	19.897	.115	4.4544E+01	23.029	.091	4.4504E+01	26.633	.089
4.4463E+01	30.619	.086	4.4422E+01	33.604	.084	4.4381E+01	34.514	.082
4.4299E+01	31.424	.084	4.4258E+01	29.483	.091	4.4218E+01	25.818	.092

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
4.4177E+01	22.260	.100	4.4137E+01	19.131	.106	4.4096E+01	16.952	.093
4.4056E+01	15.098	.085	4.3975E+01	11.735	.088	4.3935E+01	10.737	.088
4.3895E+01	10.242	.092	4.3855E+01	10.634	.098	4.3814E+01	11.616	.101
4.3774E+01	11.731	.104	4.3735E+01	12.111	.101	4.3695E+01	13.256	.106
4.3655E+01	16.873	.113	4.3615E+01	19.749	.093	4.3535E+01	24.446	.091
4.3496E+01	27.708	.086	4.3456E+01	29.965	.087	4.3417E+01	31.135	.091
4.3377E+01	32.351	.095	4.3338E+01	32.745	.101	4.3298E+01	32.502	.102
4.3259E+01	29.574	.099	4.3220E+01	26.516	.086	4.3141E+01	22.684	.085
4.3102E+01	20.206	.085	4.3063E+01	17.954	.091	4.3024E+01	16.128	.108
4.2985E+01	12.960	.112	4.2946E+01	11.787	.095	4.2908E+01	10.321	.091
4.2869E+01	9.073	.092	4.2791E+01	7.981	.094	4.2753E+01	7.479	.097
4.2714E+01	7.649	.102	4.2676E+01	7.895	.121	4.2637E+01	8.809	.115
4.2599E+01	9.482	.103	4.2522E+01	10.677	.091	4.2484E+01	11.565	.094
4.2446E+01	12.549	.092	4.2407E+01	13.854	.101	4.2369E+01	15.956	.109
4.2331E+01	17.516	.100	4.2293E+01	18.460	.088	4.2255E+01	19.793	.084
4.2179E+01	20.996	.096	4.2142E+01	21.432	.104	4.2104E+01	21.697	.106
4.2066E+01	21.519	.105	4.2028E+01	21.565	.094	4.1991E+01	21.606	.087
4.1953E+01	21.249	.084	4.1878E+01	18.894	.092	4.1841E+01	17.334	.109
4.1804E+01	15.575	.106	4.1766E+01	16.479	.091	4.1729E+01	16.305	.100
4.1655E+01	14.050	.087	4.1581E+01	13.797	.112	4.1543E+01	14.794	.111
4.1507E+01	15.029	.102	4.1470E+01	16.320	.092	4.1433E+01	17.401	.086
4.1359E+01	19.643	.093	4.1322E+01	21.408	.106	4.1286E+01	23.621	.097
4.1213E+01	31.486	.090	4.1176E+01	39.827	.090	4.1140E+01	49.703	.084
4.1103E+01	57.920	.111	4.1067E+01	76.190	.119	4.0994E+01	89.446	.080
4.0958E+01	88.445	.081	4.0922E+01	85.525	.083	4.0886E+01	82.177	.084
4.0850E+01	75.406	.099	4.0814E+01	64.476	.101	4.0742E+01	53.774	.083
4.0706E+01	46.306	.082	4.0670E+01	41.631	.090	4.0634E+01	39.581	.108
4.0599E+01	33.839	.100	4.0563E+01	31.006	.086	4.0492E+01	28.967	.083
4.0456E+01	29.149	.088	4.0420E+01	31.623	.104	4.0385E+01	29.477	.101
4.0350E+01	25.097	.094	4.0279E+01	21.008	.090	4.0244E+01	20.457	.105
4.0208E+01	20.648	.103	4.0173E+01	20.127	.095	4.0138E+01	22.505	.088
4.0103E+01	24.905	.093	4.0033E+01	25.604	.100	3.9998E+01	26.970	.104
3.9963E+01	28.761	.091	3.9928E+01	29.761	.084	3.9858E+01	29.122	.096
3.9823E+01	27.552	.105	3.9789E+01	25.339	.098	3.9719E+01	24.492	.084

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
3.9649E+01	21.930	.089	3.9615E+01	21.134	.104	3.9580E+01	18.803	.109
3.9545E+01	17.429	.100	3.9476E+01	15.842	.095	3.9441E+01	16.223	.111
3.9406E+01	14.946	.105	3.9372E+01	14.226	.091	3.9303E+01	13.649	.095
3.9268E+01	13.835	.105	3.9233E+01	14.018	.103	3.9199E+01	13.573	.114
3.9164E+01	13.925	.108	3.9095E+01	14.691	.096	3.9061E+01	14.089	.102
3.9026E+01	14.397	.113	3.8992E+01	14.606	.108	3.8957E+01	14.866	.090
3.8888E+01	17.068	.095	3.8854E+01	17.389	.111	3.8819E+01	17.271	.111
3.8785E+01	17.492	.091	3.8716E+01	19.471	.089	3.8682E+01	18.881	.097
3.8648E+01	19.007	.111	3.8613E+01	19.651	.106	3.8579E+01	20.613	.094
3.8545E+01	20.811	.091	3.8476E+01	23.338	.090	3.8442E+01	24.287	.109
3.8408E+01	26.297	.108	3.8339E+01	28.538	.086	3.8305E+01	29.245	.089
3.8271E+01	29.977	.108	3.8237E+01	31.270	.103	3.8203E+01	30.074	.088
3.8168E+01	31.885	.088	3.8100E+01	34.095	.105	3.8066E+01	38.428	.106
3.8032E+01	40.666	.093	3.7964E+01	42.224	.085	3.7930E+01	42.465	.089
3.7896E+01	43.490	.094	3.7862E+01	46.681	.105	3.7828E+01	53.428	.104
3.7760E+01	66.132	.084	3.7726E+01	70.975	.082	3.7692E+01	73.555	.090
3.7658E+01	75.443	.103	3.7591E+01	78.187	.082	3.7557E+01	79.537	.093
3.7523E+01	80.526	.103	3.7489E+01	78.772	.097	3.7455E+01	79.610	.103
3.7422E+01	77.772	.102	3.7354E+01	73.039	.087	3.7320E+01	72.322	.089
3.7287E+01	70.188	.096	3.7253E+01	69.042	.103	3.7219E+01	71.910	.092
3.7186E+01	74.405	.082	3.7118E+01	75.656	.102	3.7085E+01	74.508	.092
3.7051E+01	73.486	.083	3.6984E+01	74.416	.094	3.6950E+01	76.229	.100
3.6917E+01	82.253	.096	3.6863E+01	88.219	.091	3.6816E+01	106.620	.083
3.6783E+01	115.250	.085	3.6749E+01	120.740	.097	3.6716E+01	130.810	.100
3.6682E+01	139.810	.082	3.6615E+01	165.920	.080	3.6582E+01	179.290	.091
3.6549E+01	188.660	.097	3.6515E+01	190.070	.093	3.6482E+01	186.870	.084
3.6448E+01	182.740	.080	3.6382E+01	173.980	.096	3.6348E+01	165.070	.099
3.6315E+01	152.870	.095	3.6249E+01	120.330	.089	3.6215E+01	100.980	.097
3.6182E+01	89.338	.090	3.6149E+01	84.462	.102	3.6116E+01	77.295	.104
3.6083E+01	68.983	.084	3.6016E+01	55.546	.106	3.5983E+01	48.251	.103
3.5950E+01	47.897	.107	3.5917E+01	43.447	.094	3.5851E+01	35.631	.089
3.5818E+01	31.988	.097	3.5785E+01	31.041	.112	3.5752E+01	30.242	.111
3.5719E+01	28.204	.089	3.5653E+01	23.038	.098	3.5620E+01	22.866	.115
3.5587E+01	19.545	.116	3.5521E+01	17.436	.094	3.5488E+01	15.815	.102

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
3.5455E+01	14.320	.109	3.5422E+01	13.949	.121	3.5389E+01	14.104	.117
3.5357E+01	14.077	.100	3.5291E+01	12.919	.104	3.5258E+01	11.774	.117
3.5225E+01	12.236	.123	3.5193E+01	13.124	.108	3.5160E+01	14.419	.104
3.5127E+01	15.676	.097	3.5062E+01	18.454	.117	3.5029E+01	18.263	.106
3.4996E+01	19.693	.094	3.4931E+01	22.163	.099	3.4898E+01	22.426	.115
3.4866E+01	22.847	.109	3.4833E+01	24.610	.098	3.4801E+01	23.407	.091
3.4735E+01	23.107	.102	3.4703E+01	27.859	.141	3.4670E+01	37.928	.126
3.4638E+01	46.706	.095	3.4573E+01	60.225	.091	3.4540E+01	62.952	.091
3.4508E+01	63.119	.109	3.4476E+01	56.020	.123	3.4443E+01	47.593	.096
3.4378E+01	35.685	.103	3.4346E+01	30.165	.127	3.4314E+01	22.875	.128
3.4281E+01	18.396	.108	3.4249E+01	14.802	.100	3.4184E+01	11.684	.111
3.4152E+01	11.012	.131	3.4120E+01	10.799	.122	3.4088E+01	10.822	.103
3.4055E+01	10.904	.100	3.3991E+01	10.071	.116	3.3959E+01	9.759	.133
3.3927E+01	10.385	.119	3.3862E+01	12.190	.099	3.3830E+01	12.417	.109
3.3798E+01	11.914	.155	3.3766E+01	12.238	.154	3.3734E+01	14.303	.107
3.3702E+01	14.851	.101	3.3638E+01	15.018	.101	3.3606E+01	15.171	.113
3.3574E+01	16.522	.120	3.3542E+01	18.402	.108	3.3478E+01	21.760	.089
3.3414E+01	24.004	.114	3.3382E+01	27.164	.108	3.3350E+01	30.418	.091
3.3286E+01	38.103	.093	3.3254E+01	42.874	.107	3.3223E+01	49.693	.098
3.3191E+01	57.498	.095	3.3127E+01	76.385	.086	3.3095E+01	86.416	.103
3.3064E+01	99.701	.101	3.3032E+01	117.720	.098	3.3000E+01	133.100	.087
3.2937E+01	160.610	.084	3.2905E+01	167.450	.097	3.2873E+01	172.920	.099
3.2842E+01	167.520	.095	3.2810E+01	152.380	.082	3.2747E+01	112.030	.123
3.2715E+01	97.205	.101	3.2684E+01	80.789	.123	3.2652E+01	64.495	.092
3.2621E+01	54.460	.084	3.2557E+01	42.319	.101	3.2526E+01	34.211	.115
3.2495E+01	28.859	.117	3.2432E+01	23.304	.094	3.2400E+01	21.405	.095
3.2369E+01	20.883	.111	3.2337E+01	19.856	.116	3.2274E+01	19.057	.090
3.2243E+01	18.754	.090	3.2212E+01	19.033	.103	3.2180E+01	20.085	.116
3.2149E+01	21.597	.107	3.2118E+01	21.695	.109	3.2087E+01	23.125	.096
3.2024E+01	27.743	.092	3.1993E+01	31.296	.108	3.1962E+01	37.716	.111
3.1930E+01	41.594	.091	3.1868E+01	51.666	.086	3.1837E+01	57.775	.104
3.1806E+01	61.758	.104	3.1774E+01	67.653	.090	3.1743E+01	77.950	.088
3.1681E+01	103.170	.093	3.1650E+01	110.250	.101	3.1619E+01	109.050	.104
3.1588E+01	121.210	.086	3.1526E+01	135.740	.081	3.1495E+01	139.050	.086

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
3.1464E+01	144.350	.099	3.1433E+01	145.780	.101	3.1402E+01	150.200	.088
3.1340E+01	144.420	.092	3.1309E+01	127.430	.114	3.1278E+01	120.890	.094
3.1247E+01	119.950	.083	3.1217E+01	119.340	.083	3.1155E+01	108.980	.090
3.1124E+01	106.250	.102	3.1093E+01	101.410	.091	3.1063E+01	99.837	.084
3.1032E+01	94.674	.083	3.0970E+01	81.984	.090	3.0940E+01	75.228	.103
3.0909E+01	72.074	.089	3.0847E+01	63.464	.087	3.0817E+01	57.501	.104
3.0786E+01	48.686	.105	3.0756E+01	45.752	.102	3.0725E+01	46.083	.104
3.0664E+01	43.937	.091	3.0633E+01	39.693	.107	3.0603E+01	38.067	.109
3.0572E+01	36.373	.097	3.0542E+01	36.038	.090	3.0511E+01	35.157	.087
3.0450E+01	35.287	.103	3.0420E+01	38.356	.111	3.0389E+01	36.889	.094
3.0328E+01	36.602	.088	3.0298E+01	42.820	.098	3.0268E+01	48.727	.115
3.0237E+01	56.556	.102	3.0207E+01	64.159	.093	3.0176E+01	74.845	.094
3.0116E+01	102.000	.112	3.0086E+01	121.320	.108	3.0055E+01	136.640	.091
2.9995E+01	164.040	.082	2.9964E+01	165.620	.091	2.9934E+01	157.540	.110
2.9904E+01	142.140	.103	2.9874E+01	130.880	.092	2.9844E+01	119.690	.098
2.9783E+01	86.906	.092	2.9753E+01	70.463	.138	2.9723E+01	48.573	.124
2.9693E+01	36.343	.106	2.9633E+01	24.392	.092	2.9603E+01	21.269	.102
2.9573E+01	18.468	.126	2.9543E+01	16.683	.123	2.9513E+01	16.918	.102
2.9453E+01	19.680	.098	2.9423E+01	20.923	.114	2.9393E+01	22.239	.123
2.9363E+01	21.208	.109	2.9303E+01	25.710	.094	2.9273E+01	28.924	.106
2.9243E+01	33.050	.117	2.9213E+01	37.947	.105	2.9184E+01	40.672	.090
2.9124E+01	50.972	.091	2.9094E+01	54.735	.097	2.9064E+01	60.242	.116
2.9035E+01	60.174	.105	2.8975E+01	76.381	.086	2.8945E+01	84.344	.090
2.8916E+01	94.164	.101	2.8886E+01	104.220	.108	2.8856E+01	116.110	.102
2.8797E+01	137.340	.087	2.8767E+01	146.470	.097	2.8738E+01	157.640	.107
2.8708E+01	170.000	.102	2.8649E+01	168.280	.084	2.8620E+01	163.830	.092
2.8590E+01	153.640	.114	2.8560E+01	134.640	.100	2.8531E+01	116.240	.095
2.8472E+01	89.334	.092	2.8442E+01	80.547	.095	2.8413E+01	74.844	.104
2.8384E+01	68.861	.109	2.8354E+01	64.749	.102	2.8295E+01	59.050	.091
2.8266E+01	55.440	.100	2.8237E+01	52.785	.111	2.8207E+01	47.900	.108
2.8149E+01	46.418	.091	2.8119E+01	45.091	.102	2.8090E+01	43.375	.111
2.8061E+01	41.497	.114	2.8032E+01	41.510	.111	2.8002E+01	41.640	.097
2.7944E+01	40.674	.111	2.7915E+01	38.850	.115	2.7886E+01	34.624	.100
2.7856E+01	35.749	.097	2.7827E+01	34.636	.091	2.7769E+01	31.837	.115

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
2.7740E+01	28.346	.120	2.7711E+01	30.903	.103	2.7682E+01	30.098	.094
2.7624E+01	27.173	.097	2.7595E+01	27.072	.117	2.7566E+01	26.627	.123
2.7537E+01	28.120	.105	2.7479E+01	28.699	.095	2.7450E+01	27.270	.107
2.7421E+01	25.458	.125	2.7392E+01	24.090	.125	2.7363E+01	25.778	.106
2.7305E+01	23.826	.100	2.7277E+01	23.710	.116	2.7248E+01	24.022	.128
2.7219E+01	22.145	.115	2.7190E+01	22.614	.104	2.7133E+01	20.681	.110
2.7104E+01	19.118	.133	2.7075E+01	17.613	.136	2.7046E+01	17.476	.120
2.7018E+01	17.687	.110	2.6960E+01	17.143	.126	2.6932E+01	16.665	.139
2.6903E+01	16.752	.127	2.6846E+01	17.251	.105	2.6817E+01	16.524	.114
2.6788E+01	15.519	.131	2.6760E+01	15.210	.143	2.6731E+01	14.591	.136
2.6674E+01	13.986	.116	2.6646E+01	13.815	.124	2.6617E+01	13.078	.145
2.6589E+01	13.710	.146	2.6560E+01	13.763	.116	2.6503E+01	14.282	.109
2.6475E+01	14.779	.116	2.6447E+01	15.161	.142	2.6418E+01	15.799	.130
2.6361E+01	16.547	.102	2.6333E+01	20.957	.104	2.6305E+01	23.889	.127
2.6276E+01	26.203	.124	2.6248E+01	28.758	.114	2.6220E+01	32.608	.106
2.6163E+01	37.083	.106	2.6135E+01	43.532	.115	2.6107E+01	53.021	.104
2.6079E+01	65.751	.106	2.6022E+01	119.390	.128	2.5994E+01	155.030	.094
2.5966E+01	173.880	.113	2.5938E+01	263.500	.167	2.5910E+01	324.120	.092
2.5881E+01	377.990	.083	2.5825E+01	473.570	.094	2.5797E+01	485.930	.101
2.5769E+01	457.250	.098	2.5713E+01	365.710	.090	2.5685E+01	305.740	.108
2.5657E+01	236.740	.134	2.5629E+01	178.800	.095	2.5601E+01	152.320	.118
2.5573E+01	123.370	.099	2.5518E+01	83.964	.101	2.5490E+01	72.694	.110
2.5462E+01	64.763	.111	2.5434E+01	57.694	.091	2.5378E+01	44.626	.097
2.5350E+01	44.075	.110	2.5323E+01	45.536	.115	2.5295E+01	40.592	.107
2.5267E+01	36.173	.097	2.5212E+01	32.081	.099	2.5184E+01	32.609	.122
2.5156E+01	33.522	.122	2.5129E+01	37.362	.141	2.5101E+01	41.758	.104
2.5045E+01	39.699	.103	2.5018E+01	45.244	.116	2.4990E+01	47.452	.099
2.4963E+01	52.696	.091	2.4908E+01	61.343	.096	2.4880E+01	67.733	.111
2.4852E+01	79.341	.108	2.4825E+01	100.550	.100	2.4770E+01	156.670	.094
2.4742E+01	183.910	.101	2.4715E+01	237.190	.119	2.4687E+01	263.770	.092
2.4660E+01	332.360	.085	2.4605E+01	441.800	.098	2.4578E+01	488.360	.097
2.4550E+01	496.410	.100	2.4523E+01	444.320	.100	2.4496E+01	405.190	.089
2.4441E+01	306.010	.122	2.4414E+01	258.560	.109	2.4386E+01	204.950	.107
2.4359E+01	162.460	.117	2.4305E+01	98.003	.124	2.4278E+01	76.901	.111

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
2.4250E+01	64.107	.115	2.4223E+01	54.529	.112	2.4169E+01	39.564	.099
2.4142E+01	35.030	.106	2.4115E+01	33.615	.121	2.4087E+01	29.128	.133
2.4060E+01	28.052	.120	2.4006E+01	21.982	.109	2.3979E+01	20.959	.123
2.3952E+01	22.030	.143	2.3925E+01	20.582	.143	2.3898E+01	21.062	.123
2.3844E+01	21.551	.115	2.3817E+01	23.813	.129	2.3790E+01	26.977	.138
2.3763E+01	30.239	.117	2.3709E+01	31.012	.107	2.3683E+01	28.662	.126
2.3656E+01	24.246	.143	2.3629E+01	21.869	.137	2.3602E+01	18.593	.120
2.3548E+01	15.113	.124	2.3522E+01	14.948	.139	2.3495E+01	10.949	.193
2.3468E+01	12.834	.243	2.3441E+01	12.138	.154	2.3388E+01	11.505	.150
2.3361E+01	14.708	.177	2.3334E+01	18.624	.157	2.3308E+01	21.427	.142
2.3281E+01	27.443	.154	2.3228E+01	38.193	.115	2.3201E+01	44.457	.128
2.3175E+01	42.267	.129	2.3148E+01	42.258	.110	2.3095E+01	36.245	.106
2.3068E+01	30.846	.129	2.3042E+01	25.108	.193	2.3015E+01	18.019	.149
2.2989E+01	16.105	.137	2.2936E+01	14.681	.147	2.2909E+01	12.482	.185
2.2883E+01	12.412	.258	2.2857E+01	14.952	.152	2.2804E+01	13.700	.151
2.2778E+01	14.208	.180	2.2751E+01	9.790	.226	2.2725E+01	9.686	.345
2.2698E+01	8.346	.216	2.2646E+01	7.962	.208	2.2620E+01	6.529	.256
2.2593E+01	5.515	.331	2.2567E+01	6.063	.297	2.2515E+01	5.375	.250
2.2469E+01	6.250	.252	2.2462E+01	6.443	.280	2.2436E+01	6.865	.297
2.2410E+01	8.354	.234	2.2384E+01	6.842	.217	2.2332E+01	7.603	.230
2.2306E+01	9.734	.247	2.2279E+01	7.041	.283	2.2253E+01	7.040	.246
2.2227E+01	9.445	.192	2.2175E+01	8.626	.262	2.2149E+01	8.629	.273
2.2123E+01	8.276	.244	2.2097E+01	7.250	.231	2.2045E+01	7.811	.222
2.2019E+01	9.952	.256	2.1994E+01	17.310	.304	2.1968E+01	17.203	.168
2.1916E+01	27.184	.157	2.1890E+01	31.670	.126	2.1864E+01	39.933	.144
2.1838E+01	63.709	.216	2.1813E+01	108.120	.151	2.1761E+01	228.750	.112
2.1735E+01	282.170	.110	2.1710E+01	358.940	.113	2.1684E+01	409.300	.099
2.1658E+01	443.670	.086	2.1607E+01	397.680	.099	2.1581E+01	341.360	.120
2.1556E+01	248.550	.145	2.1530E+01	178.380	.114	2.1479E+01	117.340	.147
2.1453E+01	84.779	.139	2.1428E+01	75.682	.125	2.1402E+01	65.090	.130
2.1376E+01	61.570	.108	2.1325E+01	55.062	.105	2.1300E+01	54.453	.126
2.1274E+01	41.497	.146	2.1249E+01	48.696	.137	2.1223E+01	46.808	.118
2.1198E+01	48.836	.110	2.1147E+01	46.252	.143	2.1122E+01	34.432	.157
2.1096E+01	33.004	.134	2.1046E+01	32.601	.127	2.1020E+01	34.003	.132

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
2.0995E+01	43.879	.144	2.0970E+01	36.192	.158	2.0944E+01	34.979	.141
2.0894E+01	36.516	.132	2.0869E+01	37.705	.157	2.0843E+01	41.424	.149
2.0818E+01	36.689	.137	2.0768E+01	36.107	.132	2.0743E+01	41.936	.155
2.0718E+01	44.465	.151	2.0692E+01	39.958	.150	2.0667E+01	40.568	.128
2.0642E+01	51.241	.128	2.0592E+01	39.056	.138	2.0567E+01	46.491	.197
2.0542E+01	48.674	.151	2.0517E+01	50.289	.121	2.0467E+01	44.800	.120
2.0442E+01	47.811	.136	2.0417E+01	49.442	.152	2.0392E+01	49.576	.143
2.0367E+01	53.335	.123	2.0317E+01	56.858	.119	2.0292E+01	60.101	.146
2.0268E+01	68.469	.219	2.0243E+01	54.666	.136	2.0193E+01	41.589	.129
2.0168E+01	50.553	.156	2.0143E+01	42.628	.285	2.0119E+01	35.916	.164
2.0069E+01	26.411	.221	2.0044E+01	23.260	.203	2.0020E+01	20.297	.277
1.9995E+01	16.406	.307	1.9970E+01	12.635	.344	1.9921E+01	12.126	.291
1.9896E+01	10.605	.360	1.9872E+01	13.615	.436	1.9847E+01	9.534	.478
1.9822E+01	4.276	.768	1.9773E+01	4.305	.695	1.9749E+01	5.012	.757
1.9724E+01	5.695	.762	1.9700E+01	5.745	.618	1.9675E+01	5.280	.598
1.9651E+01	4.864	.638	1.9602E+01	5.506	.788	1.9577E+01	6.573	.712
1.9553E+01	1.558	2.162	1.9504E+01	1.956	1.630	1.9480E+01	.367	9.209
1.9455E+01	.300	13.482	1.9431E+01	1.599	2.732	1.9407E+01	2.264	1.649
1.9382E+01	2.737	1.217	1.9334E+01	4.566	1.054	1.9309E+01	4.647	1.068
1.9285E+01	4.183	.957	1.9261E+01	3.295	1.165	1.9212E+01	3.991	1.022
1.9188E+01	4.873	1.079	1.9164E+01	5.557	1.347	1.9140E+01	9.999	.557
1.9091E+01	6.851	.701	1.9067E+01	3.590	1.268	1.9043E+01	5.643	1.116
1.9019E+01	12.294	.524	1.8971E+01	5.039	.994	1.8947E+01	6.836	.668
1.8923E+01	10.021	.575	1.8899E+01	10.177	.649	1.8875E+01	4.953	.991
1.8827E+01	12.410	.406	1.8803E+01	11.332	.501	1.8779E+01	7.277	.996
1.8755E+01	9.344	.968	1.8731E+01	14.117	.434	1.8683E+01	21.425	.313
1.8660E+01	16.201	.462	1.8636E+01	17.801	.463	1.8612E+01	18.524	.418
1.8588E+01	24.110	.308	1.8540E+01	17.233	.645	1.8517E+01	22.028	.412
1.8493E+01	13.900	.579	1.8469E+01	20.346	.391	1.8446E+01	20.270	.359
1.8398E+01	27.641	.303	1.8374E+01	28.864	.358	1.8351E+01	28.943	.337
1.8327E+01	32.419	.260	1.8280E+01	41.560	.220	1.8256E+01	49.630	.232
1.8233E+01	66.996	.259	1.8209E+01	55.833	.306	1.8186E+01	50.691	.566
1.8138E+01	60.287	.218	1.8115E+01	58.392	.258	1.8091E+01	71.656	.221
1.8068E+01	79.028	.187	1.8021E+01	88.963	.155	1.7997E+01	72.973	.212

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.7974E+01	71.243	.242	1.7951E+01	121.910	.160	1.7927E+01	116.350	.182
1.7904E+01	109.600	.200	1.7857E+01	110.280	.217	1.7834E+01	103.500	.270
1.7811E+01	121.380	.175	1.7787E+01	111.490	.150	1.7741E+01	91.900	.257
1.7717E+01	136.830	.175	1.7694E+01	103.150	.183	1.7671E+01	103.070	.165
1.7625E+01	87.235	.173	1.7601E+01	85.335	.213	1.7578E+01	85.069	.392
1.7555E+01	75.178	.463	1.7532E+01	90.532	.248	1.7486E+01	92.648	.280
1.7463E+01	70.750	.288	1.7440E+01	68.209	.302	1.7417E+01	105.700	.299
1.7394E+01	90.900	.199	1.7347E+01	83.539	.288	1.7324E+01	77.192	.274
1.7301E+01	120.990	.379	1.7279E+01	90.891	.231	1.7233E+01	74.204	.215
1.7210E+01	69.479	.266	1.7187E+01	51.169	.388	1.7164E+01	60.506	.326
1.7141E+01	57.639	.293	1.7095E+01	43.190	.384	1.7072E+01	50.150	.598
1.7050E+01	20.907	1.055	1.7027E+01	36.481	.573	1.6981E+01	29.304	.509
1.6958E+01	17.938	.890	1.6936E+01	39.789	.528	1.6913E+01	40.188	.540
1.6890E+01	39.396	.477	1.6845E+01	57.396	.308	1.6822E+01	68.771	.324
1.6800E+01	80.251	.357	1.6777E+01	39.821	.621	1.6754E+01	28.040	.627
1.6709E+01	48.904	.372	1.6687E+01	59.568	.357	1.6664E+01	64.452	.418
1.6642E+01	40.044	.641	1.6619E+01	49.980	.475	1.6574E+01	89.734	.252
1.6552E+01	96.296	.314	1.6529E+01	58.102	.561	1.6507E+01	95.743	.297
1.6484E+01	122.920	.217	1.6439E+01	73.184	.380	1.6417E+01	113.580	.305
1.6395E+01	121.210	.283	1.6350E+01	103.230	.244	1.6328E+01	120.560	.249
1.6305E+01	156.120	.327	1.6283E+01	151.550	.264	1.6261E+01	179.120	.208
1.6239E+01	164.920	.236	1.6194E+01	221.060	.163	1.6172E+01	254.790	.193
1.6150E+01	292.640	.210	1.6127E+01	283.880	.189	1.6083E+01	303.680	.208
1.6061E+01	282.570	.340	1.6039E+01	205.440	.324	1.6017E+01	390.400	.253
1.5995E+01	407.150	.317	1.5950E+01	439.050	.133	1.5928E+01	518.290	.134
1.5906E+01	383.300	.170	1.5884E+01	378.740	.156	1.5862E+01	396.950	.155
1.5818E+01	291.030	.215	1.5796E+01	270.680	.262	1.5774E+01	344.930	.228
1.5752E+01	310.120	.420	1.5731E+01	257.740	.334	1.5687E+01	230.270	.230
1.5665E+01	193.350	.293	1.5643E+01	164.380	.380	1.5621E+01	165.530	.270
1.5578E+01	135.510	.324	1.5556E+01	162.250	.351	1.5534E+01	152.970	.671
1.5512E+01	94.703	.516	1.5490E+01	93.682	.419	1.5447E+01	88.907	.473
1.5425E+01	72.761	.691	1.5404E+01	62.120	.897	1.5382E+01	32.493	1.513
1.5339E+01	36.762	1.168	1.5317E+01	42.557	1.050	1.5296E+01	48.926	1.101
1.5274E+01	23.051	2.111	1.5252E+01	22.246	1.779	1.5209E+01	63.401	.756

E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S	E(EV)	S(B)	DS/S
1.5168E+01	15.616	3.304	1.5166E+01	25.467	2.363	1.5145E+01	86.654	.633
1.5123E+01	99.106	.480	1.5080E+01	106.270	.508	1.5059E+01	111.390	.625
1.5037E+01	120.180	.532	1.5016E+01	108.360	.518	1.4995E+01	101.410	.521
1.4952E+01	150.170	.419	1.4930E+01	177.440	.463	1.4909E+01	116.550	.660
1.4888E+01	122.210	.551	1.4845E+01	120.890	.500	1.4824E+01	185.450	.445
1.4803E+01	163.140	.533	1.4781E+01	118.160	.632	1.4760E+01	120.690	.521
1.4718E+01	225.710	.437	1.4697E+01	108.900	1.016			