ROUNDSS1.OUT (Ci/l) (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

Nuclide	Half-Life		1999Jul	2002Jan	2003Jan	2010Jan	2012Jan	2016Jan	2022Jan
Tm-171	1.920E+00	yr	1.9E-21	1.9E-21	1.9E-21	1.9E-21	1.9E-21	1.9E-21	1.9E-21
Lu-176	3.000E+10	yr							
Lu-177	6.709E+00	d							
Hf-182	9.000E+06	yr							
Ta-182	1.150E+02	d							
Re-187	5.000E+10	yr							
Tl 207	4.770E+00	m	1.2E 09	1.3E 09	1.3E-09	1.4E-09	1.4E-09	1.5E-09	1.6E-09
Tl-208	3.070E+00	m	9.0E-10	8.9E-10	8.8E-10	8.3E-10	8.1E-10	7.8E-10	7.3E-10
Tl-209	2.200E+00	m	5.2E-14	5.2E-14	5.3E-14	5.3E-14	5.3E-14	5.4E-14	5.4E-14
Pb-209	3.300E+00	h	2.4E-12	2.4E-12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Pb-210	2.230E+01	yr	1.1E-10	1.2E-10	1.3E-10	1.8E-10	1.9E-10	2.3E-10	2.7E-10
Pb-211	3.610E+01	m	1.2E-09	1.3E-09	1.3E-09	1.4E-09	1.5E-09	1.5E-09	1.6E-09
Pb-212	1.064E+01	h	2.5E-09	2.5E-09	2.5E-09	2.3E-09	2.3E-09	2.2E-09	2.0E-09
Pb-214	2.680E+01	m	3.1E-10	3.3E-10	3.5E-10	4.2E-10	4.4E-10	4.8E-10	5.4E-10
Bi-210m	3.000E+06	yr	1.3E-26	1.3E-26	1.3E-26	1.3E-26	1.3E-26	1.3E-26	1.3E-26
Bi-210	5.012E+00	d	1.1E-10	1.2E-10	1.3E-10	1.8E-10	1.9E-10	2.3E-10	2.7E-10
Bi-211	2.130E+00	m	1.2E-09	1.3E-09	1.3E-09	1.4E-09	1.5E-09	1.5E-09	1.6E-09
Bi-212	6.055E+01	m	2.5E-09	2.5E-09	2.5E-09	2.3E-09	2.3E-09	2.2E-09	2.0E-09
Bi-213	4.565E+01	m	2.4E-12	2.4E-12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Bi-214	1.990E+01	m	3.1E-10	3.3E-10	3.5E-10	4.2E-10	4.4E-10	4.8E-10	5.4E 10
Po-210	1.384E+02	d	1.1E-10	1.2E-10	1.2E-10	1.8E-10	1.9E-10	2.3E-10	2.7E-10
Po-211	5.600E-01	s	3.3E-12	3.5E-12	3.6E-12	4.0E-12	4.1E-12	4.2E-12	4.5E-12
Po-212	3.000E-07	s	1.6E-09	1.6E-09	1.6E-09	1.5E-09	1.5E-09	1.4E-09	1.3E-09
Po-213	4.200E-06	s	2.4E-12	2.4E-12	2.4E-12	2.4E-12	2.4E-12	2.4E-12	2.5E-12
Po-214	1.643E-04	s	3.1E-10	3.3E-10	3.4E-10	4.2E-10	4.4E-10	4.8E-10	5.4E-10
Po-215	1.780E-03	s	1.2E-09	1.3E-09	1.3E-09	1.4E-09	1.5E-09	1.5E-09	1.6E-09
Po-216	1.500E-01	s	2.5E-09	2.5E-09	2.5E-09	2.3E-09	2.3E-09	2.2E-09	2.0E-09
Po-218	3.050E+00	m	3.1E-10	3.3E-10	3.5E-10	4.2E-10	4.4E-10	4.8E-10	5.4E-10
At-217	3.230E-02	s	2.4E-12	2.4E-12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Rn-219	3.960E+00	s	1.2E-09	1.3E 09	1.3E-09	1.4E-09	1.5E-09	1.5E-09	1.6E-09
Rn-220	5.560E+01	s	2.5E-09	2.5E-09	2.5E-09	2.3E-09	2.3E-09	2.2E-09	2.0E-09
Rn-222	3.824E+00	d	3.1E-10	3.3E-10	3.5E-10	4.2E-10	4.4E-10	4.8E-10	5.4E-10
Fr-221	4.800E+00	m	2.4E-12	2.4E-12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Fr-223	2.180E+01	m	1.6E-11	1.7E-11	1.8E-11	2.0E-11	2.0E-11	2.1E-11	2.2E-11
Ra-223	1.143E+01	d	1.2E-09	1.3E-09	1.3E-09	1.4E-09	1.5E-09	1.5E-09	1.6E-09
Ra-224	3.660E+00	d	2.5E-09	2.5E 09	2.5E-09	2.3E-09	2.3E-09	2.2E-09	2.0E-09
Ra-225	1.480E+01	d	2.4E-12	2.4E-12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Ra-226	1.600E+03	yr	3.1E-10	3.3E-10	3.5E-10	4.2E-10	4.4E-10	4.8E-10	5.4E-10
Ra-228	5.750E+00	yr	8.1E-16	8.1E 16	8.1E-16	8.2E-16	8.3E-16	8.3E-16	8.3E-16
Ac-225	1.000E+01	d	2.4E-12	2.4E 12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Ac-227	2.177E+01	yr	1.2E-09	1.3E-09	1.3E-09	1.4E-09	1.4E-09	1.5E-09	1.6E-09
Ac-228	6.131E+00	h	8.1E-16	8.1E-16	8.1E-16	8.2E-16	8.3E-16	8.3E-16	8.3E-16
Th-227	1.872E+01	d	1.2E-09	1.2E-09	1.3E-09	1.4E-09	1.4E-09	1.5E-09	1.6E-09
Th-228	1.913E+00	yr	2.5E-09	2.5E-09	2.5E-09	2.3E-09	2.3E-09	2.2E 09	2.0E-09
Th-229	7.339E+03	yr	2.4E-12	2.4E-12	2.4E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12
Th-230	7.700E+04	yr	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08
Th-231	2.552E+01	h	4.7E-10	4.8E 10	4.8E-10	4.9E-10	4.9E-10	5.0E-10	5.1E-10
Th-232	1.405E+10	yr	8.3E-16	8.3E-16	8.3E-16	8.3E-16	8.3E-16	8.3E-16	8.3E-16
Th-234	2.410E+01	d	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11
Pa-231	3.277E+04	yr	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09
Pa-233	2.700E+01	d	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07
Pa-234m	1.170E+00	m	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11
Pa-234	6.700E+00	h	8.0E-14	8.0E-14	8.0E-14	8.0E-14	8.0E-14	8.0E 14	8.0E-14
U-232	6.890E+01	yr	2.5E-09	2.4E-09	2.4E-09	2.2E-09	2.2E-09	2.1E-09	2.0E-09
U-233	1.592E+05	yr	3.1E-11	3.4E-11	3.5E-11	4.3E-11	4.6E-11	5.0E-11	5.7E-11
U-234	2.455E+05	yr	1.5E-08	1.5E-08	1.5E-08	1.6E-08	1.6E-08	1.6E 08	1.7E-08
U-235	7.038E+08	yr	4.7E-10	4.8E-10	4.8E-10	4.9E-10	4.9E-10	5.0E-10	5.1E-10
U-236	2.342E+07	yr	9.4E-11	9.5E-11	9.5E-11	9.7E-11	9.8E-11	9.9E-11	1.0E-10
U-237	6.750E+00	d	4.2E-11	3.7E-11	3.5E-11	2.5E-11	2.3E-11	1.9E 11	1.4E-11
U-238	4.470E+09	yr	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11
U-240	1.410E+01	h	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24
Np-236	1.150E+05	yr	3.5E-12	3.5E-12	3.5E-12	3.5E-12	3.5E-12	3.5E-12	3.5E-12
Np-237	2.140E+06	yr	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07
Np-238	2.117E+00	d	2.2E-14	2.2E-14	2.1E-14	2.1E-14	2.0E-14	2.0E-14	2.0E-14
Np-239	2.355E+00	d	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.1E 14	1.1E-14
Np-240m	7.400E+00	m	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24

ROUNDSS1.OUT (Ci/l) (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

Nuclide	Half-Life		1999Jul	2002Jan	2003Jan	2010Jan	2012Jan	2016Jan	2022Jan
Pu-236	2.851E+00	yr	1.2E-10	6.6E-11	5.2E-11	9.7E-12	6.1E-12	2.5E-12	8.2E-13
Pu-238	8.770E+01	yr	2.8E-05	2.8E-05	2.8E-05	2.6E-05	2.6E-05	2.5E-05	2.4E-05
Pu-239	2.411E+04	yr	1.4E-03	1.4E-03	1.4E-03	1.4E-03	1.4E-03	1.4E-03	1.4E-03
Pu-240	6.537E+03	yr	1.1E-05	1.1E-05	1.1E-05	1.1E-05	1.1E-05	1.1E-05	1.1E-05
Pu-241	1.440E+01	yr	1.7E-06	1.5E-06	1.4E-06	1.0E-06	9.2E-07	7.6E-07	5.7E-07
Pu-242	3.733E+05	yr	2.8E-13	2.8E-13	2.8E-13	2.8E-13	2.8E-13	2.8E-13	2.8E-13
Pu-243	4.956E+00	h							
Pu-244	8.080E+07	yr	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24
Am-241	4.322E+02	yr	1.9E-07	1.9E-07	1.9E-07	2.1E-07	2.1E-07	2.1E-07	2.2E-07
Am-242m	1.410E+02	yr	4.4E-12	4.3E-12	4.3E-12	4.1E-12	4.1E-12	4.0E-12	3.9E-12
Am-242	1.602E+01	h	4.3E-12	4.3E-12	4.3E-12	4.1E-12	4.1E-12	4.0E-12	3.9E-12
Am-243	7.370E+03	yr	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.1E-14
Cm-242	1.632E+02	d	3.6E-12	3.6E-12	3.5E-12	3.4E-12	3.4E-12	3.3E-12	3.2E-12
Cm-243	2.850E+01	yr	1.3E-14	1.3E-14	1.2E-14	1.0E-14	9.9E-15	9.0E-15	7.7E-15
Cm-244	1.811E+01	yr	2.0E-15	1.8E-15	1.7E-15	1.3E-15	1.2E-15	1.0E-15	8.3E-16
Cm-245	8.499E+03	yr	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20
Cm-246	4.731E+03	yr	8.1E-24	8.1E-24	8.1E-24	8.1E-24	8.1E-24	8.1E-24	8.1E-24
Cm-247	1.560E+07	yr							
Cm-248	3.391E+05	yr							
Cf-249	3.505E+02	yr							
Cf-250	1.308E+01	yr							
Cf-251	8.980E+02	yr							
Cf-252	2.638E+00	yr							

ss_run1.g
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

	g/L	26.5YR	29.0YR	30.0YR	37.0YR	39.0YR	43.0YR	49.0YR
HE 3	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15
B 10	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15
B 11	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18
C 12	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02
C 13	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04
N 14	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15
N 15	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22
O 17	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24
NE 20	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19
NE 21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21
NE 22	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11
NA 23	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13
MG 24	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15
MG 25	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07
MG 26	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07
AL 27	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09
SI 28	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01
SI 29	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02
SI 30	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02
SI 32	2.216E-15	2.154E-15	2.149E-15	2.146E-15	2.130E-15	2.126E-15	2.117E-15	2.103E-15
P 31	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02
P 32	1.308E-13	1.298E-19	1.294E-19	1.293E-19	1.283E-19	1.280E-19	1.275E-19	1.267E-19
S 32	0.000E+00	1.309E-13	1.309E-13	1.309E-13	1.309E-13	1.309E-13	1.309E-13	1.309E-13
S 34	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04
CL 37	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12
AR 38	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18
AR 39	1.386E-23	1.386E-23	1.386E-23	1.386E-23	1.386E-23	1.386E-23	1.386E-23	1.386E-23
K 41	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20
CA 42	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25
CA 43	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22
CA 44	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12
CA 45	1.948E-19	2.571E-37	2.571E-37	2.571E-37	4.855E-42	4.855E-42	4.855E-42	0.000E+00
CA 46	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13
SC 45	5.965E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18
TI 46	5.521E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23
TI 47	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07
TI 48	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12
TI 49	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06
TI 50	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05
V 50	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05
V 51	5.951E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05
CR 50	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00
CR 52	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01
CR 53	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01
CR 54	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00
MN 54	1.135E-05	5.384E-15	7.104E-16	3.160E-16	1.088E-18	2.152E-19	8.421E-21	6.281E-23
MN 55	2.863E-05	1.757E-04	1.758E-04	1.758E-04	1.758E-04	1.758E-04	1.758E-04	1.758E-04
FE 54	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01
FE 55	1.472E-04	1.258E-07	6.460E-08	4.949E-08	7.656E-09	4.492E-09	1.546E-09	3.124E-10
FE 56	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02
FE 57	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00
FE 58	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00
CO 59	2.242E-05	2.278E-05	2.282E-05	2.283E-05	2.293E-05	2.295E-05	2.301E-05	2.309E-05
CO 60	4.167E-06	1.277E-07	9.188E-08	8.056E-08	3.208E-08	2.466E-08	1.457E-08	6.618E-09
NI 58	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01
NI 59	1.578E-03	1.578E-03	1.578E-03	1.578E-03	1.577E-03	1.577E-03	1.577E-03	1.577E-03
NI 60	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00
NI 61	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01
NI 62	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00
NI 63	2.491E-04	2.040E-04	2.002E-04	1.987E-04	1.885E-04	1.857E-04	1.802E-04	1.722E-04
NI 64	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01
CU 63	8.742E-07	4.596E-05	4.977E-05	5.127E-05	6.148E-05	6.430E-05	6.981E-05	7.777E-05
CU 65	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06
ZN 64	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12
ZN 65	3.508E-19	3.954E-31	3.954E-31	3.954E-31	2.761E-34	2.761E-34	2.761E-34	2.761E-34
MO 94	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01

ss_run1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

	g/L	26.5YR	29.0YR	30.0YR	37.0YR	39.0YR	43.0YR	49.0YR
RU 98	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03
CD114	0.000E+00	1.729E-15	1.729E-15	1.729E-15	1.729E-15	1.729E-15	1.729E-15	1.729E-15
SN114	0.000E+00	2.123E-14	2.123E-14	2.123E-14	2.123E-14	2.123E-14	2.123E-14	2.123E-14
HE 4	4.747E-06	5.049E-06	5.078E-06	5.089E-06	5.168E-06	5.191E-06	5.237E-06	5.305E-06
TL206	0.000E+00	6.100E-35	6.100E-35	6.100E-35	6.100E-35	6.100E-35	6.100E-35	6.100E-35
TL207	8.815E-19	6.258E-18	6.579E-18	6.697E-18	7.415E-18	7.597E-18	7.919E-18	8.333E-18
TL208	9.602E-17	3.038E-18	3.016E-18	3.001E-18	2.810E-18	2.761E-18	2.650E-18	2.493E-18
TL209	1.243E-22	1.278E-22	1.282E-22	1.283E-22	1.296E-22	1.300E-22	1.310E-22	1.325E-22
PB206	1.306E-15	4.488E-13	5.610E-13	6.102E-13	1.037E-12	1.184E-12	1.516E-12	2.112E-12
PB207	1.534E-13	8.177E-12	9.407E-12	9.915E-12	1.370E-11	1.485E-11	1.723E-11	2.097E-11
PB208	1.074E-10	2.178E-10	2.203E-10	2.213E-10	2.281E-10	2.299E-10	2.335E-10	2.386E-10
PB209	5.178E-19	5.325E-19	5.341E-19	5.348E-19	5.401E-19	5.419E-19	5.457E-19	5.521E-19
PB210	2.695E-14	1.401E-12	1.611E-12	1.698E-12	2.345E-12	2.541E-12	2.947E-12	3.584E-12
PB211	6.820E-18	4.842E-17	5.090E-17	5.181E-17	5.736E-17	5.877E-17	6.127E-17	6.447E-17
PB212	5.661E-14	1.792E-15	1.779E-15	1.770E-15	1.657E-15	1.629E-15	1.563E-15	1.471E-15
PB214	9.612E-19	9.410E-18	1.020E-17	1.052E-17	1.273E-17	1.336E-17	1.462E-17	1.651E-17
BI208	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23
BI209	3.149E-15	2.889E-14	3.134E-14	3.232E-14	3.925E-14	4.124E-14	4.525E-14	5.131E-14
BI210M	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23
BI210	1.660E-17	8.619E-16	9.917E-16	1.045E-15	1.443E-15	1.564E-15	1.814E-15	2.206E-15
BI211	4.023E-19	2.857E-18	3.003E-18	3.057E-18	3.385E-18	3.467E-18	3.615E-18	3.804E-18
BI212	5.371E-15	1.700E-16	1.687E-16	1.679E-16	1.572E-16	1.545E-16	1.483E-16	1.395E-16
BI213	1.217E-19	1.251E-19	1.255E-19	1.256E-19	1.269E-19	1.273E-19	1.282E-19	1.297E-19
BI214	7.139E-19	6.987E-18	7.575E-18	7.811E-18	9.453E-18	9.922E-18	1.086E-17	1.226E-17
PO210	3.842E-16	2.381E-14	2.641E-14	2.773E-14	3.986E-14	4.194E-14	5.013E-14	6.094E-14
PO211	4.936E-24	3.505E-23	3.685E-23	3.751E-23	4.153E-23	4.254E-23	4.435E-23	4.667E-23
PO212	2.841E-25	8.994E-27	8.928E-27	8.882E-27	8.317E-27	8.173E-27	7.844E-27	7.381E-27
PO213	0.000E+00	1.877E-28	1.883E-28	1.885E-28	1.904E-28	1.910E-28	1.924E-28	1.946E-28
PO214	0.000E+00	9.613E-25	1.042E-24	1.075E-24	1.301E-24	1.365E-24	1.494E-24	1.686E-24
PO215	5.709E-24	4.054E-23	4.262E-23	4.338E-23	4.803E-23	4.921E-23	5.130E-23	5.398E-23
PO216	2.259E-19	7.151E-21	7.099E-21	7.062E-21	6.613E-21	6.499E-21	6.237E-21	5.868E-21
PO218	1.115E-19	1.091E-18	1.183E-18	1.220E-18	1.476E-18	1.549E-18	1.695E-18	1.914E-18
AT217	1.462E-24	1.503E-24	1.508E-24	1.510E-24	1.525E-24	1.530E-24	1.540E-24	1.559E-24
RN219	1.294E-20	9.187E-20	9.658E-20	9.831E-20	1.089E-19	1.115E-19	1.163E-19	1.223E-19
RN220	8.530E-17	2.700E-18	2.680E-18	2.666E-18	2.497E-18	2.453E-18	2.355E-18	2.216E-18
RN222	2.049E-16	2.006E-15	2.175E-15	2.243E-15	2.714E-15	2.849E-15	3.117E-15	3.519E-15
FR221	1.328E-20	1.365E-20	1.369E-20	1.371E-20	1.385E-20	1.389E-20	1.399E-20	1.415E-20
FR223	6.236E-20	4.264E-19	4.474E-19	4.553E-19	5.044E-19	5.165E-19	5.385E-19	5.667E-19
RA223	3.287E-15	2.334E-14	2.453E-14	2.497E-14	2.765E-14	2.833E-14	2.953E-14	3.107E-14
RA224	4.941E-13	1.563E-14	1.552E-14	1.544E-14	1.446E-14	1.421E-14	1.363E-14	1.283E-14
RA225	6.038E-17	6.172E 17	6.190E-17	6.198E-17	6.260E-17	6.280E-17	6.324E-17	6.399E-17
RA226	3.188E-11	3.121E-10	3.384E-10	3.489E-10	4.222E-10	4.432E-10	4.849E-10	5.475E-10
RA228	8.298E-19	2.954E-18	2.977E-18	2.985E-18	3.019E-18	3.025E-18	3.032E-18	3.039E-18
AC225	4.054E-17	4.169E-17	4.182E-17	4.187E-17	4.229E-17	4.243E-17	4.272E-17	4.323E-17
AC227	2.416E-12	1.652E-11	1.733E-11	1.764E-11	1.954E-11	2.001E-11	2.087E-11	2.196E-11
AC228	1.009E-22	3.592E-22	3.622E-22	3.631E-22	3.672E-22	3.679E-22	3.688E-22	3.696E-22
TH227	5.477E-15	3.835E-14	4.032E-14	4.104E-14	4.544E-14	4.655E-14	4.853E-14	5.106E-14
TH228	9.554E-11	3.038E-12	3.009E-12	2.989E-12	2.808E-12	2.754E-12	2.646E-12	2.492E-12
TH229	1.122E-11	1.137E-11	1.141E-11	1.142E-11	1.154E-11	1.157E-11	1.166E-11	1.179E-11
TH230	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06
TH231	3.411E-11	8.914E-16	8.980E-16	9.007E-16	9.192E-16	9.245E-16	9.350E-16	9.509E-16
TH232	7.569E-09	7.570E-09	7.570E-09	7.570E-09	7.571E-09	7.571E-09	7.571E-09	7.571E-09
TH234	1.108E-10	2.669E-15	2.669E-15	2.669E-15	2.669E-15	2.669E-15	2.669E-15	2.669E-15
PA231	4.158E-08	4.160E-08	4.159E-08	4.159E-08	4.159E-08	4.159E-08	4.159E-08	4.158E-08
PA233	1.286E-11	1.286E-11	1.286E-11	1.287E-11	1.286E-11	1.286E-11	1.286E-11	1.286E-11
PA234M	3.734E-15	9.001E-20	9.001E-20	9.001E-20	9.001E-20	9.001E-20	9.001E-20	9.001E-20
PA234	1.668E-15	4.020E-20	4.020E-20	4.020E-20	4.020E-20	4.020E-20	4.020E-20	4.020E-20
U232	1.130E-13	1.111E-10	1.084E-10	1.074E-10	1.001E-10	9.815E-11	9.428E-11	8.876E-11
U233	9.510E-12	3.206E-09	3.520E-09	3.654E-09	4.498E-09	4.752E-09	5.234E-09	5.958E-09
U234	2.060E-06	2.439E-06	2.470E-06	2.483E-06	2.568E-06	2.591E-06	2.637E-06	2.703E-06
U235	2.020E-04	2.192E-04	2.209E-04	2.215E-04	2.261E-04	2.274E-04	2.300E-04	2.339E-04
U236	1.320E-06	1.449E-06	1.461E-06	1.465E-06	1.499E-06	1.509E-06	1.528E-06	1.557E-06
U237	4.580E 20	5.082E-16	4.504E-16	4.291E 16	3.060E-16	2.779E 16	2.290E-16	1.714E-16
U238	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04
U240	0.000E+00	3.449E-30	3.449E-30	3.449E-30	3.449E-30	3.449E-30	3.449E-30	3.449E-30
NP235	7.090E-13	3.119E-20	6.314E-21	3.337E-21	4.950E-23	2.667E-23	0.000E+00	0.000E+00

ss_run1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

	g/L	26.5YR	29.0YR	30.0YR	37.0YR	39.0YR	43.0YR	49.0YR
NP236	2.627E-10	2.627E-10	2.627E-10	2.627E-10	2.626E-10	2.626E-10	2.626E-10	2.626E-10
NP237	3.795E-04	3.795E-04	3.795E-04	3.795E-04	3.795E-04	3.795E-04	3.795E-04	3.795E-04
NP238	9.578E 20	8.407E-20	8.304E-20	8.263E-20	7.984E-20	7.906E-20	7.752E-20	7.527E-20
NP239	4.765E-20	4.755E-20	4.754E-20	4.754E-20	4.751E 20	4.750E-20	4.748E-20	4.745E-20
NP240M	0.000E+00	3.017E-32	3.017E-32	3.017E-32	3.017E-32	3.017E-32	3.017E-32	3.017E-32
PU236	1.416E-10	2.274E-13	1.241E-13	9.746E-14	1.825E-14	1.145E-14	4.693E-15	1.541E-15
PU238	2.038E-06	1.653E-06	1.621E-06	1.608E-06	1.521E-06	1.497E-06	1.451E-06	1.384E-06
PU239	2.302E-02	2.300E-02	2.300E-02	2.300E-02	2.300E 02	2.299E-02	2.299E-02	2.299E-02
PU240	4.676E-05	4.663E-05	4.662E-05	4.661E-05	4.658E-05	4.657E-05	4.655E-05	4.652E-05
PU241	5.883E-08	1.636E-08	1.450E-08	1.381E-08	9.852E-09	8.944E-09	7.373E-09	5.518E-09
PU242	7.037E-11	7.038E-11	7.038E-11	7.038E-11	7.038E 11	7.038E-11	7.038E-11	7.038E-11
PU244	1.764E-19	1.764E-19	1.764E-19	1.764E-19	1.764E 19	1.764E-19	1.764E-19	1.764E-19
AM241	1.338E-08	5.422E-08	5.586E-08	5.645E-08	5.976E-08	6.048E-08	6.166E-08	6.291E-08
AM242M	4.738E-13	4.159E-13	4.109E-13	4.088E-13	3.950E-13	3.911E-13	3.835E-13	3.724E-13
AM242	6.100E-18	5.357E-18	5.291E-18	5.266E-18	5.087E-18	5.038E-18	4.940E-18	4.796E-18
AM243	5.540E-14	5.526E-14	5.525E-14	5.524E-14	5.521E 14	5.520E-14	5.518E-14	5.515E-14
CM242	5.830E-14	1.084E-15	1.074E-15	1.068E-15	1.030E-15	1.022E-15	1.003E-15	9.710E-16
CM243	4.941E-16	2.594E-16	2.441E-16	2.382E-16	2.009E-16	1.914E-16	1.736E-16	1.501E-16
CM244	6.704E-17	2.431E-17	2.209E-17	2.126E-17	1.627E-17	1.507E-17	1.293E-17	1.028E-17
CM245	7.979E-20	7.962E-20	7.962E-20	7.962E-20	7.957E-20	7.957E-20	7.955E-20	7.951E-20
CM246	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23
SF250	0.000E+00	7.633E-15	8.344E-15	8.628E-15	1.061E-14	1.118E-14	1.230E-14	1.399E-14
H 3	3.084E-07	6.968E-08	6.056E-08	5.725E-08	3.865E-08	3.455E-08	2.760E-08	1.971E-08
LI 6	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09
LI 7	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11
BE 9	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08
BE 10	2.609E-09	2.609E-09	2.609E-09	2.609E-09	2.609E-09	2.609E-09	2.609E-09	2.609E-09
C 14	1.303E-10	1.299E-10	1.298E-10	1.298E-10	1.297E 10	1.297E-10	1.296E-10	1.295E-10
ZN 66	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11
ZN 67	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13
ZN 68	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17
GA 69	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22
GA 71	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11
GE 72	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07
GE 73	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07
GE 74	1.442E-06	1.442E-06	1.442E-06	1.442E-06	1.442E-06	1.442E 06	1.442E-06	1.442E-06
AS 75	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06
GE 76	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06
SE 76	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09
SE 77	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05
SE 78	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05
SE 79	3.516E-05	3.515E-05	3.515E-05	3.515E-05	3.515E-05	3.515E-05	3.514E-05	3.514E-05
BR 79	1.731E-09	1.167E-08	1.261E-08	1.298E-08	1.561E-08	1.636E-08	1.786E-08	2.011E-08
SE 80	7.738E 05	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05
KR 80	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10
BR 81	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04
KR 81	1.055E-12	1.055E-12	1.055E-12	1.055E-12	1.055E-12	1.055E-12	1.055E-12	1.055E-12
SE 82	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04
KR 82	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07
KR 83	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04
KR 84	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04
KR 85	1.134E-04	2.044E-05	1.739E-05	1.630E-05	1.037E-05	9.109E-06	7.033E-06	4.771E-06
RB 85	5.980E-04	6.910E-04	6.940E 04	6.951E-04	7.010E-04	7.023E-04	7.044E-04	7.066E-04
KR 86	1.102E-03	1.102E-03	1.102E 03	1.102E-03	1.102E-03	1.102E-03	1.102E-03	1.102E-03
SR 86	5.608E-07	5.608E-07	5.608E-07	5.608E-07	5.608E-07	5.608E 07	5.608E-07	5.608E 07
RB 87	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03
SR 87	1.516E-08	1.516E-08	1.516E 08	1.516E-08	1.516E-08	1.516E-08	1.516E-08	1.516E-08
SR 88	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E 03
Y 89	2.614E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03
SR 90	2.837E-03	1.510E-03	1.423E 03	1.389E-03	1.176E-03	1.121E-03	1.019E-03	8.838E-04
Y 90	7.115E-07	3.786E-07	3.567E 07	3.484E-07	2.949E-07	2.812E-07	2.556E-07	2.216E-07
ZR 90	8.003E-03	9.331E-03	9.418E 03	9.451E-03	9.664E-03	9.719E-03	9.821E-03	9.957E-03
ZR 91	4.965E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03
ZR 92	6.009E-03	6.009E-03	6.009E 03	6.009E-03	6.009E-03	6.009E-03	6.009E-03	6.009E 03
ZR 93	3.801E-03	3.801E-03	3.801E-03	3.801E-03	3.801E-03	3.801E-03	3.801E-03	3.801E-03
NB 93	3.328E-09	3.005E-08	3.356E-08	3.500E-08	4.539E-08	4.846E-08	5.470E-08	6.429E-08

ss_run1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

	g/L	26.5YR	29.0YR	30.0YR	37.0YR	39.0YR	43.0YR	49.0YR
NB 93M	6.574E-09	2.549E-08	2.628E-08	2.657E-08	2.823E-08	2.860E-08	2.925E-08	3.000E-08
ZR 94	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03
NB 94	2.784E-07	2.781E-07	2.781E-07	2.781E-07	2.780E-07	2.780E-07	2.780E-07	2.779E-07
MO 95	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01
ZR 96	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03
MO 96	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01
MO 97	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01
MO 98	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01
TC 98	6.419E-09	6.419E-09	6.419E-09	6.419E-09	6.419E-09	6.419E-09	6.419E-09	6.419E-09
TC 99	3.728E-03	3.728E-03	3.728E-03	3.728E-03	3.728E-03	3.728E-03	3.727E-03	3.727E-03
RU 99	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02
MO100	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00
RU100	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02
RU101	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02
RU102	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01
RH102	2.471E-08	4.384E-11	2.412E-11	1.899E-11	3.564E-12	2.210E-12	8.493E-13	2.024E-13
RH103	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02
RU104	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02
PD104	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04
PD105	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04
RU106	5.254E-05	6.405E-13	1.148E-13	5.771E-14	4.685E-16	1.184E-16	7.567E-18	1.222E-19
RH106	4.733E-11	6.020E-19	1.079E-19	5.424E-20	4.404E-22	1.113E-22	7.112E-24	1.149E-25
PD106	4.233E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04
PD107	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04
AG107	1.542E-10	1.041E-09	1.125E-09	1.158E-09	1.392E-09	1.459E-09	1.593E-09	1.794E-09
PD108	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04
AG108	3.215E-23	3.077E-23	3.064E-23	3.059E-23	3.024E-23	3.014E-23	2.994E-23	2.964E-23
AG108M	3.351E-14	3.207E-14	3.194E-14	3.188E-14	3.152E-14	3.141E-14	3.120E-14	3.089E-14
CD108	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10
AG109	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04
AG109M	1.904E-20	1.000E-26	2.557E-27	1.480E-27	3.910E-29	1.971E-29	8.119E-30	4.866E-30
CD109	1.927E-14	1.013E-20	2.586E-21	1.490E-21	3.958E-23	1.996E-23	8.219E-24	4.927E-24
PD110	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04
AG110	6.322E-17	1.382E-28	1.106E-29	4.099E-30	3.409E-33	3.409E-33	3.409E-33	3.409E-33
AG110M	4.172E-09	9.123E-21	7.298E-22	2.705E-22	2.250E-25	2.250E-25	2.250E-25	2.250E-25
CD110	3.431E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07
CD111	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05
CD112	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05
CD113	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05
CD113M	1.019E-06	2.770E-07	2.450E-07	2.332E-07	1.653E-07	1.498E-07	1.231E-07	9.165E-08
IN113	2.515E-07	9.928E-07	1.025E-06	1.037E-06	1.104E-06	1.120E-06	1.147E-06	1.178E-06
CD114	7.419E 05	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05
SN114	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11
IN115	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05
SN115	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06
CD116	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05
SN116	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06
SN117	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05
SN118	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05
SN119	7.627E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05
SN119M	5.897E-08	7.570E-20	5.720E-21	2.027E-21	1.465E-24	1.465E-24	1.465E-24	1.465E-24
SN120	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05
SN121M	3.314E-08	2.373E-08	2.300E-08	2.271E-08	2.079E-08	2.027E-08	1.928E-08	1.787E-08
SB121	7.810E-05	7.811E-05	7.811E-05	7.811E-05	7.811E-05	7.811E-05	7.811E-05	7.812E-05
SN122	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05
TE122	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07
SB123	9.167E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05
TE123	1.671E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10
SN124	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04
TE124	1.955E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07
SB125	1.105E-03	1.463E-06	7.826E-07	6.094E-07	1.057E-07	6.409E-08	2.355E-08	5.247E-09
TE125	8.187E-05	1.186E-03	1.187E-03	1.187E-03	1.187E-03	1.187E-03	1.188E-03	1.188E-03
TE125M	6.617E-07	2.046E-08	1.095E-08	8.523E-09	1.479E-09	8.966E-10	3.294E-10	7.340E-11
SN126	1.891E-04	1.891E-04	1.891E-04	1.891E-04	1.891E-04	1.890E-04	1.890E-04	1.890E-04
SB126	9.061E-12	9.033E-12	9.033E-12	9.033E-12	9.032E-12	9.032E-12	9.032E-12	9.031E-12
SB126M	6.888E-14	6.883E-14	6.883E-14	6.883E-14	6.883E-14	6.883E-14	6.882E-14	6.882E-14
TE126	5.371E-06	5.406E-06	5.409E-06	5.410E-06	5.419E-06	5.422E-06	5.427E-06	5.435E-06

ss_run1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

	g/L	26.5YR	29.0YR	30.0YR	37.0YR	39.0YR	43.0YR	49.0YR
I127	3.459E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04
TE128	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04
XE128	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07
I129	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04
XE129	4.443E-09	5.560E-09	5.666E-09	5.708E-09	6.003E-09	6.087E-09	6.256E-09	6.509E-09
TE130	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03
XE130	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06
XE131	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03
XE132	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03
BA132	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10
CS133	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03
XE134	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03
CS134	3.466E-06	4.688E-10	2.023E-10	1.446E-10	1.374E-11	7.016E-12	1.829E-12	2.433E-13
BA134	8.568E-06	1.203E-05	1.203E-05	1.203E-05	1.203E-05	1.203E-05	1.203E-05	1.203E-05
CS135	5.555E-03	5.555E-03	5.555E-03	5.555E-03	5.555E-03	5.555E-03	5.555E-03	5.555E-03
BA135	1.130E-08	5.567E-08	5.985E-08	6.152E-08	7.324E-08	7.659E-08	8.329E-08	9.333E-08
XE136	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03
BA136	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05
CS137	4.816E-03	2.611E-03	2.464E-03	2.408E-03	2.048E-03	1.956E-03	1.783E-03	1.552E-03
BA137	5.371E-04	2.742E-03	2.889E-03	2.945E-03	3.305E-03	3.397E-03	3.570E-03	3.801E-03
BA137M	7.390E-10	3.994E-10	3.770E-10	3.684E-10	3.134E-10	2.992E-10	2.728E-10	2.375E-10
BA138	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03
LA138	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08
LA139	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03
CE140	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03
PR141	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03
CE142	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03
ND142	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06
ND143	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03
CE144	9.590E-04	5.391E-14	5.816E-15	2.387E-15	4.579E-18	7.881E-19	2.236E-20	1.166E-22
PR144	1.435E-08	2.276E-18	2.456E-19	1.008E-19	1.976E-22	3.328E-23	9.442E-26	4.924E-27
PR144M	7.173E-11	1.138E-20	1.228E-21	5.038E-22	9.879E-25	1.664E-25	4.720E-27	2.461E-29
ND144	4.532E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03
ND145	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03
ND146	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03
PM146	8.993E-09	3.188E-10	2.326E-10	2.051E-10	8.488E-11	6.597E-11	3.985E-11	1.871E-11
SM146	4.912E-09	8.121E-09	8.153E-09	8.164E-09	8.208E-09	8.215E-09	8.225E-09	8.232E-09
PM147	7.800E-04	7.101E-07	3.668E-07	2.817E-07	4.431E-08	2.612E-08	9.079E-09	1.860E-09
SM147	1.443E-03	2.222E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03
ND148	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E-03
SM148	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05
SM149	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03
ND150	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04
SM150	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06
EU150	3.168E-12	1.904E-12	1.815E-12	1.781E-12	1.557E-12	1.498E-12	1.387E-12	1.236E-12
SM151	4.200E-04	3.425E-04	3.359E-04	3.333E-04	3.159E-04	3.110E-04	3.016E-04	2.880E-04
EU151	1.510E-05	9.264E-05	9.917E-05	1.018E-04	1.192E-04	1.241E-04	1.335E-04	1.471E-04
SM152	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04
EU152	1.261E-08	3.248E-09	2.857E-09	2.715E-09	1.897E-09	1.713E-09	1.396E-09	1.026E-09
GD152	6.834E-09	9.442E-09	9.551E-09	9.591E-09	9.819E-09	9.870E-09	9.958E-09	1.006E-08
EU153	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04
GD153	4.175E-12	3.813E-24	3.813E-24	3.813E-24	2.518E-27	2.518E-27	2.518E-27	2.518E-27
SM154	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05
EU154	1.283E-06	1.513E-07	1.237E-07	1.141E-07	6.489E-08	5.522E-08	3.999E-08	2.465E-08
GD154	5.265E-07	1.658E-06	1.686E-06	1.695E-06	1.745E-06	1.754E-06	1.770E-06	1.785E-06
EU155	2.281E-05	4.809E-07	3.342E-07	2.889E-07	1.042E-07	7.789E-08	4.350E-08	1.816E-08
GD155	2.726E-05	4.959E-05	4.974E-05	4.978E-05	4.997E-05	4.999E-05	5.003E-05	5.005E-05
GD156	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05
GD157	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05
GD158	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05
TB159	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06
GD160	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06
DY160	2.230E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08
DY161	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07
DY162	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07
DY163	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07
DY164	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07

ss_run1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

g/L	26.5YR	29.0YR	30.0YR	37.0YR	39.0YR	43.0YR	49.0YR
HO165	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08
HO166M	6.549E-11	6.450E-11	6.440E-11	6.436E-11	6.411E-11	6.403E-11	6.388E-11	6.366E-11
ER166	3.373E-08	3.373E-08	3.373E-08	3.373E-08	3.373E-08	3.373E-08	3.373E-08	3.373E-08
ER167	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08
ER168	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10
TM169	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14
ER170	1.375E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19
YB170	9.404E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17
TM171	2.528E-20	1.770E-24	1.770E-24	1.770E-24	1.770E-24	1.770E-24	1.770E-24	1.770E-24
YB171	8.293E-20	1.082E-19	1.082E-19	1.082E-19	1.082E-19	1.082E-19	1.082E-19	1.082E-19
YB172	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23

Source Listing of Program ELESS1

```
      PROGRAM ELESS1

!-------- WRITTEN BY D.R. WENZEL
!          Revised 9/18/02

!            To sum the g/L electrolytic wastes and round
!            the output to 2 places of accuracy

      CHARACTER (LEN=2) :: BLANK, ELE, SMBCAP, SMBLC
      CHARACTER (LEN=6) :: NAME
      CHARACTER (LEN=85) :: TITLE
      EQUIVALENCE (ELE, NAME)
      LOGICAL :: FIRST
      REAL *4 OLD(7), SIGMA(7), TOTAL(7)

      OPEN(3,FILE ='SS_RUN1.G', STATUS='OLD',FORM='FORMATTED', ERR = 900)
      OPEN(4,FILE ='SYMBOL', STATUS='OLD',FORM='FORMATTED', ERR = 910)
      OPEN(6,FILE ='SS_RUN1.ELE', STATUS='UNKNOWN', ERR = 920)

      DATA BLANK /'  '/

      FIRST = .TRUE.
      SIGMA = 0.

!        Read symbol of element to be summed

   10 READ(4,400) SMBCAP, SMBLC
  400 FORMAT(A2,3X,A2)
      IF(SMBCAP == BLANK) GO TO 100

!--------- Zero out summary

      TOTAL = 0.

!--------- On the first pass only, modify the name on the first
!          line of data

      READ(3,300) TITLE
  300 FORMAT(A85)
      IF(FIRST) WRITE(6,600)
  600 FORMAT(1X,'SS_RUN1.ELE    g/L')

!--------- On the first pass only, echo the next line of data

      READ(3,300) TITLE
      IF(FIRST) WRITE(6,610) TITLE
  610 FORMAT(A85,/,'Element',5X,'1999Jul   2002Jan   2003Jan   2010' &
             'Jan   2012Jan   2016Jan   2022Jan')

!--------- Skip the next 2 lines of data

      READ(3,300) TITLE
      READ(3,300) TITLE
      FIRST = .FALSE.
```

Source Listing of Program ELESS1 (Continued)

```
!--------- Read individual nuclide mass and search for the
!          element to be summed

   60  READ(3,310,END=80) NAME, (OLD(J),J=1,7)
  310  FORMAT(1X,A6,14X,7(1PE10.3))
       IF(ELE /= SMBCAP) GO TO 60

       DO J=1,7
          TOTAL(J) = TOTAL(J) + OLD(J)
       END DO

       GO TO 60

!--------- Write element total when element found

   80  REWIND(3)

!--------- Write results with 2 places of accuracy

       IF(TOTAL(1) > 0.) THEN
          WRITE(6,620) SMBLC, (TOTAL(J),J=1,7)
  620     FORMAT(1X,a2,6X,7(1PE10.1))
       ENDIF

!--------- Keep a sum of the total for all elements

       DO J=1,7
          SIGMA(J) = SIGMA(J) + TOTAL(J)
       END DO

       GO TO 10
  100  WRITE(6,630) (SIGMA(J),J=1,7)
  630  FORMAT(1X,/,1X,'Total ',2X,7(1PE10.1))
       GO TO 999

!-------- ERROR STATEMENTS

  900  WRITE(6,9000)
 9000  FORMAT(2X,'ERROR IN OPENING FILE 3')
       GO TO 999

  910  WRITE(6,9010)
 9010  FORMAT(2X,'ERROR IN OPENING FILE 4')
       GO TO 999

  920  WRITE(6,9020)
 9020  FORMAT(2X,'ERROR IN OPENING FILE 6')
       GO TO 999

!-------- PROGRAM END

  999  CONTINUE
       END PROGRAM ELESS1
```

See Appendix A-4, pages 4-5, for a listing of file SYMBOL.

SS_RUN1.ELE g/L
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

Element	1999Jul	2002Jan	2003Jan	2010Jan	2012Jan	2016Jan	2022Jan
H	7.0E-08	6.1E-08	5.7E-08	3.9E-08	3.5E-08	2.8E-08	2.0E-08
He	5.0E-06	5.1E-06	5.1E-06	5.2E-06	5.2E-06	5.2E-06	5.3E-06
Li	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09
Be	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08
B	5.6E-15	5.6E-15	5.6E-15	5.6E-15	5.6E-15	5.6E-15	5.6E-15
C	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02
N	5.9E-15	5.9E-15	5.9E-15	5.9E-15	5.9E-15	5.9E-15	5.9E-15
O	2.1E-24	2.1E-24	2.1E-24	2.1E-24	2.1E-24	2.1E-24	2.1E-24
Ne	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11
Na	7.4E-13	7.4E-13	7.4E-13	7.4E-13	7.4E-13	7.4E-13	7.4E-13
Mg	1.1E-06	1.1E-06	1.1E-06	1.1E-06	1.1E-06	1.1E-06	1.1E-06
Si	7.0E-01	7.0E-01	7.0E-01	7.0E-01	7.0E-01	7.0E-01	7.0E-01
P	2.9E-02	2.9E-02	2.9E-02	2.9E-02	2.9E-02	2.9E-02	2.9E-02
S	8.1E-04	8.1E-04	8.1E-04	8.1E-04	8.1E-04	8.1E-04	8.1E-04
Cl	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12
Ar	7.6E-18	7.6E-18	7.6E-18	7.6E-18	7.6E-18	7.6E-18	7.6E-18
K	4.7E-20	4.7E-20	4.7E-20	4.7E-20	4.7E-20	4.7E-20	4.7E-20
Ca	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12
Sc	6.2E-18	6.2E-18	6.2E-18	6.2E-18	6.2E-18	6.2E-18	6.2E-18
Ti	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05
V	8.1E-05	8.1E-05	8.1E-05	8.1E-05	8.1E-05	8.1E-05	8.1E-05
Mn	1.8E-04	1.8E-04	1.8E-04	1.8E-04	1.8E-04	1.8E-04	1.8E-04
Co	2.3E-05	2.3E-05	2.3E-05	2.3E-05	2.3E-05	2.3E-05	2.3E-05
Cu	4.7E-05	5.1E-05	5.2E-05	6.3E-05	6.5E-05	7.1E-05	7.9E-05
Zn	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
Ga	4.4E-11	4.4E-11	4.4E-11	4.4E-11	4.4E-11	4.4E-11	4.4E-11
Ge	8.3E-06	8.3E-06	8.3E-06	8.3E-06	8.3E-06	8.3E-06	8.3E-06
As	2.5E-06	2.5E-06	2.5E-06	2.5E-06	2.5E-06	2.5E-06	2.5E-06
Se	3.2E-04	3.2E-04	3.2E-04	3.2E-04	3.2E-04	3.2E-04	3.2E-04
Br	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04
Kr	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03
Rb	2.1E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03
Sr	3.6E-03	3.5E-03	3.5E-03	3.2E-03	3.2E-03	3.1E-03	3.0E-03
Y	2.6E-03	2.6E-03	2.6E-03	2.6E-03	2.6E-03	2.6E-03	2.6E-03
Zr	3.5E-02	3.5E-02	3.5E-02	3.5E-02	3.5E-02	3.5E-02	3.5E-02
Nb	3.3E-07	3.4E-07	3.4E-07	3.5E-07	3.6E-07	3.6E-07	3.7E-07
Mo	3.5E+00	3.5E+00	3.5E+00	3.5E+00	3.5E+00	3.5E+00	3.5E+00
Tc	3.7E-03	3.7E-03	3.7E-03	3.7E-03	3.7E-03	3.7E-03	3.7E-03
Ru	3.3E-01	3.3E-01	3.3E-01	3.3E-01	3.3E-01	3.3E-01	3.3E-01
Rh	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02
Pd	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03
Ag	1.4E-04	1.4E-04	1.4E-04	1.4E-04	1.4E-04	1.4E-04	1.4E-04
Cd	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04
In	7.2E-05	7.2E-05	7.2E-05	7.2E-05	7.2E-05	7.2E-05	7.2E-05
Sn	6.9E-04	6.9E-04	6.9E-04	6.9E-04	6.9E-04	6.9E-04	6.9E-04
Sb	1.7E-04	1.7E-04	1.7E-04	1.7E-04	1.7E-04	1.7E-04	1.7E-04
Te	3.5E-03	3.5E-03	3.5E-03	3.5E-03	3.5E-03	3.5E-03	3.5E-03
I	1.3E-03	1.3E-03	1.3E-03	1.3E-03	1.3E-03	1.3E-03	1.3E-03
Xe	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02
Cs	1.4E-02	1.4E-02	1.4E-02	1.3E-02	1.3E-02	1.3E-02	1.3E-02
Ba	8.6E-03	8.8E-03	8.8E-03	9.2E-03	9.3E-03	9.4E-03	9.7E-03
La	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03

SS_RUN1.ELE (Continued) g/L
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:09:01

Element	1999Jul	2002Jan	2003Jan	2010Jan	2012Jan	2016Jan	2022Jan
Ce	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02
Pr	5.4E-03	5.4E-03	5.4E-03	5.4E-03	5.4E-03	5.4E-03	5.4E-03
Nd	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02
Pm	7.1E-07	3.7E-07	2.8E-07	4.4E-08	2.6E-08	9.1E-09	1.9E-09
Sm	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.0E-03
Eu	2.9E-04	3.0E-04	3.0E-04	3.2E-04	3.3E-04	3.4E-04	3.5E-04
Gd	1.1E-04	1.1E-04	1.1E-04	1.1E-04	1.1E-04	1.1E-04	1.1E-04
Tb	4.0E-06	4.0E-06	4.0E-06	4.0E-06	4.0E-06	4.0E-06	4.0E-06
Dy	1.8E-06	1.8E-06	1.8E-06	1.8E-06	1.8E-06	1.8E-06	1.8E-06
Ho	6.3E-08	6.3E-08	6.3E-08	6.3E-08	6.3E-08	6.3E-08	6.3E-08
Er	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08
Tm	1.9E-14	1.9E-14	1.9E-14	1.9E-14	1.9E-14	1.9E-14	1.9E-14
Yb	9.6E-17	9.6E-17	9.6E-17	9.6E-17	9.6E-17	9.6E-17	9.6E-17
Tl	9.3E-18	9.6E-18	9.7E-18	1.0E-17	1.0E-17	1.1E-17	1.1E-17
Pb	2.3E-10	2.3E-10	2.3E-10	2.5E-10	2.5E-10	2.6E-10	2.7E-10
Bi	3.0E-14	3.3E-14	3.4E-14	4.1E-14	4.3E-14	4.7E-14	5.4E-14
Po	2.4E-14	2.6E-14	2.8E-14	4.0E-14	4.2E-14	5.0E-14	6.1E-14
At	1.5E-24	1.5E-24	1.5E-24	1.5E-24	1.5E-24	1.5E-24	1.6E-24
Rn	2.0E-15	2.2E-15	2.2E-15	2.7E-15	2.9E-15	3.1E-15	3.5E-15
Fr	4.4E-19	4.6E-19	4.7E-19	5.2E-19	5.3E-19	5.5E-19	5.8E-19
Ra	3.1E-10	3.4E-10	3.5E-10	4.2E-10	4.4E-10	4.8E-10	5.5E-10
Ac	1.7E-11	1.7E-11	1.8E-11	2.0E-11	2.0E-11	2.1E-11	2.2E-11
Th	1.2E-06	1.2E-06	1.2E-06	1.2E-06	1.2E-06	1.2E-06	1.2E-06
Pa	4.2E-08	4.2E-08	4.2E-08	4.2E-08	4.2E-08	4.2E-08	4.2E-08
U	4.1E-04	4.1E-04	4.1E-04	4.1E-04	4.2E-04	4.2E-04	4.2E-04
Np	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04
Pu	2.3E-02	2.3E-02	2.3E-02	2.3E-02	2.3E-02	2.3E-02	2.3E-02
Am	5.4E-08	5.6E-08	5.6E-08	6.0E-08	6.0E-08	6.2E-08	6.3E-08
Cm	1.4E-15	1.3E-15	1.3E-15	1.2E-15	1.2E-15	1.2E-15	1.1E-15
Total	4.8E+00	4.8E+00	4.8E+00	4.8E+00	4.8E+00	4.8E+00	4.8E+00

File SS_RUN2.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91)
  BAS     Electrolytic IAR first campaign waste
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  204  908  909   9   50  0  4  0
  TIT     Final Activity in Ci/L rather than Ci
  PHO     101  102  103  10
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                  Ci/L
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  DEC      59.    1   2   5   0
  DEC      69.    2   3   5   0
  DEC     143.    3   4   5   0
  DEC     427.    4   5   5   0
  DEC    1043.    5   6   5   0
  DEC    1137.    6   7   5   0
  DEC   10027.    7   8   5   0
  OUT      -8    1     -1    0
  OUT       8    1     -1    0
  END
  1   10012 4.100E-11  20030 1.030E-15  50100 5.593E-15 0 0.
  1   50110 6.699E-18  60120 5.062E-02  60130 5.641E-04 0 0.
  1   70140 5.888E-15  70150 1.433E-22  80160 1.693E-35 0 0.
  1   80170 2.051E-24 100200 2.715E-19 100210 1.315E-21 0 0.
  1  100220 1.023E-11 110230 7.419E-13 120240 1.687E-15 0 0.
  1  120250 7.646E-07 120260 3.129E-07 130270 3.257E-09 0 0.
  1  140280 6.487E-01 140290 3.054E-02 140300 2.024E-02 0 0.
  1  140320 2.216E-15 150310 2.891E-02 150320 1.308E-13 0 0.
  1  160340 8.143E-04 170370 3.589E-12 180380 7.646E-18 0 0.
  1  180390 1.386E-23 180420 7.530E-32 190410 4.653E-20 0 0.
  1  190420 3.219E-36 200420 2.063E-25 200430 1.605E-22 0 0.
  1  200440 2.396E-12 200450 1.948E-19 200460 7.675E-13 0 0.
  1  210450 5.965E-18 210460 4.088E-25 220460 5.521E-23 0 0.
  1  220470 5.207E-07 220480 6.545E-12 220490 1.132E-06 0 0.
  1  220500 1.250E-05 230500 2.159E-05 230510 5.951E-05 0 0.
  1  240500 4.782E+00 240510 1.078E-08 240520 9.188E+01 0 0.
  1  240530 2.478E+01 240540 2.604E+00 250540 1.135E-05 0 0.
  1  250550 2.863E-05 260540 2.493E+01 260550 1.472E-04 0 0.
  1  260560 3.878E+02 260570 8.873E+00 260580 1.194E+00 0 0.
  1  270580 2.799E-07 270590 2.242E-05 270600 4.167E-06 0 0.
  1  280580 5.279E+01 280590 1.578E-03 280600 2.029E+00 0 0.
  1  280610 8.776E-01 280620 2.790E+00 280630 2.491E-04 0 0.
  1  280640 7.057E-01 290630 8.742E-07 290650 1.051E-06 0 0.
  1  300640 1.001E-12 300650 3.508E-19 420940 1.875E-01 0 0.
  1  440980 6.308E-03 491141 2.296E-14       0 0.        0 0.
  2   20040 4.747E-06 812060 6.100E-35 812070 8.815E-19 0 0.
  2  812080 9.602E-17 812090 1.243E-22 822060 1.306E-15 0 0.
  2  822070 1.534E-13 822080 1.074E-10 822090 5.178E-19 0 0.
  2  822100 2.695E-14 822110 6.820E-18 822120 5.661E-14 0 0.
```

File SS_RUN2.INP (Continued)

```
2  822140 9.612E-19 832080 7.332E-23 832090 3.149E-15 0 0.
2  832101 2.351E-23 832100 1.660E-17 832110 4.023E-19 0 0.
2  832120 5.371E-15 832130 1.217E-19 832140 7.139E-19 0 0.
2  842100 3.842E-16 842110 4.936E-24 842120 2.841E-25 0 0.
2  842130 1.826E-28 842140 9.819E-26 842150 5.709E-24 0 0.
2  842160 2.259E-19 842180 1.115E-19 852170 1.462E-24 0 0.
2  862190 1.294E-20 862200 8.530E-17 862220 2.049E-16 0 0.
2  872210 1.328E-20 872230 6.236E-20 882230 3.287E-15 0 0.
2  882240 4.941E-13 882250 6.038E-17 882260 3.188E-11 0 0.
2  882280 8.298E-19 892250 4.054E-17 892270 2.416E-12 0 0.
2  892280 1.009E-22 902270 5.477E-15 902280 9.554E-11 0 0.
2  902290 1.122E-11 902300 1.204E-06 902310 3.411E-11 0 0.
2  902320 7.569E-09 902340 1.108E-10 912310 4.158E-08 0 0.
2  912330 1.286E-11 912341 3.734E-15 912340 1.668E-15 0 0.
2  922320 1.130E-13 922330 9.510E-12 922340 2.060E-06 0 0.
2  922350 2.020E-04 922360 1.320E-06 922370 4.580E-20 0 0.
2  922380 1.840E-04 922400 8.320E-35 932350 7.090E-13 0 0.
2  932360 2.627E-10 932370 3.795E-04 932380 9.578E-20 0 0.
2  932390 4.765E-20 932401 3.015E-32 942360 1.416E-10 0 0.
2  942380 2.038E-06 942390 2.302E-02 942400 4.676E-05 0 0.
2  942410 5.883E-08 942420 7.037E-11 942440 1.764E-19 0 0.
2  952410 1.338E-08 952421 4.738E-13 952420 6.100E-18 0 0.
2  952430 5.540E-14 962420 5.830E-14 962430 4.941E-16 0 0.
2  962440 6.704E-17 962450 7.979E-20 962460 2.644E-23 0 0.
3   10030 3.084E-07  30060 1.976E-09  30070 4.606E-11 0 0.
3   40090 8.554E-08  40100 2.609E-09  60140 1.303E-10 0 0.
3  300660 2.106E-11 300670 1.652E-13 300680 2.240E-17 0 0.
3  310690 3.344E-22 320700 9.819E-30 310710 4.429E-11 0 0.
3  320720 2.765E-07 320730 7.308E-07 320740 1.442E-06 0 0.
3  330750 2.491E-06 320760 5.820E-06 340760 3.836E-09 0 0.
3  340770 1.180E-05 340780 2.364E-05 340790 3.516E-05 0 0.
3  350790 1.731E-09 340800 7.738E-05 360800 1.396E-10 0 0.
3  350810 1.240E-04 360810 1.055E-12 340820 1.762E-04 0 0.
3  360820 3.231E-07 360830 3.100E-04 360840 5.806E-04 0 0.
3  360850 1.134E-04 370850 5.980E-04 360860 1.102E-03 0 0.
3  380860 5.608E-07 370870 1.404E-03 380870 1.516E-08 0 0.
3  380880 2.069E-03 380890 1.334E-06 390890 2.614E-03 0 0.
3  380900 2.837E-03 390900 7.115E-07 400900 8.003E-03 0 0.
3  390910 3.205E-06 400910 4.965E-03 400920 6.009E-03 0 0.
3  400930 3.801E-03 410930 3.328E-09 410931 6.574E-09 0 0.
3  400940 6.236E-03 410940 2.784E-07 400950 5.190E-06 0 0.
3  410950 2.809E-06 410951 2.263E-09 420950 3.260E-01 0 0.
3  400960 4.260E-03 420960 3.408E-01 420970 1.974E-01 0 0.
3  420980 4.922E-01 430980 6.419E-09 430990 3.728E-03 0 0.
3  440990 4.287E-02 421000 1.957E+00 441000 4.287E-02 0 0.
3  441010 6.245E-02 441020 1.102E-01 451020 2.471E-08 0 0.
3  441030 3.599E-07 451030 5.076E-02 451031 2.992E-10 0 0.
3  441040 6.463E-02 461040 3.344E-04 461050 9.399E-04 0 0.
3  441060 5.254E-05 451060 4.733E-11 461060 4.233E-04 0 0.
3  461070 3.138E-04 471070 1.542E-10 461080 1.956E-04 0 0.
3  471080 3.215E-23 471081 3.351E-14 481080 1.948E-10 0 0.
3  471090 1.384E-04 471091 1.904E-20 481090 1.927E-14 0 0.
3  461100 1.054E-04 471100 6.322E-17 471101 4.172E-09 0 0.
3  481100 3.431E-07 481110 8.704E-05 481120 7.771E-05 0 0.
3  481130 7.627E-05 481131 1.019E-06 491130 2.515E-07 0 0.
```

File SS_RUN2.INP (Continued)

```
3  481140 7.419E-05 491140 3.693E-19 501140 7.211E-11 0 0.
3  491150 7.095E-05 491151 5.366E-16 501150 2.519E-06 0 0.
3  481160 7.472E-05 501160 1.329E-06 501170 7.375E-05 0 0.
3  501180 7.704E-05 501190 7.627E-05 501191 5.897E-08 0 0.
3  501200 7.873E-05 501211 3.314E-08 511210 7.810E-05 0 0.
3  501220 8.535E-05 521220 1.537E-07 501230 2.451E-07 0 0.
3  511230 9.167E-05 521230 1.671E-10 521231 3.599E-13 0 0.
3  501240 1.097E-04 511240 2.552E-10 521240 1.955E-07 0 0.
3  511250 1.105E-03 521250 8.187E-05 521251 6.617E-07 0 0.
3  501260 1.891E-04 511260 9.061E-12 511261 6.888E-14 0 0.
3  521260 5.371E-06 521270 1.437E-09 521271 4.104E-07 0 0.
3  531270 3.459E-04 541270 1.322E-16 521280 6.434E-04 0 0.
3  541280 6.400E-07 521290 7.810E-12 521291 8.341E-09 0 0.
3  531290 9.549E-04 541290 4.443E-09 521300 1.681E-03 0 0.
3  541300 1.941E-06 541310 2.802E-03 541320 4.013E-03 0 0.
3  561320 2.429E-10 551330 5.646E-03 541340 6.651E-03 0 0.
3  551340 3.466E-06 561340 8.568E-06 551350 5.555E-03 0 0.
3  561350 1.130E-08 541360 5.641E-03 561360 2.500E-05 0 0.
3  551370 4.816E-03 561370 5.371E-04 561371 7.390E-10 0 0.
3  561380 5.835E-03 571380 2.438E-08 571390 5.690E-03 0 0.
3  581400 5.608E-03 581410 4.527E-08 591410 5.439E-03 0 0.
3  581420 5.110E-03 601420 2.677E-06 601430 5.255E-03 0 0.
3  581440 9.590E-04 591440 1.435E-08 591441 7.173E-11 0 0.
3  601440 4.532E-03 601450 3.548E-03 601460 2.771E-03 0 0.
3  611460 8.993E-09 621460 4.912E-09 611470 7.800E-04 0 0.
3  621470 1.443E-03 601480 1.629E-03 611480 3.079E-11 0 0.
3  611481 4.201E-09 621480 2.299E-05 621490 1.060E-03 0 0.
3  601500 6.757E-04 621500 6.530E-06 631500 3.168E-12 0 0.
3  621510 4.200E-04 631510 1.510E-05 621520 3.022E-04 0 0.
3  631520 1.261E-08 641520 6.834E-09 631530 2.015E-04 0 0.
3  641530 4.175E 12 621540 9.312E-05 631540 1.283E-06 0 0.
3  641540 5.265E-07 631550 2.281E-05 641550 2.726E-05 0 0.
3  641560 2.972E-05 641570 1.794E-05 641580 1.007E-05 0 0.
3  651590 3.972E-06 641600 1.975E-06 651600 7.115E-11 0 0.
3  661600 2.230E-08 661610 8.559E-07 661620 5.347E-07 0 0.
3  661630 2.171E-07 661640 1.204E-07 671650 6.274E-08 0 0.
3  671661 6.549E-11 681660 3.373E-08 681670 2.104E-08 0 0.
3  681680 1.154E-10 691690 1.882E-14 681700 1.375E-19 0 0.
3  691700 1.976E-18 701700 9.404E-17 691710 2.528E-20 0 0.
3  701710 8.293E-20 701720 3.937E-23       0 0.0       0 0.
0
```

File SS_RUN2.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy ss_run2.INP tape5.inp >nul
REM  (NOT USED IN THIS CASE) copy ss_run2.u3 tape3.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\atr.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
rem  combine and save files from run
copy tape12.out+tape6.out ss_run2.u6 >nul
copy tape13.out+tape11.out ss_run2.u11 >nul
ren tape7.out ss_run2.pch
ren tape15.out ss_run2.dbg
ren tape16.out ss_run2.vxs
ren tape50.out ss_run2.ech
rem  cleanup files
del tape*.inp
del tape*.out
del ss_run2.pch
del ss_run2.vxs
del ss_run2.dbg
del ss_run2.ech
del ss_run2.u11
echo ***********************************************************************
echo ******************* O R I G E N 2 - Version 2.1 **********************
echo ********************** Execution Completed ****************************
echo ***********************************************************************
echo on
```

ss_run2.ci
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	Ci/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
SI 32	3.810E-14	3.578E-14	3.540E-14	3.271E-14	2.417E-14	1.253E-14	1.133E-14	8.654E-19
P 32	3.734E-08	3.578E-14	3.540E-14	3.272E-14	2.417E-14	1.253E-14	1.133E-14	8.655E-19
AR 39	4.725E-22	4.725E-22	4.725E-22	4.725E-22	1.267E-22	8.522E-23	8.522E-23	9.594E-33
V 50	3.861E-18	3.861E-18	3.861E-18	3.861E-18	3.861E-18	3.861E-18	3.861E-18	3.861E-18
MN 54	8.786E-02	1.531E-22	4.641E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FE 55	3.682E-01	5.432E-08	3.777E-09	1.022E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 60	4.713E-03	2.009E-06	5.392E 07	3.196E-11	1.911E-27	0.000E+00	0.000E+00	0.000E+00
NI 59	1.196E-04	1.195E-04	1.195E-04	1.194E-04	1.191E-04	1.185E-04	1.184E-04	1.096E-04
NI 63	1.537E-02	9.855E-03	9.140E-03	5.234E-03	6.159E-04	5.942E-06	2.927E-06	0.000E+00
TL206	0.000E+00	1.329E-26	1.329E-26	1.329E-26	1.329E-26	1.329E-26	1.329E-26	1.329E-26
TL207	1.679E-10	1.687E-09	1.764E-09	1.939E-09	1.951E-09	1.945E-09	1.944E-09	2.936E-09
TL208	2.829E-08	6.638E-10	6.004E-10	2.852E-10	1.648E-11	1.441E-13	1.243E-13	1.059E-13
TL209	5.085E-14	5.543E-14	5.690E-14	7.507E-14	2.629E-13	1.294E-12	1.524E-12	8.764E-11
PB209	2.354E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
PB210	2.058E-12	3.597E-10	4.499E-10	1.170E-09	4.130E-09	8.853E-09	9.270E-09	2.402E-08
PB211	1.684E-10	1.692E-09	1.769E-09	1.944E-09	1.957E-09	1.950E-09	1.949E-09	2.944E-09
PB212	7.869E-08	1.848E-09	1.671E-09	7.937E-10	4.586E-11	4.011E-13	3.461E-13	2.947E-13
PB214	3.153E-11	6.441E-10	7.464E-10	1.490E-09	4.130E-09	8.855E-09	9.472E-09	2.403E-08
BI208	3.426E-25	3.426E-25	3.426E-25	3.426E-25	3.426E-25	3.426E-25	3.426E-25	3.426E-25
BI210M	1.335E-26	1.335E-26	1.335E-26	1.335E-26	1.335E-26	1.335E-26	1.335E-26	1.335E-26
BI210	2.060E-12	3.597E-10	4.501E-10	1.170E-09	4.130E-09	8.853E-09	9.271E-09	2.402E-08
BI211	1.684E-10	1.692E-09	1.769E-09	1.944E-09	1.957E-09	1.950E-09	1.949E-09	2.944E-09
BI212	7.871E-08	1.848E-09	1.671E-09	7.937E-10	4.586E-11	4.011E-13	3.461E-13	2.947E-13
BI213	2.354E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
BI214	3.153E-11	6.441E-10	7.464E-10	1.490E-09	4.130E-09	8.855E-09	9.472E-09	2.403E-08
PO210	1.727E-12	3.597E-10	4.501E-10	1.170E-09	4.130E-09	8.853E-09	9.271E-09	2.402E-08
PO211	4.715E-13	4.736E-12	4.953E-12	5.444E-12	5.479E 12	5.461E-12	5.458E-12	8.243E-12
PO212	5.042E-08	1.184E-09	1.071E-09	5.085E-10	2.938E-11	2.570E-13	2.217E-13	1.888E-13
PO213	0.000E+00	2.511E-12	2.577E-12	3.400E-12	1.191E-11	5.862E-11	6.904E-11	3.970E-09
PO214	0.000E+00	6.440E-10	7.463E-10	1.489E-09	4.129E-09	8.853E-09	9.470E-09	2.402E-08
PO215	1.684E-10	1.692E-09	1.769E-09	1.944E-09	1.957E-09	1.950E-09	1.949E-09	2.944E-09
PO216	7.869E-08	1.848E-09	1.671E-09	7.937E-10	4.586E-11	4.011E-13	3.461E-13	2.947E-13
PO218	3.154E-11	6.443E-10	7.466E-10	1.490E-09	4.131E-09	8.857E-09	9.473E-09	2.403E-08
AT217	2.354E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
RN219	1.684E-10	1.692E-09	1.769E-09	1.944E-09	1.957E-09	1.950E-09	1.949E-09	2.944E-09
RN220	7.871E-08	1.848E-09	1.671E-09	7.937E-10	4.586E-11	4.011E-13	3.461E-13	2.947E-13
RN222	3.153E-11	6.443E-10	7.466E-10	1.490E-09	4.131E-09	8.857E-09	9.473E-09	2.403E-08
FR221	2.355E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
FR223	2.413E-12	2.334E-11	2.437E-11	2.683E-11	2.700E-11	2.691E-11	2.690E-11	4.063E-11
RA223	1.684E-10	1.692E-09	1.769E-09	1.944E-09	1.957E-09	1.950E-09	1.949E-09	2.944E-09
RA224	7.873E-08	1.848E-09	1.671E-09	7.937E-10	4.586E-11	4.011E-13	3.461E-13	2.947E-13
RA225	2.368E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
RA226	3.153E-11	6.443E-10	7.466E-10	1.490E-09	4.131E-09	8.857E-09	9.473E-09	2.403E-08
RA228	2.264E-16	8.309E-16	8.308E-16	8.313E-16	8.336E-16	8.430E-16	8.449E-16	1.437E-15
AC225	2.354E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
AC227	1.748E-10	1.692E-09	1.766E-09	1.944E-09	1.957E-09	1.950E-09	1.949E-09	2.944E-09
AC228	2.263E-16	8.309E-16	8.308E-16	8.313E-16	8.336E-16	8.430E-16	8.449E-16	1.437E-15
TH227	1.684E-10	1.668E-09	1.744E-09	1.918E-09	1.930E-09	1.923E-09	1.922E-09	2.903E-09
TH228	7.834E-08	1.848E-09	1.671E-09	7.937E-10	4.586E-11	4.011E-13	3.461E-13	2.947E-13
TH229	2.388E-12	2.566E-12	2.634E-12	3.476E-12	1.217E-11	5.992E-11	7.057E-11	4.057E-09
TH230	2.431E-08	2.431E-08	2.431E-08	2.431E-08	2.430E-08	2.431E-08	2.431E-08	2.436E-08
TH231	1.814E 05	5.198E-10	5.338E-10	6.376E-10	1.034E-09	1.883E-09	2.011E-09	1.269E-08
TH232	8.305E-16	8.307E-16	8.308E-16	8.312E-16	8.336E-16	8.430E-16	8.449E-16	1.437E-15
TH234	2.567E-06	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11
PA231	1.965E-09	1.965E-09	1.964E-09	1.962E-09	1.955E-09	1.949E-09	1.949E-09	2.943E-09
PA233	2.670E-07	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.663E-07
PA234M	2.566E-06	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11
PA234	3.336E-09	8.039E-14	8.039E-14	8.039E-14	8.039E-14	8.039E-14	8.039E-14	8.039E-14
U232	2.529E-12	1.796E-09	1.624E-09	7.716E-10	4.459E-11	3.977E-13	3.407E-13	2.933E-13
U233	9.169E 14	6.870E-11	8.032E-11	1.663E-10	4.962E-10	1.210E-09	1.319E-09	1.139E-08
U234	1.283E-08	1.747E-08	1.807E-08	2.126E-08	2.485E-08	2.523E-08	2.522E-08	2.460E-08
U235	4.368E-10	5.198E-10	5.338E-10	6.376E-10	1.034E-09	1.883E-09	2.011E-09	1.269E-08
U236	8.541E 11	1.039E-10	1.070E-10	1.300E 10	2.166E-10	3.958E-10	4.221E-10	2.029E-09
U237	3.740E-15	8.636E-12	5.328E-12	1.494E-13	1.649E-19	3.088E-25	3.088E-25	1.484E-25
U238	6.184E 11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11	6.184E-11

ss_run2.ci (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	Ci/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
U240	0.000E+00	3.196E-24	3.196E-24	3.196E-24	3.196E-24	3.196E-24	3.196E-24	3.196E-24
NP235	9.951E-10	4.158E-26	4.158E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NP236	3.462E-12	3.461E-12	3.461E-12	3.459E-12	3.453E-12	3.440E-12	3.438E-12	3.259E-12
NP237	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.671E-07	2.663E-07
NP238	2.483E-14	1.858E-14	1.769E-14	1.229E-14	3.044E-15	1.474E-16	9.284E-17	9.771E-36
NP239	1.106E-14	1.100E-14	1.099E-14	1.091E-14	1.063E-14	1.003E-14	9.941E-15	4.309E-15
NP240M	0.000E+00	3.196E-24	3.196E-24	3.196E-24	3.196E-24	3.196E-24	3.196E-24	3.196E-24
PU236	7.527E-08	3.558E 13	3.154E-13	3.113E-13	3.108E-13	3.096E-13	3.095E-13	2.933E-13
PU238	3.492E-05	2.190E-05	2.024E-05	1.128E-05	1.196E-06	9.192E-09	4.373E-09	4.289E-33
PU239	1.429E-03	1.426E-03	1.426E-03	1.423E-03	1.411E-03	1.386E-03	1.383E-03	1.071E-03
PU240	1.062E-05	1.055E-05	1.054E-05	1.046E-05	1.015E-05	9.510E-06	9.416E-06	3.682E-06
PU241	6.083E-06	3.520E-07	2.172E-07	6.090E-09	6.724E-15	1.261E-20	1.261E-20	6.058E-21
PU242	2.786E-13	2.787E-13	2.787E-13	2.787E-13	2.787E-13	2.784E-13	2.783E-13	2.738E-13
PU244	3.200E-24	3.200E-24	3.200E-24	3.200E-24	3.200E-24	3.200E-24	3.200E-24	3.200E-24
AM241	4.594E-08	2.198E-07	2.207E-07	2.024E-07	1.285E-07	4.785E-08	4.115E-08	2.648E-14
AM242M	4.966E-12	3.716E-12	3.537E-12	2.459E-12	6.087E-13	2.947E-14	1.857E 14	1.952E-33
AM242	4.939E-12	3.697E-12	3.520E-12	2.446E-12	6.057E-13	2.932E-14	1.847E-14	1.942E-33
AM243	1.106E-14	1.100E-14	1.099E-14	1.091E-14	1.063E-14	1.003E-14	9.941E-15	4.309E-15
CM242	1.928E-10	3.057E-12	2.911E-12	2.023E-12	5.009E-13	2.425E-14	1.528E-14	1.611E-33
CM243	2.552E-14	6.076E-15	4.764E-15	7.878E-16	7.882E-19	2.456E-25	2.456E-25	0.000E+00
CM244	5.426E-15	5.672E-16	3.868E-16	2.278E-17	4.332E-22	2.496E-32	2.496E-32	0.000E+00
CM245	1.371E-20	1.364E-20	1.363E-20	1.355E-20	1.323E-20	1.258E-20	1.249E-20	6.045E-21
CM246	8.125E-24	8.125E-24	8.125E-24	8.125E-24	8.125E-24	8.125E-24	8.125E-24	0.000E+00
H 3	2.977E-03	1.085E-04	6.192E-05	9.725E-07	1.161E-13	1.118E-28	1.118E-28	0.000E+00
BE 10	5.832E-11	5.832E-11	5.832E-11	5.832E-11	5.831E-11	5.830E-11	5.829E-11	5.807E-11
C 14	5.810E-10	5.769E-10	5.762E-10	5.710E-10	5.517E-10	5.121E-10	5.063E-10	1.727E-10
SE 79	2.450E-06	2.449E-06	2.449E-06	2.447E-06	2.439E-06	2.423E-06	2.421E-06	2.202E-06
KR 81	2.220E-14	2.219E-14	2.219E-14	2.219E-14	2.216E-14	2.212E-14	2.211E-14	2.147E-14
KR 85	4.451E-02	9.810E-04	5.139E-04	4.294E-06	4.549E-14	2.291E-31	2.291E-31	0.000E+00
RB 87	1.229E-10	1.229E-10	1.229E-10	1.229E-10	1.229E-10	1.229E-10	1.229E-10	1.229E-10
SR 90	3.871E-01	9.505E-02	7.492E-02	1.287E-02	1.491E-05	6.395E-12	6.826E-13	0.000E+00
Y 90	3.873E-01	9.508E-02	7.494E-02	1.288E-02	1.493E-05	6.397E-12	6.828E-13	0.000E+00
ZR 93	9.554E-06	9.554E-06	9.554E-06	9.554E-06	9.553E-06	9.550E-06	9.550E-06	9.511E-06
NB 93M	1.859E-06	8.720E-06	8.862E-06	9.071E-06	9.075E-06	9.073E-06	9.072E-06	9.036E-06
NB 94	5.218E-08	5.208E-08	5.206E-08	5.193E-08	5.143E-08	5.036E-08	5.019E-08	3.705E-08
TC 98	5.579E-12	5.579E-12	5.579E-12	5.579E-12	5.579E-12	5.578E-12	5.578E-12	5.570E-12
TC 99	6.380E-05	6.378E-05	6.378E-05	6.377E-05	6.371E-05	6.358E-05	6.356E-05	6.173E-05
RH102	2.988E-05	2.244E-11	2.055E-12	4.280E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU106	1.759E-01	4.220E-19	2.134E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH106	1.685E-01	4.220E-19	2.134E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	1.614E-07	1.614E-07	1.614E-07	1.614E-07	1.614E-07	1.614E-07	1.614E-07	1.612E-07
AG108	2.363E-14	2.143E-14	2.107E-14	1.864E-14	1.164E-14	4.190E-15	3.586E-15	1.418E-21
AG108M	2.655E-13	2.408E-13	2.368E-13	2.094E-13	1.308E-13	4.708E-14	4.029E-14	1.594E-20
AG109M	4.979E-11	5.203E-25	5.203E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD109	4.977E-11	5.203E-25	5.203E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD113M	2.287E-04	1.258E-05	7.697E-06	2.026E-07	1.753E-13	1.240E-26	1.240E-26	0.000E+00
IN115	5.002E-16	5.002E-16	5.002E-16	5.002E-16	5.002E-16	5.002E-16	5.002E-16	5.002E-16
SN121M	1.781E-06	8.467E 07	7.464E-07	2.938E-07	8.202E-09	3.492E-12	1.068E-12	0.000E+00
TE123	4.858E-20	4.869E-20	4.869E-20	4.869E-20	4.869E-20	4.869E-20	4.869E-20	4.869E-20
SB125	1.141E+00	4.419E-07	3.618E-08	3.282E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE125M	1.192E-02	1.078E-07	8.828E-09	8.007E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	5.367E-06	5.365E-06	5.365E-06	5.362E-06	5.351E-06	5.328E-06	5.325E-06	5.007E-06
SB126	7.536E-07	7.511E-07	7.510E-07	7.507E-07	7.492E-07	7.460E-07	7.455E-07	7.010E-07
SB126M	5.370E-06	5.365E-06	5.365E-06	5.362E-06	5.351E-06	5.328E-06	5.325E-06	5.007E-06
I129	1.686E-07	1.686E-07	1.686E-07	1.686E-07	1.686E-07	1.686E-07	1.686E-07	1.686E-07
CS134	4.486E-03	1.092E-11	3.788E-13	5.955E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS135	6.399E 06	6.399E 06	6.399E-06	6.399E-06	6.398E-06	6.397E-06	6.397E-06	6.379E-06
CS137	4.191E-01	1.072E-01	8.510E-02	1.539E-02	2.176E-05	1.433E-11	1.633E-12	0.000E+00
BA137M	3.977E-01	1.014E-01	8.050E-02	1.456E-02	2.058E-05	1.356E-11	1.545E-12	0.000E+00
LA138	4.681E-16	4.681E-16	4.681E-16	4.681E-16	4.681E-16	4.681E-16	4.681E-16	4.681E-16
CE142	1.227E-10	1.227E-10	1.227E-10	1.227E-10	1.227E-10	1.227E-10	1.227E-10	1.227E-10
ND144	5.363E-15	6.498E-15	6.498E-15	6.498E-15	6.498E-15	6.498E-15	6.498E-15	6.498E-15
PM146	4.005E-06	2.363E-09	6.700E-10	5.968E-14	1.705E-29	0.000E+00	0.000E+00	0.000E+00
SM146	1.719E-13	2.883E-13	2.883E-13	2.883E-13	2.883E-13	2.883E-13	2.883E-13	2.883E-13
PM147	7.234E-01	1.228E-07	8.748E-09	2.823E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM147	3.281E-11	5.054E-11	5.054E-11	5.054E-11	5.054E-11	5.054E-11	5.054E-11	5.054E-11

ss_run2.ci (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

Ci/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
SM148	6.943E-18	6.945E-18	6.945E-18	6.945E-18	6.945E-18	6.945E-18	6.945E-18	6.945E-18
SM149	2.546E-16	2.546E-16	2.546E-16	2.546E-16	2.546E-16	2.546E-16	2.546E-16	2.546E-16
EU150	2.093E-10	6.740E-11	5.562E-11	1.343E-11	5.742E-14	4.178E-19	6.889E-20	0.000E+00
SM151	1.105E-02	7.017E-03	6.497E-03	3.674E-03	4.123E-04	3.587E-06	1.739E-06	0.000E+00
EU152	2.191E-06	1.069E-07	6.407E-08	1.450E-09	7.040E-16	1.421E-29	1.421E-29	0.000E+00
GD152	1.489E-19	2.217E-19	2.232E-19	2.254E-19	2.254E-19	2.254E-19	2.254E-19	2.254E-19
EU154	3.467E-04	2.974E-06	1.327E-06	3.395E-09	3.825E-19	1.166E-40	0.000E+00	0.000E+00
EU155	1.106E-02	2.052E-06	4.782E-07	9.983E-12	1.089E 29	0.000E+00	0.000E+00	0.000E+00
HO166M	1.176E-10	1.136E-10	1.130E-10	1.083E-10	9.188E-11	6.437E-11	6.097E-11	3.589E-13
TM171	2.754E-17	1.547E-26	1.547E-26	3.863E-38	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Source Listing of Program ROUNDSS2

```
PROGRAM ROUNDSS2

!-------- WRITTEN BY D.R. WENZEL

!            To format of the output of an ORIGEN2 run for stainless
!            steel fuel and convert the output to 2 places of accuracy

       CHARACTER (LEN=1) :: BUFFER1(111), BUFFER3(96)
       CHARACTER (LEN=10) :: BLANK, ZERO(7)
       CHARACTER (LEN=12) :: DESC, NAME, NUCLIDE(175)
       CHARACTER (LEN=24) :: NAME2, NUCLIDE2(175)
       CHARACTER (LEN=96) :: BUFFER2
       CHARACTER (LEN=111) :: BUFFER, ORGLINE

       COMMON /AMT/ AMOUNT(9)
       EQUIVALENCE (ORGLINE, BUFFER1(1))
       EQUIVALENCE (BUFFER2, BUFFER3(1))
       EQUIVALENCE (ZERO(1), BUFFER3(27))

       REAL :: DATA(175,7), VALUE(7)

       DATA BLANK /'          '/

!-------- OPEN OUTPUT FILE

       OPEN(1,FILE ='MASTER', STATUS='OLD',FORM='FORMATTED', ERR = 900)

       OPEN(2,FILE ='SS_RUN2.CI', STATUS='OLD',FORM='FORMATTED', ERR = 900)

       OPEN(6,FILE ='ROUNDSS2.OUT', STATUS='UNKNOWN', ERR = 900)

       WRITE(6,600)
  600  FORMAT(1X,'ROUNDSS2.OUT (Ci/l)')

!-------- READ MASTER LIST OF RADIONUCLIDES TO BE INCLUDED ON THE
!         FINAL REPORT

       LAST = 0
   10  READ(1,1000,END=20) NAME, NAME2
 1000  FORMAT(A12, 5X, A24)
       LAST = LAST + 1
       NUCLIDE(LAST) = NAME
       NUCLIDE2(LAST) = NAME2
       GO TO 10

!-------- ZERO MEMORY

   20  DO  l=1,175
          DO K=1,7
             DATA(l,K) = 0.
          END DO

       END DO
```

Source Listing of Program ROUNDSS2 (Continued)

```
!-------- READ RADIONUCLIDE INVENTORIES

!-------- READ FIRST 3 LINES OF FILE AND ECHO line 2

   35  DO  J=1,3
          READ(2,120) ORGLINE
  120     FORMAT(A111)

          IF(J == 2) THEN
             WRITE(6,120) ORGLINE
          END IF

       END DO

       WRITE(6,605)
  605  FORMAT(/,3X,'Nuclide',5X,'Half-Life',5X,'2032Jan   2042Jan   ', &
              '2116Jan   2400Jan   3016Jan   3110Jan   12000Jan')

!-------- READ RADIONUCLIDE INVENTORIES

   50  READ(2,120,END=80) ORGLINE
       WRITE(BUFFER,120) ORGLINE
       READ(BUFFER,400) DESC, VALUE
  400  FORMAT(A12,9X,7(E10.4))
       DO  J=1,175
          IF(DESC == NUCLIDE(J)) THEN
             DO 60 K=1,7
                DATA(J,K) = VALUE(K)
   60        CONTINUE

          END IF

       END DO

       GO TO 50

   80  DO  J=1,LAST
          WRITE(BUFFER2,620) NUCLIDE2(J), (DATA(J,K),K=1,7)
  620     FORMAT(2X,A24,7(1PE10.1))
          DO K=1,7
             IF(DATA(J,K) == 0.) THEN
                ZERO(K) = BLANK
             ENDIF

          END DO

          WRITE(6,625) BUFFER2
  625     FORMAT(A96)

       END DO

       GO TO 999

!-------- ERROR STATEMENTS
```

Source Listing of Program ROUNDSS2 (Continued)

```
  900  WRITE(6,9000)
 9000  FORMAT(2X,'ERROR IN OPENING FILE ')

!-------- PROGRAM END

  999  CONTINUE
       END PROGRAM ROUNDSS2
```

See Appendix A-2, pages 4-6, for a listing of file MASTER.

ROUNDSS2.OUT (Ci/l)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

Nuclide	Half-Life		2032Jan	2042Jan	2116Jan	2400Jan	3016Jan	3110Jan	12000Jan
H-3	1.233E+01	yr	1.1E-04	6.2E-05	9.7E-07	1.2E-13	1.1E-28	1.1E-28	
Be-10	1.510E+06	yr	5.8E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11
C-14	5.729E+03	yr	5.8E-10	5.8E-10	5.7E-10	5.5E-10	5.1E-10	5.1E-10	1.7E-10
Ca-45	1.630E+02	d							
V-50	4.000E+16	yr	3.9E-18	3.9E-18	3.9E-18	3.9E-18	3.9E-18	3.9E-18	3.9E-18
Mn-54	3.125E+02	d	1.5E-22	4.6E-26					
Fe-55	2.600E+00	yr	5.4E-08	3.8E-09	1.0E-17				
Ni-59	8.000E+04	yr	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.1E-04
Co-60	5.270E+00	yr	2.0E-06	5.4E-07	3.2E-11	1.9E-27			
Ni-63	9.200E+01	yr	9.9E-03	9.1E-03	5.2E-03	6.2E-04	5.9E-06	2.9E-06	
Se-79	1.130E+06	yr	2.4E-06	2.4E-06	2.4E-06	2.4E-06	2.4E-06	2.4E-06	2.2E-06
Rb-87	4.750E+10	yr	1.2E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10
Sr-90	2.878E+01	yr	9.5E-02	7.5E-02	1.3E-02	1.5E-05	6.4E-12	6.8E-13	
Y-90	6.400E+01	h	9.5E-02	7.5E-02	1.3E-02	1.5E-05	6.4E-12	6.8E-13	
Zr-93	1.530E+06	yr	9.6E-06	9.6E-06	9.6E-06	9.6E-06	9.5E-06	9.5E-06	9.5E-06
Nb-93m	1.360E+01	yr	8.7E-06	8.9E-06	9.1E-06	9.1E-06	9.1E-06	9.1E-06	9.0E-06
Nb-94	2.030E+04	yr	5.2E-08	5.2E-08	5.2E-08	5.1E-08	5.0E-08	5.0E-08	3.7E-08
Tc-98	4.199E+06	yr	5.6E-12	5.6E-12	5.6E-12	5.6E-12	5.6E-12	5.6E-12	5.6E-12
Tc-99	2.111E+05	yr	6.4E-05	6.4E-05	6.4E-05	6.4E-05	6.4E-05	6.4E-05	6.2E-05
Rh-102	2.070E+02	d	2.2E-11	2.1E-12	4.3E-20				
Ru-106	3.682E+02	d	4.2E-19	2.1E-20					
Rh-106	2.990E+01	s	4.2E-19	2.1E-20					
Pd 107	6.500E+06	yr	1.6E 07	1.6E 07	1.6E 07	1.6E-07	1.6E-07	1.6E-07	1.6E-07
Ag-108	2.370E+00	m	2.1E-14	2.1E-14	1.9E-14	1.2E-14	4.2E-15	3.6E-15	1.4E-21
Ag-108m	4.180E+02	yr	2.4E-13	2.4E-13	2.1E-13	1.3E-13	4.7E-14	4.0E-14	1.6E-20
Ag-109m	3.960E+01	s	5.2E-25	5.2E-25					
Cd-109	4.640E+02	d	5.2E-25	5.2E-25					
Ag-110	2.460E+01	s							
Ag-110m	2.499E+02	d							
Cd-113m	1.410E+01	yr	1.3E-05	7.7E-06	2.0E-07	1.8E-13	1.2E-26	1.2E-26	
In-115	4.410E+14	yr	5.0E-16	5.0E-16	5.0E-16	5.0E-16	5.0E-16	5.0E-16	5.0E-16
Sn-119m	2.450E+02	d							
Sn-121m	5.500E+01	yr	8.5E-07	7.5E-07	2.9E-07	8.2E-09	3.5E-12	1.1E-12	
Te-123	1.000E+13	yr	4.9E-20	4.9E-20	4.9E-20	4.9E-20	4.9E-20	4.9E-20	4.9E-20
Sb-125	2.758E+00	yr	4.4E-07	3.6E-08	3.3E-16				
Te-125m	5.740E+01	d	1.1E-07	8.8E-09	8.0E-17				
Sn-126	1.000E+05	yr	5.4E-06	5.4E-06	5.4E-06	5.4E-06	5.3E-06	5.3E-06	5.0E-06
Sb-126	1.246E+01	d	7.5E-07	7.5E-07	7.5E-07	7.5E-07	7.5E-07	7.5E-07	7.0E-07
Sb-126m	1.915E+01	m	5.4E-06	5.4E-06	5.4E-06	5.4E-06	5.3E-06	5.3E-06	5.0E-06
I-129	1.570E+07	yr	1.7E-07	1.7E-07	1.7E-07	1.7E-07	1.7E-07	1.7E-07	1.7E-07
Cs-134	2.065E+00	yr	1.1E-11	3.8E-13	6.0E-24				
Cs-135	2.300E+06	yr	6.4E-06	6.4E-06	6.4E-06	6.4E-06	6.4E-06	6.4E-06	6.4E-06
Cs-137	3.007E+01	yr	1.1E-01	8.5E-02	1.5E-02	2.2E-05	1.4E-11	1.6E-12	
Ba 137m	2.552E+00	m	1.0E-01	8.0E-02	1.5E-02	2.1E-05	1.4E-11	1.5E-12	
La-138	1.050E+11	yr	4.7E-16	4.7E-16	4.7E-16	4.7E-16	4.7E-16	4.7E-16	4.7E-16
Ce-142	5.000E+16	yr	1.2E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10
Ce-144	2.843E+02	d							
Pr-144	1.728E+01	m							
Pr-144m	7.200E+00	m							
Nd-144	2.290E+15	yr	6.5E-15	6.5E-15	6.5E-15	6.5E-15	6.5E-15	6.5E-15	6.5E-15
Pm-146	5.500E+00	yr	2.4E-09	6.7E-10	6.0E-14	1.7E-29			
Sm-146	7.000E+07	yr	2.9E-13	2.9E-13	2.9E-13	2.9E-13	2.9E-13	2.9E-13	2.9E-13
Pm-147	2.623E+00	yr	1.2E-07	8.7E-09	2.8E-17				
Sm-147	1.070E+11	yr	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11
Sm-148	7.000E+15	yr	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18
Sm-149	2.000E+15	yr	2.5E-16	2.5E-16	2.5E-16	2.5E-16	2.5E-16	2.5E-16	2.5E-16
Eu-150	3.690E+01	yr	6.7E-11	5.6E-11	1.3E-11	5.7E-14	4.2E-19	6.9E-20	
Sm-151	8.999E+01	yr	7.0E-03	6.5E-03	3.7E-03	4.1E-04	3.6E-06	1.7E-06	
Eu-152	1.354E+01	yr	1.1E-07	6.4E-08	1.5E-09	7.0E-16	1.4E-29	1.4E-29	
Gd-152	1.080E+14	yr	2.2E-19	2.2E-19	2.3E-19	2.3E-19	2.3E-19	2.3E-19	2.3E-19
Gd-153	2.420E+02	d							
Eu-154	8.593E+00	yr	3.0E-06	1.3E-06	3.4E-09	3.8E-19	1.2E-40		
Eu-155	4.761E+00	yr	2.1E-06	4.8E-07	1.0E-11	1.1E-29			
Ho-166m	1.200E+03	yr	1.1E-10	1.1E-10	1.1E-10	9.2E-11	6.4E-11	6.1E-11	3.6E-13

ROUNDSS2.OUT (Ci/l) (Continiued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

Nuclide	Half-Life		2032Jan	2042Jan	2116Jan	2400Jan	3016Jan	3110Jan	12000Jan
Tm-171	1.920E+00	yr	1.5E-26	1.5E-26	3.9E-38				
Lu-176	3.000E+10	yr							
Lu-177	6.709E+00	d							
Hf-182	9.000E+06	yr							
Ta-182	1.150E+02	d							
Re-187	5.000E+10	yr							
Tl-207	4.770E+00	m	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Tl-208	3.070E+00	m	6.6E-10	6.0E-10	2.9E-10	1.6E-11	1.4E-13	1.2E-13	1.1E-13
Tl-209	2.200E+00	m	5.5E-14	5.7E-14	7.5E-14	2.6E-13	1.3E-12	1.5E-12	8.8E-11
Pb-209	3.300E+00	h	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Pb-210	2.230E+01	yr	3.6E-10	4.5E-10	1.2E-09	4.1E-09	8.9E-09	9.3E-09	2.4E-08
Pb-211	3.610E+01	m	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Pb-212	1.064E+01	h	1.8E-09	1.7E-09	7.9E-10	4.6E-11	4.0E-13	3.5E-13	2.9E-13
Pb-214	2.680E+01	m	6.4E-10	7.5E-10	1.5E-09	4.1E-09	8.9E-09	9.5E-09	2.4E-08
Bi-210m	3.000E+06	yr	1.3E-26	1.3E-26	1.3E-26	1.3E-26	1.3E-26	1.3E-26	1.3E-26
Bi-210	5.012E+00	d	3.6E-10	4.5E-10	1.2E-09	4.1E-09	8.9E-09	9.3E-09	2.4E-08
Bi-211	2.130E+00	m	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Bi-212	6.055E+01	m	1.8E-09	1.7E-09	7.9E-10	4.6E-11	4.0E-13	3.5E-13	2.9E-13
Bi-213	4.565E+01	m	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Bi-214	1.990E+01	m	6.4E-10	7.5E-10	1.5E-09	4.1E-09	8.9E-09	9.5E-09	2.4E-08
Po-210	1.384E+02	d	3.6E-10	4.5E-10	1.2E-09	4.1E-09	8.9E-09	9.3E-09	2.4E-08
Po-211	5.600E-01	s	4.7E-12	5.0E-12	5.4E-12	5.5E-12	5.5E-12	5.5E-12	8.2E-12
Po-212	3.000E-07	s	1.2E-09	1.1E-09	5.1E-10	2.9E-11	2.6E-13	2.2E-13	1.9E-13
Po-213	4.200E-06	s	2.5E-12	2.6E-12	3.4E-12	1.2E-11	5.9E-11	6.9E-11	4.0E-09
Po-214	1.643E-04	s	6.4E-10	7.5E-10	1.5E-09	4.1E-09	8.9E-09	9.5E-09	2.4E-08
Po-215	1.780E-03	s	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Po-216	1.500E-01	s	1.8E-09	1.7E-09	7.9E-10	4.6E-11	4.0E-13	3.5E-13	2.9E-13
Po-218	3.050E+00	m	6.4E-10	7.5E-10	1.5E-09	4.1E-09	8.9E-09	9.5E-09	2.4E-08
At-217	3.230E-02	s	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Rn-219	3.960E+00	s	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Rn-220	5.560E+01	s	1.8E-09	1.7E-09	7.9E-10	4.6E-11	4.0E-13	3.5E-13	2.9E-13
Rn-222	3.824E+00	d	6.4E-10	7.5E-10	1.5E-09	4.1E-09	8.9E-09	9.5E-09	2.4E-08
Fr-221	4.800E+00	m	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Fr-223	2.180E+01	m	2.3E-11	2.4E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	4.1E-11
Ra-223	1.143E+01	d	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Ra-224	3.660E+00	d	1.8E-09	1.7E-09	7.9E-10	4.6E-11	4.0E-13	3.5E-13	2.9E-13
Ra-225	1.480E+01	d	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Ra-226	1.600E+03	yr	6.4E-10	7.5E-10	1.5E-09	4.1E-09	8.9E-09	9.5E-09	2.4E-08
Ra-228	5.750E+00	yr	8.3E-16	8.3E-16	8.3E-16	8.3E-16	8.4E-16	8.4E-16	1.4E-15
Ac-225	1.000E+01	d	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Ac-227	2.177E+01	yr	1.7E-09	1.8E-09	1.9E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Ac-228	6.131E+00	h	8.3E-16	8.3E-16	8.3E-16	8.3E-16	8.4E-16	8.4E-16	1.4E-15
Th-227	1.872E+01	d	1.7E-09	1.7E-09	1.9E-09	1.9E-09	1.9E-09	1.9E-09	2.9E-09
Th-228	1.913E+00	yr	1.8E-09	1.7E-09	7.9E-10	4.6E-11	4.0E-13	3.5E-13	2.9E-13
Th-229	7.339E+03	yr	2.6E-12	2.6E-12	3.5E-12	1.2E-11	6.0E-11	7.1E-11	4.1E-09
Th-230	7.700E+04	yr	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08
Th-231	2.552E+01	h	5.2E-10	5.3E-10	6.4E-10	1.0E-09	1.9E-09	2.0E-09	1.3E-08
Th-232	1.405E+10	yr	8.3E-16	8.3E-16	8.3E-16	8.3E-16	8.4E-16	8.4E-16	1.4E-15
Th-234	2.410E+01	d	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11
Pa-231	3.277E+04	yr	2.0E-09	2.0E-09	2.0E-09	2.0E-09	1.9E-09	1.9E-09	2.9E-09
Pa-233	2.700E+01	d	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07
Pa-234m	1.170E+00	m	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11
Pa-234	6.700E+00	h	8.0E-14	8.0E-14	8.0E-14	8.0E-14	8.0E-14	8.0E-14	8.0E-14
U-232	6.890E+01	yr	1.8E-09	1.6E-09	7.7E-10	4.5E-11	4.0E-13	3.4E-13	2.9E-13
U-233	1.592E+05	yr	6.9E-11	8.0E-11	1.7E-10	5.0E-10	1.2E-09	1.3E-09	1.1E-08
U-234	2.455E+05	yr	1.7E-08	1.8E-08	2.1E-08	2.5E-08	2.5E-08	2.5E-08	2.5E-08
U-235	7.038E+08	yr	5.2E-10	5.3E-10	6.4E-10	1.0E-09	1.9E-09	2.0E-09	1.3E-08
U-236	2.342E+07	yr	1.0E-10	1.1E-10	1.3E-10	2.2E-10	4.0E-10	4.2E-10	2.0E-09
U-237	6.750E+00	d	8.6E-12	5.3E-12	1.5E-13	1.6E-19	3.1E-25	3.1E-25	1.5E-25
U-238	4.470E+09	yr	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11
U-240	1.410E+01	h	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24
Np-236	1.150E+05	yr	3.5E-12	3.5E-12	3.5E-12	3.5E-12	3.4E-12	3.4E-12	3.3E-12
Np-237	2.140E+06	yr	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07	2.7E-07
Np-238	2.117E+00	d	1.9E-14	1.8E-14	1.2E-14	3.0E-15	1.5E-16	9.3E-17	9.8E-36
Np-239	2.355E+00	d	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.0E-14	9.9E-15	4.3E-15
Np-240m	7.400E+00	m	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24

ROUNDSS2.OUT (Ci/l) (Continiued)
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

Nuclide	Half-Life		2032Jan	2042Jan	2116Jan	2400Jan	3016Jan	3110Jan	12000Jan
Pu-236	2.851E+00	yr	3.6E-13	3.2E-13	3.1E-13	3.1E-13	3.1E-13	3.1E-13	2.9E-13
Pu-238	8.770E+01	yr	2.2E-05	2.0E-05	1.1E-05	1.2E-06	9.2E-09	4.4E-09	4.3E-33
Pu-239	2.411E+04	yr	1.4E-03	1.4E-03	1.4E-03	1.4E-03	1.4E-03	1.4E-03	1.1E-03
Pu-240	6.537E+03	yr	1.1E-05	1.1E-05	1.0E-05	1.0E-05	9.5E-06	9.4E-06	3.7E-06
Pu-241	1.440E+01	yr	3.5E-07	2.2E-07	6.1E-09	6.7E-15	1.3E-20	1.3E-20	6.1E-21
Pu-242	3.733E+05	yr	2.8E-13	2.8E-13	2.8E-13	2.8E-13	2.8E-13	2.8E-13	2.7E-13
Pu 243	4.956E+00	h							
Pu-244	8.080E+07	yr	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24	3.2E-24
Am-241	4.322E+02	yr	2.2E-07	2.2E-07	2.0E-07	1.3E-07	4.8E-08	4.1E-08	2.6E-14
Am-242m	1.410E+02	yr	3.7E-12	3.5E-12	2.5E-12	6.1E-13	2.9E-14	1.9E-14	2.0E-33
Am-242	1.602E+01	h	3.7E-12	3.5E-12	2.4E-12	6.1E-13	2.9E-14	1.8E-14	1.9E-33
Am-243	7.370E+03	yr	1.1E-14	1.1E-14	1.1E-14	1.1E-14	1.0E-14	9.9E-15	4.3E-15
Cm-242	1.632E+02	d	3.1E-12	2.9E-12	2.0E-12	5.0E-13	2.4E-14	1.5E-14	1.6E-33
Cm-243	2.850E+01	yr	6.1E-15	4.8E-15	7.9E-16	7.9E-19	2.5E-25	2.5E-25	
Cm-244	1.811E+01	yr	5.7E-16	3.9E-16	2.3E-17	4.3E-22	2.5E-32	2.5E-32	
Cm-245	8.499E+03	yr	1.4E-20	1.4E-20	1.4E-20	1.3E-20	1.3E-20	1.2E-20	6.0E-21
Cm-246	4.731E+03	yr	8.1E-24	8.1E-24	8.1E-24	8.1E-24	8.1E-24	8.1E-24	
Cm-247	1.560E+07	yr							
Cm-248	3.391E+05	yr							
Cf-249	3.505E+02	yr							
Cf-250	1.308E+01	yr							
Cf-251	8.980E+02	yr							
Cf-252	2.638E+00	yr							

ss_run2.g
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	g/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
HE 3	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15	1.030E-15
B 10	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15	5.593E-15
B 11	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18	6.699E-18
C 12	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02	5.062E-02
C 13	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04	5.641E-04
N 14	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15	5.888E-15
N 15	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22	1.433E-22
O 17	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24	2.051E-24
NE 20	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19	2.715E-19
NE 21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21	1.315E-21
NE 22	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11	1.023E-11
NA 23	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13	7.419E-13
MG 24	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15	1.687E-15
MG 25	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07	7.646E-07
MG 26	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07	3.129E-07
AL 27	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09	3.257E-09
SI 28	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01	6.487E-01
SI 29	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02	3.054E-02
SI 30	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02	2.024E-02
SI 32	2.216E-15	2.081E-15	2.059E-15	1.903E-15	1.405E-15	7.287E-16	6.592E-16	5.033E-20
P 31	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02	2.891E-02
P 32	1.308E-13	1.253E-19	1.240E-19	1.146E-19	8.466E-20	4.389E-20	3.971E-20	3.032E-24
S 32	0.000E+00	1.309E-13	1.310E-13	1.311E-13	1.316E-13	1.323E-13	1.324E-13	1.330E-13
S 34	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04	8.143E-04
CL 37	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12	3.589E-12
AR 38	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18	7.646E-18
AR 39	1.386E-23	1.386E-23	1.386E-23	1.386E-23	3.717E-24	2.500E-24	2.500E-24	2.814E-34
K 41	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20	4.653E-20
CA 42	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25	2.063E-25
CA 43	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22	1.605E-22
CA 44	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12	2.396E-12
CA 46	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13	7.675E-13
SC 45	5.965E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18	6.160E-18
TI 46	5.521E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23	5.562E-23
TI 47	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07	5.207E-07
TI 48	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12	6.545E-12
TI 49	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06	1.132E-06
TI 50	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05	1.250E-05
V 50	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05	2.159E-05
V 51	5.951E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05	5.952E-05
CR 50	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00	4.782E+00
CR 52	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01	9.188E+01
CR 53	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01	2.478E+01
CR 54	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00	2.604E+00
MN 54	1.135E-05	1.978E-26	5.995E-30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MN 55	2.863E-05	1.758E-04	1.758E-04	1.758E-04	1.758E-04	1.758E-04	1.758E-04	1.758E-04
FE 54	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01	2.493E+01
FE 55	1.472E-04	2.172E-11	1.510E-12	4.086E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FE 56	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02	3.878E+02
FE 57	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00	8.873E+00
FE 58	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00	1.194E+00
CO 59	2.242E-05	2.323E-05	2.336E-05	2.437E-05	2.825E-05	3.662E-05	3.789E-05	1.537E-04
CO 60	4.167E-06	1.776E-09	4.767E-10	2.825E-14	1.689E-30	0.000E+00	0.000E+00	0.000E+00
NI 58	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01	5.279E+01
NI 59	1.578E-03	1.577E-03	1.577E-03	1.576E-03	1.572E-03	1.564E-03	1.563E-03	1.447E-03
NI 60	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00	2.029E+00
NI 61	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01	8.776E-01
NI 62	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00	2.790E+00
NI 63	2.491E-04	1.597E-04	1.481E-04	8.481E-05	9.982E-06	9.629E-08	4.743E-08	0.000E+00
NI 64	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01	7.057E-01
CU 63	8.742E-07	9.027E-05	1.019E-04	1.652E-04	2.400E-04	2.499E-04	2.499E-04	2.500E-04
CU 65	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06	1.051E-06
ZN 64	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12	1.001E-12
MO 94	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01	1.875E-01
RU 98	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03	6.308E-03
CD114	0.000E+00	1.729E-15	1.729E-15	1.729E-15	1.729E-15	1.729E-15	1.729E-15	1.729E-15

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ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	g/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
SN114	0.000E+00	2.123E-14	2.123E-14	2.123E-14	2.123E-14	2.123E-14	2.123E-14	2.123E-14
HE 4	4.747E-06	5.418E-06	5.531E-06	6.363E-06	9.517E-06	1.625E-05	1.726E-05	1.018E-04
TL206	0.000E+00	6.100E-35	6.100E-35	6.100E-35	6.100E-35	6.100E-35	6.100E-35	6.100E-35
TL207	8.815E-19	8.854E-18	9.258E-18	1.018E-17	1.024E-17	1.021E-17	1.020E-17	1.541E-17
TL208	9.602E-17	2.253E-18	2.038E-18	9.680E-19	5.593E-20	4.892E-22	4.221E-22	3.595E-22
TL209	1.243E-22	1.355E-22	1.391E-22	1.835E-22	6.427E-22	3.164E-21	3.726E-21	2.142E-19
PB206	1.306E-15	3.383E-12	5.000E-12	2.888E-11	3.305E-10	1.930E-09	2.271E-09	7.530E-08
PB207	1.534E-13	2.755E-11	3.450E-11	9.060E-11	3.136E-10	7.960E-10	8.696E-10	9.051E-09
PB208	1.074E-10	2.513E-10	2.584E-10	2.936E-10	3.236E-10	3.255E-10	3.255E-10	3.266E-10
PB209	5.178E-19	5.645E-19	5.795E-19	7.646E-19	2.678E-18	1.318E-17	1.552E-17	8.926E-16
PB210	2.695E-14	4.709E-12	5.891E-12	1.532E-11	5.407E-11	1.159E-10	1.214E-10	3.145E-10
PB211	6.820E-18	6.850E-17	7.162E-17	7.874E-17	7.924E-17	7.897E-17	7.893E-17	1.192E-16
PB212	5.661E-14	1.329E-15	1.202E-15	5.710E-16	3.299E-17	2.885E-19	2.490E-19	2.120E-19
PB214	9.612E-19	1.964E-17	2.276E-17	4.542E-17	1.259E-16	2.700E-16	2.888E-16	7.326E-16
BI208	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23	7.332E-23
BI209	3.149E-15	6.158E-14	7.211E-14	1.622E-13	9.796E-13	9.167E-12	1.165E-11	5.929E-09
BI210M	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23	2.351E-23
BI210	1.660E-17	2.898E-15	3.626E-15	9.430E-15	3.327E-14	7.133E-14	7.469E-14	1.935E-13
BI211	4.023E-19	4.042E-18	4.226E-18	4.646E-18	4.675E-18	4.659E-18	4.657E-18	7.034E-18
BI212	5.371E-15	1.261E-16	1.140E-16	5.416E-17	3.129E-18	2.737E-20	2.362E-20	2.011E-20
BI213	1.217E-19	1.326E-19	1.362E-19	1.797E-19	6.292E-19	3.097E-18	3.648E-18	2.097E-16
BI214	7.139E-19	1.458E-17	1.690E-17	3.372E-17	9.351E-17	2.005E-16	2.144E-16	5.440E-16
PO210	3.842E-16	8.003E-14	1.002E-13	2.605E-13	9.190E-13	1.970E-12	2.063E-12	5.346E-12
PO211	4.936E-24	4.959E-23	5.185E-23	5.700E-23	5.736E-23	5.717E-23	5.714E-23	8.630E-23
PO212	2.841E-25	6.670E-27	6.033E-27	2.865E-27	1.656E-28	1.448E-30	1.249E-30	1.064E-30
PO213	0.000E+00	1.990E-28	2.043E-28	2.695E-28	9.441E-28	4.647E-27	5.473E-27	3.146E-25
PO214	0.000E+00	2.006E-24	2.325E-24	4.640E-24	1.286E-23	2.758E-23	2.950E-23	7.483E-23
PO215	5.709E-24	5.736E-23	5.997E-23	6.593E-23	6.535E-23	6.613E-23	6.609E-23	9.982E-23
PO216	2.259E-19	5.304E-21	4.797E-21	2.278E-21	1.316E-22	1.151E-24	9.934E-25	8.461E-25
PO218	1.115E-19	2.277E-18	2.639E-18	5.266E-18	1.460E-17	3.131E-17	3.349E-17	8.495E-17
AT217	1.462E-24	1.594E-24	1.636E-24	2.158E-24	7.560E-24	3.721E-23	4.382E-23	2.520E-21
RN219	1.294E-20	1.300E-19	1.359E-19	1.494E-19	1.504E-19	1.499E-19	1.498E-19	2.262E-19
RN220	8.530E-17	2.002E-18	1.811E-18	8.601E-19	4.970E-20	4.347E-22	3.751E-22	3.194E-22
RN222	2.049E-16	4.187E-15	4.852E-15	9.683E-15	2.685E-14	5.756E-14	6.157E-14	1.562E-13
FR221	1.328E-20	1.447E-20	1.485E-20	1.960E-20	6.865E-20	3.379E-19	3.980E-19	2.288E-17
FR223	6.236E-20	6.033E-19	6.298E-19	6.933E-19	6.979E-19	6.955E-19	6.951E-19	1.050E-18
RA223	3.287E-15	3.302E-14	3.452E-14	3.795E-14	3.820E-14	3.807E-14	3.805E-14	5.746E-14
RA224	4.941E-13	1.159E-14	1.049E-14	4.981E-15	2.878E-16	2.517E-18	2.172E-18	1.850E-18
RA225	6.038E-17	6.543E-17	6.716E-17	8.862E-17	3.104E-16	1.528E-15	1.799E-15	1.034E-13
RA226	3.188E-11	6.514E-10	7.548E-10	1.506E-09	4.177E-09	8.954E-09	9.578E-09	2.430E-08
RA228	8.298E-19	3.046E-18	3.045E-18	3.047E-18	3.056E-18	3.090E-18	3.097E-18	5.266E-18
AC225	4.054E-17	4.420E-17	4.537E-17	5.986E-17	2.097E-16	1.032E-15	1.215E-15	6.988E-14
AC227	2.416E-12	2.338E-11	2.440E-11	2.687E-11	2.704E-11	2.695E-11	2.693E-11	4.068E-11
AC228	1.009E-22	3.705E-22	3.704E-22	3.706E-22	3.717E-22	3.758E-22	3.767E-22	6.405E-22
TH227	5.477E-15	5.425E-14	5.673E-14	6.237E-14	6.276E-14	6.255E-14	6.252E-14	9.442E-14
TH228	9.554E-11	2.253E-12	2.038E-12	9.679E-13	5.592E-14	4.891E-16	4.220E-16	3.595E-16
TH229	1.122E-11	1.206E-11	1.238E-11	1.633E-11	5.720E-11	2.816E-10	3.316E-10	1.907E-08
TH230	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.204E-06	1.206E-06
TH231	3.411E-11	9.773E-16	1.004E-15	1.199E-15	1.944E-15	3.540E-15	3.781E-15	2.387E-14
TH232	7.569E-09	7.572E-09	7.572E-09	7.576E-09	7.598E-09	7.683E-09	7.700E-09	1.309E-08
TH234	1.108E-10	2.669E-15	2.669E-15	2.669E-15	2.669E-15	2.669E-15	2.669E-15	2.669E-15
PA231	4.158E-08	4.157E-08	4.157E-08	4.152E-08	4.138E-08	4.124E-08	4.124E-08	6.228E-08
PA233	1.286E-11	1.286E-11	1.286E-11	1.286E-11	1.286E-11	1.286E-11	1.286E-11	1.283E-11
PA234M	3.734E-15	9.001E-20	9.001E-20	9.001E-20	9.001E-20	9.001E-20	9.001E-20	9.000E-20
PA234	1.668E-15	4.020E-20	4.020E-20	4.020E-20	4.020E-20	4.020E-20	4.020E-20	4.020E-20
U232	1.130E-13	8.027E-11	7.259E-11	3.448E-11	1.993E-12	1.777E-14	1.522E-14	1.311E-14
U233	9.510E-12	7.125E-09	8.331E-09	1.725E-08	5.146E-08	1.255E-07	1.368E-07	1.182E-06
U234	2.060E-06	2.806E-06	2.902E-06	3.415E-06	3.991E-06	4.052E-06	4.051E-06	3.951E-06
U235	2.020E-04	2.404E-04	2.469E-04	2.949E-04	4.781E-04	8.706E-04	9.299E-04	5.870E-03
U236	1.320E-06	1.606E-06	1.654E-06	2.009E-06	3.348E-06	6.116E-06	6.523E-06	3.135E-05
U237	4.580E-20	1.058E-16	6.525E-17	1.830E-18	2.020E-24	3.782E-30	3.782E-30	1.818E-30
U238	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04	1.840E-04
U240	0.000E+00	3.449E-30	3.449E-30	3.449E-30	3.449E-30	3.449E-30	3.449E-30	3.449E-30
NP235	7.090E-13	2.963E-29	2.963E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NP236	2.627E-10	2.626E-10	2.626E-10	2.625E-10	2.620E-10	2.611E-10	2.609E-10	2.473E-10
NP237	3.795E-04	3.795E-04	3.795E-04	3.795E-04	3.795E-04	3.794E-04	3.794E-04	3.783E-04
NP238	9.578E-20	7.165E-20	6.822E-20	4.742E-20	1.174E-20	5.684E-22	3.581E-22	3.769E-41

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ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	g/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
NP239	4.765E-20	4.741E-20	4.736E-20	4.703E-20	4.579E-20	4.322E-20	4.284E-20	1.857E-20
NP240M	0.000E+00	3.017E-32	3.017E-32	3.017E-32	3.017E-32	3.017E-32	3.017E-32	3.017E-32
PU236	1.416E-10	6.694E-16	5.933E-16	5.857E-16	5.847E-16	5.825E-16	5.822E-16	5.518E-16
PU238	2.038E-06	1.279E-06	1.181E-06	6.583E-07	6.978E-08	5.365E-10	2.553E-10	2.504E-34
PU239	2.302E-02	2.298E-02	2.297E-02	2.293E-02	2.274E-02	2.234E-02	2.228E-02	1.726E-02
PU240	4.676E-05	4.647E-05	4.642E-05	4.606E-05	4.470E-05	4.188E-05	4.147E-05	1.622E-05
PU241	5.883E-08	3.404E-09	2.100E-09	5.890E-11	6.503E-17	1.219E-22	1.219E-22	5.858E-23
PU242	7.037E-11	7.038E-11	7.038E-11	7.039E-11	7.039E-11	7.031E-11	7.030E-11	6.915E-11
PU244	1.764E-19	1.764E-19	1.764E-19	1.764E-19	1.764E-19	1.764E-19	1.764E-19	1.764E-19
AM241	1.338E-08	6.401E-08	6.428E-08	5.896E-08	3.743E-08	1.394E-08	1.199E-08	7.711E-15
AM242M	4.738E-13	3.545E-13	3.375E-13	2.346E-13	5.808E-14	2.812E-15	1.772E-15	1.863E-34
AM242	6.100E-18	4.566E-18	4.347E-18	3.021E-18	7.481E-19	3.622E-20	2.282E-20	2.399E-39
AM243	5.540E-14	5.509E-14	5.504E-14	5.466E-14	5.322E-14	5.022E-14	4.978E-14	2.158E-14
CM242	5.830E-14	9.243E-16	8.800E-16	6.117E-16	1.514E-16	7.332E-18	4.619E-18	4.872E-37
CM243	4.941E-16	1.177E-16	9.226E-17	1.525E-17	1.526E-20	4.756E-27	4.756E-27	0.000E+00
CM244	6.704E-17	7.008E-18	4.779E-18	2.814E-19	5.352E-24	3.084E-34	3.084E-34	0.000E+00
CM245	7.979E-20	7.941E-20	7.934E-20	7.886E-20	7.704E-20	7.326E-20	7.270E-20	3.520E-20
CM246	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23	2.644E-23	0.000E+00
SF250	0.000E+00	1.678E-14	1.955E-14	3.961E-14	1.125E-13	2.611E-13	2.830E-13	1.622E-12
H 3	3.084E-07	1.124E-08	6.413E-09	1.007E-10	1.202E-17	1.158E-32	1.158E-32	0.000E+00
LI 6	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09	1.976E-09
LI 7	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11	4.606E-11
BE 9	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08	8.554E-08
BE 10	2.609E-09	2.609E-09	2.609E-09	2.609E-09	2.609E-09	2.608E-09	2.608E-09	2.598E-09
C 14	1.303E-10	1.294E-10	1.292E-10	1.281E-10	1.237E-10	1.149E-10	1.136E-10	3.873E-11
ZN 66	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11	2.106E-11
ZN 67	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13	1.652E-13
ZN 68	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17	2.240E-17
GA 69	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22	3.344E-22
GA 71	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11	4.429E-11
GE 72	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07	2.765E-07
GE 73	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07	7.308E-07
GE 74	1.442E-06	1.442E-06	1.442E-06	1.442E-06	1.442E-06	1.442E-06	1.442E-06	1.442E-06
AS 75	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06	2.491E-06
GE 76	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06	5.820E-06
SE 76	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09	3.836E-09
SE 77	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05	1.180E-05
SE 78	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05	2.364E-05
SE 79	3.516E-05	3.514E-05	3.513E-05	3.511E-05	3.500E-05	3.477E-05	3.474E-05	3.159E-05
BR 79	1.731E-09	2.386E-08	2.761E-08	5.534E-08	1.616E-07	3.909E-07	4.257E-07	3.569E-06
SE 80	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05	7.738E-05
KR 80	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10	1.396E-10
BR 81	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04	1.240E-04
KR 81	1.055E-12	1.055E-12	1.055E-12	1.055E-12	1.054E-12	1.051E-12	1.051E-12	1.021E-12
SE 82	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04	1.762E-04
KR 82	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07	3.231E-07
KR 83	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04	3.100E-04
KR 84	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04	5.806E-04
KR 85	1.134E-04	2.499E-06	1.309E-06	1.094E-08	1.159E-16	5.837E-34	5.837E-34	0.000E+00
RB 85	5.980E-04	7.089E-04	7.101E-04	7.114E-04	7.114E-04	7.114E-04	7.114E-04	7.114E-04
KR 86	1.102E-03	1.102E-03	1.102E-03	1.102E-03	1.102E-03	1.102E-03	1.102E-03	1.102E-03
SR 86	5.608E-07	5.608E-07	5.608E-07	5.608E-07	5.608E-07	5.608E-07	5.608E-07	5.608E-07
RB 87	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03	1.404E-03
SR 87	1.516E-08	1.516E-08	1.516E-08	1.516E-08	1.517E-08	1.518E-08	1.518E-08	1.537E-08
SR 88	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03	2.069E-03
Y 89	2.614E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03	2.615E-03
SR 90	2.837E-03	6.966E-04	5.490E-04	9.433E-05	1.093E-07	4.686E-14	5.002E-15	0.000E+00
Y 90	7.115E-07	1.747E-07	1.377E-07	2.366E-08	2.743E-11	1.175E-17	1.254E-18	0.000E+00
ZR 90	8.003E-03	1.014E-02	1.029E-02	1.075E-02	1.084E-02	1.084E-02	1.084E-02	1.084E-02
ZR 91	4.965E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03	4.968E-03
ZR 92	6.009E-03	6.009E-03	6.009E-03	6.009E-03	6.009E-03	6.009E-03	6.009E-03	6.009E-03
ZR 93	3.801E-03	3.801E-03	3.801E-03	3.801E-03	3.800E-03	3.799E-03	3.799E-03	3.784E-03
NB 93	3.328E-09	8.067E-08	9.738E-08	2.241E-07	7.131E-07	1.774E-06	1.935E-06	1.721E-05
NB 93M	6.574E-09	3.084E-08	3.134E-08	3.208E-08	3.209E-08	3.209E-08	3.208E-08	3.196E-08
ZR 94	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03	6.236E-03
NB 94	2.784E-07	2.778E-07	2.777E-07	2.770E-07	2.744E-07	2.687E-07	2.678E-07	1.977E-07

MO 95	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01	3.260E-01

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ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	g/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
ZR 96	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03	4.260E-03
MO 96	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01
MO 97	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01	1.974E-01
MO 98	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01	4.922E-01
TC 98	6.419E-09	6.419E-09	6.419E-09	6.419E-09	6.419E-09	6.418E-09	6.418E-09	6.408E-09
TC 99	3.728E-03	3.727E-03	3.727E-03	3.726E-03	3.723E-03	3.715E-03	3.714E-03	3.607E-03
RU 99	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.288E-02	4.288E-02	4.288E-02	4.299E-02
MO100	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00	1.957E+00
RU100	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02	4.287E-02
RU101	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02	6.245E-02
RU102	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01	1.102E-01
RH102	2.471E-08	1.856E-14	1.700E-15	3.540E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02	5.076E-02
RU104	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02	6.463E-02
PD104	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04	3.344E-04
PD105	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04	9.399E-04
RU106	5.254E-05	1.261E-22	6.377E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH106	4.733E-11	1.185E-28	5.994E-30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD106	4.233E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04	4.758E-04
PD107	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.138E-04	3.135E-04
AG107	1.542E-10	2.129E-09	2.463E-09	4.940E-09	1.444E-08	3.506E-08	3.820E-08	3.355E-07
PD108	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04	1.956E-04
AG108	3.215E-23	2.916E-23	2.868E-23	2.536E-23	1.584E-23	5.702E-24	4.879E-24	1.930E-30
AG108M	3.351E-14	3.039E-14	2.989E-14	2.644E-14	1.651E-14	5.943E-15	5.085E-15	2.011E-21
CD108	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10	1.948E-10
AG109	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04	1.384E-04
AG109M	1.904E-20	1.990E-34	1.990E-34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD109	1.927E-14	2.014E-28	2.014E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD110	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04	1.054E-04
CD110	3.431E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07	3.473E-07
CD111	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05	8.704E-05
CD112	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05	7.771E-05
CD113	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05	7.627E-05
CD113M	1.019E-06	5.606E-08	3.429E-08	9.025E-10	7.810E-16	5.526E-29	5.526E-29	0.000E+00
IN113	2.515E-07	1.213E-06	1.235E-06	1.269E-06	1.269E-06	1.269E-06	1.269E-06	1.269E-06
CD114	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05	7.419E-05
SN114	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11	7.211E-11
IN115	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05	7.095E-05
SN115	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06	2.519E-06
CD116	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05	7.472E-05
SN116	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06	1.329E-06
SN117	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05	7.375E-05
SN118	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05	7.704E-05
SN119	7.627E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05	7.633E-05
SN120	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05	7.873E-05
SN121M	3.314E-08	1.576E-08	1.389E-08	5.468E-09	1.527E-10	6.499E-14	1.988E-14	0.000E+00
SB121	7.810E-05	7.812E-05	7.812E-05	7.813E-05	7.813E-05	7.813E-05	7.813E-05	7.813E-05
SN122	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05	8.535E-05
TE122	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07	1.537E-07
SB123	9.167E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05	9.192E-05
TE123	1.671E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10	1.675E-10
SN124	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04	1.097E-04
TE124	1.955E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07	1.958E-07
SB125	1.105E-03	4.278E-10	3.503E-11	3.177E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE125	8.187E-05	1.188E-03	1.188E-03	1.188E-03	1.188E-03	1.188E-03	1.188E-03	1.188E-03
TE125M	6.617E-07	5.983E-12	4.899E-13	4.444E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	1.891E-04	1.890E-04	1.890E-04	1.889E-04	1.885E-04	1.877E-04	1.876E-04	1.764E-04
SB126	9.061E-12	9.031E-12	9.030E-12	9.025E-12	9.008E-12	8.969E-12	8.963E-12	8.428E-12
SB126M	6.888E-14	6.882E-14	6.881E-14	6.878E-14	6.864E-14	6.835E-14	6.830E-14	6.422E-14
TE126	5.371E-06	5.448E-06	5.461E-06	5.558E-06	5.930E-06	6.733E-06	6.855E-06	1.807E-05
I127	3.459E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04	3.463E-04
TE128	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04	6.434E-04
XE128	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07	6.400E-07
I129	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.549E-04	9.545E-04
XE129	4.443E-09	6.931E-09	7.352E-09	1.047E-08	2.245E-08	4.842E-08	5.238E-08	4.271E-07
TE130	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03	1.681E-03
XE130	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06	1.941E-06

ss run2.g
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

	g/L	59.0YR	69.0YR	143.0YR	427.0YR	1043.0YR	1137.0YR	1.0E+04YR
XE131	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03	2.802E-03
XE132	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03	4.013E-03
BA132	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10	2.429E-10
CS133	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03	5.646E-03
XE134	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03	6.651E-03
CS134	3.466E-06	8.438E-15	2.926E-16	4.600E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA134	8.568E-06	1.203E-05	1.203E-05	1.203E-05	1.203E-05	1.203E-05	1.203E-05	1.203E-05
CS135	5.555E-03	5.555E-03	5.555E-03	5.555E-03	5.554E-03	5.553E-03	5.553E-03	5.538E-03
BA135	1.130E-08	1.101E-07	1.268E-07	2.507E-07	7.261E-07	1.757E-06	1.914E-06	1.677E 05
XE136	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03	5.641E-03
BA136	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05	2.500E-05
CS137	4.816E-03	1.232E-03	9.779E-04	1.769E-04	2.500E-07	1.647E-13	1.877E-14	0.000E+00
BA137	5.371E-04	4.121E-03	4.375E-03	5.176E-03	5.353E-03	5.353E-03	5.353E-03	5.353E-03
BA137M	7.390E-10	1.885E-10	1.496E-10	2.706E-11	3.825E-14	2.519E-20	2.871E-21	0.000E+00
BA138	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03	5.835E-03
LA138	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08	2.438E-08
LA139	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03	5.690E-03
CE140	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03	5.608E-03
PR141	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03	5.439E-03
CE142	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03	5.110E-03
ND142	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06	2.677E-06
ND143	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03	5.255E-03
ND144	4.532E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03	5.491E-03
ND145	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03	3.548E-03
ND146	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03	2.771E-03
PM146	8.993E-09	5.305E-12	1.504E-12	1.340E-16	3.828E-32	0.000E+00	0.000E+00	0.000E+00
SM146	4.912E-09	8.237E-09	8.239E-09	8.239E-09	8.239E-09	8.239E-09	8.239E-09	8.239E-09
PM147	7.800E-04	1.325E-10	9.433E-12	3.044E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM147	1.443E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03	2.223E-03
ND148	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E-03	1.629E 03	1.629E-03
SM148	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05	2.299E-05
SM149	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03	1.060E-03
ND150	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04	6.757E-04
SM150	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06	6.530E-06
EU150	3.168E-12	1.020E-12	8.419E-13	2.032E-13	8.692E-16	6.324E-21	1.043E-21	0.000E+00
SM151	4.200E-04	2.666E-04	2.469E-04	1.396E-04	1.567E-05	1.363E-07	6.607E-08	0.000E+00
EU151	1.510E-05	1.685E-04	1.882E-04	2.955E-04	4.194E-04	4.350E-04	4.350E-04	4.351E-04
SM152	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04	3.022E-04
EU152	1.261E-08	6.152E-10	3.687E-10	8.347E-12	4.051E-18	8.178E-32	8.178E-32	0.000E+00
GD152	6.834E-09	1.018E-08	1.024E-08	1.034E-08	1.035E-08	1.035E-08	1.035E-08	1.035E-08
EU153	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04	2.015E-04
SM154	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05	9.312E-05
EU154	1.283E-06	1.100E-08	4.912E-09	1.256E-11	1.415E-21	4.316E-43	0.000E+00	0.000E+00
GD154	5.265E-07	1.798E-06	1.805E-06	1.809E-06	1.809E-06	1.809E-06	1.809E-06	1.809E-06
EU155	2.281E-05	4.232E-09	9.864E-10	2.059E-14	2.246E-32	0.000E+00	0.000E+00	0.000E+00
GD155	2.726E-05	5.007E-05	5.007E-05	5.007E-05	5.007E-05	5.007E-05	5.007E-05	5.007E-05
GD156	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05	2.972E-05
GD157	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05
GD158	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05	1.007E-05
TB159	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06	3.972E-06
GD160	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06	1.975E-06
DY160	2.230E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08	2.237E-08
DY161	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07	8.559E-07
DY162	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07	5.347E-07
DY163	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07	2.171E-07
DY164	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07	1.204E-07
HO165	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08	6.274E-08
HO166M	6.549E-11	6.330E-11	6.293E-11	6.030E-11	5.118E-11	3.585E-11	3.396E-11	1.999E-13
ER166	3.373E-08	3.373E-08	3.373E-08	3.374E-08	3.374E 08	3.376E 08	3.376E-08	3.380E-08
ER167	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08	2.104E-08
ER168	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10	1.154E-10
TM169	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14	1.882E-14
ER170	1.375E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19	1.404E-19
YB170	9.404E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17	9.601E-17
TM171	2.528E-20	1.420E-29	1.420E-29	3.546E-41	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB171	8.293E-20	1.082E-19	1.082E-19	1.082E-19	1.082E-19	1.082E-19	1.082E-19	1.082E-19
YB172	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E-23	3.937E 23

Source Listing of Program ELESS2

```
      PROGRAM ELESS2

!-------- WRITTEN BY D.R. WENZEL
!          Revised 11/22/04

!            To sum the g/L electrolytic wastes and round
!            the output to 2 places of accuracy

      CHARACTER (LEN=2) :: BLANK, ELE, SMBCAP, SMBLC
      CHARACTER (LEN=6) :: NAME
      CHARACTER (LEN=85) :: TITLE
      EQUIVALENCE (ELE, NAME)
      LOGICAL :: FIRST
      REAL *4 OLD(7), SIGMA(7), TOTAL(7)

      OPEN(3,FILE ='SS_RUN2.G', STATUS='OLD',FORM='FORMATTED', ERR = 900)
      OPEN(4,FILE ='SYMBOL', STATUS='OLD',FORM='FORMATTED', ERR = 910)
      OPEN(6,FILE ='SS_RUN2.ELE', STATUS='UNKNOWN', ERR = 920)

      DATA BLANK /'  '/

      FIRST = .TRUE.
      SIGMA = 0.

!        Read symbol of element to be summed

   10 READ(4,400) SMBCAP, SMBLC
  400 FORMAT(A2,3X,A2)
      IF(SMBCAP == BLANK) GO TO 100

!--------- Zero out summary

      TOTAL = 0.

!--------- On the first pass only, modify the name on the first
!          line of data

      READ(3,300) TITLE
  300 FORMAT(A85)
      IF(FIRST) WRITE(6,600)
  600 FORMAT(1X,'SS_RUN2.ELE    g/L')

!--------- On the first pass only, echo the next line of data

      READ(3,300) TITLE
      IF(FIRST) WRITE(6,610) TITLE
  610 FORMAT(A85,/,'Element',5X,'2032Jan   2042Jan   2116Jan   2400' &
             'Jan   3016Jan   3110Jan   12000Jan')

!--------- Skip the next 2 lines of data

      READ(3,300) TITLE
      READ(3,300) TITLE
      FIRST = .FALSE.
```

Source Listing of Program ELESS2 (Continued)

```
!--------- Read individual nuclide mass and search for the
!          element to be summed

   60  READ(3,310,END=80) NAME, (OLD(J),J=1,7)
  310  FORMAT(1X,A6,14X,7(1PE10.3))
       IF(ELE /= SMBCAP) GO TO 60

       DO J=1,7
          TOTAL(J) = TOTAL(J) + OLD(J)
       END DO

       GO TO 60

!--------- Write element total when element found

   80  REWIND(3)

!--------- Write results with 2 places of accuracy

       IF(TOTAL(1) > 0.) THEN
          WRITE(6,620) SMBLC, (TOTAL(J),J=1,7)
  620     FORMAT(1X,a2,6X,7(1PE10.1))
       ENDIF

!--------- Keep a sum of the total for all elements

       DO J=1,7
          SIGMA(J) = SIGMA(J) + TOTAL(J)
       END DO

       GO TO 10
  100  WRITE(6,630) (SIGMA(J),J=1,7)
  630  FORMAT(1X,/,1X,'Total ',2X,7(1PE10.1))
       GO TO 999

!-------- ERROR STATEMENTS

  900  WRITE(6,9000)
 9000  FORMAT(2X,'ERROR IN OPENING FILE 3')
       GO TO 999

  910  WRITE(6,9010)
 9010  FORMAT(2X,'ERROR IN OPENING FILE 4')
       GO TO 999

  920  WRITE(6,9020)
 9020  FORMAT(2X,'ERROR IN OPENING FILE 6')
       GO TO 999

!-------- PROGRAM END

  999  CONTINUE
       END PROGRAM ELESS2
```

See Appendix A-4, pages 4-5, for a listing of file SYMBOL.

SS_RUN2.ELE g/L
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

Element	2032Jan	2042Jan	2116Jan	2400Jan	3016Jan	3110Jan	12000Jan
H	1.1E-08	6.4E-09	1.0E-10	1.2E-17	1.2E-32	1.2E-32	0.0E+00
He	5.4E-06	5.5E-06	6.4E-06	9.5E-06	1.6E-05	1.7E-05	1.0E-04
Li	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09	2.0E-09
Be	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08
B	5.6E-15	5.6E-15	5.6E-15	5.6E-15	5.6E-15	5.6E-15	5.6E-15
C	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02
N	5.9E-15	5.9E-15	5.9E-15	5.9E-15	5.9E-15	5.9E-15	5.9E-15
O	2.1E-24	2.1E-24	2.1E-24	2.1E-24	2.1E-24	2.1E-24	2.1E-24
Ne	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11
Na	7.4E-13	7.4E-13	7.4E-13	7.4E-13	7.4E-13	7.4E-13	7.4E-13
Mg	1.1E-06	1.1E-06	1.1E-06	1.1E-06	1.1E-06	1.1E-06	1.1E-06
Si	7.0E-01	7.0E-01	7.0E-01	7.0E-01	7.0E-01	7.0E-01	7.0E-01
P	2.9E-02	2.9E-02	2.9E-02	2.9E-02	2.9E-02	2.9E-02	2.9E-02
S	8.1E-04	8.1E-04	8.1E-04	8.1E-04	8.1E-04	8.1E-04	8.1E-04
Cl	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12
Ar	7.6E-18	7.6E-18	7.6E-18	7.6E-18	7.6E-18	7.6E-18	7.6E-18
K	4.7E-20	4.7E-20	4.7E-20	4.7E-20	4.7E-20	4.7E-20	4.7E-20
Ca	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12
Sc	6.2E-18	6.2E-18	6.2E-18	6.2E-18	6.2E-18	6.2E-18	6.2E-18
Ti	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05	1.4E-05
V	8.1E-05	8.1E-05	8.1E-05	8.1E-05	8.1E-05	8.1E-05	8.1E-05
Mn	1.8E-04	1.8E-04	1.8E-04	1.8E-04	1.8E-04	1.8E-04	1.8E-04
Co	2.3E-05	2.3E-05	2.4E-05	2.8E-05	3.7E-05	3.8E-05	1.5E-04
Cu	9.1E-05	1.0E-04	1.7E-04	2.4E-04	2.5E-04	2.5E-04	2.5E-04
Zn	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
Ga	4.4E-11	4.4E-11	4.4E-11	4.4E-11	4.4E-11	4.4E-11	4.4E-11
Ge	8.3E-06	8.3E-06	8.3E-06	8.3E-06	8.3E-06	8.3E-06	8.3E-06
As	2.5E-06	2.5E-06	2.5E-06	2.5E-06	2.5E-06	2.5E-06	2.5E-06
Se	3.2E-04	3.2E-04	3.2E-04	3.2E-04	3.2E-04	3.2E-04	3.2E-04
Br	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.2E-04	1.3E-04
Kr	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03	2.0E-03
Rb	2.1E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03
Sr	2.8E-03	2.6E-03	2.2E-03	2.1E-03	2.1E-03	2.1E-03	2.1E-03
Y	2.6E-03	2.6E-03	2.6E-03	2.6E-03	2.6E-03	2.6E-03	2.6E-03
Zr	3.5E-02	3.6E-02	3.6E-02	3.6E-02	3.6E-02	3.6E-02	3.6E-02
Nb	3.9E-07	4.1E-07	5.3E-07	1.0E-06	2.1E-06	2.2E-06	1.7E-05
Mo	3.5E+00	3.5E+00	3.5E+00	3.5E+00	3.5E+00	3.5E+00	3.5E+00
Tc	3.7E-03	3.7E-03	3.7E-03	3.7E-03	3.7E-03	3.7E-03	3.6E-03
Ru	3.3E-01	3.3E-01	3.3E-01	3.3E-01	3.3E-01	3.3E-01	3.3E-01
Rh	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02	5.1E-02
Pd	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03	2.4E-03
Ag	1.4E-04	1.4E-04	1.4E-04	1.4E-04	1.4E-04	1.4E-04	1.4E-04
Cd	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04	3.9E-04
In	7.2E-05	7.2E-05	7.2E-05	7.2E-05	7.2E-05	7.2E-05	7.2E-05
Sn	6.9E-04	6.9E-04	6.9E-04	6.9E-04	6.9E-04	6.9E-04	6.8E-04
Sb	1.7E-04	1.7E-04	1.7E-04	1.7E-04	1.7E-04	1.7E-04	1.7E-04
Te	3.5E-03	3.5E-03	3.5E-03	3.5E-03	3.5E-03	3.5E-03	3.5E-03
I	1.3E-03	1.3E-03	1.3E-03	1.3E-03	1.3E-03	1.3E-03	1.3E-03
Xe	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02
Cs	1.2E-02	1.2E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02
Ba	1.0E-02	1.0E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02

SS_RUN2.ELE g/L
ORIGEN2 V2.1 (8-1-91), Run on 12/05/04 at 15:08:56

Element	2032Jan	2042Jan	2116Jan	2400Jan	3016Jan	3110Jan	12000Jan
La	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03	5.7E-03
Ce	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02	1.1E-02
Pr	5.4E-03	5.4E-03	5.4E-03	5.4E-03	5.4E-03	5.4E-03	5.4E-03
Nd	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02	1.9E-02
Pm	1.4E-10	1.1E-11	1.3E-16	3.8E-32	0.0E+00	0.0E+00	0.0E+00
Sm	4.0E-03	4.0E-03	3.8E-03	3.7E-03	3.7E-03	3.7E-03	3.7E-03
Eu	3.7E-04	3.9E-04	5.0E-04	6.2E-04	6.4E-04	6.4E-04	6.4E-04
Gd	1.1E-04	1.1E-04	1.1E-04	1.1E-04	1.1E-04	1.1E-04	1.1E-04
Tb	4.0E-06	4.0E-06	4.0E-06	4.0E-06	4.0E-06	4.0E-06	4.0E-06
Dy	1.8E-06	1.8E-06	1.8E-06	1.8E-06	1.8E-06	1.8E-06	1.8E-06
Ho	6.3E-08	6.3E-08	6.3E-08	6.3E-08	6.3E-08	6.3E-08	6.3E-08
Er	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08
Tm	1.9E-14	1.9E-14	1.9E-14	1.9E-14	1.9E-14	1.9E-14	1.9E-14
Yb	9.6E-17	9.6E-17	9.6E-17	9.6E-17	9.6E-17	9.6E-17	9.6E-17
Tl	1.1E-17	1.1E-17	1.1E-17	1.0E-17	1.0E-17	1.0E-17	1.6E-17
Pb	2.9E-10	3.0E-10	4.3E-10	1.0E-09	3.2E-09	3.6E-09	8.5E-08
Bi	6.5E-14	7.6E-14	1.7E-13	1.0E-12	9.2E-12	1.2E-11	5.9E-09
Po	8.0E-14	1.0E-13	2.6E-13	9.2E-13	2.0E-12	2.1E-12	5.3E-12
At	1.6E-24	1.6E-24	2.2E-24	7.6E-24	3.7E-23	4.4E-23	2.5E-21
Rn	4.2E-15	4.9E-15	9.7E-15	2.7E-14	5.8E-14	6.2E-14	1.6E-13
Fr	6.2E-19	6.4E-19	7.1E-19	7.7E-19	1.0E-18	1.1E-18	2.4E-17
Ra	6.5E-10	7.5E-10	1.5E-09	4.2E-09	9.0E-09	9.6E-09	2.4E-08
Ac	2.3E-11	2.4E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	4.1E-11
Th	1.2E-06	1.2E-06	1.2E-06	1.2E-06	1.2E-06	1.2E-06	1.2E-06
Pa	4.2E-08	4.2E-08	4.2E-08	4.1E-08	4.1E-08	4.1E-08	6.2E-08
U	4.3E-04	4.4E-04	4.8E-04	6.7E-04	1.1E-03	1.1E-03	6.1E-03
Np	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04	3.8E-04
Pu	2.3E-02	2.3E-02	2.3E-02	2.3E-02	2.2E-02	2.2E-02	1.7E-02
Am	6.4E-08	6.4E-08	5.9E-08	3.7E-08	1.4E-08	1.2E-08	2.9E-14
Cm	1.0E-15	9.8E-16	6.3E-16	1.5E-16	7.4E-18	4.7E-18	3.5E-20
Total	4.8E+00	4.8E+00	4.8E+00	4.8E+00	4.8E+00	4.8E+00	4.8E+00

Source Listing of Program REDUCESB

```
      PROGRAM REDUCESB


!-------- WRITTEN BY D.R. WENZEL

!            To calculate nuclide mass for sodium bearing
!            waste (SBW) in g/L

      CHARACTER (LEN=12) :: CS137, DESC, NAME, NUCLIDE(750)
      CHARACTER (LEN=111) :: BUFFER, ORGLINE
      REAL * 4  GUEOL(3)

      COMMON /AMT/ AMOUNT(9),FLAG
      LOGICAL :: FLAG

      REAL * 4 DATA(750), MASS, VALUE(9)

      DATA CS137/' CS137      '/


!-------- OPEN OUTPUT FILE

      OPEN(6,FILE ='REDUCESB.OUT', STATUS='UNKNOWN', ERR = 900)

!-------- Normalize to

      GUEOL(1) = 154.5
      GUEOL(2) = 515.5
      GUEOL(3) = 59.55
      CORFACT = 1. / GUEOL(1)
      WRITE(6,600)
  600 FORMAT(1X,'reducesb.out',//,13X,'Calculated',/,  &
             1X,'Nuclide',8X,'g/L')

!-------- READ MASTER LIST OF RADIONUCLIDES

      OPEN(1,FILE ='MASTER_A', STATUS='OLD',FORM='FORMATTED', ERR=900)
   10 READ(1,100,END=20) NAME
  100 FORMAT(A12)
      LAST = LAST + 1
      NUCLIDE(LAST) = NAME
      IF(NAME == CS137) NUMCS137 = LAST
      GO TO 10

!-------- ZERO MEMORY

   20 DO  I=1,750
         DATA(I) = 0.
      END DO

!-------- READ RADIONUCLIDE INVENTORIES, NORMALIZE ACTIVITIES,
!         AND ADD RESULTS TO DATA

      DO  I=1,13
```

Source Listing of Program REDUCESB (Continued)

```
          IF(I == 5) CORFACT = 1. / GUEOL(2)
          IF(I == 10) CORFACT = 1. / GUEOL(3)
          CALL FILEOPN(i)
          IF(FLAG) GO TO 900

!-------- READ PAST FIRST 4 LINES

   35     DO  J=1,4
             READ(1,120) ORGLINE
  120        FORMAT(A111)
          END DO

!-------- READ RADIONUCLIDE INVENTORIES, NORMALIZE ACTIVITIES,
!         AND ADD RESULTS TO DATA

   50     READ(1,120,END=80) ORGLINE
          WRITE(BUFFER,120) ORGLINE
          READ(BUFFER,400) DESC, (VALUE(J),J=1,9)
  400     FORMAT(A12,9X,9(1X,E9.4))
          DO  J=1,750
             IF(DESC == NUCLIDE(J)) THEN
                DO  K=1,7
                   IF(AMOUNT(K) /= 0.) THEN
                      DATA(J) = DATA(J) + VALUE(K+2) * AMOUNT(K)        &
                                * CORFACT

                   END IF

                END DO

             END IF

          END DO

          GO TO 50

   80  END DO

!------- Normalize mass/L of nuclides to measured Cs-137 concentration
!        of .00045298 g/L (39.4 mCi/L)

       CSNORM = .00045298  / DATA(NUMCS137)
       DO  I=1,LAST
          MASS = DATA(I) * CSNORM
          IF(MASS == 0.) GO TO 90
          WRITE(6,610) NUCLIDE(I), MASS
  610     FORMAT(A12,1PE10.3)
   90  END DO

       GO TO 999


!-------- ERROR STATEMENTS

  900  WRITE(6,9000)
```

Source Listing of Program REDUCESB (Continued)

```
 9000  FORMAT(2X,'ERROR IN OPENING FILE ')

!-------- PROGRAM END

  999  CONTINUE
       END PROGRAM REDUCESB

       SUBROUTINE FILEOPN(I)

!------- THIS SUBROUTINE LOADS THE DESIRED FILE


       INTEGER, INTENT(IN OUT) :: I
       COMMON /AMT/ AMOUNT(9),FLAG
       LOGICAL :: FLAG

!--------The following table indicate the age of fuel in the
!        different fuel groups.  Group 1 is not used.

!       Column number  1     2     3     4     5     6     7
!       Fuel Group    ---------  Age of fuel (yr) ----------
!           2         13    14    15    16    17    18    19
!           3         20    21    22    23    24    25    26
!           4         27    28    29    30    31    32    33
!           5         34    35    36    37    38    39    40
!           6         41    42    43    44    45    46    47


       FLAG = .FALSE.
       CLOSE(1)
       SELECT CASE ( i )
          CASE (    1)
             GO TO 1
          CASE (    2)
             GO TO 2
          CASE (    3)
             GO TO 3
          CASE (    4)
             GO TO 4
          CASE (    5)
             GO TO 5
          CASE (    6)
             GO TO 6
          CASE (    7)
             GO TO 7
          CASE (    8)
             GO TO 8
          CASE (    9)
             GO TO 9
          CASE (   10)
             GO TO 10
          CASE (   11)
             GO TO 11
          CASE (   12)
             GO TO 12
```

Source Listing of Program REDUCESB (Continued)

```
      END SELECT

!-------- OPEN DESIRED INPUT FILE

    1 OPEN(1,FILE ='SBWAL2.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Al fuel in Fuel Group 2

      AMOUNT(1) = 0.
      AMOUNT(2) = 0.
      AMOUNT(3) = 0.
      AMOUNT(4) = 0.
      AMOUNT(5) = 0.
      AMOUNT(6) = 296.
      AMOUNT(7) = 0.
      RETURN

    2 OPEN(1,FILE ='SBWAL4.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Al fuel in Fuel Group 4

      AMOUNT(1) = 150.
      AMOUNT(2) = 4.
      AMOUNT(3) = 1309.
      AMOUNT(4) = 0.
      AMOUNT(5) = 670.
      AMOUNT(6) = 41.
      AMOUNT(7) = 366.
      RETURN

    3 OPEN(1,FILE ='SBWAL5.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Al fuel in Fuel Group 5

      AMOUNT(1) = 0.
      AMOUNT(2) = 505.
      AMOUNT(3) = 795.
      AMOUNT(4) = 0.
      AMOUNT(5) = 45.
      AMOUNT(6) = 345.
      AMOUNT(7) = 91.
      RETURN

    4 OPEN(1,FILE ='SBWAL6.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Al fuel in Fuel Group 6

      AMOUNT(1) = 277.
      AMOUNT(2) = 727.
      AMOUNT(3) = 712.
      AMOUNT(4) = 443.
      AMOUNT(5) = 620.
      AMOUNT(6) = 341.
      AMOUNT(7) = 0.
      RETURN
```

Source Listing of Program REDUCESB (Continued)

```
    5  OPEN(1,FILE ='SBWZR2.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Zr fuel in Fuel Group 2

       AMOUNT(1) = 30
       AMOUNT(2) = 641.
       AMOUNT(3) = 0.
       AMOUNT(4) = 810.
       AMOUNT(5) = 723.
       AMOUNT(6) = 408.
       AMOUNT(7) = 706.
       RETURN

    6  OPEN(1,FILE ='SBWZR3.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Zr fuel in Fuel Group 3

       AMOUNT(1) = 342.
       AMOUNT(2) = 0.
       AMOUNT(3) = 0.
       AMOUNT(4) = 600.
       AMOUNT(5) = 0.
       AMOUNT(6) = 0.
       AMOUNT(7) = 0.
       RETURN

    7  OPEN(1,FILE ='SBWZR4.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Zr fuel in Fuel Group 4

       AMOUNT(1) = 206.
       AMOUNT(2) = 800.
       AMOUNT(3) = 1478.
       AMOUNT(4) = 0.
       AMOUNT(5) = 17.
       AMOUNT(6) = 0.
       AMOUNT(7) = 0.
       RETURN

    8  OPEN(1,FILE ='SBWZR5.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Zr fuel in Fuel Group 5

       AMOUNT(1) = 4.
       AMOUNT(2) = 0.
       AMOUNT(3) = 0.
       AMOUNT(4) = 0.
       AMOUNT(5) = 0.
       AMOUNT(6) = 0.
       AMOUNT(7) = 0.
       RETURN

    9  OPEN(1,FILE ='SBWZR6.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- Zr fuel in Fuel Group 6
```

Source Listing of Program REDUCESB (Continued)

```
     AMOUNT(1) = 15.
        AMOUNT(2) = 0.
        AMOUNT(3) = 0.
        AMOUNT(4) = 0.
        AMOUNT(5) = 0.
        AMOUNT(6) = 0.
        AMOUNT(7) = 0.
        RETURN

   10   OPEN(1,FILE ='SBWSS2.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- SS fuel in Fuel Group 2

        AMOUNT(1) = 0.
        AMOUNT(2) = 0.
        AMOUNT(3) = 0.
        AMOUNT(4) = 0.
        AMOUNT(5) = 0.
        AMOUNT(6) = 826.
        AMOUNT(7) = 0.
        RETURN

   11   OPEN(1,FILE ='SBWSS3.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- SS fuel in Fuel Group 3

        AMOUNT(1) = 0.
        AMOUNT(2) = 0.
        AMOUNT(3) = 371.
        AMOUNT(4) = 0.
        AMOUNT(5) = 3140.
        AMOUNT(6) = 0.
        AMOUNT(7) = 1544.
        RETURN

   12   OPEN(1,FILE ='SBWSS5.G', STATUS='OLD',FORM='FORMATTED', ERR=900)

!-------- SS fuel in Fuel Group 5

        AMOUNT(1) = 69.
        AMOUNT(2) = 0.
        AMOUNT(3) = 0.
        AMOUNT(4) = 0.
        AMOUNT(5) = 0.
        AMOUNT(6) = 75.
        AMOUNT(7) = 0.
        RETURN
  900   FLAG = .TRUE.
        RETURN
        END SUBROUTINE FILEOPN
```

See Appendix B-3, page 5, for a listing of file MASTER_A.

Appendix D-2
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File SBWAL2.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) MTR
  BAS     ONE MTR ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  204  908  909   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE MTR ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                ELEMENT
  BUP
  IRP     400.0   .4065  1   2   3 2
  IRP     800.0   .4065  2   3   3 0
  IRP    1600.0   .4065  3   4   3 0
  IRP    2000.0   .4065  4   5   3 0
  IRP    3100.0   .4065  5   6   3 0
  IRP    3336.0   .4065  6   7   3 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC      1.0    1   2   5   4
  DEC     13.0    2   3   5   0
  DEC     14.0    3   4   5   0
  DEC     15.0    4   5   5   0
  DEC     16.0    5   6   5   0
  DEC     17.0    6   7   5   0
  DEC     18.0    7   8   5   0
  DEC     19.0    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340  2.317 922350   200. 922360  .4343  922380  11.53 FUEL 93.3%
  0
```

Appendix D-2

File SBWAL2.BAT

```
echo off
echo **                                                                  **
echo **                          O R I G E N 2                           **
echo **                                                                  **
copy sbwal2.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\atr.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
rem  combine and save files from run
copy tape12.out+tape6.out sbwal2.u6 >nul
copy tape13.out+tape11.out sbwal2.u11 >nul
ren tape7.out sbwal2.pch
ren tape15.out sbwal2.dbg
ren tape16.out sbwal2.vxs
ren tape50.out sbwal2.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwal2.pch
del sbwal2.dbg
del sbwal2.vxs
del sbwal2.ech
del sbwal2.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

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sbwal2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:38

	3336.0HR	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
HE 4	5.756E 07	6.755E 06	7.738E 05	8.317E 05	8.894E-05	9.470E-05	1.004E 04	1.061E 04	1.118E-04
TL206	2.762E 32	2.762E-32	2.762E-32	2.762E 32	2.762E 32	2.762E-32	2.762E 32	2.762E-32	2.762E 32
TL207	1.119E 19	2.485E 18	9.191E 17	1.040E 16	1.166E 16	1.297E-16	1.434E 16	1.577E-16	1.724E-16
TL208	2.295E 16	1.727E 15	7.147E 15	7.192E-15	7.192E 15	7.177E 15	7.150E 15	7.114E 15	7.071E 15
TL209	2.568E-21	1.209E-21	6.961E 21	7.496E 21	8.040E-21	8.593E-21	9.155E 21	9.727E-21	1.031E-20
PB206	1.059E-18	1.241E-16	6.779E 13	8.951E-13	1.151E-12	1.459E-12	1.828E 12	2.266E-12	2.780E 12
PB207	7.867E-16	8.894E-14	3.505E 11	4.250E 11	5.090E-11	6.027E-11	7.067E 11	8.214E 11	9.472E-11
PB208	9.344E 12	3.396E 10	2.281E 08	2.519E-08	2.756E 08	2.994E-08	3.230E 08	3.466E 08	3.700E-08
PB209	1.071E 17	5.039E-18	2.900E-17	3.123E 17	3.350E-17	3.580E-17	3.815E 17	4.053E-17	4.295E-17
PB210	3.454E-15	1.333E-14	6.767E 12	8.337E 12	1.012E-11	1.214E 11	1.440E 11	1.690E-11	1.967E-11
PB211	8.660E-19	1.923E 17	7.110E 16	8.049E-16	9.021E-16	1.004E 15	1.110E 15	1.220E 15	1.334E-15
PB212	1.354E 13	1.019E-12	4.216E-12	4.242E 12	4.242E-12	4.233E-12	4.217E 12	4.196E-12	4.171E 12
PB214	1.015E-19	1.349E-18	1.258E 16	1.452E-16	1.661E-16	1.884E 16	2.121E 16	2.372E-16	2.637E-16
BI208	1.921E-21	1.921E-21	1.921E 21	1.921E 21	1.921E-21	1.921E 21	1.921E 21	1.921E-21	1.921E-21
BI209	1.922E 15	1.113E 14	3.759E-13	4.311E-13	4.905E-13	5.541E 13	6.220E 13	6.942E-13	7.708E-13
BI210M	1.065E 20	1.065E-20	1.065E 20	1.065E-20	1.065E-20	1.065E-20	1.065E 20	1.065E-20	1.065E-20
BI210	1.841E 18	8.202E-18	4.164E-15	5.132E-15	6.233E 15	7.474E 15	8.863E 15	1.041E-14	1.211E-14
BI211	5.110E-20	1.134E-18	4.195E 17	4.749E-17	5.322E-17	5.922E 17	6.547E-17	7.197E 17	7.871E-17
BI212	1.284E-14	9.663E-14	3.999E-13	4.024E-13	4.024E-13	4.016E 13	4.001E 13	3.980E 13	3.956E-13
BI213	2.515E-18	1.184E-18	6.815E 18	7.339E 18	7.871E-18	8.413E 18	8.963E 18	9.523E 18	1.009E-17
BI214	7.536E-20	1.001E-18	9.338E-17	1.079E 16	1.234E-16	1.399E 16	1.575E 16	1.761E 16	1.958E-16
PO210	7.700E 18	1.309E-16	1.150E-13	1.279E 13	1.540E 13	1.855E-13	2.211E 13	2.609E-13	3.050E 13
PO211	6.269E 25	1.392E 23	5.147E 22	5.827E 22	6.530E 22	7.266E-22	8.033E 22	8.830E-22	9.657E 22
PO212	6.794E-25	5.113E-24	2.116E 23	2.129E 23	2.129E-23	2.124E 23	2.117E 23	2.106E 23	2.093E-23
PO213	3.773E 27	1.777E-27	1.022E 26	1.101E 26	1.181E 26	1.262E 26	1.345E 26	1.429E-26	1.514E-26
PO214	2.029E 25	1.378E-25	1.285E 23	1.484E 23	1.697E 23	1.925E-23	2.167E 23	2.423E-23	2.693E 23
PO215	7.248E 25	1.610E-23	5.954E 22	6.740E-22	7.554E-22	8.404E 22	9.292E 22	1.021E 21	1.117E-21
PO216	5.402E-19	4.065E-18	1.682E 17	1.693E-17	1.693E-17	1.689E-17	1.683E 17	1.674E 17	1.664E 17
PO218	1.177E-20	1.564E-19	1.458E 17	1.684E-17	1.926E-17	2.185E 17	2.459E 17	2.750E-17	3.057E-17
AT217	3.021E 23	1.423E 23	8.188E 23	8.817E-23	9.456E 23	1.011E-22	1.077E 22	1.144E-22	1.213E 22
RN218	4.177E-23	2.162E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.643E-21	3.649E-20	1.349E 18	1.527E 18	1.712E-18	1.905E 18	2.106E 18	2.315E 18	2.531E-18
RN220	2.039E 16	1.535E-15	6.351E 15	6.391E 15	6.391E-15	6.377E 15	6.353E 15	6.321E 15	6.283E 15
RN222	2.164E-17	2.875E-16	2.681E-14	3.097E-14	3.542E-14	4.017E 14	4.522E 14	5.057E 14	5.621E-14
FR221	2.743E-19	1.292E-19	7.435E 19	8.006E 19	8.587E-19	9.178E-19	9.779E 19	1.039E 18	1.101E-18
FR223	1.594E-20	1.693E-19	6.262E 18	7.075E 18	7.929E-18	8.822E 18	9.753E 18	1.072E 17	1.172E-17
RA222	4.618E 20	2.391E 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	4.172E 16	9.268E-15	3.427E-13	3.880E 13	4.348E-13	4.838E 13	5.349E 13	5.880E 13	6.430E-13
RA224	1.181E-12	8.887E 12	3.677E-11	3.701E 11	3.701E-11	3.693E 11	3.679E-11	3.660E 11	3.638E-11
RA225	1.637E-15	5.841E-16	3.362E-15	3.620E-15	3.883E 15	4.150E-15	4.421E 15	4.698E-15	4.978E-15
RA226	3.578E 12	4.473E-11	4.171E-09	4.817E 09	5.510E-09	6.249E-09	7.034E 09	7.866E-09	8.745E 09
RA228	4.729E-19	1.265E-17	1.001E 15	1.124E 15	1.250E-15	1.379E 15	1.510E 15	1.644E-15	1.780E 15
AC225	8.378E-16	3.946E-16	2.271E-15	2.445E 15	2.623E-15	2.803E 15	2.987E-15	3.173E 15	3.363E-15
AC227	6.178E 13	6.560E-12	2.426E-10	2.741E-10	3.072E-10	3.418E 10	3.779E 10	4.154E-10	4.543E-10
AC228	7.699E-16	1.538E-21	1.218E-19	1.367E 19	1.520E-19	1.677E 19	1.837E-19	2.000E 19	2.165E 19
TH226	2.301E-18	1.191E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	9.361E 16	1.523E-14	5.632E-13	6.376E 13	7.145E-13	7.950E-13	8.789E 13	9.661E-13	1.057E-12
TH228	2.457E 10	1.726E-09	7.146E 09	7.165E-09	7.165E 09	7.150E-09	7.123E 09	7.087E 09	7.044E-09
TH229	6.991E-11	1.076E-10	6.196E-10	6.671E 10	7.155E-10	7.648E 10	8.148E 10	8.657E-10	9.175E 10
TH230	2.017E-06	7.290E 06	7.063E-05	7.592E 05	8.120E-05	8.649E-05	9.177E 05	9.706E-05	1.023E 04
TH231	5.670E-09	5.232E-10	5.232E 10	5.232E 10	5.232E-10	5.232E-10	5.232E 10	5.232E 10	5.232E 10
TH232	7.518E 08	4.527E-07	4.983E 06	5.360E 06	5.738E 06	6.115E-06	6.493E 06	6.870E-06	7.248E 06
TH234	1.576E 10	1.582E-10	1.582E-10	1.582E 10	1.582E-10	1.582E-10	1.582E 10	1.582E-10	1.582E 10
PA231	2.231E-07	3.533E-07	1.848E 06	1.973E 06	2.099E-06	2.224E 06	2.349E 06	2.474E 06	2.599E-06
PA233	9.437E-09	1.881E-08	1.882E-08	1.882E-08	1.882E-08	1.882E 08	1.882E 08	1.882E-08	1.883E-08
PA234M	1.505E 14	5.334E-15	5.334E-15	5.334E 15	5.334E-15	5.334E 15	5.334E 15	5.334E-15	5.334E-15
PA234	3.331E-12	2.383E 15	2.383E 15	2.383E 15	2.383E-15	2.383E-15	2.383E 15	2.383E 15	2.383E-15
U230	2.261E 15	1.170E 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.711E-07	1.992E-07	2.649E-07	2.634E 07	2.617E-07	2.598E-07	2.578E 07	2.557E-07	2.535E 07
U233	8.723E 06	8.909E 06	1.103E 05	1.122E 05	1.142E 05	1.161E-05	1.181E 05	1.200E 05	1.220E 05
U234	1.900E+00	1.900E+00	1.904E+00	1.904E+00	1.904E+00	1.905E+00	1.905E+00	1.905E+00	1.906E+00
U235	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02
U236	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01
U237	8.333E 02	1.000E-09	5.603E 10	5.339E 10	5.087E-10	4.847E 10	4.619E 10	4.401E-10	4.193E 10
U238	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01
U240	2.879E 08	1.163E-18	1.163E-18	1.163E 18	1.163E-18	1.163E-18	1.163E 18	1.163E-18	1.163E 18
NP235	4.704E 09	2.482E-09	1.158E 12	6.109E 13	3.224E 13	1.701E 13	8.977E 14	4.737E-14	2.500E 14
NP236	2.075E 07	2.075E-07	2.075E 07	2.075E 07	2.075E-07	2.075E 07	2.075E 07	2.075E-07	2.075E 07
NP237	4.716E-01	5.549E 01	5.551E 01	5.552E 01	5.552E 01	5.552E-01	5.552E 01	5.553E-01	5.553E-01
NP238	3.220E 03	2.628E-13	2.478E 13	2.466E 13	2.453E-13	2.441E 13	2.429E 13	2.417E 13	2.406E 13
NP239	1.828E 02	1.610E-10	1.609E 10	1.609E 10	1.608E 10	1.608E 10	1.608E-10	1.608E 10	1.608E-10
NP240M	2.781E 08	1.017E-20	1.017E 20	1.017E 20	1.017E-20	1.017E 20	1.017E 20	1.017E-20	1.017E 20
PU236	1.272E 07	1.036E 07	5.600E 09	4.392E 09	3.444E-09	2.701E 09	2.118E 09	1.661E-09	1.303E-09

sbwal2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:38

	3336.0HR	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
PU237	6.793E-08	2.636E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	3.854E-02	4.145E-02	3.770E 02	3.741E-02	3.711E-02	3.682E-02	3.653E 02	3.624E-02	3.596E-02
PU239	3.438E-01	3.622E-01	3.621E-01	3.621E 01	3.621E-01	3.621E 01	3.621E 01	3.620E-01	3.620E-01
PU240	5.082E-02	5.082E 02	5.076E-02	5.076E-02	5.075E-02	5.075E-02	5.074E-02	5.074E-02	5.073E-02
PU241	3.379E-02	3.220E-02	1.804E 02	1.719E-02	1.638E 02	1.560E 02	1.487E 02	1.417E 02	1.350E 02
PU242	2.970E-03	2.970E-03	2.970E 03	2.970E-03	2.970E 03	2.970E-03	2.970E 03	2.970E-03	2.970E-03
PU243	2.293E-06	8.746E-22	8.746E 22	8.746E-22	8.746E 22	8.746E-22	8.746E 22	8.746E 22	8.746E-22
PU244	5.945E 08	5.945E-08	5.945E 08	5.945E-08	5.945E 08	5.945E 08	5.945E 08	5.945E 08	5.945E-08
PU246	8.022E-14	5.896E-24	5.678E-28	5.678E-28	5.678E 28	5.678E 28	5.678E-28	5.678E-28	5.678E-28
AM241	1.441E-04	1.736E-03	1.572E 02	1.654E-02	1.732E 02	1.807E-02	1.877E 02	1.944E-02	2.008E-02
AM242M	1.307E-06	1.300E-06	1.226E-06	1.220E-06	1.214E 06	1.208E 06	1.202E 06	1.196E 06	1.190E-06
AM242	8.605E-07	1.675E-11	1.579E 11	1.571E 11	1.563E 11	1.556E-11	1.548E 11	1.540E-11	1.533E-11
AM243	1.849E-04	1.872E 04	1.869E 04	1.869E-04	1.869E 04	1.869E-04	1.869E 04	1.869E-04	1.868E-04
AM245	1.478E 12	3.179E-24	2.396E 28	1.086E-28	4.921E 29	2.229E-29	1.015E 29	4.625E 30	2.097E-30
AM246	1.284E-16	9.449E-27	9.086E 31	9.086E-31	9.086E 31	9.086E-31	9.086E 31	9.086E-31	9.086E-31
CM241	1.227E 12	1.083E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	1.843E-05	4.061E-06	3.196E-09	3.184E 09	3.170E-09	3.154E 09	3.139E-09	3.124E-09	3.108E 09
CM243	1.439E 07	1.405E-07	1.049E 07	1.024E-07	9.994E-08	9.754E-08	9.520E-08	9.291E 08	9.068E-08
CM244	1.547E-05	1.493E-05	9.429E-06	9.075E-06	8.734E-06	8.406E-06	8.091E 06	7.787E-06	7.494E-06
CM245	2.945E-07	2.945E-07	2.942E 07	2.942E-07	2.941E 07	2.941E-07	2.941E 07	2.941E-07	2.940E-07
CM246	8.884E-09	8.882E-09	8.867E-09	8.865E 09	8.864E-09	8.863E-09	8.862E 09	8.860E-09	8.859E-09
CM247	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E 11	2.453E-11	2.453E 11	2.453E 11
CM248	3.856E 13	3.856E-13	3.856E-13	3.856E 13	3.856E-13	3.856E 13	3.856E-13	3.856E-13	3.856E 13
CM249	1.288E-17	4.059E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	1.352E-21	1.352E-21	1.352E 21	1.352E-21	1.352E 21	1.352E-21	1.352E-21	1.352E 21	1.352E-21
BK249	1.811E-15	8.267E-16	6.230E 20	2.822E-20	1.279E 20	5.792E-21	2.639E 21	1.202E-21	5.282E-22
BK250	5.705E 18	7.472E-27	4.024E-30	4.024E 30	4.024E-30	4.024E 30	4.024E-30	4.024E-30	4.024E-30
CF249	3.487E-17	1.030E-15	1.816E 15	1.812E-15	1.808E 15	1.805E-15	1.801E 15	1.798E-15	1.794E-15
CF250	2.228E-16	2.167E-16	1.148E 16	1.088E-16	1.032E 16	9.789E-17	9.283E 17	8.804E-17	8.350E-17
CF251	4.585E-17	4.582E-17	4.540E 17	4.536E-17	4.533E 17	4.529E-17	4.526E 17	4.522E-17	4.519E-17
CF252	6.911E-18	5.314E-18	2.270E 19	1.745E-19	1.342E 19	1.032E-19	7.934E 20	6.099E-20	4.689E-20
CF253	7.898E-21	5.307E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	1.021E-22	1.456E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	1.720E 21	2.245E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	3.901E-23	3.188E-24	5.221E-29	5.221E-29	5.221E-29	5.221E-29	5.221E-29	5.221E-29	5.221E-29
ES255	0.000E+00	6.054E 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SF250	2.717E 13	3.084E-12	2.196E-11	2.333E-11	2.469E-11	2.602E-11	2.733E-11	2.861E-11	2.988E-11
H 3	8.201E-05	7.753E 05	3.953E 05	3.738E 05	3.534E-05	3.341E 05	3.158E-05	2.986E 05	2.823E-05
LI 6	5.354E-07	5.354E-07	5.354E-07	5.354E 07	5.354E-07	5.354E-07	5.354E-07	5.354E 07	5.354E-07
LI 7	1.753E 08	1.753E-08	1.753E-08	1.753E 08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08
BE 9	3.378E 08	3.378E 08	3.378E 08	3.378E-08	3.378E 08	3.378E-08	3.378E 08	3.378E-08	3.378E-08
BE 10	2.253E 07	2.253E-07	2.253E 07	2.253E-07	2.253E 07	2.253E 07	2.253E-07	2.253E-07	2.253E-07
C 14	4.556E-08	4.556E-08	4.549E-08	4.549E 08	4.548E-08	4.548E-08	4.547E-08	4.547E 08	4.546E-08
ZN 66	8.945E-11	8.945E 11	8.945E-11	8.945E 11	8.945E 11	8.945E-11	8.945E-11	8.945E 11	8.945E-11
ZN 67	3.967E-12	3.967E-12	3.967E-12	3.967E 12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12
ZN 68	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14
GA 69	8.549E 18	8.573E-18	8.573E 18	8.573E 18	8.573E 18	8.573E-18	8.573E-18	8.573E 18	8.573E-18
GE 70	9.226E 21	9.233E-21	9.233E 21	9.233E-21	9.233E 21	9.233E-21	9.233E 21	9.233E-21	9.233E-21
GA 71	1.020E-09	1.020E-09	1.020E-09	1.020E 09	1.020E-09	1.020E 09	1.020E 09	1.020E-09	1.020E-09
GE 72	1.264E-05	1.297E 05	1.297E 05	1.297E 05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E 05
GE 73	4.483E-05	4.492E-05	4.492E 05	4.492E-05	4.492E-05	4.492E-05	4.492E 05	4.492E-05	4.492E-05
GE 74	1.192E-04	1.192E 04	1.192E-04	1.192E 04	1.192E 04	1.192E-04	1.192E 04	1.192E-04	1.192E 04
AS 75	2.891E 04	2.893E-04	2.893E 04	2.893E 04	2.893E-04	2.893E-04	2.893E 04	2.893E 04	2.893E 04
GE 76	8.729E 04	8.729E-04	8.729E-04	8.729E 04	8.729E 04	8.729E-04	8.729E 04	8.729E-04	8.729E-04
SE 76	2.760E 06	2.833E-06	2.833E 06	2.833E 06	2.833E 06	2.833E-06	2.833E-06	2.833E 06	2.833E-06
SE 77	1.904E-03	1.939E-03	1.939E 03	1.939E-03	1.939E 03	1.939E-03	1.939E-03	1.939E-03	1.939E-03
SE 78	4.077E 03	4.082E-03	4.082E 03	4.082E 03	4.082E-03	4.082E-03	4.082E-03	4.082E 03	4.082E-03
SE 79	1.048E 02	1.048E-02	1.048E 02	1.047E-02	1.047E 02	1.047E-02	1.047E-02	1.047E 02	1.047E-02
BR 79	2.177E 08	1.336E 07	1.475E 06	1.587E 06	1.698E 06	1.810E 06	1.922E-06	2.034E-06	2.146E 06
SE 80	2.522E-02	2.522E 02	2.522E-02	2.522E 02	2.522E 02	2.522E-02	2.522E-02	2.522E 02	2.522E-02
KR 80	1.252E-07	1.253E-07	1.253E 07	1.253E-07	1.253E 07	1.253E-07	1.253E-07	1.253E 07	1.253E 07
BR 81	4.296E-02	4.296E-02	4.296E-02	4.296E 02	4.296E-02	4.296E-02	4.296E-02	4.296E 02	4.296E 02
KR 81	2.246E 09	2.246E-09	2.246E-09	2.246E 09	2.246E-09	2.246E-09	2.246E 09	2.246E 09	2.246E-09
SE 82	6.824E 02	6.824E-02	6.824E-02	6.824E 02	6.824E-02	6.824E 02	6.824E 02	6.824E 02	6.824E-02
KR 82	3.453E 04	3.570E-04	3.570E 04	3.570E-04	3.570E 04	3.570E-04	3.570E-04	3.570E-04	3.570E-04
KR 83	1.024E-01	1.026E-01	1.026E-01	1.026E-01	1.026E 01	1.026E-01	1.026E-01	1.026E-01	1.026E-01
KR 84	2.257E-01	2.258E-01	2.258E-01	2.258E 01	2.258E-01	2.258E 01	2.258E 01	2.258E 01	2.258E-01
KR 85	5.678E 02	5.333E-02	2.455E 02	2.301E 02	2.157E-02	2.022E-02	1.895E-02	1.777E 02	1.665E 02
RB 85	2.135E 01	2.175E-01	2.462E 01	2.478E-01	2.492E 01	2.506E-01	2.518E-01	2.530E-01	2.541E-01
KR 86	4.329E-01	4.329E 01	4.329E-01	4.329E 01	4.329E-01	4.329E-01	4.329E 01	4.329E 01	4.329E-01
RB 86	7.830E 05	1.001E 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	1.626E 04	2.409E-04	2.409E 04	2.409E 04	2.409E 04	2.409E-04	2.409E 04	2.409E-04	2.409E 04
RB 87	5.599E 01	5.602E-01	5.602E 01	5.602E 01	5.602E 01	5.602E-01	5.602E 01	5.602E-01	5.602E-01
SR 87	9.284E 07	9.289E-07	9.290E-07	9.290E 07	9.290E-07	9.290E 07	9.290E 07	9.290E-07	9.290E-07
SR 88	8.062E-01	8.073E 01	8.073E 01	8.073E 01	8.073E 01	8.073E-01	8.073E 01	8.073E-01	8.073E-01
SR 89	4.726E 01	3.142E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwal2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:38

	3336.0HR	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
Y 89	5.923E 01	1.062E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00
SR 90	1.282E+00	1.252E+00	9.409E 01	9.188E 01	8.972E-01	8.761E 01	8.555E 01	8.354E-01	8.157E-01
Y 90	3.345E-04	3.140E-04	2.360E 04	2.304E 04	2.250E-04	2.197E 04	2.145E-04	2.095E 04	2.046E-04
ZR 90	7.754E 03	3.793E 02	3.491E-01	3.712E-01	3.928E-01	4.139E 01	4.346E 01	4.547E 01	4.743E-01
Y 91	6.460E-01	8.605E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.788E-01	1.322E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00
ZR 92	1.378E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00
NB 92	2.982E 15	4.493E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.490E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00
NB 93	9.491E-09	6.571E-08	2.761E-06	3.119E-06	3.492E 06	3.880E 06	4.283E-06	4.700E-06	5.130E-06
NB 93M	1.244E-07	7.462E-07	6.187E-06	6.507E 06	6.812E 06	7.102E-06	7.377E-06	7.638E-06	7.887E-06
ZR 94	1.474E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00
NB 94	2.129E-07	2.129E-07	2.129E 07	2.128E 07	2.128E 07	2.128E-07	2.128E 07	2.128E-07	2.128E 07
ZR 95	7.839E-01	1.499E-02	3.581E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.263E 01	1.845E-02	4.368E 23	8.643E-25	6.439E-28	4.795E 31	3.571E-34	2.659E-37	1.981E 40
NB 95M	3.076E-04	6.273E-06	1.498E-26	2.865E 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	4.072E-01	1.485E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00
ZR 96	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00
MO 96	6.211E-03	6.241E-03	6.241E-03	6.241E 03	6.241E-03	6.241E-03	6.241E 03	6.241E-03	6.241E 03
MO 97	1.415E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00
MO 98	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00
TC 98	3.038E-06	3.038E-06	3.038E 06	3.038E 06	3.038E-06	3.038E-06	3.038E-06	3.038E-06	3.038E-06
TC 99	1.384E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00
RU 99	8.665E-07	5.560E-06	6.188E-05	6.657E 05	7.126E-05	7.596E-05	8.065E 05	8.534E-05	9.004E-05
MO100	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00
RU100	6.982E 02	6.982E 02	6.982E 02	6.982E 02	6.982E 02	6.982E-02	6.982E-02	6.982E 02	6.982E-02
RU101	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00
RU102	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00
RH102	2.949E 07	2.322E 07	1.319E 08	1.039E 08	8.178E 09	6.439E 09	5.070E-09	3.992E 09	3.144E-09
RU103	3.008E-01	4.770E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.468E 01	7.474E 01	7.479E 01	7.479E 01	7.479E 01	7.479E 01	7.479E-01	7.479E-01	7.479E 01
RH103M	2.690E-04	4.274E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	5.001E-01	5.002E-01	5.002E 01	5.002E 01	5.002E-01	5.002E 01	5.002E 01	5.002E 01	5.002E-01
PD104	6.518E-02	6.518E-02	6.518E-02	6.518E 02	6.518E-02	6.518E-02	6.518E 02	6.518E-02	6.518E 02
PD105	2.413E 01	2.455E-01	2.455E 01	2.455E 01	2.455E 01	2.455E-01	2.455E 01	2.455E-01	2.455E-01
RU106	1.005E 01	5.052E-02	1.317E-05	6.623E 06	3.330E 06	1.674E-06	8.417E-07	4.232E-07	2.128E-07
RH106	1.760E-07	4.748E-08	1.238E-11	6.236E 12	3.130E-12	1.574E-12	7.912E 13	3.978E-13	2.000E 13
PD106	4.584E-02	9.581E-02	1.463E 01	1.463E 01	1.463E-01	1.463E 01	1.463E-01	1.463E 01	1.463E-01
AG106	2.943E-16	3.415E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	5.378E-02	5.379E-02	5.379E 02	5.379E 02	5.379E-02	5.379E-02	5.379E-02	5.379E 02	5.379E-02
AG107	1.064E-09	6.801E-09	7.564E-08	8.138E 08	8.712E 08	9.285E-08	9.859E 08	1.043E-07	1.101E 07
PD108	2.654E-02	2.654E-02	2.654E 02	2.654E 02	2.654E-02	2.654E-02	2.654E-02	2.654E 02	2.654E-02
AG108	8.176E-13	1.912E-20	1.874E 20	1.871E 20	1.868E-20	1.865E 20	1.862E-20	1.859E 20	1.856E-20
AG108M	1.996E 11	1.993E-11	1.953E-11	1.950E 11	1.947E-11	1.944E 11	1.940E-11	1.937E-11	1.934E-11
CD108	2.064E-08	2.064E-08	2.064E-08	2.064E 08	2.064E 08	2.064E-08	2.064E 08	2.064E-08	2.064E-08
AG109	1.170E-02	1.180E-02	1.180E 02	1.180E 02	1.180E 02	1.180E 02	1.180E 02	1.180E-02	1.180E 02
AG109M	7.844E 08	7.284E 18	1.044E-20	6.041E 21	3.500E 21	2.028E-21	1.175E 21	6.811E-22	3.947E-22
CD109	1.273E-11	7.375E 12	1.055E 14	6.115E 15	3.544E 15	2.053E-15	1.190E 15	6.896E-16	3.996E-16
PD110	9.529E-03	9.529E-03	9.529E-03	9.529E 03	9.529E 03	9.529E-03	9.529E-03	9.529E 03	9.529E-03
AG110	1.553E-08	5.853E 13	3.071E 18	1.115E 18	4.048E-19	1.470E-19	5.336E 20	1.937E-20	7.034E-21
AG110M	1.064E-04	3.862E-05	2.026E 10	7.357E 11	2.671E 11	9.698E-12	3.521E 12	1.278E-12	4.642E 13
CD110	2.315E-03	2.383E-03	2.422E-03	2.422E 03	2.422E-03	2.422E 03	2.422E-03	2.422E 03	2.422E-03
AG111	5.944E-04	1.040E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	6.904E-03	7.500E-03	7.500E 03	7.500E 03	7.500E-03	7.500E-03	7.500E-03	7.500E 03	7.500E-03
CD112	5.522E-03	5.577E-03	5.577E 03	5.577E 03	5.577E-03	5.577E-03	5.577E 03	5.577E 03	5.577E-03
CD113	1.687E-04	1.796E-04	1.796E 04	1.796E 04	1.796E 04	1.796E-04	1.796E 04	1.796E-04	1.796E-04
CD113M	1.074E-04	1.024E 04	5.675E-05	5.403E 05	5.144E-05	4.897E-05	4.662E-05	4.438E 05	4.225E-05
IN113	9.702E 07	6.122E 06	5.169E 05	5.441E 05	5.700E 05	5.946E 05	6.181E-05	6.404E 05	6.617E-05
CD114	1.003E 02	1.003E-02	1.003E 02	1.003E 02	1.003E-02	1.003E-02	1.003E 02	1.003E-02	1.003E-02
IN114	4.609E 13	5.967E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	6.165E 09	3.709E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.487E 08	2.054E-08	2.058E 08	2.058E 08	2.058E-08	2.058E-08	2.058E 08	2.058E-08	2.058E-08
CD115M	1.678E-04	5.744E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	2.821E-03	3.092E-03	3.093E-03	3.093E-03	3.093E 03	3.093E-03	3.093E 03	3.093E-03	3.093E 03
IN115M	7.995E-06	1.622E 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.522E-04	1.562E-04	1.562E 04	1.562E 04	1.562E 04	1.562E-04	1.562E-04	1.562E 04	1.562E-04
CD116	4.933E-03	4.933E-03	4.933E 03	4.933E 03	4.933E 03	4.933E-03	4.933E-03	4.933E-03	4.933E-03
SN116	1.476E 03	1.477E-03	1.477E 03	1.477E 03	1.477E 03	1.477E 03	1.477E 03	1.477E 03	1.477E-03
SN117	4.833E-03	4.843E-03	4.843E-03	4.843E 03	4.843E 03	4.843E-03	4.843E 03	4.843E-03	4.843E-03
SN117M	2.525E-07	3.559E 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	5.399E-03	5.401E-03	5.401E 03	5.401E 03	5.401E 03	5.401E-03	5.401E 03	5.401E-03	5.401E 03
SN119	5.103E 03	5.145E-03	5.167E-03	5.167E 03	5.167E-03	5.167E 03	5.167E 03	5.167E-03	5.167E-03
SN119M	6.368E-05	2.266E 05	9.342E 11	3.324E 11	1.183E-11	4.209E 12	1.498E 12	5.330E-13	1.897E 13
SN120	5.412E-03	5.412E 03	5.412E 03	5.412E 03	5.412E 03	5.412E 03	5.412E-03	5.412E-03	5.412E-03
SN121M	2.696E 06	2.662E-06	2.289E 06	2.260E 06	2.232E-06	2.204E 06	2.176E-06	2.149E 06	2.122E-06
SB121	5.536E 03	5.602E-03	5.603E 03	5.603E 03	5.603E-03	5.603E 03	5.603E-03	5.603E 03	5.603E-03
SN122	6.068E 03	6.069E-03	6.069E 03	6.069E 03	6.069E-03	6.069E 03	6.069E-03	6.069E 03	6.069E-03

sbwal2.q (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:38

	3336.0HR	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
TE122	1.234E 04	1.315E-04	1.315E 04	1.315E-04	1.315E-04	1.315E 04	1.315E-04	1.315E-04	1.315E-04
SN123	1.237E 03	1.742E-04	1.062E 14	1.496E-15	2.108E-16	2.969E-17	4.181E-18	5.889E-19	8.295E-20
SB123	5.902E 03	6.966E-03	7.140E 03	7.140E-03	7.140E-03	7.140E-03	7.140E 03	7.140E-03	7.140E-03
TE123	5.000E-07	6.733E-07	6.971E 07	6.971E 07	6.971E-07	6.971E-07	6.971E-07	6.971E-07	6.971E-07
TE123M	1.972E-07	2.377E-08	2.245E-19	2.706E-20	3.265E 21	4.000E-22	4.502E-23	1.156E 24	1.156E-24
SN124	9.503E-03	9.503E-03	9.503E-03	9.503E-03	9.503E 03	9.503E-03	9.503E-03	9.503E 03	9.503E-03
SB124	8.410E 05	1.254E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	4.714E-05	1.300E-04	1.312E 04	1.312E-04	1.312E-04	1.312E-04	1.312E 04	1.312E-04	1.312E-04
SN125	4.835E-04	1.900E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	1.150E-02	9.331E-03	4.632E-04	3.606E-04	2.808E-04	2.186E 04	1.702E-04	1.325E-04	1.032E 04
TE125	4.613E-04	3.062E-03	1.205E-02	1.216E-02	1.224E 02	1.230E-02	1.235E-02	1.239E-02	1.242E-02
TE125M	7.717E-05	1.294E-04	6.479E 06	5.044E-06	3.928E-06	3.058E-06	2.381E-06	1.854E-06	1.443E-06
SN126	2.296E-02	2.296E-02	2.296E-02	2.296E 02	2.296E-02	2.296E-02	2.296E-02	2.296E 02	2.296E-02
SB126	4.916E-05	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E 09	1.097E-09
SB126M	2.316E-08	8.359E-12	8.358E 12	8.358E-12	8.358E-12	8.358E-12	8.358E-12	8.358E-12	8.358E 12
TE126	4.499E-04	4.992E-04	5.011E 04	5.013E-04	5.014E-04	5.016E-04	5.017E-04	5.019E-04	5.021E-04
TE127	1.946E 04	1.662E-06	1.307E-18	1.281E-19	1.256E-20	1.231E-21	1.207E-22	1.185E-23	1.162E-24
TE127M	4.548E-03	4.746E-04	3.734E 16	3.660E 17	3.587E-18	3.516E-19	3.447E 20	3.386E-21	3.284E-22
I127	4.416E-02	5.048E-02	5.096E-02	5.096E 02	5.096E-02	5.096E-02	5.096E-02	5.096E-02	5.096E-02
XE127	4.707E 09	4.499E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.283E-01	1.284E 01	1.284E-01	1.284E-01	1.284E 01	1.284E 01	1.284E-01	1.284E-01	1.284E-01
XE128	8.405E-04	8.408E-04	8.408E-04	8.408E 04	8.408E-04	8.408E-04	8.408E-04	8.408E-04	8.408E-04
TE129	1.085E-04	5.413E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.077E-02	5.781E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.179E-01	2.292E-01	2.292E 01	2.292E 01	2.292E-01	2.292E-01	2.292E 01	2.292E-01	2.292E-01
XE129	1.824E-05	1.857E 05	1.869E 05	1.870E-05	1.871E-05	1.872E-05	1.873E-05	1.874E-05	1.875E-05
XE129M	3.186E-07	5.746E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.927E-01	4.928E-01	4.928E-01	4.928E 01	4.928E 01	4.928E-01	4.928E-01	4.928E 01	4.928E-01
XE130	2.935E-03	2.969E-03	2.969E 03	2.969E-03	2.969E-03	2.969E 03	2.969E-03	2.969E-03	2.969E-03
I131	7.727E-02	1.679E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	7.688E-01	8.492E-01	8.492E-01	8.492E-01	8.492E-01	8.492E 01	8.492E-01	8.492E 01	8.492E 01
XE131M	1.274E-03	2.289E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.478E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00
CS132	7.674E 07	7.997E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	9.137E-08	1.067E-07	1.067E-07	1.067E 07	1.067E 07	1.067E-07	1.067E 07	1.067E-07	1.067E-07
XE133	1.131E-01	1.533E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	2.008E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00
XE134	2.597E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00
CS134	9.815E-02	7.015E-02	1.242E-03	8.873E-04	6.340E-04	4.530E-04	3.237E-04	2.313E-04	1.652E 04
BA134	3.828E 03	3.186E-02	1.008E-01	1.011E-01	1.014E-01	1.016E-01	1.017E-01	1.018E-01	1.018E-01
CS135	2.870E-01	2.939E-01	2.939E 01	2.939E 01	2.939E-01	2.939E-01	2.939E-01	2.939E-01	2.939E-01
BA135	7.450E-06	7.566E-06	8.628E-06	8.717E-06	8.806E 06	8.894E-06	8.983E-06	9.071E-06	9.160E-06
XE136	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00
CS136	9.521E-04	3.861E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	4.044E-03	4.996E-03	4.996E-03	4.996E 03	4.996E 03	4.996E-03	4.996E-03	4.996E-03	4.996E-03
BA136M	4.269E-11	1.731E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	2.090E+00	2.043E+00	1.548E+00	1.513E+00	1.478E+00	1.444E+00	1.411E+00	1.379E+00	1.348E+00
BA137	9.414E-03	5.716E-02	5.518E 01	5.872E 01	6.217E-01	6.555E 01	6.885E-01	7.207E 01	7.522E-01
BA137M	3.215E-07	3.125E-07	2.368E 07	2.314E-07	2.261E-07	2.210E 07	2.159E-07	2.110E-07	2.062E-07
BA138	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00
LA138	1.801E-05	1.801E-05	1.801E-05	1.801E 05	1.801E-05	1.801E-05	1.801E-05	1.801E-05	1.801E-05
LA139	2.236E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
BA140	2.835E-01	7.169E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	3.751E 02	1.081E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.916E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
CE141	6.551E-01	2.734E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.407E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00
CE142	2.099E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00
ND142	7.029E-03	7.196E-03	7.196E-03	7.196E 03	7.196E 03	7.196E 03	7.196E-03	7.196E-03	7.196E-03
PR143	2.819E-01	2.473E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.620E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00
CE144	1.653E+00	6.784E-01	1.548E-05	6.355E-06	2.608E 06	1.070E-06	4.393E-07	1.803E-07	7.398E-08
PR144	7.401E-05	2.865E-05	6.538E 10	2.683E 10	1.101E 10	4.519E-11	1.855E-11	7.612E-12	3.124E 12
PR144M	3.496E-07	1.432E-07	3.269E 12	1.341E 12	5.505E-13	2.259E-13	9.272E-14	3.805E 14	1.562E-14
ND144	4.966E-01	1.471E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00
ND145	1.360E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00
ND146	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00
PM146	5.779E 06	5.095E-06	1.123E-06	9.900E 07	8.727E-07	7.694E-07	6.783E-07	5.980E-07	5.272E-07
SM146	4.668E 07	7.200E-07	2.190E-06	2.239E-06	2.282E 06	2.320E-06	2.354E-06	2.384E 06	2.410E-06
ND147	9.263E-02	1.062E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	5.263E 01	4.761E-01	1.999E-02	1.535E-02	1.178E 02	9.047E-03	6.946E-03	5.334E-03	4.095E-03
SM147	2.518E 02	1.691E-01	6.253E-01	6.299E-01	6.335E 01	6.362E-01	6.383E 01	6.399E-01	6.412E 01
ND148	6.392E-01	6.392E-01	6.392E 01	6.392E 01	6.392E 01	6.392E 01	6.392E-01	6.392E 01	6.392E 01
PM148	8.968E-03	8.979E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	5.632E-03	1.226E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E-00	0.000E+00
SM148	8.010E-02	9.469E-02	9.470E 02	9.470E-02	9.470E-02	9.470E 02	9.470E-02	9.470E-02	9.470E 02
SM149	1.030E 02	2.458E-02	2.458E-02	2.458E 02	2.458E-02	2.458E 02	2.458E-02	2.458E 02	2.458E 02

sbwal2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:38

	3336.0HR	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
ND150	2.441E 01	2.441E 01	2.441E-01	2.441E-01	2.441E 01	2.441E-01	2.441E-01	2.441E 01	2.441E 01
SM150	4.608E 01	4.609E-01	4.609E-01	4.609E 01	4.609E-01	4.609E-01	4.609E 01	4.609E 01	4.609E 01
EU150	9.551E-11	9.369E-11	7.441E-11	7.299E-11	7.160E-11	7.024E-11	6.890E-11	6.759E-11	6.631E-11
SM151	2.818E-02	2.990E 02	2.726E-02	2.705E 02	2.684E 02	2.664E-02	2.643E 02	2.623E 02	2.603E 02
EU151	1.477E 05	2.460E 04	2.886E-03	3.095E 03	3.302E-03	3.508E 03	3.713E-03	3.915E 03	4.117E 03
SM152	1.801E-01	1.802E 01	1.802E 01	1.802E-01	1.802E 01	1.802E 01	1.802E-01	1.802E 01	1.802E 01
EU152	2.937E 05	2.790E 05	1.510E-05	1.434E-05	1.363E 05	1.295E-05	1.230E 05	1.169E-05	1.110E 05
GD152	9.600E 06	1.010E 05	1.367E 05	1.388E-05	1.408E 05	1.427E-05	1.445E 05	1.462E 05	1.478E 05
EU153	1.097E 01	1.146E 01	1.146E 01	1.146E-01	1.146E 01	1.146E-01	1.146E 01	1.146E 01	1.146E 01
GD153	5.460E 06	1.918E-06	6.778E-12	2.381E 12	8.365E 13	2.939E-13	1.032E-13	3.627E 14	1.274E 14
SM154	3.194E 02	3.194E 02	3.194E-02	3.194E 02	3.194E 02	3.194E 02	3.194E-02	3.194E 02	3.194E 02
EU154	2.119E-02	1.955E 02	7.425E 03	6.850E 03	6.319E 03	5.829E-03	5.377E 03	4.961E 03	4.576E-03
GD154	1.909E 04	1.833E 03	1.395E-02	1.453E 02	1.506E 02	1.555E-02	1.600E 02	1.642E-02	1.680E-02
EU155	8.964E 03	7.751E 03	1.350E 03	1.167E 03	1.009E-03	8.722E 04	7.540E 04	6.518E 04	5.635E-04
GD155	1.850E 05	1.234E 03	7.634E-03	7.817E 03	7.976E 03	8.112E-03	8.231E-03	8.333E 03	8.421E 03
EU156	4.299E 03	2.484E 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	1.391E 02	1.824E-02	1.824E 02	1.824E 02	1.824E-02	1.824E-02	1.824E-02	1.824E 02	1.824E 02
GD157	5.688E 05	9.704E 05	9.704E-05	9.704E 05	9.704E-05	9.704E 05	9.704E-05	9.704E 05	9.704E 05
GD158	6.091E-03	6.092E 03	6.092E 03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E 03	6.092E 03
TB159	5.677E 04	5.736E-04	5.736E 04	5.736E-04	5.736E-04	5.736E 04	5.736E 04	5.736E-04	5.736E 04
GD160	2.252E 04	2.252E-04	2.252E-04	2.252E 04	2.252E-04	2.252E 04	2.252E-04	2.252E-04	2.252E 04
TB160	2.147E 05	6.472E-07	3.653E-25	3.653E 25	3.653E-25	3.653E 25	3.653E-25	3.653E 25	3.653E 25
DY160	8.770E 06	2.959E-05	3.024E-05	3.024E 05	3.024E 05	3.024E-05	3.024E 05	3.024E-05	3.024E 05
TB161	5.996E 06	7.753E 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	4.991E-05	5.591E 05	5.591E-05	5.591E 05	5.591E-05	5.591E-05	5.591E 05	5.591E 05	5.591E 05
DY162	3.436E 05	3.437E-05	3.437E-05	3.437E 05	3.437E 05	3.437E 05	3.437E-05	3.437E 05	3.437E 05
DY163	1.972E 05	1.972E 05	1.972E-05	1.972E 05	1.972E-05	1.972E 05	1.972E-05	1.972E 05	1.972E 05
DY164	4.678E 06	4.679E 06	4.679E-06	4.679E 06	4.679E 06	4.679E 06	4.679E 06	4.679E 06	4.679E 06
HO165	4.824E 06	4.835E-06	4.835E-06	4.835E 06	4.835E-06	4.835E 06	4.835E-06	4.835E 06	4.835E 06
HO166M	2.011E 08	2.010E 08	1.996E-08	1.995E 08	1.994E-08	1.993E 08	1.992E-08	1.990E 08	1.989E 08
ER166	1.453E 06	1.529E 06	1.529E-06	1.529E 06	1.529E-06	1.529E 06	1.529E 06	1.529E 06	1.529E 06
ER167	3.035E-07	3.035E 07	3.035E-07	3.035E 07	3.035E 07	3.035E 07	3.035E 07	3.035E 07	3.035E 07
ER168	3.345E 07	3.345E 07	3.345E-07	3.345E 07	3.345E 07	3.345E 07	3.345E 07	3.345E 07	3.345E 07
ER169	2.695E 10	5.415E 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	7.180E 10	9.874E 10	9.874E-10	9.874E 10	9.874E 10	9.874E-10	9.874E-10	9.874E 10	9.874E 10
ER170	1.271E 14	9.427E 14	1.075E-13	1.075E 13	1.075E-13	1.075E 13	1.075E-13	1.075E 13	1.075E 13
TM170	6.493E 11	9.049E 12	4.973E-22	7.846E-23	6.033E 24	6.033E-24	6.033E 24	6.033E 24	6.033E 24
YB170	8.603E-12	6.439E 11	7.344E 11	7.344E-11	7.344E 11	7.344E-11	7.344E-11	7.344E 11	7.344E 11
TM171	1.965E 12	1.370E 12	1.800E-14	1.254E 14	8.742E-15	6.093E-15	4.247E 15	2.960E 15	2.063E 15
YB171	1.371E 13	7.327E 13	2.085E-12	2.090E 12	2.094E-12	2.096E-12	2.098E 12	2.100E 12	2.100E-12
YB172	9.830E 15	1.133E-14	1.133E-14	1.133E-14	1.133E-14	1.133E 14	1.133E 14	1.133E 14	1.133E 14

File SBWAL4.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) MTR
  BAS     ONE MTR ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  204  908  909   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE MTR ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                ELEMENT
  BUP
  IRP     400.0   .4065  1   2   3 2
  IRP     800.0   .4065  2   3   3 0
  IRP    1600.0   .4065  3   4   3 0
  IRP    2000.0   .4065  4   5   3 0
  IRP    3100.0   .4065  5   6   3 0
  IRP    3336.0   .4065  6   7   3 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC      1.0    1   2   5   4
  DEC     27.0    2   3   5   0
  DEC     28.0    3   4   5   0
  DEC     29.0    4   5   5   0
  DEC     30.0    5   6   5   0
  DEC     31.0    6   7   5   0
  DEC     32.0    7   8   5   0
  DEC     33.0    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340  2.317 922350   200. 922360  .4343  922380  11.53 FUEL 93.3%
  0
```

File SBWAL4.BAT

```
echo off
echo **                                                                  **
echo **                          O R I G E N 2                           **
echo **                                                                  **
copy sbwal4.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\atr.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
rem  combine and save files from run
copy tape12.out+tape6.out sbwal4.u6 >nul
copy tape13.out+tape11.out sbwal4.u11 >nul
ren tape7.out sbwal4.pch
ren tape15.out sbwal4.dbg
ren tape16.out sbwal4.vxs
ren tape50.out sbwal4.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwal4.pch
del sbwal4.dbg
del sbwal4.vxs
del sbwal4.ech
del sbwal4.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

sbwal4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:45

	3336.0HR	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
HE 4	5.756E-07	6.755E-06	1.566E-04	1.621E-04	1.675E-04	1.730E-04	1.784E-04	1.837E-04	1.891E-04
TL206	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32
TL207	1.119E-19	2.485E-18	3.065E-16	3.260E-16	3.451E-16	3.646E-16	3.845E-16	4.047E-16	4.253E-16
TL208	2.295E-16	1.727E-15	6.531E-15	6.508E-15	6.457E-15	6.402E-15	6.344E-15	6.286E-15	6.226E-15
TL209	2.568E-21	1.209E-21	1.521E-20	1.586E-20	1.652E-20	1.719E-20	1.787E-20	1.856E-20	1.926E-20
PB206	1.059E-18	1.241E-16	1.123E-11	1.287E-11	1.464E-11	1.659E-11	1.873E-11	2.107E-11	2.362E-11
PB207	7.867E-16	8.894E-14	2.398E-10	2.640E-10	2.896E-10	3.167E-10	3.453E-10	3.754E-10	4.071E-10
PB208	9.344E-12	3.396E-10	5.533E-08	5.749E-08	5.963E-08	6.176E-08	6.386E-08	6.595E-08	6.801E-08
PB209	1.071E-17	5.039E-18	6.336E-17	6.608E-17	6.883E-17	7.163E-17	7.447E-17	7.734E-17	8.025E-17
PB210	3.454E-15	1.333E-14	5.245E-11	5.801E-11	6.392E-11	7.018E-11	7.682E-11	8.382E-11	9.121E-11
PB211	8.660E-19	1.923E-17	2.371E-15	2.522E-15	2.670E-15	2.821E-15	2.974E-15	3.131E-15	3.290E-15
PB212	1.354E-13	1.019E-12	3.852E-12	3.839E-12	3.808E-12	3.776E-12	3.742E-12	3.707E-12	3.672E-12
PB214	1.015E-19	1.349E-18	5.258E-16	5.649E-16	6.053E-16	6.472E-16	6.904E-16	7.350E-16	7.810E-16
BI208	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21
BI209	1.922E-15	1.113E-14	1.549E-12	1.668E-12	1.792E-12	1.921E-12	2.055E-12	2.195E-12	2.339E-12
BI210M	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20
BI210	1.841E-18	8.202E-18	3.228E-14	3.571E-14	3.935E-14	4.321E-14	4.729E-14	5.161E-14	5.616E-14
BI211	5.110E-20	1.134E-18	1.399E-16	1.488E-16	1.575E-16	1.664E-16	1.755E-16	1.847E-16	1.941E-16
BI212	1.284E-14	9.663E-14	3.654E-13	3.641E-13	3.612E-13	3.582E-13	3.550E-13	3.517E-13	3.484E-13
BI213	2.515E-18	1.184E-18	1.489E-17	1.553E-17	1.617E-17	1.683E-17	1.750E-17	1.817E-17	1.886E-17
BI214	7.536E-20	1.001E-18	3.904E-16	4.194E-16	4.495E-16	4.805E-16	5.126E-16	5.458E-16	5.799E-16
PO210	7.700E-18	1.309E-16	8.915E-13	9.325E-13	1.021E-12	1.121E-12	1.229E-12	1.343E-12	1.464E-12
PO211	6.269E-25	1.392E-23	1.717E-21	1.825E-21	1.933E-21	2.042E-21	2.153E-21	2.266E-21	2.382E-21
PO212	6.794E-25	5.113E-24	1.933E-23	1.926E-23	1.911E-23	1.895E-23	1.878E-23	1.861E-23	1.843E-23
PO213	3.773E-27	1.777E-27	2.233E-26	2.329E-26	2.427E-26	2.525E-26	2.625E-26	2.726E-26	2.829E-26
PO214	2.029E-25	1.378E-25	5.371E-23	5.770E-23	6.184E-23	6.611E-23	7.053E-23	7.509E-23	7.979E-23
PO215	7.248E-25	1.610E-23	1.986E-21	2.111E-21	2.235E-21	2.362E-21	2.491E-21	2.622E-21	2.755E-21
PO216	5.402E-19	4.065E-18	1.537E-17	1.532E-17	1.520E-17	1.507E-17	1.493E-17	1.479E-17	1.465E-17
PO218	1.177E-20	1.564E-19	6.097E-17	6.550E-17	7.019E-17	7.504E-17	8.005E-17	8.523E-17	9.057E-17
AT217	3.021E-23	1.423E-23	1.789E-22	1.865E-22	1.943E-22	2.022E-22	2.102E-22	2.183E-22	2.266E-22
RN218	4.177E-23	2.162E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.643E-21	3.649E-20	4.500E-18	4.785E-18	5.066E-18	5.352E-18	5.644E-18	5.941E-18	6.243E-18
RN220	2.039E-16	1.535E-15	5.803E-15	5.783E-15	5.737E-15	5.688E-15	5.637E-15	5.585E-15	5.532E-15
RN222	2.164E-17	2.875E-16	1.121E-13	1.204E-13	1.291E-13	1.380E-13	1.472E-13	1.567E-13	1.665E-13
FR221	2.743E-19	1.292E-19	1.624E-18	1.694E-18	1.765E-18	1.836E-18	1.909E-18	1.983E-18	2.057E-18
FR223	1.594E-20	1.693E-19	2.089E-17	2.216E-17	2.346E-17	2.479E-17	2.614E-17	2.752E-17	2.891E-17
RA222	4.618E-20	2.391E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	4.172E-16	9.268E-15	1.143E-12	1.215E-12	1.287E-12	1.360E-12	1.434E-12	1.509E-12	1.586E-12
RA224	1.181E-12	8.887E-12	3.360E-11	3.349E-11	3.322E-11	3.294E-11	3.264E-11	3.234E-11	3.204E-11
RA225	1.637E-15	5.841E-16	7.343E-15	7.658E-15	7.978E-15	8.302E-15	8.631E-15	8.964E-15	9.302E-15
RA226	3.578E-12	4.473E-11	1.744E-08	1.873E-08	2.008E-08	2.146E-08	2.290E-08	2.438E-08	2.590E-08
RA228	4.729E-19	1.265E-17	2.917E-15	3.064E-15	3.211E-15	3.359E-15	3.507E-15	3.655E-15	3.804E-15
AC225	8.378E-16	3.946E-16	4.961E-15	5.173E-15	5.389E-15	5.608E-15	5.830E-15	6.055E-15	6.284E-15
AC227	6.178E-13	6.560E-12	8.093E-10	8.587E-10	9.092E-10	9.606E-10	1.013E-09	1.066E-09	1.120E-09
AC228	7.699E-16	1.538E-21	3.548E-19	3.727E-19	3.906E-19	4.085E-19	4.265E-19	4.446E-19	4.627E-19
TH226	2.301E-18	1.191E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	9.361E-16	1.523E-14	1.878E-12	1.997E-12	2.115E-12	2.234E-12	2.356E-12	2.480E-12	2.606E-12
TH228	2.457E-10	1.726E-09	6.530E-09	6.484E-09	6.432E-09	6.377E-09	6.320E-09	6.262E-09	6.203E-09
TH229	6.991E-11	1.076E-10	1.353E-09	1.411E-09	1.470E-09	1.530E-09	1.591E-09	1.652E-09	1.714E-09
TH230	2.017E-06	7.290E-06	1.447E-04	1.500E-04	1.553E-04	1.606E-04	1.658E-04	1.711E-04	1.764E-04
TH231	5.670E-09	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10
TH232	7.518E-08	4.527E-07	1.027E-05	1.065E-05	1.102E-05	1.140E-05	1.178E-05	1.216E-05	1.253E-05
TH234	1.576E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10
PA231	2.231E-07	3.533E-07	3.592E-06	3.717E-06	3.842E-06	3.967E-06	4.092E-06	4.217E-06	4.342E-06
PA233	9.437E-09	1.881E-08	1.883E-08	1.884E-08	1.884E-08	1.884E-08	1.884E-08	1.884E-08	1.884E-08
PA234M	1.505E-14	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15
PA234	3.331E-12	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15
U230	2.261E-15	1.170E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.711E-07	1.992E-07	2.349E-07	2.326E-07	2.303E-07	2.280E-07	2.257E-07	2.235E-07	2.213E-07
U233	8.723E-06	8.909E-06	1.350E-05	1.369E-05	1.389E-05	1.408E-05	1.428E-05	1.447E-05	1.467E-05
U234	1.900E+00	1.900E+00	1.908E+00	1.908E+00	1.908E+00	1.908E+00	1.909E+00	1.909E+00	1.909E+00
U235	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02
U236	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01
U237	8.333E-02	1.000E-09	2.849E-10	2.715E-10	2.587E-10	2.465E-10	2.349E-10	2.238E-10	2.133E-10
U238	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01
U240	2.879E-08	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18
NP235	4.704E-09	2.482E-09	1.503E-16	7.933E-17	4.186E-17	2.209E-17	1.166E-17	6.152E-18	3.246E-18
NP236	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07
NP237	4.716E-01	5.549E-01	5.556E-01	5.556E-01	5.557E-01	5.557E-01	5.557E-01	5.558E-01	5.558E-01
NP238	3.220E-03	2.628E-13	2.313E-13	2.301E-13	2.290E-13	2.279E-13	2.268E-13	2.257E-13	2.246E-13
NP239	1.828E-02	1.610E-10	1.607E-10	1.606E-10	1.606E-10	1.606E-10	1.606E-10	1.606E-10	1.606E-10
NP240M	2.781E-08	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20
PU236	1.272E-07	1.036E-07	1.868E-10	1.466E-10	1.151E-10	9.032E-11	7.093E-11	5.572E-11	4.379E-11
PU237	6.793E-08	2.636E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	3.854E-02	4.145E-02	3.375E-02	3.349E-02	3.323E-02	3.296E-02	3.270E-02	3.245E-02	3.219E-02

sbwal4.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:45

	3336.0HR	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
PU239	3.438E-01	3.622E-01	3.620E-01	3.619E-01	3.619E-01	3.619E-01	3.619E-01	3.619E-01	3.619E-01
PU240	5.082E-02	5.082E-02	5.069E-02	5.069E-02	5.068E-02	5.068E-02	5.067E-02	5.066E-02	5.066E-02
PU241	3.379E-02	3.220E-02	9.172E-03	8.710E-03	8.328E-03	7.935E-03	7.561E-03	7.204E-03	6.865E-03
PU242	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03
PU243	2.293E-06	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22
PU244	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08
PU246	8.022E-14	5.896E-24	5.678E-28	5.678E-28	5.678E-28	5.678E-28	5.678E-28	5.678E-28	5.678E-28
AM241	1.441E-04	1.736E-03	2.412E-02	2.452E-02	2.489E-02	2.524E-02	2.557E-02	2.589E-02	2.619E-02
AM242M	1.307E-06	1.300E-06	1.144E-06	1.139E-06	1.133E-06	1.128E-06	1.122E-06	1.116E-06	1.111E-06
AM242	8.605E-07	1.675E-11	1.474E-11	1.467E-11	1.459E-11	1.452E-11	1.445E-11	1.438E-11	1.431E-11
AM243	1.849E-04	1.872E-04	1.867E-04	1.867E-04	1.867E-04	1.866E-04	1.866E-04	1.866E-04	1.866E-04
AM245	1.478E-12	3.179E-24	3.711E-33	3.710E-33	3.710E-33	3.710E-33	3.710E-33	3.710E-33	3.710E-33
AM246	1.284E-16	9.449E-27	9.086E-31	9.086E-31	9.086E-31	9.086E-31	9.086E-31	9.086E-31	9.086E-31
CM241	1.227E-12	1.083E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	1.843E-05	4.061E-06	2.983E-09	2.973E-09	2.959E-09	2.945E-09	2.930E-09	2.916E-09	2.902E-09
CM243	1.439E-07	1.405E-07	7.464E-08	7.285E-08	7.110E-08	6.939E-08	6.773E-08	6.610E-08	6.451E-08
CM244	1.547E-05	1.493E-05	5.518E-06	5.310E-06	5.111E-06	4.919E-06	4.734E-06	4.557E-06	4.386E-06
CM245	2.945E-07	2.945E-07	2.939E-07	2.938E-07	2.938E-07	2.938E-07	2.938E-07	2.937E-07	2.937E-07
CM246	8.884E-09	8.882E-09	8.849E-09	8.847E-09	8.846E-09	8.845E-09	8.843E-09	8.842E-09	8.841E-09
CM247	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11
CM248	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13
CM249	1.288E-17	4.059E-32	0.000E-00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21
BK249	1.811E-15	8.267E-16	9.648E-25	9.648E-25	9.648E-25	9.648E-25	9.648E-25	9.648E-25	9.648E-25
BK250	5.705E-18	7.472E-27	3.999E-30	3.999E-30	3.999E-30	3.999E-30	3.999E-30	3.999E-30	3.999E-30
CF249	3.487E-17	1.030E-15	1.766E-15	1.763E-15	1.759E-15	1.756E-15	1.752E-15	1.749E-15	1.745E-15
CF250	2.228E-16	2.167E-16	5.465E-17	5.183E-17	4.915E-17	4.662E-17	4.421E-17	4.193E-17	3.976E-17
CF251	4.585E-17	4.582E-17	4.491E-17	4.487E-17	4.484E-17	4.481E-17	4.477E-17	4.474E-17	4.470E-17
CF252	6.911E-18	5.314E-18	5.756E-21	4.442E-21	3.428E-21	2.646E-21	2.042E-21	1.576E-21	1.216E-21
CF253	7.898E-21	5.307E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	1.021E-22	1.456E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	1.720E-21	2.245E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	3.901E-23	3.188E-24	1.363E-34	1.363E-34	1.363E-34	1.363E-34	1.363E-34	1.363E-34	1.363E-34
ES255	0.000E+00	6.054E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SF250	2.717E-13	3.084E-12	3.937E-11	4.048E-11	4.158E-11	4.266E-11	4.373E-11	4.478E-11	4.583E-11
H 3	8.201E-05	7.753E-05	1.802E-05	1.703E-05	1.610E-05	1.523E-05	1.439E-05	1.361E-05	1.287E-05
LI 6	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07
LI 7	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08
BE 9	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08
BE 10	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07
C 14	4.556E-08	4.556E-08	4.542E-08	4.541E-08	4.540E-08	4.540E-08	4.539E-08	4.539E-08	4.538E-08
ZN 66	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11
ZN 67	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12
ZN 68	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14
GA 69	8.549E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18
GE 70	9.226E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21
GA 71	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09
GE 72	1.264E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05
GE 73	4.483E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05
GE 74	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04
AS 75	2.891E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04
GE 76	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04
SE 76	2.760E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06
SE 77	1.904E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03
SE 78	4.077E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03
SE 79	1.048E-02	1.048E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02
BR 79	2.177E-08	1.336E-07	3.040E-06	3.151E-06	3.263E-06	3.375E-06	3.487E-06	3.598E-06	3.710E-06
SE 80	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02
KR 80	1.252E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07
BR 81	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02
KR 81	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09
SE 82	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02
KR 82	3.453E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04
KR 83	1.024E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01
KR 84	2.257E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01
KR 85	5.678E-02	5.333E-02	9.928E-03	9.308E-03	8.724E-03	8.177E-03	7.665E-03	7.188E-03	6.736E-03
RB 85	2.135E-01	2.175E-01	2.609E-01	2.615E-01	2.621E-01	2.626E-01	2.631E-01	2.636E-01	2.640E-01
KR 86	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01
RB 86	7.840E-05	1.001E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	1.626E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04
RB 87	5.599E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01
SR 87	9.284E-07	9.289E-07	9.291E-07	9.291E-07	9.291E-07	9.291E-07	9.291E-07	9.291E-07	9.291E-07
SR 88	8.062E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01
SR 89	4.726E-01	3.142E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	5.923E-01	1.062E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00
SR 90	1.282E+00	1.252E+00	6.743E-01	6.584E-01	6.429E-01	6.278E-01	6.130E-01	5.986E-01	5.845E-01

sbwal4.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:45

	3336.0HR	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
Y 90	3.345E 04	3.140E-04	1.691E-04	1.651E-04	1.612E-04	1.574E-04	1.537E-04	1.501E 04	1.466E 04
ZR 90	7.754E 03	3.793E-02	6.158E-01	6.317E-01	6.472E-01	6.623E-01	6.771E-01	6.915E 01	7.056E-01
Y 91	6.460E 01	8.605E 03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.788E-01	1.322E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00
ZR 92	1.378E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00
NB 92	2.982E 15	4.493E 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.490E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00
NB 93	9.491E 09	6.571E-08	8.963E 06	9.484E 06	1.001E-05	1.055E-05	1.109E 05	1.164E 05	1.220E-05
NB 93M	1.244E 07	7.462E 07	9.478E 06	9.635E-06	9.784E 06	9.926E 06	1.006E-05	1.019E 05	1.031E-05
ZR 94	1.474E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00
NB 94	2.129E 07	2.129E 07	2.128E-07	2.127E-07	2.127E 07	2.127E 07	2.127E-07	2.127E 07	2.127E 07
ZR 95	7.839E 01	1.499E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.263E 01	1.845E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	3.076E 04	6.273E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	4.072E 01	1.485E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00
ZR 96	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00
MO 96	6.211E 03	6.241E-03	6.241E-03	6.241E-03	6.241E-03	6.241E-03	6.241E-03	6.241E 03	6.241E-03
MO 97	1.415E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00
MO 98	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00
TC 98	3.038E 06	3.038E-06	3.038E-06	3.038E 06	3.038E-06	3.038E-06	3.038E 06	3.038E 06	3.038E-06
TC 99	1.384E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00
RU 99	8.665E 07	5.560E-06	1.276E-04	1.323E-04	1.370E-04	1.417E-04	1.464E-04	1.510E 04	1.557E-04
MO100	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00
RU100	6.982E 02	6.982E-02	6.982E-02	6.982E-02	6.982E 02	6.982E-02	6.982E-02	6.982E 02	6.982E 02
RU101	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00
RU102	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00
RH102	2.949E 07	2.322E-07	4.643E-10	3.656E 10	2.879E-10	2.267E-10	1.785E 10	1.405E 10	1.107E-10
RU103	3.008E 01	4.770E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.468E-01	7.474E-01	7.479E-01	7.479E-01	7.479E-01	7.479E 01	7.479E-01	7.479E 01	7.479E-01
RH103M	2.690E 04	4.274E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	5.001E 01	5.002E 01	5.002E-01	5.002E 01	5.002E-01	5.002E-01	5.002E-01	5.002E-01	5.002E-01
PD104	6.518E 02	6.518E 02	6.518E-02	6.518E-02	6.518E 02	6.518E-02	6.518E 02	6.518E 02	6.518E-02
PD105	2.413E 01	2.455E-01	2.455E-01	2.455E 01	2.455E-01	2.455E-01	2.455E 01	2.455E-01	2.455E-01
RU106	1.005E-01	5.052E 02	8.685E 10	4.366E-10	2.195E-10	1.104E-10	5.549E-11	2.790E 11	1.402E-11
RH106	1.760E 07	4.748E-08	8.163E-16	4.104E 16	2.063E-16	1.037E-16	5.215E 17	2.622E 17	1.318E-17
PD106	4.584E 02	9.581E 02	1.463E 01	1.463E-01	1.463E-01	1.463E 01	1.463E-01	1.463E 01	1.463E 01
AG106	2.943E-16	3.415E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	5.378E 02	5.379E 02	5.379E 02	5.379E-02	5.379E-02	5.379E-02	5.379E-02	5.379E 02	5.379E-02
AG107	1.064E 09	6.801E-09	1.560E 07	1.617E-07	1.674E 07	1.732E-07	1.789E-07	1.846E 07	1.904E-07
PD108	2.654E 02	2.654E-02	2.654E-02	2.654E 02	2.654E-02	2.654E-02	2.654E 02	2.654E-02	2.654E 02
AG108	8.176E 13	1.912E-20	1.831E-20	1.828E-20	1.825E-20	1.822E 20	1.819E-20	1.816E 20	1.813E-20
AG108M	1.996E 11	1.993E-11	1.908E-11	1.905E 11	1.902E-11	1.899E-11	1.896E-11	1.893E 11	1.890E 11
CD108	2.064E 08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08
AG109	1.170E 02	1.180E-02	1.180E-02	1.180E 02	1.180E 02	1.180E-02	1.180E 02	1.180E 02	1.180E-02
AG109M	7.844E 08	7.284E-18	5.028E-24	2.914E 24	1.688E-24	9.784E-25	5.670E 25	3.285E-25	1.904E-25
CD109	1.273E-11	7.375E-12	5.090E-18	2.950E-18	1.709E-18	9.905E-19	5.740E-19	3.326E 19	1.927E-19
PD110	9.529E 03	9.529E-03	9.529E-03	9.529E 03	9.529E-03	9.529E-03	9.529E-03	9.529E-03	9.529E-03
AG110	1.553E 08	5.853E-13	2.124E-24	7.711E 25	2.800E-25	1.017E-25	3.691E-26	1.340E 26	4.865E-27
AG110M	1.064E-04	3.862E 05	1.402E-16	5.089E-17	1.847E 17	6.708E-18	2.435E 18	8.842E-19	3.210E-19
CD110	2.315E 03	2.383E-03	2.422E-03	2.422E 03	2.422E-03	2.422E 03	2.422E-03	2.422E 03	2.422E-03
AG111	5.944E 04	1.040E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	6.904E 03	7.500E-03	7.500E 03	7.500E-03	7.500E 03	7.500E-03	7.500E 03	7.500E-03	7.500E 03
CD112	5.522E 03	5.577E-03	5.577E-03	5.577E 03	5.577E-03	5.577E-03	5.577E 03	5.577E-03	5.577E 03
CD113	1.687E 04	1.796E-04	1.796E 04	1.796E 04	1.796E-04	1.796E-04	1.796E-04	1.796E 04	1.796E-04
CD113M	1.074E 04	1.024E 04	2.852E 05	2.715E-05	2.585E 05	2.461E-05	2.343E 05	2.230E 05	2.123E 05
IN113	9.702E 07	6.122E-06	7.989E-05	8.126E-05	8.256E-05	8.380E-05	8.498E 05	8.610E-05	8.717E-05
CD114	1.003E 02	1.003E-02	1.003E 02	1.003E-02	1.003E-02	1.003E-02	1.003E 02	1.003E 02	1.003E-02
IN114	4.609E 13	5.967E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	6.165E 09	3.709E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.487E 08	2.054E 08	2.058E-08	2.058E 08	2.058E 08	2.058E-08	2.058E 08	2.058E 08	2.058E-08
CD115M	1.678E 04	5.744E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	2.821E 03	3.092E 03	3.093E 03	3.093E-03	3.093E 03	3.093E-03	3.093E 03	3.093E 03	3.093E-03
IN115M	7.995E 06	1.622E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.522E 04	1.562E 04	1.562E 04	1.562E-04	1.562E 04	1.562E-04	1.562E 04	1.562E 04	1.562E 04
CD116	4.933E 03	4.933E-03	4.933E-03	4.933E 03	4.933E-03	4.933E-03	4.933E 03	4.933E 03	4.933E 03
SN116	1.476E 03	1.477E 03	1.477E-03	1.477E 03	1.477E-03	1.477E 03	1.477E 03	1.477E 03	1.477E 03
SN117	4.833E 03	4.843E-03	4.843E 03	4.843E-03	4.843E 03	4.843E-03	4.843E 03	4.843E 03	4.843E 03
SN117M	2.525E 07	3.559E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	5.399E 03	5.401E 03	5.401E 03	5.401E-03	5.401E-03	5.401E-03	5.401E 03	5.401E 03	5.401E-03
SN119	5.103E 03	5.145E-03	5.167E 03	5.167E 03	5.167E-03	5.167E-03	5.167E 03	5.167E 03	5.167E 03
SN119M	6.368E 05	2.266E 05	4.876E 17	1.735E-17	6.175E 18	2.197E-18	7.819E-19	2.782E 19	9.900E-20
SN120	5.412E 03	5.412E-03	5.412E-03	5.412E 03	5.412E-03	5.412E 03	5.412E-03	5.412E 03	5.412E-03
SN121M	2.696E 06	2.662E 06	1.919E 06	1.895E 06	1.871E 06	1.848E-06	1.824E 06	1.802E 06	1.779E-06
SB121	5.536E 03	5.602E 03	5.603E 03	5.603E-03	5.603E 03	5.603E-03	5.603E 03	5.603E 03	5.603E-03
SN122	6.068E 03	6.069E-03	6.069E 03	6.069E-03	6.069E-03	6.069E-03	6.069E 03	6.069E 03	6.069E-03
TE122	1.234E 04	1.315E-04	1.315E 04	1.315E 04	1.315E 04	1.315E-04	1.315E 04	1.315E 04	1.315E-04
SN123	1.237E 03	1.742E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwal4.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:45

	3336.0HR	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
SB123	5.902E 03	6.966E-03	7.140E 03	7.140E-03	7.140E-03	7.140E-03	7.140E-03	7.140E-03	7.140E-03
TE123	5.000E 07	6.733E-07	6.971E 07	6.971E 07	6.971E 07	6.971E 07	6.971E 07	6.971E 07	6.971E 07
TE123M	1.972E 07	2.377E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	9.503E 03	9.503E 03	9.503E 03	9.503E-03	9.503E-03	9.503E 03	9.503E 03	9.503E-03	9.503E-03
SB124	8.410E-05	1.254E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	4.714E 05	1.300E-04	1.312E-04	1.312E 04	1.312E 04	1.312E 04	1.312E 04	1.312E 04	1.312E-04
SN125	4.835E-04	1.900E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	1.150E-02	9.331E-03	1.398E 05	1.088E-05	8.472E-06	6.596E 06	5.136E 06	3.999E 06	3.114E-06
TE125	4.613E 04	3.062E-03	1.251E-02	1.251E 02	1.251E 02	1.252E 02	1.252E 02	1.252E 02	1.252E-02
TE125M	7.717E 05	1.294E 04	1.954E 07	1.522E 07	1.185E 07	9.227E 08	7.184E 08	5.593E 08	4.355E-08
SN126	2.296E-02	2.296E 02	2.296E-02	2.296E-02	2.295E-02	2.295E 02	2.295E 02	2.295E 02	2.295E-02
SB126	4.916E 05	1.097E-09	1.097E 09	1.097E 09	1.097E-09	1.097E 09	1.097E-09	1.097E-09	1.097E-09
SB126M	2.316E 08	8.359E 12	8.357E 12	8.357E 12	8.357E-12	8.357E 12	8.357E 12	8.357E-12	8.357E-12
TE126	4.499E-04	4.992E 04	5.033E-04	5.035E 04	5.036E 04	5.038E 04	5.040E 04	5.041E-04	5.043E 04
TE127	1.946E 04	1.662E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.548E-03	4.746E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	4.416E-02	5.048E-02	5.096E 02	5.096E 02	5.096E-02	5.096E 02	5.096E 02	5.096E-02	5.096E 02
XE127	4.707E 09	4.499E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.283E-01	1.284E-01	1.284E 01	1.284E-01	1.284E-01	1.284E 01	1.284E-01	1.284E-01	1.284E-01
XE128	8.405E 04	8.408E-04	8.408E 04	8.408E-04	8.408E-04	8.408E 04	8.408E 04	8.408E 04	8.408E-04
TE129	1.085E-04	5.413E 09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.077E-02	5.781E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.179E-01	2.292E-01	2.292E 01	2.292E-01	2.292E-01	2.292E 01	2.292E 01	2.292E-01	2.292E-01
XE129	1.824E-05	1.857E 05	1.883E-05	1.884E 05	1.885E 05	1.886E-05	1.887E 05	1.888E-05	1.889E-05
XE129M	3.186E-07	5.746E 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.927E 01	4.928E-01	4.928E-01	4.928E 01	4.928E-01	4.928E 01	4.928E 01	4.928E-01	4.928E-01
XE130	2.935E 03	2.969E 03	2.969E 03	2.969E 03	2.969E-03	2.969E 03	2.969E 03	2.969E-03	2.969E 03
I131	7.727E 02	1.679E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	7.688E-01	8.492E 01	8.492E-01	8.492E 01	8.492E-01	8.492E-01	8.492E 01	8.492E-01	8.492E-01
XE131M	1.274E 03	2.289E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.478E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00
CS132	7.674E 07	7.997E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	9.137E 08	1.067E-07	1.067E-07	1.067E 07	1.067E-07	1.067E-07	1.067E 07	1.067E-07	1.067E 07
XE133	1.131E 01	1.533E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	2.008E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00
XE134	2.597E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00
CS134	9.815E 02	7.015E 02	1.122E-05	8.020E 06	5.731E-06	4.095E 06	2.926E 06	2.090E 06	1.494E-06
BA134	3.828E 03	3.186E 02	1.020E 01	1.020E-01	1.020E-01	1.020E 01	1.020E 01	1.020E-01	1.020E-01
CS135	2.870E-01	2.939E-01	2.939E 01	2.939E 01	2.939E-01	2.939E-01	2.939E 01	2.939E 01	2.939E-01
BA135	7.450E 06	7.566E 06	9.868E 06	9.957E-06	1.005E 05	1.013E-05	1.022E 05	1.031E-05	1.040E 05
XE136	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00
CS136	9.521E 04	3.861E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	4.044E 03	4.996E 03	4.996E-03	4.996E 03	4.996E-03	4.996E 03	4.996E 03	4.996E-03	4.996E-03
BA136M	4.269E-11	1.731E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	2.090E+00	2.043E+00	1.120E+00	1.095E+00	1.070E+00	1.045E+00	1.021E+00	9.980E 01	9.752E-01
BA137	9.414E-03	5.716E 02	9.797E-01	1.005E+00	1.030E+00	1.055E+00	1.079E+00	1.102E+00	1.125E+00
BA137M	3.215E 07	3.125E-07	1.714E 07	1.675E-07	1.636E-07	1.599E-07	1.563E 07	1.527E-07	1.492E-07
BA138	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00
LA138	1.801E 05	1.801E 05	1.801E 05	1.801E-05	1.801E-05	1.801E-05	1.801E 05	1.801E-05	1.801E-05
LA139	2.236E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
BA140	2.835E 01	7.169E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	3.751E-02	1.081E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.916E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
CE141	6.551E 01	2.734E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.407E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00
CE142	2.099E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00
ND142	7.029E 03	7.196E-03	7.196E 03	7.196E 03	7.196E-03	7.196E-03	7.196E 03	7.196E 03	7.196E-03
PR143	2.819E 01	2.473E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.620E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00
CE144	1.653E+00	6.784E 01	5.953E 11	2.443E-11	1.003E 11	4.115E-12	1.689E 12	6.930E 13	2.844E 13
PR144	7.401E 05	2.865E-05	2.514E 15	1.032E 15	4.233E-16	1.737E-16	7.130E 17	2.926E-17	1.201E-17
PR144M	3.496E 07	1.432E-07	1.257E 17	5.157E 18	2.116E-18	8.685E 19	3.564E 19	1.463E 19	6.003E-20
ND144	4.966E 01	1.471E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00
ND145	1.360E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00
ND146	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00
PM146	5.779E 06	5.095E-06	1.924E 07	1.696E 07	1.495E-07	1.318E-07	1.162E 07	1.024E-07	9.030E-08
SM146	4.668E-07	7.200E 07	2.534E 06	2.542E 06	2.550E-06	2.556E 06	2.562E 06	2.567E-06	2.572E 06
ND147	9.263E-02	1.062E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	5.263E 01	4.761E-01	4.942E 04	3.795E 04	2.914E-04	2.237E 04	1.718E 04	1.319E 04	1.013E-04
SM147	2.518E-02	1.691E-01	6.448E 01	6.449E 01	6.450E-01	6.450E 01	6.451E 01	6.451E-01	6.451E-01
ND148	6.392E 01	6.392E-01	6.392E 01	6.392E-01	6.392E-01	6.392E 01	6.392E 01	6.392E 01	6.392E-01
PM148	8.968E 03	8.979E 08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	5.632E 03	1.226E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	8.010E 02	9.469E 02	9.470E 02	9.470E 02	9.470E-02	9.470E 02	9.470E 02	9.470E-02	9.470E 02
SM149	1.030E 02	2.458E 02	2.458E 02	2.458E 02	2.458E-02	2.458E 02	2.458E 02	2.458E 02	2.458E-02
ND150	2.441E 01	2.441E-01	2.441E 01	2.441E 01	2.441E-01	2.441E 01	2.441E 01	2.441E-01	2.441E-01
SM150	4.608E 01	4.609E 01	4.609E 01	4.609E-01	4.609E-01	4.609E 01	4.609E-01	4.609E 01	4.609E-01

sbwal4.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:45

	3336.0HR	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
EU150	9.551E 11	9.369E-11	5.686E-11	5.578E 11	5.472E-11	5.368E-11	5.266E-11	5.166E-11	5.067E-11
SM151	2.818E-02	2.990E 02	2.447E-02	2.429E-02	2.410E-02	2.391E 02	2.373E 02	2.355E-02	2.337E 02
EU151	1.477E 05	2.460E-04	5.672E-03	5.860E-03	6.046E-03	6.231E-03	6.415E 03	6.597E 03	6.777E-03
SM152	1.801E 01	1.802E-01	1.802E-01	1.802E 01	1.802E-01	1.802E-01	1.802E 01	1.802E-01	1.802E-01
EU152	2.937E 05	2.790E-05	7.372E-06	7.004E-06	6.655E-06	6.323E-06	6.007E 06	5.707E-06	5.423E-06
GD152	9.600E 06	1.010E 05	1.582E-05	1.592E-05	1.602E-05	1.611E-05	1.620E 05	1.628E-05	1.636E-05
EU153	1.097E-01	1.146E-01	1.146E-01	1.146E-01	1.146E 01	1.146E 01	1.146E 01	1.146E-01	1.146E-01
GD153	5.460E-06	1.918E-06	2.956E 18	1.038E-18	3.648E-19	1.281E-19	4.501E 20	1.582E 20	5.563E-21
SM154	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E 02	3.194E 02	3.194E-02	3.194E-02
EU154	2.119E-02	1.955E 02	2.400E 03	2.214E 03	2.043E-03	1.885E 03	1.739E 03	1.604E 03	1.480E 03
GD154	1.909E-04	1.833E-03	1.898E 02	1.916E-02	1.933E-02	1.949E-02	1.964E 02	1.977E-02	1.990E-02
EU155	8.964E-03	7.751E 03	1.758E-04	1.519E-04	1.313E-04	1.135E 04	9.816E 05	8.486E-05	7.336E-05
GD155	1.850E-05	1.234E-03	8.809E-03	8.833E-03	8.853E-03	8.871E-03	8.886E-03	8.900E-03	8.911E-03
EU156	4.299E-03	2.484E 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	1.391E-02	1.824E-02	1.824E 02	1.824E-02	1.824E-02	1.824E 02	1.824E 02	1.824E-02	1.824E-02
GD157	5.688E 05	9.704E-05	9.704E-05	9.704E-05	9.704E 05	9.704E-05	9.704E-05	9.704E-05	9.704E-05
GD158	6.091E-03	6.092E-03	6.092E-03	6.092E 03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03
TB159	5.677E 04	5.736E-04	5.736E-04	5.736E 04	5.736E 04	5.736E 04	5.736E-04	5.736E-04	5.736E-04
GD160	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E 04	2.252E 04	2.252E-04	2.252E-04	2.252E-04
TB160	2.147E-05	6.472E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	8.770E-06	2.959E-05	3.024E 05	3.024E 05	3.024E-05	3.024E-05	3.024E 05	3.024E 05	3.024E 05
TB161	5.996E 06	7.753E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	4.991E 05	5.591E 05	5.591E-05	5.591E-05	5.591E 05	5.591E 05	5.591E-05	5.591E-05	5.591E-05
DY162	3.436E-05	3.437E 05	3.437E-05	3.437E-05	3.437E-05	3.437E 05	3.437E 05	3.437E-05	3.437E-05
DY163	1.972E-05	1.972E-05	1.972E 05	1.972E-05	1.972E-05	1.972E-05	1.972E 05	1.972E-05	1.972E-05
DY164	4.678E 06	4.679E-06	4.679E-06	4.679E 06	4.679E-06	4.679E-06	4.679E 06	4.679E 06	4.679E 06
HO165	4.824E 06	4.835E-06	4.835E-06	4.835E 06	4.835E 06	4.835E 06	4.835E 06	4.835E-06	4.835E 06
HO166M	2.011E-08	2.010E 08	1.980E-08	1.979E-08	1.978E-08	1.977E 08	1.976E 08	1.974E-08	1.973E-08
ER166	1.453E-06	1.529E-06	1.529E-06	1.529E-06	1.529E 06	1.529E 06	1.529E-06	1.529E-06	1.529E-06
ER167	3.035E-07	3.035E-07	3.035E 07	3.035E-07	3.035E-07	3.035E-07	3.035E 07	3.035E-07	3.035E-07
ER168	3.345E 07	3.345E-07	3.345E 07	3.345E-07	3.345E-07	3.345E 07	3.345E 07	3.345E-07	3.345E-07
ER169	2.695E-10	5.415E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	7.180E 10	9.874E 10	9.874E-10	9.874E-10	9.874E 10	9.874E-10	9.874E-10	9.874E 10	9.874E-10
ER170	1.271E-14	9.427E-14	1.075E 13	1.075E-13	1.075E-13	1.075E-13	1.075E 13	1.075E-13	1.075E-13
TM170	6.493E-11	9.065E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	8.603E 12	6.439E 11	7.344E-11	7.344E 11	7.344E 11	7.344E-11	7.344E-11	7.344E-11	7.344E 11
TM171	1.965E-12	1.370E-12	1.149E-16	8.006E-17	5.580E-17	3.889E 17	2.710E-17	1.889E-17	1.317E-17
YB171	1.371E 13	7.327E-13	2.102E-12	2.102E 12	2.102E 12	2.102E-12	2.102E 12	2.102E 12	2.102E-12
YB172	9.830E 15	1.133E-14	1.133E-14	1.133E 14	1.133E 14	1.133E-14	1.133E-14	1.133E 14	1.133E-14

File SBWAL5.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) MTR
  BAS     ONE MTR ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  204  908  909   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE MTR ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                ELEMENT
  BUP
  IRP     400.0   .4065  1   2   3 2
  IRP     800.0   .4065  2   3   3 0
  IRP    1600.0   .4065  3   4   3 0
  IRP    2000.0   .4065  4   5   3 0
  IRP    3100.0   .4065  5   6   3 0
  IRP    3336.0   .4065  6   7   3 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC      1.0    1   2   5   4
  DEC     34.0    2   3   5   0
  DEC     35.0    3   4   5   0
  DEC     36.0    4   5   5   0
  DEC     37.0    5   6   5   0
  DEC     38.0    6   7   5   0
  DEC     39.0    7   8   5   0
  DEC     40.0    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340  2.317 922350   200. 922360  .4343  922380  11.53 FUEL 93.3%
  0
```

File SBWAL5.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwal5.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\atr.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
rem  combine and save files from run
copy tape12.out+tape6.out sbwal5.u6 >nul
copy tape13.out+tape11.out sbwal5.u11 >nul
ren tape7.out sbwal5.pch
ren tape15.out sbwal5.dbg
ren tape16.out sbwal5.vxs
ren tape50.out sbwal5.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwal5.pch
del sbwal5.dbg
del sbwal5.vxs
del sbwal5.ech
del sbwal5.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ***********************
echo ********************** Execution Completed ****************************
echo ************************************************************************
echo on
```

Appendix D-2
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sbwal5.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:50

	3336.0HR	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
HE 4	5.756E-07	6.755E 06	1.944E 04	1.997E 04	2.050E-04	2.103E 04	2.155E-04	2.207E-04	2.259E-04
TL206	2.762E-32	2.762E 32	2.762E-32	2.762E-32	2.762E 32	2.762E-32	2.762E-32	2.762E 32	2.762E 32
TL207	1.119E-19	2.485E 18	4.451E 16	4.672E 16	4.887E 16	5.105E-16	5.326E 16	5.549E-16	5.775E 16
TL208	2.295E-16	1.727E 15	6.150E-15	6.111E 15	6.050E-15	5.989E-15	5.930E 15	5.870E-15	5.812E 15
TL209	2.568E-21	1.209E-21	1.995E 20	2.066E 20	2.138E-20	2.211E 20	2.285E-20	2.360E 20	2.436E 20
PB206	1.059E-18	1.241E 16	2.696E 11	3.005E-11	3.333E-11	3.685E 11	4.065E-11	4.474E-11	4.912E 11
PB207	7.867E-16	8.894E 14	4.405E 10	4.753E-10	5.119E-10	5.500E-10	5.899E-10	6.315E 10	6.747E-10
PB208	9.344E-12	3.396E 10	7.362E 08	7.565E-08	7.766E-08	7.965E-08	8.162E-08	8.356E 08	8.549E 08
PB209	1.071E-17	5.039E 18	8.311E 17	8.608E 17	8.908E-17	9.213E-17	9.521E-17	9.833E 17	1.015E-16
PB210	3.454E-15	1.333E-14	9.901E 11	1.072E 10	1.157E-10	1.247E-10	1.341E-10	1.439E-10	1.541E 10
PB211	8.660E-19	1.923E 17	3.443E-15	3.614E 15	3.781E 15	3.949E-15	4.120E 15	4.293E-15	4.468E 15
PB212	1.354E-13	1.019E-12	3.627E 12	3.604E 12	3.568E-12	3.533E-12	3.497E-12	3.462E-12	3.428E-12
PB214	1.015E-19	1.349E 18	8.284E-16	8.773E 16	9.274E 16	9.790E-16	1.032E 15	1.086E-15	1.142E 15
BI208	1.921E 21	1.921E 21	1.921E 21	1.921E-21	1.921E 21	1.921E-21	1.921E-21	1.921E 21	1.921E 21
BI209	1.922E-15	1.113E-14	2.490E 12	2.645E 12	2.806E-12	2.973E 12	3.145E-12	3.323E 12	3.506E-12
BI210M	1.065E 20	1.065E 20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E 20	1.065E-20	1.065E 20
BI210	1.841E-18	8.202E-18	6.092E-14	6.599E 14	7.126E 14	7.679E-14	8.257E 14	8.860E-14	9.490E 14
BI211	5.110E-20	1.134E 18	2.032E 16	2.133E 16	2.231E-16	2.330E 16	2.431E-16	2.533E-16	2.636E 16
BI212	1.284E-14	9.663E 14	3.441E 13	3.419E-13	3.385E-13	3.351E 13	3.317E-13	3.284E 13	3.251E-13
BI213	2.515E-18	1.184E-18	1.953E 17	2.023E 17	2.093E 17	2.165E-17	2.237E 17	2.310E-17	2.385E 17
BI214	7.536E-20	1.001E 18	6.151E 16	6.514E 16	6.887E-16	7.270E 16	7.663E-16	8.067E 16	8.481E 16
PO210	7.700E-18	1.309E 16	1.683E-12	1.739E 12	1.867E-12	2.012E-12	2.166E 12	2.327E-12	2.494E 12
PO211	6.269E-25	1.392E 23	2.493E-21	2.617E-21	2.737E-21	2.859E 21	2.982E-21	3.108E-21	3.234E 21
PO212	6.794E-25	5.113E 24	1.820E-23	1.809E-23	1.791E-23	1.773E-23	1.755E-23	1.738E-23	1.720E 23
PO213	3.773E-27	1.777E 27	2.930E 26	3.034E-26	3.140E-26	3.248E-26	3.356E 26	3.466E 26	3.578E 26
PO214	2.029E-25	1.378E 25	8.463E-23	8.962E-23	9.474E 23	1.000E-22	1.054E-22	1.110E 22	1.167E 22
PO215	7.248E-25	1.610E-23	2.883E 21	3.027E-21	3.166E-21	3.307E 21	3.450E-21	3.595E 21	3.741E-21
PO216	5.402E-19	4.065E 18	1.447E 17	1.438E 17	1.424E-17	1.410E-17	1.396E-17	1.382E 17	1.368E-17
PO218	1.177E 20	1.564E-19	9.606E 17	1.017E 16	1.075E-16	1.135E-16	1.197E 16	1.260E-16	1.324E 16
AT217	3.021E-23	1.423E 23	2.346E-22	2.430E 22	2.515E-22	2.601E 22	2.688E 22	2.776E-22	2.865E 22
RN218	4.177E-23	2.162E 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.643E-21	3.649E 20	6.534E 18	6.859E 18	7.174E 18	7.494E 18	7.818E 18	8.146E-18	8.478E 18
RN220	2.039E-16	1.535E 15	5.465E-15	5.430E 15	5.376E-15	5.322E-15	5.269E 15	5.216E 15	5.164E 15
RN222	2.164E-17	2.875E 16	1.766E 13	1.870E-13	1.977E-13	2.087E-13	2.200E-13	2.316E-13	2.435E 13
FR221	2.743E-19	1.292E 19	2.131E-18	2.207E 18	2.284E 18	2.362E-18	2.441E 18	2.521E 18	2.602E 18
FR223	1.594E 20	1.693E 19	3.033E 17	3.177E 17	3.323E 17	3.471E-17	3.621E-17	3.773E-17	3.927E 17
RA222	4.618E 20	2.391E 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	4.172E-16	9.268E 15	1.660E-12	1.742E 12	1.822E-12	1.904E-12	1.986E 12	2.069E-12	2.154E 12
RA224	1.181E 12	8.887E 12	3.164E 11	3.144E-11	3.113E-11	3.082E-11	3.051E-11	3.020E 11	2.990E-11
RA225	1.637E-15	5.841E 16	9.633E-15	9.977E 15	1.032E-14	1.068E-14	1.103E 14	1.140E-14	1.176E 14
RA226	3.578E-12	4.473E-11	2.718E-08	2.910E 08	3.076E 08	3.247E 08	3.423E-08	3.603E-08	3.788E 08
RA228	4.729E 19	1.265E 17	3.953E 15	4.103E 15	4.252E-15	4.402E 15	4.553E-15	4.703E-15	4.854E 15
AC225	8.378E-16	3.946E-16	6.507E-15	6.740E 15	6.975E 15	7.213E-15	7.454E 15	7.699E-15	7.946E 15
AC227	6.178E-13	6.560E 12	1.175E-09	1.231E 09	1.287E 09	1.345E 09	1.403E-09	1.462E 09	1.521E-09
AC228	7.699E-16	1.538E 21	4.808E-19	4.990E 19	5.173E 19	5.355E-19	5.538E-19	5.721E 19	5.904E 19
TH226	2.301E-18	1.191E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	9.361E 16	1.523E 14	2.727E 12	2.863E-12	2.995E 12	3.128E-12	3.263E 12	3.400E-12	3.539E 12
TH228	2.457E-10	1.726E 09	6.149E-09	6.088E 09	6.027E-09	5.967E 09	5.907E-09	5.848E 09	5.789E 09
TH229	6.991E 11	1.076E 10	1.775E-09	1.839E 09	1.903E 09	1.968E-09	2.034E-09	2.100E 09	2.168E-09
TH230	2.017E 06	7.290E 06	1.817E 04	1.870E 04	1.923E-04	1.976E 04	2.029E-04	2.082E 04	2.135E 04
TH231	5.670E 09	5.232E 10	5.232E-10	5.232E 10	5.232E 10	5.232E-10	5.232E 10	5.232E-10	5.232E 10
TH232	7.518E 08	4.527E 07	1.291E-05	1.329E 05	1.367E 05	1.404E 05	1.442E-05	1.480E 05	1.518E 05
TH234	1.576E-10	1.582E 10	1.582E-10	1.582E 10	1.582E-10	1.582E 10	1.582E 10	1.582E-10	1.582E-10
PA231	2.231E-07	3.533E 07	4.463E-06	4.588E 06	4.713E-06	4.838E-06	4.963E-06	5.088E-06	5.213E 06
PA233	9.437E 09	1.881E 08	1.884E 08	1.885E-08	1.885E-08	1.885E-08	1.885E 08	1.885E-08	1.885E 08
PA234M	1.505E-14	5.334E 15	5.334E-15	5.334E 15	5.334E-15	5.334E 15	5.334E 15	5.334E 15	5.334E 15
PA234	3.331E-12	2.383E 15	2.383E 15	2.383E 15	2.383E 15	2.383E-15	2.383E 15	2.383E-15	2.383E 15
U230	2.261E-15	1.170E 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.711E 07	1.992E 07	2.191E-07	2.169E 07	2.147E-07	2.126E 07	2.104E-07	2.083E 07	2.063E 07
U233	8.723E 06	8.909E 06	1.473E-05	1.493E 05	1.512E 05	1.532E 05	1.551E-05	1.571E 05	1.590E 05
U234	1.900E+00	1.900E+00	1.909E+00	1.910E+00	1.910E+00	1.910E+00	1.910E+00	1.911E+00	1.911E+00
U235	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E-02	1.287E+02
U236	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01
U237	8.333E 02	1.000E 09	2.032E 10	1.936E 10	1.845E-10	1.758E-10	1.675E 10	1.596E-10	1.521E 10
U238	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01
U240	2.879E 08	1.163E 18	1.163E-18	1.163E 18	1.163E-18	1.163E 18	1.163E-18	1.163E-18	1.163E 18
NP235	4.704E 09	2.482E 09	1.713E 18	9.040E 19	4.771E 19	2.518E-19	1.329E 19	7.010E-20	3.698E 20
NP236	2.075E-07	2.075E 07	2.075E-07	2.075E 07	2.075E-07	2.075E 07	2.075E-07	2.075E-07	2.075E 07
NP237	4.716E-01	5.549E 01	5.559E 01	5.559E 01	5.559E-01	5.560E 01	5.560E-01	5.561E-01	5.561E 01
NP238	3.220E 03	2.628E 13	2.235E 13	2.224E-13	2.213E 13	2.202E-13	2.191E-13	2.180E 13	2.170E-13
NP239	1.828E 02	1.610E 10	1.605E 10	1.605E 10	1.605E-10	1.605E 10	1.605E-10	1.605E 10	1.605E 10
NP240M	2.781E 08	1.017E 20	1.017E 20	1.017E 20	1.017E 20	1.017E 20	1.017E-20	1.017E 20	1.017E 20
PU236	1.272E-07	1.036E 07	3.441E 11	2.708E-11	2.134E 11	1.683E-11	1.330E 11	1.053E 11	8.357E 12

sbwa15.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:50

	3336.0HR	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
PU237	6.793E-08	2.636E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	3.854E-02	4.145E-02	3.194E-02	3.169E-02	3.144E-02	3.119E-02	3.094E-02	3.070E-02	3.046E-02
PU239	3.438E-01	3.622E-01	3.619E-01	3.619E-01	3.619E-01	3.619E-01	3.618E-01	3.618E-01	3.618E-01
PU240	5.082E-02	5.082E-02	5.065E-02	5.065E-02	5.064E-02	5.064E-02	5.063E-02	5.063E-02	5.062E-02
PU241	3.379E-02	3.220E-02	6.541E-03	6.233E-03	5.939E-03	5.659E-03	5.392E-03	5.138E-03	4.896E-03
PU242	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03	2.970E-03
PU243	2.293E-06	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22	8.746E-22
PU244	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08
PU246	8.022E-14	5.896E-24	5.678E-28	5.678E-28	5.678E-28	5.678E-28	5.678E-28	5.678E-28	5.678E-28
AM241	1.441E-04	1.736E-03	2.647E-02	2.673E-02	2.698E-02	2.722E-02	2.744E-02	2.765E-02	2.785E-02
AM242M	1.307E-06	1.300E-06	1.106E-06	1.100E-06	1.095E-06	1.089E-06	1.084E-06	1.079E-06	1.073E-06
AM242	8.605E-07	1.675E-11	1.424E-11	1.417E-11	1.410E-11	1.403E-11	1.396E-11	1.389E-11	1.383E-11
AM243	1.849E-04	1.872E-04	1.866E-04	1.866E-04	1.865E-04	1.865E-04	1.865E-04	1.865E-04	1.865E-04
AM245	1.478E-12	3.179E-24	1.460E-35	1.460E-35	1.460E-35	1.460E-35	1.460E-35	1.460E-35	1.460E-35
AM246	1.284E-16	9.449E-27	9.086E-31	9.086E-31	9.086E-31	9.086E-31	9.086E-31	9.086E-31	9.086E-31
CM241	1.227E-12	1.083E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	1.843E-05	4.061E-06	2.883E-09	2.872E-09	2.859E-09	2.845E-09	2.831E-09	2.817E-09	2.803E-09
CM243	1.439E-07	1.405E-07	6.296E-08	6.145E-08	5.997E-08	5.853E-08	5.712E-08	5.575E-08	5.441E-08
CM244	1.547E-05	1.493E-05	4.221E-06	4.062E-06	3.910E-06	3.763E-06	3.622E-06	3.486E-06	3.355E-06
CM245	2.945E-07	2.945E-07	2.937E-07	2.937E-07	2.936E-07	2.936E-07	2.936E-07	2.936E-07	2.935E-07
CM246	8.884E-09	8.882E-09	8.840E-09	8.838E-09	8.837E-09	8.836E-09	8.834E-09	8.833E-09	8.832E-09
CM247	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11
CM248	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13	3.856E-13
CM249	1.288E-17	4.059E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21	1.352E-21
BK249	1.811E-15	8.267E-16	3.797E-27	3.797E-27	3.797E-27	3.797E-27	3.797E-27	3.797E-27	3.797E-27
BK250	5.705E-18	7.472E-27	3.999E-30	3.999E-30	3.999E-30	3.999E-30	3.999E-30	3.999E-30	3.999E-30
CF249	3.487E-17	1.030E-15	1.742E-15	1.738E-15	1.735E-15	1.731E-15	1.728E-15	1.725E-15	1.721E-15
CF250	2.228E-16	2.167E-16	3.771E-17	3.577E-17	3.392E-17	3.217E-17	3.051E-17	2.893E-17	2.744E-17
CF251	4.585E-17	4.582E-17	4.467E-17	4.463E-17	4.460E-17	4.456E-17	4.453E-17	4.449E-17	4.446E-17
CF252	6.911E-18	5.314E-18	9.114E-22	7.034E-22	5.186E-22	3.823E-22	2.819E-22	2.078E-22	1.532E-22
CF253	7.898E-21	5.307E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	1.021E-22	1.456E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	1.720E-21	2.245E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	3.901E-23	3.188E-24	2.202E-37	2.202E-37	2.202E-37	2.202E-37	2.202E-37	2.202E-37	2.202E-37
ES255	0.000E+00	6.054E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SF250	2.717E-13	3.084E-12	4.686E-11	4.787E-11	4.888E-11	4.987E-11	5.085E-11	5.183E-11	5.279E-11
H 3	8.201E-05	7.753E-05	1.216E-05	1.150E-05	1.087E-05	1.028E-05	9.717E-06	9.187E-06	8.685E-06
LI 6	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07	5.354E-07
LI 7	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08	1.753E-08
BE 9	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08	3.378E-08
BE 10	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07	2.253E-07
C 14	4.556E-08	4.556E-08	4.538E-08	4.537E-08	4.537E-08	4.536E-08	4.536E-08	4.535E-08	4.534E-08
ZN 66	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11	8.945E-11
ZN 67	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12	3.967E-12
ZN 68	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14	1.817E-14
GA 69	8.549E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18	8.573E-18
GE 70	9.226E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21	9.233E-21
GA 71	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09	1.020E-09
GE 72	1.264E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05	1.297E-05
GE 73	4.483E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05	4.492E-05
GE 74	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04	1.192E-04
AS 75	2.891E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04
GE 76	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04	8.729E-04
SE 76	2.760E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06	2.833E-06
SE 77	1.904E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03	1.939E-03
SE 78	4.077E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03	4.082E-03
SE 79	1.048E-02	1.048E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02	1.047E-02
BR 79	2.177E-08	1.336E-07	3.822E-06	3.934E-06	4.045E-06	4.157E-06	4.269E-06	4.381E-06	4.492E-06
SE 80	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02	2.522E-02
KR 80	1.252E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07	1.253E-07
BR 81	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02	4.296E-02
KR 81	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09	2.246E-09
SE 82	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02	6.824E-02
KR 82	3.453E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04	3.570E-04
KR 83	1.024E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01	1.026E-01
KR 84	2.257E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01
KR 85	5.678E-02	5.333E-02	6.314E-03	5.918E-03	5.548E-03	5.201E-03	4.875E-03	4.570E-03	4.284E-03
RB 85	2.135E-01	2.175E-01	2.645E-01	2.649E-01	2.652E-01	2.656E-01	2.659E-01	2.662E-01	2.665E-01
KR 86	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01	4.329E-01
RB 86	7.830E-05	1.001E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	1.626E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04	2.409E-04
RB 87	5.599E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01	5.602E-01
SR 87	9.284E-07	9.289E-07	9.291E-07	9.291E-07	9.291E-07	9.292E-07	9.292E-07	9.292E-07	9.292E-07
SR 88	8.062E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01	8.073E-01
SR 89	4.726E-01	3.142E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwal5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:50

	3336.0HR	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
Y 89	5.923E-01	1.062E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00
SR 90	1.282E+00	1.252E+00	5.708E-01	5.574E 01	5.443E 01	5.315E 01	5.190E-01	5.068E 01	4.948E 01
Y 90	3.345E 04	3.140E-04	1.431E 04	1.398E 04	1.365E 04	1.333E 04	1.301E 04	1.271E-04	1.241E 04
ZR 90	7.754E-03	3.793E 02	7.193E-01	7.327E 01	7.459E 01	7.587E 01	7.712E 01	7.834E 01	7.953E 01
Y 91	6.460E 01	8.605E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.788E-01	1.322E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00
ZR 92	1.378E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00
NB 92	2.982E 15	4.493E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.490E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00
NB 93	9.491E 09	6.571E-08	1.276E-05	1.338E 05	1.390E-05	1.448E 05	1.506E 05	1.565E 05	1.625E 05
NB 93M	1.244E-07	7.462E 07	1.043E 05	1.054E 05	1.064E 05	1.074E 05	1.083E 05	1.092E 05	1.101E 05
ZR 94	1.474E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00
NB 94	2.129E 07	2.129E-07	2.127E 07	2.127E 07	2.127E-07	2.127E 07	2.127E-07	2.127E-07	2.127E-07
ZR 95	7.839E 01	1.499E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.263E-01	1.845E 02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	3.076E 04	6.273E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	4.072E-01	1.485E+00	1.518E-00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00
ZR 96	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00
MO 96	6.211E 03	6.241E-03	6.241E 03	6.241E 03	6.241E-03	6.241E-03	6.241E 03	6.241E-03	6.241E-03
MO 97	1.415E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00
MO 98	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00
TC 98	3.038E 06	3.038E-06	3.038E 06	3.038E 06	3.038E-06	3.038E 06	3.038E 06	3.038E-06	3.038E-06
TC 99	1.384E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00
RU 99	8.665E-07	5.560E 06	1.604E-04	1.651E 04	1.698E 04	1.745E 04	1.792E 04	1.839E 04	1.886E 04
MO100	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00
RU100	6.982E 02	6.982E-02	6.982E 02	6.982E 02	6.982E-02	6.982E-02	6.982E 02	6.982E-02	6.982E-02
RU101	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00
RU102	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00
RH102	2.949E-07	2.322E-07	8.717E-11	6.864E 11	5.405E-11	4.256E 11	3.351E-11	2.638E 11	2.078E 11
RU103	3.008E-01	4.770E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.468E 01	7.474E-01	7.479E-01	7.479E 01	7.479E 01	7.479E 01	7.479E 01	7.479E 01	7.479E 01
RH103M	2.690E 04	4.274E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	5.001E 01	5.002E-01	5.002E 01	5.002E 01	5.002E-01	5.002E-01	5.002E 01	5.002E 01	5.002E 01
PD104	6.518E 02	6.518E 02	6.518E 02	6.518E 02	6.518E 02	6.518E 02	6.518E 02	6.518E 02	6.518E 02
PD105	2.413E 01	2.455E 01	2.455E-01	2.455E 01	2.455E 01	2.455E 01	2.455E-01	2.455E 01	2.455E 01
RU106	1.005E-01	5.052E 02	7.051E-12	3.545E 12	1.782E 12	8.961E 13	4.505E 13	2.265E 13	1.139E 13
RH106	1.760E 07	4.748E-08	6.628E-18	3.332E 18	1.675E 18	8.423E 19	4.234E 19	2.129E 19	1.070E 19
PD106	4.584E 02	9.581E 02	1.463E-01	1.463E 01	1.463E 01	1.463E-01	1.463E 01	1.463E 01	1.463E 01
AG106	2.943E-16	3.415E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	5.378E 02	5.379E-02	5.379E 02	5.379E 02	5.379E-02	5.379E-02	5.379E-02	5.379E-02	5.379E-02
AG107	1.064E 09	6.801E-09	1.961E 07	2.019E 07	2.076E 07	2.133E 07	2.191E 07	2.248E 07	2.305E 07
PD108	2.654E-02	2.654E-02	2.654E 02	2.654E 02	2.654E-02	2.654E-02	2.654E 02	2.654E 02	2.654E-02
AG108	8.176E 13	1.912E-20	1.810E-20	1.807E-20	1.804E 20	1.801E 20	1.798E-20	1.795E-20	1.792E-20
AG108M	1.996E 11	1.993E-11	1.886E 11	1.883E 11	1.880E-11	1.877E 11	1.874E-11	1.871E-11	1.868E-11
CD108	2.064E-08	2.064E-08	2.064E 08	2.064E 08	2.064E-08	2.064E-08	2.064E 08	2.064E 08	2.064E-08
AG109	1.170E 02	1.180E-02	1.180E 02	1.180E 02	1.180E 02	1.180E 02	1.180E 02	1.180E-02	1.180E 02
AG109M	7.844E-08	7.284E 18	1.103E-25	6.393E 26	3.704E 26	2.147E-26	1.245E 26	7.217E 27	4.185E-27
CD109	1.273E 11	7.375E-12	1.117E-19	6.472E 20	3.750E 20	2.173E-20	1.260E 20	7.306E 21	4.236E 21
PD110	9.529E-03	9.529E 03	9.529E 03	9.529E 03	9.529E 03	9.529E 03	9.529E-03	9.529E-03	9.529E-03
AG110	1.553E 08	5.853E-13	1.766E 27	6.413E 28	2.329E-28	8.462E-29	3.072E-29	1.111E-29	4.105E-30
AG110M	1.064E 04	3.862E-05	1.166E-19	4.232E 20	1.537E 20	5.584E 21	2.020E 21	7.308E 22	2.709E 22
CD110	2.315E-03	2.383E-03	2.422E 03	2.422E 03	2.422E 03	2.422E-03	2.422E 03	2.422E 03	2.422E 03
AG111	5.944E 04	1.040E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	6.904E-03	7.500E-03	7.500E 03	7.500E 03	7.500E 03	7.500E 03	7.500E 03	7.500E 03	7.500E 03
CD112	5.522E 03	5.577E-03	5.577E 03	5.577E 03	5.577E 03	5.577E 03	5.577E 03	5.577E 03	5.577E-03
CD113	1.687E-04	1.796E 04	1.796E 04	1.796E 04	1.796E 04	1.796E-04	1.796E-04	1.796E-04	1.796E-04
CD113M	1.074E-04	1.024E-04	2.021E-05	1.924E 05	1.832E 05	1.744E-05	1.661E 05	1.581E 05	1.505E 05
IN113	9.702E 07	6.122E-06	8.819E-05	8.916E 05	9.008E 05	9.096E 05	9.179E 05	9.259E-05	9.335E-05
CD114	1.003E-02	1.003E-02	1.003E-02	1.003E 02	1.003E 02	1.003E-02	1.003E 02	1.003E-02	1.003E-02
IN114	4.609E 13	5.967E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E-00	0.000E+00
IN114M	6.165E-09	3.709E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.487E-08	2.054E 08	2.058E 08	2.058E 08	2.058E 08	2.058E 08	2.058E 08	2.058E 08	2.058E 08
CD115M	1.678E-04	5.744E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	2.821E 03	3.092E 03	3.093E-03	3.093E 03	3.093E-03	3.093E 03	3.093E 03	3.093E-03	3.093E-03
IN115M	7.995E 06	1.622E 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.522E 04	1.562E-04	1.562E-04	1.562E 04	1.562E 04	1.562E-04	1.562E 04	1.562E 04	1.562E 04
CD116	4.933E-03	4.933E-03	4.933E-03	4.933E 03	4.933E 03	4.933E-03	4.933E 03	4.933E 03	4.933E 03
SN116	1.476E-03	1.477E-03	1.477E-03	1.477E 03	1.477E 03	1.477E-03	1.477E-03	1.477E 03	1.477E-03
SN117	4.833E 03	4.843E-03	4.843E-03	4.843E 03	4.843E-03	4.843E 03	4.843E 03	4.843E 03	4.843E 03
SN117M	2.525E-07	3.559E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	5.399E 03	5.401E 03	5.401E-03	5.401E 03	5.401E 03	5.401E-03	5.401E 03	5.401E 03	5.401E-03
SN119	5.103E 03	5.145E 03	5.167E 03	5.167E 03	5.167E 03	5.167E 03	5.167E 03	5.167E 03	5.167E 03
SN119M	6.368E 05	2.266E-05	3.523E 20	1.254E 20	4.467E 21	1.583E 21	5.610E 22	2.043E 22	6.470E 23
SN120	5.412E 03	5.412E-03	5.412E 03	5.412E 03	5.412E-03	5.412E-03	5.412E 03	5.412E 03	5.412E-03
SN121M	2.696E-06	2.662E 06	1.757E 06	1.733E 06	1.713E 06	1.692E 06	1.670E 06	1.649E 06	1.629E 06
SB121	5.536E-03	5.602E-03	5.603E 03	5.603E 03	5.603E-03	5.603E-03	5.603E 03	5.603E 03	5.603E 03
SN122	6.068E 03	6.069E 03	6.069E 03	6.069E 03	6.069E 03	6.069E-03	6.069E 03	6.069E 03	6.069E 03

sbwal5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:50

	3336.0HR	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
TE122	1.234E 04	1.315E-04	1.315E 04	1.315E 04	1.315E 04	1.315E 04	1.315E-04	1.315E-04	1.315E-04
SN123	1.237E-03	1.742E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB123	5.902E 03	6.966E-03	7.140E 03	7.140E 03	7.140E 03	7.140E 03	7.140E 03	7.140E-03	7.140E-03
TE123	5.000E-07	6.733E-07	6.971E 07	6.971E 07	6.971E 07	6.971E 07	6.971E-07	6.971E-07	6.971E-07
TE123M	1.972E-07	2.377E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	9.503E 03	9.503E-03	9.503E 03	9.503E 03	9.503E 03	9.503E 03	9.503E-03	9.503E 03	9.503E 03
SB124	8.410E-05	1.254E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	4.714E-05	1.300E-04	1.312E 04	1.312E-04	1.312E 04	1.312E-04	1.312E-04	1.312E-04	1.312E-04
SN125	4.835E-04	1.900E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	1.150E-02	9.331E-03	2.418E-06	1.883E-06	1.466E-06	1.141E-06	8.887E-07	6.919E 07	5.387E-07
TE125	4.613E-04	3.062E-03	1.252E-02	1.252E-02	1.252E 02	1.252E 02	1.252E-02	1.252E-02	1.252E-02
TE125M	7.717E-05	1.294E-04	3.382E-08	2.633E-08	2.050E-08	1.596E-08	1.243E-08	9.678E-09	7.536E 09
SN126	2.296E-02	2.296E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02
SB126	4.916E 05	1.097E-09	1.097E-09	1.097E 09	1.097E 09	1.097E-09	1.097E-09	1.097E-09	1.097E 09
SB126M	2.316E-08	8.359E-12	8.357E-12	8.357E-12	8.357E 12	8.357E 12	8.357E 12	8.357E-12	8.357E-12
TE126	4.499E-04	4.992E-04	5.044E-04	5.046E-04	5.048E-04	5.049E-04	5.051E-04	5.052E-04	5.054E-04
TE127	1.946E-04	1.662E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.548E-03	4.746E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	4.416E-02	5.048E-02	5.096E-02	5.096E-02	5.096E 02	5.096E-02	5.096E-02	5.096E-02	5.096E-02
XE127	4.707E 09	4.499E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.283E-01	1.284E-01	1.284E-01	1.284E-01	1.284E 01	1.284E-01	1.284E-01	1.284E-01	1.284E-01
XE128	8.405E-04	8.408E-04	8.408E-04	8.408E-04	8.408E 04	8.408E-04	8.408E 04	8.408E-04	8.408E-04
TE129	1.085E-04	5.413E 09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.077E-02	5.781E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.179E 01	2.292E-01	2.292E-01	2.292E-01	2.292E-01	2.292E 01	2.292E-01	2.292E 01	2.292E-01
XE129	1.824E-05	1.857E-05	1.890E-05	1.891E 05	1.892E 05	1.893E 05	1.894E-05	1.895E-05	1.897E-05
XE129M	3.186E-07	5.746E 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.927E-01	4.928E-01	4.928E-01	4.928E-01	4.928E 01	4.928E 01	4.928E 01	4.928E-01	4.928E-01
XE130	2.935E-03	2.969E-03	2.969E-03	2.969E-03	2.969E 03	2.969E-03	2.969E-03	2.969E-03	2.969E-03
I131	7.727E-02	1.679E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	7.688E-01	8.492E 01	8.492E 01	8.492E 01	8.492E-01	8.492E 01	8.492E-01	8.492E-01	8.492E 01
XE131M	1.274E-03	2.289E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.478E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00
CS132	7.674E-07	7.997E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	9.137E-08	1.067E-07	1.067E 07	1.067E 07	1.067E 07	1.067E 07	1.067E 07	1.067E-07	1.067E-07
XE133	1.131E-01	1.533E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	2.008E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00
XE134	2.597E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00
CS134	9.815E-02	7.015E-02	1.067E-06	7.625E 07	5.448E 07	3.893E-07	2.781E-07	1.987E-07	1.420E-07
BA134	3.828E-03	3.186E-02	1.020E 01	1.020E-01	1.020E 01	1.020E 01	1.020E-01	1.020E 01	1.020E 01
CS135	2.870E-01	2.939E-01	2.939E 01	2.939E-01	2.939E-01	2.939E 01	2.939E-01	2.939E 01	2.939E 01
BA135	7.450E 06	7.566E-06	1.049E-05	1.058E 05	1.067E 05	1.075E 05	1.084E-05	1.093E-05	1.102E-05
XE136	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00
CS136	9.521E-04	3.861E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	4.044E-03	4.996E-03	4.996E-03	4.996E-03	4.996E 03	4.996E 03	4.996E 03	4.996E-03	4.996E-03
BA136M	4.269E-11	1.731E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	2.090E+00	2.043E+00	9.530E-01	9.312E-01	9.099E 01	8.891E-01	8.688E-01	8.490E-01	8.296E 01
BA137	9.414E-03	5.716E 02	1.147E+00	1.169E+00	1.190E+00	1.211E+00	1.231E+00	1.251E+00	1.270E+00
BA137M	3.215E 07	3.125E-07	1.458E 07	1.425E-07	1.392E-07	1.360E-07	1.329E-07	1.299E-07	1.269E-07
BA138	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00
LA138	1.801E-05	1.801E-05	1.801E 05	1.801E 05	1.801E 05	1.801E-05	1.801E 05	1.801E-05	1.801E-05
LA139	2.236E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
BA140	2.835E 01	7.169E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	3.751E-02	1.081E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.916E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
CE141	6.551E 01	2.734E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.407E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00
CE142	2.099E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00
ND142	7.029E-03	7.196E-03	7.196E 03	7.196E-03	7.196E 03	7.196E-03	7.196E-03	7.196E 03	7.196E 03
PR143	2.819E-01	2.473E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.620E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00
CE144	1.653E+00	6.784E-01	1.167E 13	4.790E-14	1.966E-14	8.067E-15	3.311E-15	1.359E-15	5.576E-16
PR144	7.401E 05	2.865E-05	4.928E 18	2.023E 18	8.300E 19	3.406E 19	1.398E-19	5.737E-20	2.355E-20
PR144M	3.496E 07	1.432E 07	2.464E-20	1.011E 20	4.149E 21	1.703E 21	6.988E 22	2.868E 22	1.177E-22
ND144	4.966E-01	1.471E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00
ND145	1.360E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00
ND146	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00
PM146	5.779E 06	5.095E 06	7.961E 08	7.018E 08	6.187E 08	5.455E-08	4.809E-08	4.239E-08	3.737E 08
SM146	4.668E 07	7.200E-07	2.576E 06	2.579E-06	2.582E 06	2.585E-06	2.587E-06	2.589E-06	2.591E-06
ND147	9.263E-02	1.062E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	5.263E-01	4.761E-01	7.782E-05	5.975E 05	4.588E 05	3.523E 05	2.705E-05	2.077E-05	1.594E-05
SM147	2.518E 02	1.691E-01	6.452E-01	6.452E-01	6.452E 01	6.452E 01	6.452E-01	6.452E-01	6.452E-01
ND148	6.392E 01	6.392E 01	6.392E-01	6.392E 01	6.392E 01	6.392E 01	6.392E-01	6.392E 01	6.392E-01
PM148	8.968E 03	8.979E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	5.632E 03	1.226E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	8.010E-02	9.469E 02	9.470E 02	9.470E 02	9.470E 02	9.470E 02	9.470E 02	9.470E-02	9.470E-02
SM149	1.030E 02	2.458E-02	2.458E-02	2.458E 02	2.458E 02	2.458E 02	2.458E-02	2.458E 02	2.458E 02

sbwal5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:50

	3336.0HR	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
ND150	2.441E-01	2.441E-01	2.441E-01	2.441E-01	2.441E-01	2.441E-01	2.441E-01	2.441E-01	2.441E-01
SM150	4.608E-01	4.609E-01	4.609E-01	4.609E-01	4.609E-01	4.609E-01	4.609E-01	4.609E-01	4.609E-01
EU150	9.551E-11	9.369E-11	4.971E-11	4.876E-11	4.784E-11	4.693E-11	4.603E-11	4.516E-11	4.430E-11
SM151	2.818E-02	2.990E-02	2.319E-02	2.301E-02	2.283E-02	2.266E-02	2.249E-02	2.231E-02	2.214E-02
EU151	1.477E-05	2.460E-04	6.957E-03	7.135E-03	7.311E-03	7.486E-03	7.660E-03	7.833E-03	8.004E-03
SM152	1.801E-01	1.802E-01	1.802E-01	1.802E-01	1.802E-01	1.802E-01	1.802E-01	1.802E-01	1.802E-01
EU152	2.937E-05	2.790E-05	5.152E-06	4.895E-06	4.651E-06	4.418E-06	4.198E-06	3.988E-06	3.789E-06
GD152	9.600E-06	1.010E-05	1.644E-05	1.651E-05	1.658E-05	1.664E-05	1.670E-05	1.676E-05	1.682E-05
EU153	1.097E-01	1.146E-01	1.146E-01	1.146E-01	1.146E-01	1.146E-01	1.146E-01	1.146E-01	1.146E-01
GD153	5.460E-06	1.918E-06	1.952E-21	6.826E-22	2.458E-22	7.628E-23	3.822E-23	1.915E-23	0.000E+00
SM154	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02
EU154	2.119E-02	1.955E-02	1.365E-03	1.259E-03	1.162E-03	1.072E-03	9.885E-04	9.119E-04	8.412E-04
GD154	1.909E-04	1.833E-03	2.001E-02	2.012E-02	2.022E-02	2.031E-02	2.039E-02	2.047E-02	2.054E-02
EU155	8.964E-03	7.751E-03	6.341E-05	5.481E-05	4.738E-05	4.096E-05	3.541E-05	3.061E-05	2.646E-05
GD155	1.850E-05	1.234E-03	8.921E-03	8.930E-03	8.937E-03	8.944E-03	8.949E-03	8.954E-03	8.958E-03
EU156	4.299E-03	2.484E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	1.391E-02	1.824E-02	1.824E-02	1.824E-02	1.824E-02	1.824E-02	1.824E-02	1.824E-02	1.824E-02
GD157	5.688E-05	9.704E-05	9.704E-05	9.704E-05	9.704E-05	9.704E-05	9.704E-05	9.704E-05	9.704E-05
GD158	6.091E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03
TB159	5.677E-04	5.736E-04	5.736E-04	5.736E-04	5.736E-04	5.736E-04	5.736E-04	5.736E-04	5.736E-04
GD160	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E-04
TB160	2.147E-05	6.472E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	8.770E-06	2.959E-05	3.024E-05	3.024E-05	3.024E-05	3.024E-05	3.024E-05	3.024E-05	3.024E-05
TB161	5.996E-06	7.753E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	4.991E-05	5.591E-05	5.591E-05	5.591E-05	5.591E-05	5.591E-05	5.591E-05	5.591E-05	5.591E-05
DY162	3.436E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05
DY163	1.972E-05	1.972E-05	1.972E-05	1.972E-05	1.972E-05	1.972E-05	1.972E-05	1.972E-05	1.972E-05
DY164	4.678E-06	4.679E-06	4.679E-06	4.679E-06	4.679E-06	4.679E-06	4.679E-06	4.679E-06	4.679E-06
HO165	4.824E-06	4.835E-06	4.835E-06	4.835E-06	4.835E-06	4.835E-06	4.835E-06	4.835E-06	4.835E-06
HO166M	2.011E-08	2.010E-08	1.972E-08	1.971E-08	1.970E-08	1.969E-08	1.968E-08	1.966E-08	1.965E-08
ER166	1.453E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06
ER167	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07
ER168	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07
ER169	2.695E-10	5.415E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	7.180E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10
ER170	1.271E-14	9.427E-14	1.075E-13	1.075E-13	1.075E-13	1.075E-13	1.075E-13	1.075E-13	1.075E-13
TM170	6.493E-11	9.065E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	8.603E-12	6.439E-11	7.344E-11	7.344E-11	7.344E-11	7.344E-11	7.344E-11	7.344E-11	7.344E-11
TM171	1.965E-12	1.370E-12	9.176E-18	6.396E-18	4.458E-18	3.107E-18	2.165E-18	1.509E-18	1.052E-18
YB171	1.371E-13	7.327E-13	2.103E-12	2.103E-12	2.103E-12	2.103E-12	2.103E-12	2.103E-12	2.103E-12
YB172	9.830E-15	1.133E-14	1.133E-14	1.133E-14	1.133E-14	1.133E-14	1.133E-14	1.133E-14	1.133E-14

File SBWAL6.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) MTR
  BAS     ONE MTR ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  204  908  909   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE MTR ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                    ELEMENT
  BUP
  IRP     400.0   .4065  1   2   3 2
  IRP     800.0   .4065  2   3   3 0
  IRP    1600.0   .4065  3   4   3 0
  IRP    2000.0   .4065  4   5   3 0
  IRP    3100.0   .4065  5   6   3 0
  IRP    3336.0   .4065  6   7   3 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC      1.0    1   2   5   4
  DEC     41.0    2   3   5   0
  DEC     42.0    3   4   5   0
  DEC     43.0    4   5   5   0
  DEC     44.0    5   6   5   0
  DEC     45.0    6   7   5   0
  DEC     46.0    7   8   5   0
  DEC     47.0    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340  2.317 922350   200. 922360  .4343  922380  11.53 FUEL 93.3%
  0
```

Appendix D-2
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File SBWAL6.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwal6.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\atr.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
rem  combine and save files from run
copy tape12.out+tape6.out sbwal6.u6 >nul
copy tape13.out+tape11.out sbwal6.u11 >nul
ren tape7.out sbwal6.pch
ren tape15.out sbwal6.dbg
ren tape16.out sbwal6.vxs
ren tape50.out sbwal6.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwal6.pch
del sbwal6.dbg
del sbwal6.vxs
del sbwal6.ech
del sbwal6.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

Appendix D-2
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sbwal6.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:56

	3336.0HR	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
HE 4	5.756E-07	6.755E-06	2.310E-04	2.361E-04	2.412E-04	2.463E-04	2.513E-04	2.563E-04	2.613E-04
TL206	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32	2.762E-32
TL207	1.119E-19	2.485E-18	5.990E-16	6.234E-16	6.468E-16	6.704E-16	6.942E-16	7.183E-16	7.425E-16
TL208	2.295E-16	1.727E-15	5.732E-15	5.696E-15	5.639E-15	5.583E-15	5.527E-15	5.471E-15	5.417E-15
TL209	2.568E-21	1.209E-21	2.510E-20	2.587E-20	2.665E-20	2.744E-20	2.824E-20	2.905E-20	2.986E-20
PB206	1.059E-18	1.241E-16	5.463E-11	5.976E-11	6.514E-11	7.085E-11	7.693E-11	8.338E-11	9.023E-11
PB207	7.867E-16	8.894E-14	7.198E-10	7.665E-10	8.151E-10	8.654E-10	9.176E-10	9.716E-10	1.027E-09
PB208	9.344E-12	3.396E-10	8.738E-08	8.927E-08	9.114E-08	9.299E-08	9.483E-08	9.664E-08	9.844E-08
PB209	1.071E-17	5.039E-18	1.046E-16	1.078E-16	1.111E-16	1.143E-16	1.177E-16	1.210E-16	1.244E-16
PB210	3.454E-15	1.333E-14	1.648E-10	1.759E-10	1.875E-10	1.994E-10	2.118E-10	2.247E-10	2.380E-10
PB211	8.660E-19	1.923E-17	4.634E-15	4.823E-15	5.004E-15	5.186E-15	5.370E-15	5.557E-15	5.744E-15
PB212	1.354E-13	1.019E-12	3.381E-12	3.360E-12	3.326E-12	3.293E-12	3.260E-12	3.227E-12	3.195E-12
PB214	1.015E-19	1.349E-18	1.199E-15	1.258E-15	1.318E-15	1.379E-15	1.442E-15	1.506E-15	1.571E-15
BI208	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21	1.921E-21
BI209	1.922E-15	1.113E-14	3.696E-12	3.891E-12	4.093E-12	4.300E-12	4.513E-12	4.732E-12	4.958E-12
BI210M	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20	1.065E-20
BI210	1.841E-18	8.202E-18	1.014E-13	1.083E-13	1.154E-13	1.228E-13	1.304E-13	1.384E-13	1.466E-13
BI211	5.110E-20	1.134E-18	2.734E-16	2.846E-16	2.952E-16	3.060E-16	3.169E-16	3.279E-16	3.389E-16
BI212	1.284E-14	9.663E-14	3.207E-13	3.187E-13	3.155E-13	3.123E-13	3.092E-13	3.061E-13	3.031E-13
BI213	2.515E-18	1.184E-18	2.458E-17	2.533E-17	2.609E-17	2.687E-17	2.765E-17	2.844E-17	2.924E-17
BI214	7.536E-20	1.001E-18	8.905E-16	9.340E-16	9.785E-16	1.024E-15	1.071E-15	1.118E-15	1.167E-15
PO210	7.700E-18	1.309E-16	2.801E-12	2.873E-12	3.045E-12	3.239E-12	3.443E-12	3.655E-12	3.875E-12
PO211	6.269E-25	1.392E-23	3.355E-21	3.491E-21	3.622E-21	3.754E-21	3.888E-21	4.022E-21	4.158E-21
PO212	6.794E-25	5.113E-24	1.697E-23	1.686E-23	1.669E-23	1.652E-23	1.636E-23	1.620E-23	1.603E-23
PO213	3.773E-27	1.777E-27	3.687E-26	3.800E-26	3.915E-26	4.031E-26	4.148E-26	4.267E-26	4.387E-26
PO214	2.029E-25	1.378E-25	1.225E-22	1.285E-22	1.346E-22	1.409E-22	1.473E-22	1.538E-22	1.605E-22
PO215	7.248E-25	1.610E-23	3.880E-21	4.039E-21	4.190E-21	4.343E-21	4.497E-21	4.653E-21	4.810E-21
PO216	5.402E-19	4.065E-18	1.349E-17	1.341E-17	1.327E-17	1.314E-17	1.301E-17	1.288E-17	1.275E-17
PO218	1.177E-20	1.564E-19	1.391E-16	1.459E-16	1.528E-16	1.599E-16	1.672E-16	1.746E-16	1.822E-16
AT217	3.021E-23	1.423E-23	2.953E-22	3.043E-22	3.135E-22	3.228E-22	3.322E-22	3.417E-22	3.513E-22
RN218	4.177E-23	2.162E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.643E-21	3.649E-20	8.793E-18	9.152E-18	9.495E-18	9.841E-18	1.019E-17	1.054E-17	1.090E-17
RN220	2.039E-16	1.535E-15	5.094E-15	5.061E-15	5.011E-15	4.960E-15	4.911E-15	4.862E-15	4.813E-15
RN222	2.164E-17	2.875E-16	2.557E-13	2.682E-13	2.809E-13	2.940E-13	3.074E-13	3.210E-13	3.350E-13
FR221	2.743E-19	1.292E-19	2.681E-18	2.763E-18	2.847E-18	2.931E-18	3.016E-18	3.103E-18	3.190E-18
FR223	1.594E-20	1.693E-19	4.081E-17	4.239E-17	4.397E-17	4.558E-17	4.720E-17	4.883E-17	5.048E-17
RA222	4.618E-20	2.391E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	4.172E-16	9.268E-15	2.234E-12	2.325E-12	2.412E-12	2.500E-12	2.589E-12	2.678E-12	2.769E-12
RA224	1.181E-12	8.887E-12	2.949E-11	2.931E-11	2.901E-11	2.872E-11	2.844E-11	2.815E-11	2.787E-11
RA225	1.637E-15	5.841E-16	1.212E-14	1.249E-14	1.287E-14	1.325E-14	1.364E-14	1.403E-14	1.442E-14
RA226	3.578E-12	4.473E-11	3.978E-08	4.172E-08	4.370E-08	4.574E-08	4.782E-08	4.994E-08	5.211E-08
RA228	4.729E-19	1.265E-17	5.004E-15	5.155E-15	5.306E-15	5.457E-15	5.608E-15	5.759E-15	5.911E-15
AC225	8.378E-16	3.946E-16	8.189E-15	8.440E-15	8.695E-15	8.952E-15	9.213E-15	9.476E-15	9.743E-15
AC227	6.178E-13	6.560E-12	1.581E-09	1.642E-09	1.704E-09	1.766E-09	1.829E-09	1.892E-09	1.956E-09
AC228	7.699E-16	1.538E-21	6.087E-19	6.271E-19	6.454E-19	6.638E-19	6.822E-19	7.006E-19	7.190E-19
TH226	2.301E-18	1.191E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	9.361E-16	1.523E-14	3.670E-12	3.820E-12	3.963E-12	4.108E-12	4.254E-12	4.401E-12	4.550E-12
TH228	2.457E-10	1.726E-09	5.732E-09	5.674E-09	5.618E-09	5.561E-09	5.506E-09	5.451E-09	5.396E-09
TH229	6.991E-11	1.076E-10	2.234E-09	2.303E-09	2.372E-09	2.442E-09	2.513E-09	2.585E-09	2.658E-09
TH230	2.017E-06	7.290E-06	2.188E-04	2.241E-04	2.294E-04	2.347E-04	2.400E-04	2.454E-04	2.507E-04
TH231	5.670E-09	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10	5.232E-10
TH232	7.518E-08	4.527E-07	1.555E-05	1.593E-05	1.631E-05	1.669E-05	1.706E-05	1.744E-05	1.782E-05
TH234	1.576E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10	1.582E-10
PA231	2.231E-07	3.533E-07	5.334E-06	5.459E-06	5.584E-06	5.709E-06	5.834E-06	5.959E-06	6.084E-06
PA233	9.437E-09	1.881E-08	1.885E-08	1.886E-08	1.886E-08	1.886E-08	1.886E-08	1.886E-08	1.886E-08
PA234M	1.505E-14	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15	5.334E-15
PA234	3.331E-12	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15	2.383E-15
U230	2.261E-15	1.170E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.711E-07	1.992E-07	2.042E-07	2.022E-07	2.001E-07	1.981E-07	1.961E-07	1.942E-07	1.922E-07
U233	8.723E-06	8.909E-06	1.597E-05	1.616E-05	1.636E-05	1.656E-05	1.675E-05	1.695E-05	1.714E-05
U234	1.900E+00	1.900E+00	1.911E+00	1.911E+00	1.912E+00	1.912E+00	1.912E+00	1.912E+00	1.912E+00
U235	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02	1.287E+02
U236	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01	1.298E+01
U237	8.333E-02	1.000E-09	1.449E-10	1.381E-10	1.316E-10	1.254E-10	1.195E-10	1.138E-10	1.085E-10
U238	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01	1.090E+01
U240	2.879E-08	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18	1.163E-18
NP235	4.704E-09	2.482E-09	1.952E-20	1.032E-20	5.453E-21	2.882E-21	1.503E-21	7.839E-22	4.089E-22
NP236	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07	2.075E-07
NP237	4.716E-01	5.549E-01	5.562E-01	5.562E-01	5.562E-01	5.563E-01	5.563E-01	5.564E-01	5.564E-01
NP238	3.220E-03	2.628E-13	2.159E-13	2.148E-13	2.138E-13	2.127E-13	2.117E-13	2.107E-13	2.096E-13
NP239	1.828E-02	1.610E-10	1.604E-10	1.604E-10	1.604E-10	1.604E-10	1.604E-10	1.604E-10	1.604E-10
NP240M	2.781E-08	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20	1.017E-20
PU236	1.272E-07	1.036E-07	6.653E-12	5.317E-12	4.269E-12	3.448E-12	2.804E-12	2.298E-12	1.902E-12

sbwal6.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:56

	3336.0HR	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
PU237	6.793E 08	2.636E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	3.854E-02	4.145E-02	3.022E 02	2.998E 02	2.975E 02	2.951E 02	2.928E-02	2.905E-02	2.882E 02
PU239	3.438E-01	3.622E-01	3.618E 01	3.618E 01	3.618E 01	3.618E 01	3.618E-01	3.618E-01	3.617E 01
PU240	5.082E 02	5.082E 02	5.062E-02	5.061E-02	5.061E-02	5.060E 02	5.060E 02	5.059E 02	5.059E-02
PU241	3.379E-02	3.220E-02	4.665E 03	4.445E 03	4.235E 03	4.036E 03	3.845E 03	3.664E-03	3.491E 03
PU242	2.970E-03	2.970E 03	2.970E 03	2.970E-03	2.970E-03	2.970E 03	2.970E 03	2.970E 03	2.970E-03
PU243	2.293E-06	8.746E-22	8.746E-22	8.746E 22	8.746E 22	8.746E 22	8.746E-22	8.746E-22	8.746E 22
PU244	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E-08	5.945E 08	5.945E-08	5.945E-08
PU246	8.022E-14	5.896E 24	5.678E 28	5.678E 28	5.678E 28	5.678E 28	5.678E 28	5.678E-28	5.678E-28
AM241	1.441E 04	1.736E 03	2.804E 02	2.821E 02	2.838E 02	2.853E 02	2.868E 02	2.881E 02	2.894E-02
AM242M	1.307E 06	1.300E-06	1.068E 06	1.063E 06	1.058E 06	1.053E 06	1.047E 06	1.042E 06	1.037E-06
AM242	8.605E 07	1.675E 11	1.376E 11	1.369E 11	1.362E 11	1.356E 11	1.349E-11	1.342E-11	1.336E 11
AM243	1.849E-04	1.872E-04	1.865E-04	1.864E-04	1.864E-04	1.864E 04	1.864E-04	1.864E 04	1.864E-04
AM245	1.478E-12	3.179E-24	5.747E-38	5.906E-38	5.906E-38	5.906E 38	5.906E 38	5.906E-38	5.906E-38
AM246	1.284E 16	9.449E 27	9.086E 31	9.086E 31	9.086E 31	9.086E 31	9.086E-31	9.086E-31	9.086E 31
CM241	1.227E 12	1.083E 15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	1.843E-05	4.061E-06	2.785E-09	2.775E-09	2.762E-09	2.749E 09	2.735E 09	2.722E-09	2.709E-09
CM243	1.439E-07	1.405E-07	5.310E-08	5.183E-08	5.058E 08	4.937E 08	4.818E 08	4.702E-08	4.589E-08
CM244	1.547E-05	1.493E-05	3.229E 06	3.108E 06	2.991E 06	2.879E 06	2.770E-06	2.666E 06	2.566E 06
CM245	2.945E-07	2.945E-07	2.935E-07	2.935E-07	2.935E 07	2.934E-07	2.934E-07	2.934E-07	2.934E 07
CM246	8.884E-09	8.882E-09	8.830E-09	8.829E 09	8.828E 09	8.827E 09	8.825E-09	8.824E-09	8.823E-09
CM247	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E-11	2.453E 11	2.453E-11	2.453E-11
CM248	3.856E-13	3.856E-13	3.856E 13	3.856E 13	3.856E 13	3.856E-13	3.856E-13	3.856E 13	3.856E 13
CM249	1.288E-17	4.059E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	1.352E-21	1.352E 21	1.352E 21	1.352E 21	1.352E 21	1.352E 21	1.352E-21	1.352E-21	1.352E 21
BK249	1.811E-15	8.267E 16	1.494E 29	1.494E 29	1.494E 29	1.494E 29	1.494E-29	1.494E-29	1.494E 29
BK250	5.705E 18	7.472E 27	3.999E 30	3.999E 30	3.999E 30	3.999E 30	3.999E-30	3.999E-30	3.999E 30
CF249	3.487E-17	1.030E-15	1.718E 15	1.714E 15	1.711E 15	1.708E-15	1.704E-15	1.701E-15	1.698E 15
CF250	2.228E-16	2.167E-16	2.602E 17	2.468E 17	2.341E 17	2.220E 17	2.105E-17	1.997E-17	1.894E 17
CF251	4.585E-17	4.582E-17	4.443E-17	4.439E-17	4.436E-17	4.432E 17	4.429E-17	4.426E-17	4.422E 17
CF252	6.911E-18	5.314E-18	1.449E-22	1.068E-22	7.874E-23	7.874E 23	7.874E-23	7.874E-23	7.874E 23
CF253	7.898E-21	5.307E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	1.021E 22	1.456E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	1.720E-21	2.245E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	3.901E-23	3.188E-24	3.559E 40	3.559E 40	3.559E 40	3.559E 40	3.559E 40	3.559E-40	3.559E 40
ES255	0.000E+00	6.054E 27	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SF250	2.717E-13	3.084E 12	5.373E 11	5.467E 11	5.560E 11	5.652E-11	5.743E-11	5.833E-11	5.923E 11
H 3	8.201E-05	7.753E 05	8.211E 06	7.763E 06	7.339E 06	6.939E-06	6.560E 06	6.202E 06	5.863E-06
LI 6	5.354E 07	5.354E 07	5.354E 07	5.354E 07	5.354E-07	5.354E 07	5.354E 07	5.354E 07	5.354E-07
LI 7	1.753E-08	1.753E-08	1.753E 08	1.753E 08	1.753E 08	1.753E 08	1.753E 08	1.753E 08	1.753E 08
BE 9	3.378E-08	3.378E 08	3.378E 08	3.378E-08	3.378E-08	3.378E 08	3.378E-08	3.378E 08	3.378E-08
BE 10	2.253E-07	2.253E 07	2.253E 07	2.253E 07	2.253E 07	2.253E-07	2.253E 07	2.253E-07	2.253E-07
C 14	4.556E 08	4.556E-08	4.534E-08	4.533E 08	4.533E 08	4.532E 08	4.532E 08	4.531E-08	4.531E-08
ZN 66	8.945E-11	8.945E-11	8.945E 11	8.945E 11	8.945E 11	8.945E-11	8.945E 11	8.945E 11	8.945E-11
ZN 67	3.967E-12	3.967E-12	3.967E-12	3.967E 12	3.967E 12	3.967E-12	3.967E-12	3.967E 12	3.967E 12
ZN 68	1.817E 14	1.817E-14	1.817E-14	1.817E 14	1.817E 14	1.817E 14	1.817E-14	1.817E 14	1.817E-14
GA 69	8.549E 18	8.573E 18	8.573E 18	8.573E 18	8.573E 18	8.573E 18	8.573E 18	8.573E-18	8.573E-18
GE 70	9.226E 21	9.233E-21	9.233E-21	9.233E-21	9.233E 21	9.233E-21	9.233E-21	9.233E-21	9.233E 21
GA 71	1.020E-09	1.020E 09	1.020E 09	1.020E 09	1.020E 09	1.020E 09	1.020E 09	1.020E 09	1.020E-09
GE 72	1.264E 05	1.297E 05	1.297E-05	1.297E 05	1.297E-05	1.297E 05	1.297E-05	1.297E-05	1.297E-05
GE 73	4.483E-05	4.492E-05	4.492E-05	4.492E 05	4.492E 05	4.492E-05	4.492E-05	4.492E 05	4.492E 05
GE 74	1.192E 04	1.192E 04	1.192E-04	1.192E 04	1.192E 04	1.192E 04	1.192E-04	1.192E-04	1.192E 04
AS 75	2.891E-04	2.893E-04	2.893E 04	2.893E 04	2.893E 04	2.893E 04	2.893E-04	2.893E-04	2.893E 04
GE 76	8.729E 04	8.729E-04	8.729E 04	8.729E 04	8.729E 04	8.729E-04	8.729E-04	8.729E-04	8.729E 04
SE 76	2.760E-06	2.833E-06	2.833E-06	2.833E 06	2.833E 06	2.833E 06	2.833E-06	2.833E 06	2.833E 06
SE 77	1.904E-03	1.939E-03	1.939E 03	1.939E 03	1.939E-03	1.939E-03	1.939E-03	1.939E 03	1.939E-03
SE 78	4.077E-03	4.082E-03	4.082E-03	4.082E 03	4.082E-03	4.082E 03	4.082E 03	4.082E 03	4.082E-03
SE 79	1.048E-02	1.048E-02	1.047E 02	1.047E 02	1.047E-02	1.047E 02	1.047E 02	1.047E 02	1.047E-02
BR 79	2.177E 08	1.336E-07	4.604E 06	4.716E 06	4.828E-06	4.939E 06	5.051E-06	5.163E 06	5.274E-06
SE 80	2.522E-02	2.522E 02	2.522E 02	2.522E-02	2.522E 02	2.522E 02	2.522E 02	2.522E-02	2.522E-02
KR 80	1.252E 07	1.253E-07	1.253E 07	1.253E 07	1.253E 07	1.253E 07	1.253E 07	1.253E-07	1.253E 07
BR 81	4.296E-02	4.296E 02	4.296E 02	4.296E 02	4.296E-02	4.296E 02	4.296E 02	4.296E-02	4.296E-02
KR 81	2.246E 09	2.246E-09	2.246E 09	2.246E 09	2.246E 09	2.246E 09	2.246E 09	2.246E-09	2.246E 09
SE 82	6.824E-02	6.824E 02	6.824E-02	6.824E 02	6.824E-02	6.824E 02	6.824E 02	6.824E-02	6.824E 02
KR 82	3.453E 04	3.570E-04	3.570E 04	3.570E 04	3.570E-04	3.570E 04	3.570E 04	3.570E-04	3.570E 04
KR 83	1.024E 01	1.026E 01	1.026E 01	1.026E 01	1.026E 01	1.026E-01	1.026E 01	1.026E 01	1.026E-01
KR 84	2.257E-01	2.258E 01	2.258E 01	2.258E 01	2.258E 01	2.258E 01	2.258E-01	2.258E 01	2.258E 01
KR 85	5.678E 02	5.333E 02	4.015E 03	3.764E 03	3.528E 03	3.307E 03	3.100E 03	2.906E 03	2.724E-03
RB 85	2.135E 01	2.175E-01	2.668E 01	2.670E 01	2.673E 01	2.675E 01	2.677E 01	2.679E 01	2.681E-01
KR 86	4.329E 01	4.329E-01	4.329E 01	4.329E 01	4.329E-01	4.329E 01	4.329E 01	4.329E-01	4.329E 01
RB 86	7.830E 05	1.001E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	1.626E 04	2.409E-04	2.409E 04	2.409E 04	2.409E 04	2.409E-04	2.409E-04	2.409E 04	2.409E 04
RB 87	5.599E 01	5.602E 01	5.602E 01	5.602E 01	5.602E 01	5.602E 01	5.602E 01	5.602E 01	5.602E 01
SR 87	9.284E 07	9.289E 07	9.292E 07	9.292E 07	9.292E 07	9.292E 07	9.292E-07	9.292E 07	9.292E 07
SR 88	8.062E 01	8.073E 01	8.073E 01	8.073E 01	8.073E 01	8.073E-01	8.073E 01	8.073E 01	8.073E-01
SR 89	4.726E-01	3.142E 03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwal6.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:56

	3336.0HR	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
Y 89	5.923E 01	1.062E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00	1.065E+00
SR 90	1.282E+00	1.252E+00	4.832E-01	4.718E-01	4.607E 01	4.499E 01	4.393E 01	4.290E-01	4.189E-01
Y 90	3.345E-04	3.140E-04	1.212E 04	1.183E-04	1.155E-04	1.128E-04	1.102E-04	1.076E-04	1.050E-04
ZR 90	7.754E-03	3.793E 02	8.069E-01	8.183E 01	8.294E-01	8.402E-01	8.508E 01	8.612E-01	8.713E-01
Y 91	6.460E 01	8.605E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.788E-01	1.322E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00	1.330E+00
ZR 92	1.378E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00	1.382E+00
NB 92	2.982E-15	4.493E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.490E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00	1.496E+00
NB 93	9.491E 09	6.571E-08	1.684E-05	1.744E 05	1.805E 05	1.866E-05	1.927E-05	1.988E-05	2.050E-05
NB 93M	1.244E-07	7.462E-07	1.109E-05	1.117E-05	1.124E 05	1.131E 05	1.138E 05	1.144E-05	1.150E-05
ZR 94	1.474E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00
NB 94	2.129E-07	2.129E-07	2.127E-07	2.126E-07	2.126E-07	2.126E 07	2.126E 07	2.126E-07	2.126E-07
ZR 95	7.839E-01	1.499E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.263E 01	1.845E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	3.076E-04	6.273E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	4.072E-01	1.485E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00	1.518E+00
ZR 96	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00	1.513E+00
MO 96	6.211E 03	6.241E-03	6.241E-03	6.241E 03	6.241E-03	6.241E 03	6.241E-03	6.241E-03	6.241E-03
MO 97	1.415E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00	1.426E+00
MO 98	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00	1.438E+00
TC 98	3.038E-06	3.038E-06	3.038E-06	3.038E-06	3.038E-06	3.038E-06	3.038E-06	3.038E-06	3.038E-06
TC 99	1.384E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00	1.429E+00
RU 99	8.665E 07	5.560E-06	1.933E-04	1.980E 04	2.027E-04	2.074E-04	2.120E-04	2.167E-04	2.214E-04
MO100	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00	1.576E+00
RU100	6.982E 02	6.982E-02	6.982E-02	6.982E-02	6.982E-02	6.982E 02	6.982E-02	6.982E-02	6.982E-02
RU101	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00	1.271E+00
RU102	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00
RH102	2.949E 07	2.322E-07	1.636E-11	1.288E-11	1.014E 11	7.986E 12	6.288E-12	4.951E-12	3.899E-12
RU103	3.008E 01	4.770E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.468E-01	7.474E-01	7.479E-01	7.479E-01	7.479E-01	7.479E-01	7.479E-01	7.479E-01	7.479E-01
RH103M	2.690E-04	4.274E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	5.001E 01	5.002E-01	5.002E 01	5.002E 01	5.002E 01	5.002E-01	5.002E-01	5.002E-01	5.002E 01
PD104	6.518E-02	6.518E-02	6.518E 02	6.518E 02	6.518E-02	6.518E-02	6.518E 02	6.518E 02	6.518E-02
PD105	2.413E-01	2.455E-01	2.455E 01	2.455E 01	2.455E 01	2.455E-01	2.455E-01	2.455E 01	2.455E-01
RU106	1.005E-01	5.052E-02	5.725E 14	2.878E 14	1.447E 14	7.275E-15	3.658E-15	1.839E-15	9.245E-16
RH106	1.760E 07	4.748E-08	5.381E-20	2.705E 20	1.360E 20	6.838E-21	3.438E-21	1.729E-21	8.690E-22
PD106	4.584E 02	9.581E-02	1.463E 01	1.463E 01	1.463E 01	1.463E 01	1.463E 01	1.463E 01	1.463E 01
AG106	2.943E-16	3.415E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	5.378E-02	5.379E-02	5.379E-02	5.379E-02	5.379E-02	5.379E-02	5.379E-02	5.379E-02	5.379E-02
AG107	1.064E-09	6.801E 09	2.363E-07	2.420E-07	2.478E-07	2.535E 07	2.592E 07	2.650E-07	2.707E-07
PD108	2.654E 02	2.654E-02	2.654E-02	2.654E-02	2.654E 02	2.654E 02	2.654E-02	2.654E-02	2.654E 02
AG108	8.176E-13	1.912E-20	1.789E 20	1.786E-20	1.783E-20	1.780E 20	1.777E-20	1.774E-20	1.771E-20
AG108M	1.996E-11	1.993E-11	1.865E 11	1.862E 11	1.858E 11	1.855E-11	1.852E-11	1.849E 11	1.846E-11
CD108	2.064E 08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E-08	2.064E 08
AG109	1.170E-02	1.180E-02	1.180E 02	1.180E-02	1.180E-02	1.180E 02	1.180E-02	1.180E-02	1.180E-02
AG109M	7.844E 08	7.284E-18	2.421E 27	1.403E-27	8.082E-28	4.656E 28	2.683E-28	1.609E-28	9.707E 29
CD109	1.273E-11	7.375E-12	2.451E 21	1.412E 21	8.135E-22	4.687E-22	2.700E-22	1.629E-22	9.827E-23
PD110	9.529E-03	9.529E-03	9.529E-03	9.529E-03	9.529E-03	9.529E-03	9.529E-03	9.529E-03	9.529E-03
AG110	1.553E-08	5.853E-13	1.469E-30	5.333E-31	2.400E-31	8.715E-32	0.000E+00	0.000E+00	0.000E+00
AG110M	1.064E-04	3.862E-05	9.693E 23	3.167E-23	1.584E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD110	2.315E-03	2.383E-03	2.422E 03	2.422E 03	2.422E-03	2.422E-03	2.422E-03	2.422E-03	2.422E-03
AG111	5.944E-04	1.040E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	6.904E-03	7.500E-03	7.500E-03	7.500E-03	7.500E 03	7.500E-03	7.500E 03	7.500E-03	7.500E-03
CD112	5.522E-03	5.577E-03	5.577E-03	5.577E-03	5.577E 03	5.577E-03	5.577E-03	5.577E 03	5.577E-03
CD113	1.687E-04	1.796E-04	1.797E 04	1.797E-04	1.797E-04	1.797E 04	1.797E-04	1.797E-04	1.797E 04
CD113M	1.074E 04	1.024E-04	1.433E 05	1.364E-05	1.299E 05	1.236E-05	1.177E-05	1.121E 05	1.067E-05
IN113	9.702E-07	6.122E-06	9.407E 05	9.475E 05	9.541E-05	9.603E-05	9.662E 05	9.719E-05	9.772E 05
CD114	1.003E-02	1.003E-02	1.003E-02	1.003E-02	1.003E-02	1.003E-02	1.003E-02	1.003E-02	1.003E-02
IN114	4.609E 13	5.967E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	6.165E-09	3.709E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.487E-08	2.054E-08	2.058E 08	2.058E 08	2.058E 08	2.058E-08	2.058E-08	2.058E-08	2.058E-08
CD115M	1.678E-04	5.744E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	2.821E-03	3.092E-03	3.093E 03	3.093E 03	3.093E 03	3.093E-03	3.093E 03	3.093E-03	3.093E 03
IN115M	7.995E-06	1.622E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.522E-04	1.562E-04	1.562E 04	1.562E 04	1.562E-04	1.562E 04	1.562E-04	1.562E 04	1.562E-04
CD116	4.933E-03	4.933E 03	4.933E 03	4.933E-03	4.933E-03	4.933E 03	4.933E-03	4.933E 03	4.933E-03
SN116	1.476E-03	1.477E-03	1.477E-03	1.477E-03	1.477E-03	1.477E-03	1.477E 03	1.477E-03	1.477E 03
SN117	4.833E-03	4.843E 03	4.843E 03	4.843E 03	4.843E-03	4.843E 03	4.843E-03	4.843E 03	4.843E-03
SN117M	2.525E 07	3.559E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	5.399E-03	5.401E-03	5.401E 03	5.401E 03	5.401E 03	5.401E-03	5.401E 03	5.401E-03	5.401E 03
SN119	5.103E 03	5.145E-03	5.167E 03	5.167E 03	5.167E 03	5.167E 03	5.167E-03	5.167E 03	5.167E-03
SN119M	6.368E-05	2.266E-05	2.545E 23	1.274E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN120	5.412E-03	5.412E-03	5.412E 03	5.412E 03	5.412E-03	5.412E-03	5.412E-03	5.412E-03	5.412E 03
SN121M	2.696E-06	2.662E-06	1.608E 06	1.588E 06	1.568E 06	1.549E 06	1.529E 06	1.510E-06	1.491E 06
SB121	5.536E 03	5.602E-03	5.603E 03	5.603E 03	5.603E 03	5.603E-03	5.603E 03	5.603E-03	5.603E-03
SN122	6.068E-03	6.069E-03	6.069E 03	6.069E 03	6.069E 03	6.069E-03	6.069E 03	6.069E-03	6.069E-03

sbwal6.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:56

	3336.0HR	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
TE122	1.234E-04	1.315E-04	1.315E-04	1.315E-04	1.315E-04	1.315E-04	1.315E-04	1.315E-04	1.315E-04
SN123	1.237E-03	1.742E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB123	5.902E-03	6.966E-03	7.140E-03	7.140E-03	7.140E-03	7.140E-03	7.140E-03	7.140E-03	7.140E-03
TE123	5.000E-07	6.733E-07	6.971E-07	6.971E-07	6.971E-07	6.971E-07	6.971E-07	6.971E-07	6.971E-07
TE123M	1.972E-07	2.377E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	9.503E-03	9.503E-03	9.503E-03	9.503E-03	9.503E-03	9.503E-03	9.503E-03	9.503E-03	9.503E-03
SB124	8.410E-05	1.254E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	4.714E-05	1.300E-04	1.312E-04	1.312E-04	1.312E-04	1.312E-04	1.312E-04	1.312E-04	1.312E-04
SN125	4.835E-04	1.900E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	1.150E-02	9.331E-03	4.195E-07	3.266E-07	2.543E-07	1.980E-07	1.542E-07	1.200E-07	9.346E-08
TE125	4.613E-04	3.062E-03	1.252E-02	1.252E-02	1.252E-02	1.252E-02	1.252E-02	1.252E-02	1.252E-02
TE125M	7.717E-05	1.294E-04	5.867E-09	4.568E-09	3.557E-09	2.769E-09	2.156E-09	1.679E-09	1.307E-09
SN126	2.296E-02	2.296E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02	2.295E-02
SB126	4.916E-05	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E-09	1.097E-09
SB126M	2.316E-08	8.359E-12	8.356E-12	8.356E-12	8.356E-12	8.356E-12	8.356E-12	8.356E-12	8.356E-12
TE126	4.499E-04	4.992E-04	5.056E-04	5.057E-04	5.059E-04	5.060E-04	5.062E-04	5.064E-04	5.065E-04
TE127	1.946E-04	1.662E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.548E-03	4.746E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	4.416E-02	5.048E-02	5.096E-02	5.096E-02	5.096E-02	5.096E-02	5.096E-02	5.096E-02	5.096E-02
XE127	4.707E-09	4.499E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.283E-01	1.284E-01	1.284E-01	1.284E-01	1.284E-01	1.284E-01	1.284E-01	1.284E-01	1.284E-01
XE128	8.405E-04	8.408E-04	8.408E-04	8.408E-04	8.408E-04	8.408E-04	8.408E-04	8.408E-04	8.408E-04
TE129	1.085E-04	5.413E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.077E-02	5.781E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.179E-01	2.292E-01	2.292E-01	2.292E-01	2.292E-01	2.292E-01	2.292E-01	2.292E-01	2.292E-01
XE129	1.824E-05	1.857E-05	1.898E-05	1.899E-05	1.900E-05	1.901E-05	1.902E-05	1.903E-05	1.904E-05
XE129M	3.186E-07	5.746E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.927E-01	4.928E-01	4.928E-01	4.928E-01	4.928E-01	4.928E-01	4.928E-01	4.928E-01	4.928E-01
XE130	2.935E-03	2.969E-03	2.969E-03	2.969E-03	2.969E-03	2.969E-03	2.969E-03	2.969E-03	2.969E-03
I131	7.727E-02	1.679E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	7.688E-01	8.492E-01	8.492E-01	8.492E-01	8.492E-01	8.492E-01	8.492E-01	8.492E-01	8.492E-01
XE131M	1.274E-03	2.289E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.478E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00	1.526E+00
CS132	7.674E-07	7.997E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	9.137E-08	1.067E-07	1.067E-07	1.067E-07	1.067E-07	1.067E-07	1.067E-07	1.067E-07	1.067E-07
XE133	1.131E-01	1.533E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	2.008E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00	2.143E+00
XE134	2.597E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00	2.599E+00
CS134	9.815E-02	7.015E-02	1.015E-07	7.249E-08	5.180E-08	3.701E-08	2.644E-08	1.889E-08	1.350E-08
BA134	3.828E-03	3.186E-02	1.020E-01	1.020E-01	1.020E-01	1.020E-01	1.020E-01	1.020E-01	1.020E-01
CS135	2.870E-01	2.939E-01	2.939E-01	2.939E-01	2.939E-01	2.939E-01	2.939E-01	2.939E-01	2.939E-01
BA135	7.450E-06	7.566E-06	1.111E-05	1.120E-05	1.129E-05	1.137E-05	1.146E-05	1.155E-05	1.164E-05
XE136	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00	4.127E+00
CS136	9.521E-04	3.861E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	4.044E-03	4.996E-03	4.996E-03	4.996E-03	4.996E-03	4.996E-03	4.996E-03	4.996E-03	4.996E-03
BA136M	4.269E-11	1.731E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	2.090E+00	2.043E+00	8.106E-01	7.921E-01	7.740E-01	7.564E-01	7.391E-01	7.222E-01	7.057E-01
BA137	9.414E-03	5.716E-02	1.289E+00	1.308E+00	1.326E+00	1.344E+00	1.361E+00	1.378E+00	1.394E+00
BA137M	3.215E-07	3.125E-07	1.240E-07	1.212E-07	1.184E-07	1.157E-07	1.131E-07	1.105E-07	1.080E-07
BA138	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00	2.350E+00
LA138	1.801E-05	1.801E-05	1.801E-05	1.801E-05	1.801E-05	1.801E-05	1.801E-05	1.801E-05	1.801E-05
LA139	2.236E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
BA140	2.835E-01	7.169E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	3.751E-02	1.081E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.916E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00	2.237E+00
CE141	6.551E-01	2.734E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.407E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00	2.066E+00
CE142	2.099E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00	2.101E+00
ND142	7.029E-03	7.196E-03	7.196E-03	7.196E-03	7.196E-03	7.196E-03	7.196E-03	7.196E-03	7.196E-03
PR143	2.819E-01	2.473E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.620E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00
CE144	1.653E+00	6.784E-01	2.288E-16	9.392E-17	3.854E-17	1.582E-17	6.491E-18	2.664E-18	1.093E-18
PR144	7.401E-05	2.865E-05	9.663E-21	3.966E-21	1.627E-21	6.679E-22	2.741E-22	1.125E-22	4.616E-23
PR144M	3.496E-07	1.432E-07	4.830E-23	1.982E-23	8.136E-24	3.339E-24	1.370E-24	5.623E-25	2.308E-25
ND144	4.966E-01	1.471E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00	2.150E+00
ND145	1.360E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00	1.363E+00
ND146	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00	1.144E+00
PM146	5.779E-06	5.095E-06	3.295E-08	2.905E-08	2.561E-08	2.258E-08	1.991E-08	1.755E-08	1.547E-08
SM146	4.668E-07	7.200E-07	2.593E-06	2.594E-06	2.596E-06	2.597E-06	2.598E-06	2.599E-06	2.599E-06
ND147	9.263E-02	1.062E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	5.263E-01	4.761E-01	1.224E-05	9.400E-06	7.217E-06	5.542E-06	4.255E-06	3.267E-06	2.508E-06
SM147	2.518E-02	1.691E-01	6.452E-01	6.452E-01	6.452E-01	6.452E-01	6.452E-01	6.452E-01	6.452E-01
ND148	6.392E-01	6.392E-01	6.392E-01	6.392E-01	6.392E-01	6.392E-01	6.392E-01	6.392E-01	6.392E-01
PM148	8.968E-03	8.979E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	5.632E-03	1.226E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	8.010E-02	9.469E-02	9.470E-02	9.470E-02	9.470E-02	9.470E-02	9.470E-02	9.470E-02	9.470E-02
SM149	1.030E-02	2.458E-02	2.458E-02	2.458E-02	2.458E-02	2.458E-02	2.458E-02	2.458E-02	2.458E-02

sbwal6.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:03:56

	3336.0HR	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
ND150	2.441E-01	2.441E 01	2.441E-01	2.441E 01	2.441E-01	2.441E-01	2.441E-01	2.441E-01	2.441E-01
SM150	4.608E 01	4.609E-01	4.609E-01	4.609E-01	4.609E-01	4.609E-01	4.609E 01	4.609E-01	4.609E 01
EU150	9.551E-11	9.369E 11	4.346E 11	4.263E 11	4.182E-11	4.102E-11	4.024E-11	3.948E-11	3.873E-11
SM151	2.818E 02	2.990E-02	2.197E-02	2.180E-02	2.164E-02	2.147E-02	2.131E 02	2.114E 02	2.098E 02
EU151	1.477E-05	2.460E-04	8.174E-03	8.343E-03	8.510E 03	8.676E-03	8.841E-03	9.004E-03	9.166E-03
SM152	1.801E 01	1.802E-01	1.802E-01	1.802E-01	1.802E-01	1.802E-01	1.802E 01	1.802E 01	1.802E 01
EU152	2.937E 05	2.790E 05	3.600E-06	3.421E-06	3.250E-06	3.088E-06	2.934E 06	2.787E-06	2.648E 06
GD152	9.600E 06	1.010E 05	1.687E 05	1.692E-05	1.697E-05	1.701E-05	1.706E-05	1.710E 05	1.714E 05
EU153	1.097E 01	1.146E 01	1.146E 01	1.146E-01	1.146E-01	1.146E-01	1.146E-01	1.146E 01	1.146E 01
GD153	5.460E 06	1.918E-06	1.289E-24	1.289E-24	1.289E 24	1.289E 24	1.289E-24	1.289E-24	1.289E-24
SM154	3.194E 02	3.194E 02	3.194E-02	3.194E 02	3.194E-02	3.194E-02	3.194E-02	3.194E-02	3.194E-02
EU154	2.119E 02	1.955E 02	7.761E 04	7.159E-04	6.604E-04	6.093E-04	5.621E 04	5.185E-04	4.783E 04
GD154	1.909E 04	1.833E 03	2.060E-02	2.066E-02	2.072E-02	2.077E-02	2.082E 02	2.086E-02	2.090E 02
EU155	8.964E 03	7.751E 03	2.291E-05	1.980E-05	1.712E-05	1.480E-05	1.279E 05	1.106E-05	9.560E-06
GD155	1.850E 05	1.234E 03	8.962E-03	8.965E 03	8.967E-03	8.970E-03	8.972E-03	8.973E-03	8.975E 03
EU156	4.299E 03	2.484E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	1.391E 02	1.824E 02	1.824E 02	1.824E-02	1.824E-02	1.824E-02	1.824E-02	1.824E 02	1.824E 02
GD157	5.688E 05	9.704E-05	9.704E-05	9.704E-05	9.704E-05	9.704E-05	9.704E 05	9.704E-05	9.704E-05
GD158	6.091E-03	6.092E-03	6.092E-03	6.092E-03	6.092E-03	6.092E 03	6.092E 03	6.092E 03	6.092E-03
TB159	5.677E 04	5.736E-04	5.736E-04	5.736E-04	5.736E-04	5.736E-04	5.736E 04	5.736E-04	5.736E-04
GD160	2.252E 04	2.252E-04	2.252E-04	2.252E 04	2.252E-04	2.252E-04	2.252E-04	2.252E-04	2.252E 04
TB160	2.147E 05	6.472E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	8.770E 06	2.959E-05	3.024E-05	3.024E 05	3.024E-05	3.024E-05	3.024E-05	3.024E-05	3.024E 05
TB161	5.996E 06	7.753E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	4.991E-05	5.591E-05	5.591E-05	5.591E 05	5.591E-05	5.591E-05	5.591E-05	5.591E-05	5.591E-05
DY162	3.436E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05	3.437E-05
DY163	1.972E-05	1.972E-05	1.972E-05	1.972E 05	1.972E-05	1.972E-05	1.972E-05	1.972E-05	1.972E-05
DY164	4.678E-06	4.679E-06	4.679E-06	4.679E 06	4.679E-06	4.679E-06	4.679E-06	4.679E-06	4.679E 06
HO165	4.824E 06	4.835E 06	4.835E 06	4.835E-06	4.835E-06	4.835E-06	4.835E 06	4.835E-06	4.835E 06
HO166M	2.011E-08	2.010E-08	1.964E-08	1.963E-08	1.962E 08	1.961E 08	1.960E 08	1.959E-08	1.957E-08
ER166	1.453E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06	1.529E-06
ER167	3.035E 07	3.035E 07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07	3.035E-07
ER168	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E-07	3.345E 07	3.345E 07	3.345E 07
ER169	2.695E-10	5.415E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	7.180E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E-10	9.874E 10	9.874E 10
ER170	1.271E 14	9.427E-14	1.075E-13	1.075E-13	1.075E-13	1.075E-13	1.075E 13	1.075E-13	1.075E-13
TM170	6.493E 11	9.065E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	8.603E-12	6.439E 11	7.344E 11	7.344E-11	7.344E-11	7.344E-11	7.344E 11	7.344E-11	7.344E-11
TM171	1.965E 12	1.370E 12	7.331E 19	5.109E 19	3.561E-19	2.482E-19	1.730E 19	1.206E 19	8.405E 20
YB171	1.371E 13	7.327E-13	2.103E-12	2.103E-12	2.103E-12	2.103E 12	2.103E-12	2.103E-12	2.103E-12
YB172	9.830E 15	1.133E 14	1.133E 14	1.133E-14	1.133E-14	1.133E-14	1.133E 14	1.133E-14	1.133E-14

File SBWSS2.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) EBR-II
  BAS     ONE ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  381  382  383   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE EBR-II ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                    ELEMENT
  BUP
  IRP      50.0   .01068   1   2   4 2
  IRP     100.0   .01068   2   3   4 0
  IRP     200.0   .01068   3   4   4 0
  IRP     250.0   .01068   4   5   4 0
  IRP     300.0   .01068   5   6   4 0
  IRP     345.0   .01068   6   7   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC       1.    1   2   5   4
  DEC      13.    2   3   5   0
  DEC      14.    3   4   5   0
  DEC      15.    4   5   5   0
  DEC      16.    5   6   5   0
  DEC      17.    6   7   5   0
  DEC      18.    7   8   5   0
  DEC      19.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340 1.04E-2 922350 33.6    922360 5.10E-2 922380 30.34    FUEL 52.5%
  1    60120 5.64E-3  60130 6.27E-5 140280 1.75E-1 140290 8.87E-3
  1   140300 5.89E-3 150310 8.55E-3 160320 5.42E-3 160330 4.28E-5
  1   160340 2.40E-4 160350 1.14E-6 260540 7.61E-1 240500 1.57E-1
  1   240520 3.02E+0 240530 3.43E-1 240540 8.54E-2 250240 3.00E-1
  1   250250 3.80E-2 250260 4.18E-2 260560 1.18E+1 260570 2.71E-1
  1   260580 3.61E-2 410930 1.90E+0 280580 2.69E+0 280600 1.03E+0
  1   280610 4.45E-2 280620 1.41E-1 280640 3.59E-2      0 0.
  0
```

File SBWSS2.BAT

```
echo off
echo **                                                                  **
echo **                          O R I G E N 2                           **
echo **                                                                  **
copy sbwss2.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\fftfc.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwss2.u6 >nul
copy tape13.out+tape11.out sbwss2.u11 >nul
ren tape7.out sbwss2.pch
ren tape15.out sbwss2.dbg
ren tape16.out sbwss2.vxs
ren tape50.out sbwss2.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwss2.pch
del sbwss2.dbg
del sbwss2.vxs
del sbwss2.ech
del sbwss2.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

sbwss2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:00

	345.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
H 1	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05
H 2	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10
H 3	1.587E-13	1.500E-13	7.642E-14	7.225E-14	6.830E-14	6.456E-14	6.103E-14	5.770E-14	5.454E-14
HE 3	1.872E-15	1.055E-14	8.416E-14	8.834E-14	9.229E-14	9.602E-14	9.955E-14	1.029E-13	1.060E-13
HE 4	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06
LI 6	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11
LI 7	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17
BE 9	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08
BE 10	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09
B 10	3.978E-16	1.300E-15	1.213E-14	1.303E-14	1.393E-14	1.483E-14	1.574E-14	1.664E-14	1.754E-14
B 11	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17
C 12	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03
C 13	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05
C 14	7.848E-12	7.847E-12	7.836E-12	7.835E-12	7.834E-12	7.833E-12	7.832E-12	7.831E-12	7.830E-12
N 14	4.393E-16	1.389E-15	1.277E-14	1.372E-14	1.467E-14	1.562E-14	1.656E-14	1.751E-14	1.846E-14
N 15	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22
O 16	3.185E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34
O 17	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21
NE 20	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17
NE 21	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19
NE 22	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10
NA 22	4.882E-20	3.741E-20	1.531E-21	1.172E-21	8.979E-22	6.877E-22	5.289E-22	4.068E-22	3.128E-22
NA 23	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12
MG 24	2.210E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14
MG 25	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06
MG 26	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07
AL 27	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09
SI 28	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01
SI 29	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03
SI 30	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03
SI 32	2.944E-14	2.941E-14	2.903E-14	2.900E-14	2.897E-14	2.894E-14	2.891E-14	2.888E-14	2.885E-14
P 31	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03
P 32	2.484E-07	5.086E-15	1.749E-18	1.747E-18	1.745E-18	1.743E-18	1.741E-18	1.739E-18	1.738E-18
P 33	3.781E-13	1.512E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 32	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03
S 33	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05
S 34	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04
S 35	7.620E-08	4.291E-09	4.357E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 36	1.891E-17	7.072E-17	6.935E-16	7.443E-16	7.961E-16	8.479E-16	8.997E-16	9.515E-16	1.003E-15
CL 35	1.065E-06	1.137E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06
CL 36	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09
CL 37	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13
AR 36	9.759E-16	3.651E-15	3.575E-14	3.843E-14	4.110E-14	4.378E-14	4.645E-14	4.913E-14	5.180E-14
AR 37	2.405E-20	1.745E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 38	1.538E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18
AR 39	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24
AR 42	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29
K 41	4.569E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18
K 42	1.506E-24	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33
CA 42	1.478E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22
CA 43	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20
CA 44	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11
CA 45	4.404E-16	9.313E-17	7.459E-25	7.459E-25	7.459E-25	7.459E-25	7.459E-25	7.459E-25	7.459E-25
CA 46	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11
SC 45	1.650E-16	5.123E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16
SC 46	2.401E-20	1.169E-21	2.100E-37	2.100E-37	2.100E-37	2.100E-37	2.100E-37	2.100E-37	2.100E-37
TI 46	1.199E-20	3.483E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20
TI 47	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06
TI 48	9.616E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11
TI 49	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06
TI 50	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05
V 50	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05
V 51	1.138E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04
CR 50	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01
CR 51	1.567E-05	1.686E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00
CR 53	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01
CR 54	8.586E-02	8.610E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02
MN 54	4.228E-04	1.880E-04	1.128E-08	5.015E-09	2.231E-09	9.922E-10	4.413E-10	1.963E-10	8.731E-11
MN 55	1.174E-05	3.040E-05	8.902E-05	8.960E-05	9.005E-05	9.039E-05	9.065E-05	9.085E-05	9.101E-05
FE 54	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01
FE 55	7.977E-05	6.111E-05	2.493E-06	1.910E-06	1.463E-06	1.120E-06	8.582E-07	6.574E-07	5.035E-07
FE 56	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01
FE 57	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01
FE 58	3.840E-02	3.928E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02
FE 59	8.180E-07	2.949E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwss2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:00

	345.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
CO 58	9.057E-04	2.532E-05	5.771E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	4.272E-04	4.280E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04
CO 60	2.423E-05	2.124E-05	4.382E-06	3.842E-06	3.369E-06	2.953E-06	2.589E-06	2.270E-06	1.990E-06
NI 58	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00
NI 59	5.344E-04	5.344E-04	5.344E-04	5.344E-04	5.344E-04	5.344E-04	5.343E-04	5.343E-04	5.343E-04
NI 60	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00
NI 61	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02
NI 62	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01
NI 63	8.675E-05	8.609E-05	7.865E-05	7.806E-05	7.748E-05	7.689E-05	7.632E-05	7.574E-05	7.518E-05
NI 64	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02
CU 63	3.030E-07	9.541E-07	8.396E-06	8.987E-06	9.573E-06	1.015E-05	1.073E-05	1.130E-05	1.187E-05
CU 65	3.584E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06
ZN 64	2.255E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11
ZN 65	6.480E-16	2.294E-16	8.918E-22	3.144E-22	1.140E-22	3.583E-23	1.126E-23	0.000E+00	0.000E+00
ZN 66	3.905E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10
ZN 67	9.450E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15
ZN 68	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18
GA 69	2.285E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22
GA 71	0.000E+00	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43
GE 70	1.155E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29
SR 87	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14
SR 88	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15
SR 89	4.655E-12	3.094E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	3.419E-12	3.338E-12	2.500E-12	2.440E-12	2.382E-12	2.326E-12	2.270E-12	2.216E-12	2.164E-12
Y 89	8.492E-12	1.312E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11
Y 90	1.522E-08	8.470E-16	6.344E-16	6.193E-16	6.045E-16	5.901E-16	5.761E-16	5.624E-16	5.490E-16
Y 91	2.580E-11	3.406E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	1.285E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06
ZR 91	9.769E-10	1.002E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09
ZR 92	3.195E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05
ZR 93	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05
ZR 94	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08
ZR 95	5.361E-12	1.025E-13	2.449E-34	2.449E-34	2.449E-34	2.449E-34	2.449E-34	2.449E-34	2.449E-34
ZR 96	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14
NB 92	1.491E-06	2.247E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00
NB 93M	2.337E-12	7.211E-12	4.986E-11	5.238E-11	5.476E-11	5.703E-11	5.919E-11	6.124E-11	6.319E-11
NB 94	2.118E-02	2.118E-02	2.117E-02	2.117E-02	2.117E-02	2.116E-02	2.116E-02	2.116E-02	2.116E-02
NB 95	3.366E-05	2.506E-08	2.987E-34	1.379E-34	1.378E-34	1.378E-34	1.378E-34	1.378E-34	1.378E-34
NB 95M	2.171E-15	4.290E-17	1.025E-37	1.198E-37	1.198E-37	1.198E-37	1.198E-37	1.198E-37	1.198E-37
MO 94	3.358E-07	1.059E-06	9.734E-06	1.046E-05	1.118E-05	1.190E-05	1.262E-05	1.335E-05	1.407E-05
MO 95	9.551E-05	1.291E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04
MO 96	7.299E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07
MO 97	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10
MO 98	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12
MO100	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19
TC 98	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22
TC 99	2.070E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16
RU 99	6.654E-23	7.971E-22	9.564E-21	1.029E-20	1.102E-20	1.176E-20	1.249E-20	1.322E-20	1.395E-20
RU100	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19
RU101	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21
HE 4	1.572E-07	5.337E-07	5.001E-06	5.369E-06	5.737E-06	6.104E-06	6.471E-06	6.837E-06	7.202E-06
TL206	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34
TL207	7.950E-20	4.091E-19	1.858E-17	2.118E-17	2.388E-17	2.671E-17	2.967E-17	3.276E-17	3.597E-17
TL208	3.437E-17	2.341E-16	2.736E-15	2.785E-15	2.810E-15	2.825E-15	2.831E-15	2.829E-15	2.823E-15
TL209	9.970E-23	2.696E-22	2.161E-21	2.321E-21	2.481E-21	2.642E-21	2.802E-21	2.964E-21	3.125E-21
PB206	2.879E-18	4.281E-17	5.754E-15	7.376E-15	9.264E-15	1.152E-14	1.420E-14	1.735E-14	2.103E-14
PB207	1.758E-15	1.858E-14	6.802E-12	8.314E-12	1.003E-11	1.195E-11	1.410E-11	1.647E-11	1.909E-11
PB208	2.784E-12	4.249E-11	7.287E-09	8.200E-09	9.124E-09	1.005E-08	1.099E-08	1.192E-08	1.286E-08
PB209	4.154E-19	1.123E-18	9.005E-18	9.671E-18	1.034E-17	1.101E-17	1.168E-17	1.235E-17	1.302E-17
PB210	1.564E-15	2.075E-15	5.066E-14	6.164E-14	7.409E-14	8.808E-14	1.037E-13	1.210E-13	1.400E-13
PB211	6.150E-19	3.165E-18	1.438E-16	1.638E-16	1.847E-16	2.066E-16	2.295E-16	2.534E-16	2.782E-16
PB212	2.028E-14	1.381E-13	1.614E-12	1.643E-12	1.657E-12	1.666E-12	1.670E-12	1.669E-12	1.665E-12
PB214	3.634E-21	1.623E-20	8.886E-19	1.021E-18	1.163E-18	1.315E-18	1.475E-18	1.645E-18	1.824E-18
BI208	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21
BI209	2.233E-16	1.629E-15	1.125E-13	1.296E-13	1.480E-13	1.675E-13	1.884E-13	2.104E-13	2.337E-13
BI210M	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22
BI210	8.992E-19	1.277E-18	3.117E-17	3.795E-17	4.561E-17	5.422E-17	6.383E-17	7.448E-17	8.622E-17
BI211	3.629E-20	1.867E-19	8.482E-18	9.667E-18	1.090E-17	1.219E-17	1.354E-17	1.495E-17	1.642E-17
BI212	1.923E-15	1.310E-14	1.531E-13	1.558E-13	1.572E-13	1.580E-13	1.584E-13	1.583E-13	1.579E-13
BI213	9.761E-20	2.639E-19	2.116E-18	2.272E-18	2.429E-18	2.586E-18	2.744E-18	2.901E-18	3.060E-18
BI214	2.699E-21	1.205E-20	6.598E-19	7.584E-19	8.638E-19	9.762E-19	1.095E-18	1.221E-18	1.354E-18
PO210	7.777E-18	2.995E-17	8.611E-16	9.505E-16	1.133E-15	1.351E-15	1.598E-15	1.873E-15	2.177E-15
PO211	4.452E-25	2.291E-24	1.041E-22	1.186E-22	1.337E-22	1.496E-22	1.662E-22	1.834E-22	2.014E-22
PO212	1.018E-25	6.929E-25	8.100E-24	8.243E-24	8.318E-24	8.361E-24	8.379E-24	8.375E-24	8.356E-24
PO213	1.464E-28	3.960E-28	3.174E-27	3.409E-27	3.644E-27	3.880E-27	4.116E-27	4.353E-27	4.590E-27

sbwss2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:00

	345.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
PO214	4.241E 26	1.658E 27	9.077E 26	1.043E-25	1.188E 25	1.343E-25	1.507E 25	1.680E 25	1.863E 25
PO215	5.150E 25	2.650E 24	1.204E 22	1.372E-22	1.547E-22	1.730E 22	1.922E 22	2.122E-22	2.330E-22
PO216	8.090E-20	5.509E-19	6.440E 18	6.554E-18	6.614E 18	6.648E 18	6.662E 18	6.660E-18	6.644E 18
PO218	4.214E 22	1.881E 21	1.030E 19	1.184E 19	1.349E-19	1.524E 19	1.711E 19	1.907E-19	2.115E-19
AT217	1.173E 24	3.171E 24	2.542E 23	2.730E 23	2.918E-23	3.107E 23	3.296E 23	3.486E-23	3.676E 23
RN218	9.122E-24	4.724E 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.167E-21	6.006E-21	2.728E 19	3.109E-19	3.505E 19	3.921E 19	4.355E 19	4.809E 19	5.280E 19
RN220	3.054E 17	2.080E 16	2.431E 15	2.474E 15	2.497E-15	2.510E 15	2.515E 15	2.514E-15	2.508E 15
RN222	7.748E-19	3.459E 18	1.894E 16	2.177E-16	2.480E 16	2.803E-16	3.145E 16	3.507E-16	3.888E 16
FR221	1.065E 20	2.879E 20	2.308E 19	2.479E 19	2.650E-19	2.821E 19	2.993E 19	3.165E 19	3.338E-19
FR223	6.848E-21	2.786E 20	1.266E 18	1.440E-18	1.624E 18	1.816E-18	2.017E 18	2.227E-18	2.446E 18
RA222	1.009E-20	5.223E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	2.965E 16	1.526E 15	6.930E 14	7.897E-14	8.903E-14	9.959E 14	1.106E-13	1.222E 13	1.341E-13
RA224	1.769E 13	1.204E 12	1.408E 11	1.433E 11	1.446E-11	1.453E-11	1.456E 11	1.456E 11	1.452E-11
RA225	5.273E 17	1.302E 16	1.044E 15	1.121E-15	1.198E-15	1.276E-15	1.353E 15	1.431E 15	1.509E-15
RA226	1.205E-13	5.381E-13	2.947E 11	3.387E-11	3.858E-11	4.360E-11	4.893E 11	5.455E-11	6.049E-11
RA228	2.272E-19	1.545E-18	8.018E 17	8.974E-17	9.955E 17	1.096E-16	1.198E 16	1.302E 16	1.407E-16
AC225	3.252E-17	8.794E 17	7.051E 16	7.572E-16	8.094E 16	8.617E-16	9.142E 16	9.668E-16	1.019E 15
AC227	2.654E 13	1.080E 12	4.906E 11	5.580E 11	6.291E-11	7.037E 11	7.817E-11	8.631E-11	9.476E 11
AC228	6.223E-18	1.879E-22	9.752E-21	1.092E-20	1.211E-20	1.333E-20	1.457E 20	1.584E-20	1.712E-20
TH226	5.025E 19	2.603E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	5.358E 16	2.507E 15	1.139E 13	1.298E 13	1.463E 13	1.637E-13	1.818E 13	2.007E-13	2.204E 13
TH228	3.422E 11	2.339E-10	2.736E 09	2.774E-09	2.800E-09	2.814E-09	2.820E 09	2.819E 09	2.812E-09
TH229	1.015E 11	2.399E-11	1.924E 10	2.066E-10	2.208E 10	2.351E-10	2.494E 10	2.638E 10	2.781E-10
TH230	2.989E 08	6.458E-08	4.820E 07	5.169E-07	5.518E-07	5.867E 07	6.216E 07	6.565E-07	6.914E 07
TH231	1.192E-10	1.177E 10	1.177E 10	1.177E 10	1.177E-10	1.177E 10	1.177E 10	1.177E-10	1.177E-10
TH232	1.453E 08	4.370E-08	3.938E 07	4.230E-07	4.522E 07	4.813E 07	5.105E 07	5.397E-07	5.689E-07
TH234	4.306E 10	4.295E 10	4.295E 10	4.295E-10	4.295E-10	4.295E-10	4.295E 10	4.295E-10	4.295E-10
PA231	2.599E 08	5.413E-08	3.905E 07	4.186E-07	4.468E 07	4.749E-07	5.030E 07	5.312E-07	5.593E 07
PA233	6.097E 10	7.458E 10	7.458E 10	7.459E 10	7.459E-10	7.459E-10	7.459E 10	7.459E-10	7.459E-10
PA234M	1.458E 14	1.448E 14	1.448E 14	1.448E 14	1.448E-14	1.448E 14	1.448E 14	1.448E-14	1.448E-14
PA234	2.758E 14	6.468E 15	6.468E 15	6.468E 15	6.468E-15	6.468E-15	6.468E 15	6.468E 15	6.468E-15
U230	4.941E 16	2.557E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.262E-08	3.565E 08	1.049E 07	1.048E-07	1.046E-07	1.041E-07	1.035E-07	1.029E 07	1.021E 07
U233	3.231E 06	3.239E-06	3.323E 06	3.330E-06	3.338E-06	3.346E 06	3.353E 06	3.361E 06	3.369E 06
U234	1.250E 02	1.251E 02	1.256E-02	1.257E 02	1.257E-02	1.258E 02	1.258E 02	1.259E-02	1.259E-02
U235	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01
U236	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
U237	1.087E 03	2.292E 12	1.284E 12	1.223E 12	1.165E-12	1.110E 12	1.058E 12	1.008E-12	9.607E 13
U238	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01
U240	1.000E 10	1.168E 24	1.168E 24	1.168E 24	1.168E-24	1.168E 24	1.168E 24	1.168E-24	1.168E 24
NP235	1.471E-09	7.763E 10	3.620E 13	1.910E 13	1.008E-13	5.320E 14	2.807E 14	1.481E-14	7.818E 15
NP236	8.392E-08	8.392E 08	8.391E 08	8.391E-08	8.391E-08	8.391E 08	8.391E-08	8.391E-08	8.391E 08
NP237	2.091E-02	2.200E 02	2.200E 02	2.200E 02	2.200E-02	2.200E-02	2.200E 02	2.200E 02	2.200E-02
NP238	1.604E 05	6.744E 16	6.358E-16	6.327E-16	6.296E-16	6.265E-16	6.234E 16	6.204E 16	6.173E-16
NP239	6.254E-03	2.331E 15	2.329E 15	2.328E-15	2.328E-15	2.328E 15	2.328E 15	2.328E-15	2.327E-15
NP240M	1.784E-10	1.021E 26	1.021E 26	1.021E-26	1.021E 26	1.021E 26	1.021E 26	1.021E-26	1.021E 26
PU236	1.083E 07	8.591E-08	4.645E 09	3.643E-09	2.856E 09	2.240E-09	1.757E 09	1.377E 09	1.080E-09
PU237	1.198E-08	4.651E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	6.478E 04	6.586E 04	5.990E-04	5.943E-04	5.896E-04	5.850E-04	5.804E 04	5.758E 04	5.713E-04
PU239	5.604E-01	5.667E 01	5.665E-01	5.665E 01	5.665E-01	5.664E-01	5.664E 01	5.664E-01	5.664E-01
PU240	7.751E-03	7.750E 03	7.740E 03	7.739E-03	7.738E-03	7.738E 03	7.737E 03	7.736E-03	7.735E-03
PU241	7.742E 05	7.377E-05	4.132E 05	3.937E-05	3.752E-05	3.575E 05	3.406E 05	3.246E-05	3.093E-05
PU242	5.141E 07	5.142E 07	5.142E-07	5.142E-07	5.142E-07	5.142E 07	5.142E 07	5.142E 07	5.142E-07
PU243	1.211E-11	1.977E 29	1.977E-29	1.977E 29	1.977E-29	1.977E 29	1.977E 29	1.977E-29	1.977E-29
PU244	5.970E-14	5.971E 14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E 14	5.971E 14	5.971E-14
PU246	9.442E 22	6.939E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM241	8.576E 07	4.504E-06	3.652E 05	3.841E-05	4.021E-05	4.191E 05	4.353E 05	4.506E-05	4.652E-05
AM242M	3.353E-09	3.337E 09	3.146E-09	3.130E 09	3.115E 09	3.100E 09	3.084E 09	3.069E 09	3.054E-09
AM242	1.974E-10	4.298E 14	4.051E 14	4.032E 14	4.012E-14	3.992E 14	3.973E 14	3.953E-14	3.934E-14
AM243	2.697E-09	2.709E-09	2.706E 09	2.706E 09	2.706E-09	2.705E-09	2.705E 09	2.705E 09	2.705E-09
AM245	2.502E 19	1.138E 35	8.580E-40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM246	1.511E 24	1.112E 34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM241	1.855E 15	1.637E 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	9.180E-09	1.987E 09	8.202E 12	8.172E 12	8.134E-12	8.095E-12	8.055E 12	8.016E 12	7.977E 12
CM243	2.617E-11	2.554E-11	1.907E 11	1.862E-11	1.817E-11	1.773E 11	1.731E 11	1.689E 11	1.648E-11
CM244	2.558E 11	2.465E-11	1.557E 11	1.498E-11	1.442E 11	1.388E 11	1.336E 11	1.286E 11	1.237E-11
CM245	1.726E 13	1.726E 13	1.724E 13	1.724E 13	1.724E-13	1.724E 13	1.723E 13	1.723E 13	1.723E 13
CM246	3.874E-16	3.873E 16	3.866E 16	3.866E 16	3.865E-16	3.865E 16	3.864E 16	3.863E-16	3.863E 16
CM247	5.546E 19	5.546E 19	5.546E 19	5.546E 19	5.546E-19	5.546E 19	5.546E 19	5.546E 19	5.546E-19
CM248	9.207E-22	9.207E 22	9.207E 22	9.207E-22	9.207E 22	9.207E 22	9.207E 22	9.207E 22	9.207E 22
CM250	5.969E 36	5.969E 36	5.969E-36	5.969E 36	5.969E 36	5.969E 36	5.969E 36	5.969E 36	5.969E 36
BK249	4.701E-28	2.960E 27	2.231E 31	2.231E-31	2.231E 31	2.231E 31	2.231E 31	2.231E-31	2.231E 31
CF250	0.000E+00	1.286E 32	1.286E 32	1.286E 32	1.286E 32	1.286E-32	1.286E 32	1.286E 32	1.286E-32
CF251	0.000E+00	8.677E 38	8.677E 38	8.677E-38	8.677E 38	8.677E 38	8.677E 38	8.677E-38	8.677E 38
SF253	1.870E 14	7.463E 14	7.332E 13	7.875E 13	8.418E 13	8.960E-13	9.501E 13	1.004E 12	1.058E-12

sbwss2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:00

	345.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
H 3	9.585E 06	9.062E-06	4.621E-06	4.369E 06	4.130E-06	3.905E-06	3.691E 06	3.490E-06	3.299E-06
LI 6	4.827E 08	4.827E-08	4.827E-08	4.827E 08	4.827E-08	4.827E 08	4.827E 08	4.827E-08	4.827E-08
LI 7	1.144E 09	1.144E-09	1.144E 09	1.144E-09	1.144E-09	1.144E-09	1.144E 09	1.144E-09	1.144E-09
BE 9	2.202E-09	2.202E-09	2.202E 09	2.202E-09	2.202E 09	2.202E-09	2.202E 09	2.202E-09	2.202E 09
BE 10	1.471E-08	1.471E 08	1.471E-08	1.471E 08	1.471E-08	1.471E 08	1.471E 08	1.471E 08	1.471E-08
C 14	2.974E-09	2.974E 09	2.970E-09	2.969E 09	2.969E-09	2.969E 09	2.968E 09	2.968E-09	2.968E-09
ZN 66	9.626E 11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E 11	9.626E 11	9.626E-11	9.626E-11
ZN 67	4.038E-12	4.038E-12	4.038E 12	4.038E-12	4.038E-12	4.038E-12	4.038E 12	4.038E 12	4.038E-12
ZN 68	3.752E 15	3.752E 15	3.752E 15	3.752E-15	3.752E-15	3.752E 15	3.752E 15	3.752E-15	3.752E-15
GA 69	3.786E-19	3.790E-19	3.790E 19	3.790E-19	3.790E 19	3.790E-19	3.790E 19	3.790E 19	3.790E 19
GE 70	1.119E-22	1.119E 22	1.119E 22	1.119E 22	1.119E-22	1.119E-22	1.119E 22	1.119E-22	1.119E-22
GA 71	1.066E 09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E 09	1.066E-09
GE 72	6.756E 06	6.828E-06	6.828E 06	6.828E-06	6.828E-06	6.828E-06	6.828E 06	6.828E-06	6.828E-06
GE 73	1.792E 05	1.794E-05	1.794E 05	1.794E-05	1.794E 05	1.794E-05	1.794E 05	1.794E-05	1.794E-05
GE 74	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E 05	3.572E 05	3.572E-05	3.572E-05
AS 75	6.092E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E 05	6.093E-05	6.093E-05
GE 76	1.434E-04	1.434E-04	1.434E 04	1.434E-04	1.434E-04	1.434E-04	1.434E 04	1.434E-04	1.434E-04
SE 76	6.077E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E 07	6.134E-07	6.134E-07	6.134E-07
SE 77	2.871E-04	2.893E-04	2.893E-04	2.893E-04	2.893E 04	2.893E-04	2.893E 04	2.893E-04	2.893E-04
SE 78	5.850E 04	5.853E-04	5.853E 04	5.853E-04	5.853E-04	5.853E-04	5.853E 04	5.853E-04	5.853E-04
SE 79	8.705E-04	8.705E-04	8.704E-04	8.704E-04	8.704E-04	8.703E-04	8.703E 04	8.703E-04	8.703E-04
BR 79	4.384E-09	1.367E-08	1.251E 07	1.344E-07	1.437E-07	1.530E-07	1.623E 07	1.716E-07	1.808E-07
SE 80	1.908E 03	1.908E-03	1.908E 03	1.908E-03	1.908E 03	1.908E-03	1.908E 03	1.908E-03	1.908E-03
KR 80	3.617E-09	3.619E-09	3.619E-09	3.619E 09	3.619E-09	3.619E-09	3.619E 09	3.619E 09	3.619E-09
BR 81	3.035E-03	3.035E-03	3.035E-03	3.035E 03	3.035E-03	3.035E 03	3.035E-03	3.035E 03	3.035E-03
KR 81	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10
SE 82	4.355E 03	4.355E 03	4.355E 03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03
KR 82	3.884E 05	3.932E-05	3.932E 05	3.932E-05	3.932E 05	3.932E-05	3.932E 05	3.932E-05	3.932E-05
KR 83	7.574E-03	7.579E-03	7.579E-03	7.579E 03	7.579E-03	7.579E 03	7.579E 03	7.579E 03	7.579E-03
KR 84	1.443E-02	1.443E 02	1.443E-02	1.443E-02	1.443E-02	1.443E 02	1.443E-02	1.443E-02	1.443E-02
KR 85	3.634E-03	3.409E 03	1.569E-03	1.471E 03	1.379E-03	1.292E 03	1.212E-03	1.136E 03	1.065E-03
RB 85	1.387E-02	1.411E-02	1.595E-02	1.605E-02	1.614E-02	1.623E 02	1.631E 02	1.638E-02	1.645E 02
KR 86	2.723E 02	2.723E-02	2.723E 02	2.723E-02	2.723E-02	2.723E 02	2.723E-02	2.723E 02	2.723E-02
RB 86	1.233E-05	1.577E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	7.161E 05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E 05	8.394E-05	8.394E-05
RB 87	3.467E 02	3.468E-02	3.468E 02	3.468E-02	3.468E-02	3.468E-02	3.468E 02	3.468E-02	3.468E-02
SR 87	4.676E 07	4.676E-07	4.676E 07	4.676E-07	4.676E-07	4.676E-07	4.676E 07	4.676E 07	4.676E-07
SR 88	5.106E 02	5.109E-02	5.109E 02	5.109E-02	5.109E 02	5.109E-02	5.109E 02	5.109E-02	5.109E-02
SR 89	1.344E 02	8.939E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	5.111E 02	6.446E-02	6.455E 02	6.455E-02	6.455E 02	6.455E-02	6.455E 02	6.455E-02	6.455E 02
SR 90	7.720E-02	7.538E-02	5.665E-02	5.532E 02	5.402E-02	5.275E 02	5.151E 02	5.030E 02	4.911E-02
Y 90	2.023E-05	1.890E 05	1.421E-05	1.387E 05	1.355E-05	1.323E-05	1.292E-05	1.261E 05	1.232E-05
ZR 90	1.668E-03	3.485E-03	2.222E 02	2.355E-02	2.485E 02	2.612E-02	2.737E 02	2.858E-02	2.976E-02
Y 91	1.951E 02	2.595E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.198E-02	8.138E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E 02	8.164E-02	8.164E-02
ZR 92	8.553E 02	8.562E-02	8.562E 02	8.562E-02	8.562E-02	8.562E-02	8.562E 02	8.562E-02	8.562E-02
NB 92	1.046E-15	1.576E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	9.383E 02	9.400E-02	9.400E 02	9.400E-02	9.400E-02	9.400E 02	9.400E 02	9.400E 02	9.400E-02
NB 93	1.443E 09	5.528E-09	1.797E-07	2.024E 07	2.261E-07	2.508E 07	2.764E-07	3.028E 07	3.300E-07
NB 93M	1.896E-08	5.746E-08	3.944E-07	4.142E-07	4.331E-07	4.510E-07	4.680E 07	4.842E-07	4.996E-07
ZR 94	9.087E 02	9.088E-02	9.088E 02	9.088E-02	9.088E 02	9.088E-02	9.088E 02	9.088E 02	9.088E-02
NB 94	1.254E-08	1.254E-08	1.253E-08	1.253E 08	1.253E-08	1.253E 08	1.253E 08	1.253E-08	1.253E-08
ZR 95	2.520E-02	4.819E-04	1.151E 24	1.151E 24	1.151E-24	1.151E-24	1.151E 24	1.151E-24	1.151E 24
NB 95	1.343E-02	5.954E-04	1.404E-24	6.481E-25	6.476E-25	6.476E-25	6.476E 25	6.476E-25	6.476E-25
NB 95M	1.032E 05	2.016E-07	4.817E-28	4.550E 28	4.550E-28	4.550E 28	4.550E 28	4.550E 28	4.550E-28
MO 95	5.764E 02	9.523E-02	9.630E 02	9.630E-02	9.630E-02	9.630E 02	9.630E 02	9.630E 02	9.630E-02
ZR 96	9.533E 02	9.533E-02	9.533E 02	9.533E-02	9.533E-02	9.533E-02	9.533E 02	9.533E-02	9.533E-02
MO 96	5.126E 04	5.137E-04	5.137E 04	5.137E-04	5.137E-04	5.137E-04	5.137E 04	5.137E-04	5.137E-04
MO 97	9.175E 02	9.204E-02	9.204E 02	9.204E-02	9.204E-02	9.204E-02	9.204E 02	9.204E-02	9.204E-02
MO 98	9.399E-02	9.399E 02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E 02	9.399E-02	9.399E-02
TC 98	1.064E 06	1.064E-06	1.064E-06	1.064E 06	1.064E-06	1.064E 06	1.064E 06	1.064E-06	1.064E 06
TC 99	8.944E 02	9.057E-02	9.057E 02	9.057E-02	9.057E 02	9.057E-02	9.057E 02	9.057E-02	9.057E-02
RU 99	1.381E 07	4.355E-07	4.004E-06	4.301E 06	4.599E-06	4.896E-06	5.194E 06	5.491E-06	5.788E-06
MO100	1.009E 01	1.009E 01	1.009E-01	1.009E 01	1.009E-01	1.009E-01	1.009E 01	1.009E-01	1.009E-01
RU100	1.176E 03	1.176E-03	1.176E 03	1.176E-03	1.176E 03	1.176E-03	1.176E 03	1.176E 03	1.176E-03
RU101	8.733E 02	8.733E-02	8.733E 02	8.733E-02	8.733E 02	8.733E-02	8.733E 02	8.733E 02	8.733E-02
RU102	7.721E-02	7.721E-02	7.721E-02	7.721E 02	7.721E-02	7.721E 02	7.721E 02	7.721E-02	7.721E-02
RH102	1.709E-07	1.346E 07	7.643E 09	6.018E-09	4.739E 09	3.731E-09	2.938E 09	2.313E 09	1.821E-09
RU103	9.405E-03	1.499E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.649E-02	5.589E 02	5.590E 02	5.590E 02	5.590E-02	5.590E 02	5.590E 02	5.590E-02	5.590E-02
RH103M	8.406E 06	1.340E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.043E 02	4.043E 02	4.043E 02	4.043E 02	4.043E-02	4.043E 02	4.043E 02	4.043E-02	4.043E-02
PD104	9.317E 04	9.317E-04	9.317E 04	9.317E-04	9.317E-04	9.317E-04	9.317E 04	9.317E-04	9.317E-04
PD105	2.170E 02	2.186E 02	2.186E-02	2.186E 02	2.186E-02	2.186E 02	2.186E 02	2.186E 02	2.186E 02
RU106	9.048E 03	4.549E-03	1.186E 06	5.964E-07	2.999E 07	1.508E-07	7.579E 08	3.811E 08	1.916E 08
RH106	8.513E-09	4.276E-09	1.115E 12	5.606E 13	2.819E-13	1.417E 13	7.124E 14	3.582E-14	1.801E-14
PD106	3.737E 03	8.236E-03	1.278E 02	1.278E-02	1.278E 02	1.278E 02	1.278E-02	1.278E 02	1.278E 02

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ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:00

	345.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
AG106	2.553E-16	2.962E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	8.100E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03
AG107	3.971E-10	1.261E-09	1.163E-08	1.249E-08	1.336E-08	1.422E-08	1.508E-08	1.595E-08	1.681E-08
PD108	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03
AG108	5.075E-13	5.045E-21	4.945E-21	4.937E-21	4.929E-21	4.921E-21	4.913E-21	4.905E-21	4.896E-21
AG108M	5.266E-12	5.258E-12	5.154E-12	5.146E-12	5.137E-12	5.129E-12	5.120E-12	5.112E-12	5.103E-12
CD108	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08
AG109	3.613E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03
AG109M	7.552E-09	6.682E-17	9.580E-20	5.537E-20	3.209E-20	1.859E-20	1.077E-20	6.244E-21	3.618E-21
CD109	1.167E-10	6.764E-11	9.674E-14	5.606E-14	3.248E-14	1.882E-14	1.091E-14	6.321E-15	3.663E-15
PD110	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03
AG110	1.247E-10	4.697E-14	2.465E-19	8.948E-20	3.249E-20	1.180E-20	4.283E-21	1.555E-21	5.645E-22
AG110M	8.537E-06	3.100E-06	1.626E-11	5.905E-12	2.144E-12	7.784E-13	2.826E-13	1.026E-13	3.725E-14
CD110	5.204E-05	5.748E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05
AG111	7.071E-05	1.237E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	2.126E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03
CD112	1.958E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03
CD113	1.903E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03
CD113M	3.206E-05	3.054E-05	1.693E-05	1.612E-05	1.535E-05	1.461E-05	1.391E-05	1.324E-05	1.261E-05
IN113	7.256E-07	2.263E-06	1.586E-05	1.667E-05	1.744E-05	1.818E-05	1.888E-05	1.954E-05	2.018E-05
CD114	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03
IN114	1.227E-13	1.706E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	1.763E-09	1.061E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.077E-08	1.239E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08
CD115M	3.099E-05	1.061E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.559E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03
IN115M	1.290E-06	2.997E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	6.265E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05
CD116	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03
SN116	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04
SN117	1.831E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03
SN117M	1.146E-08	1.616E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	1.919E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03
SN119	1.884E-03	1.896E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03
SN119M	1.792E-05	6.376E-06	2.629E-11	9.354E-12	3.328E-12	1.184E-12	4.215E-13	1.500E-13	5.337E-14
SN120	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03
SN121M	8.765E-07	8.655E-07	7.440E-07	7.347E-07	7.255E-07	7.164E-07	7.075E-07	6.986E-07	6.899E-07
SB121	1.915E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03
SN122	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03
TE122	2.501E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05
SN123	2.122E-04	2.989E-05	1.823E-15	2.567E-16	3.616E-17	5.093E-18	7.174E-19	1.010E-19	1.423E-20
SB123	2.063E-03	2.246E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03
TE123	1.684E-07	1.824E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07
TE123M	1.586E-08	1.913E-09	1.806E-20	2.170E-21	2.659E-22	3.993E-23	1.026E-24	1.026E-24	1.026E-24
SN124	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03
SB124	6.413E-06	9.561E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.107E-05	1.739E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05
SN125	3.964E-05	1.558E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.839E-03	2.242E-03	1.113E-04	8.663E-05	6.745E-05	5.252E-05	4.089E-05	3.184E-05	2.479E-05
TE125	3.156E-04	9.508E-04	3.111E-03	3.136E-03	3.155E-03	3.170E-03	3.182E-03	3.191E-03	3.198E-03
TE125M	2.901E-05	3.121E-05	1.556E-06	1.212E-06	9.435E-07	7.346E-07	5.720E-07	4.453E-07	3.468E-07
SN126	4.710E-03	4.710E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03
SB126	6.270E-06	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10
SB126M	3.345E-09	1.715E-12	1.715E-12	1.715E-12	1.715E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12
TE126	1.478E-04	1.541E-04	1.545E-04	1.545E-04	1.545E-04	1.546E-04	1.546E-04	1.546E-04	1.547E-04
TE127	1.372E-05	1.709E-07	1.344E-19	1.318E-20	1.292E-21	1.266E-22	1.244E-23	1.219E-24	1.182E-25
TE127M	4.778E-04	4.881E-05	3.840E-17	3.764E-18	3.689E-19	3.617E-20	3.553E-21	3.446E-22	2.805E-23
I127	7.886E-03	8.470E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03
XE127	2.377E-10	2.272E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02
XE128	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04
TE129	4.553E-06	2.367E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	4.710E-04	2.527E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.309E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02
XE129	4.322E-07	4.345E-07	4.470E-07	4.481E-07	4.491E-07	4.502E-07	4.512E-07	4.522E-07	4.533E-07
XE129M	2.648E-10	4.776E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02
XE130	2.733E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04
I131	2.324E-03	5.048E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.691E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02
XE131M	3.841E-05	6.889E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	9.865E-02	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01
CS132	1.116E-07	1.163E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	3.857E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08
XE133	2.972E-03	4.005E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.353E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01
XE134	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01

sbwss2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:00

	345.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
CS134	1.800E-03	1.287E-03	2.278E-05	1.628E-05	1.163E-05	8.309E-06	5.937E-06	4.242E-06	3.031E-06
BA134	1.890E-04	7.031E-04	1.967E-03	1.973E-03	1.978E-03	1.981E-03	1.984E-03	1.985E-03	1.987E-03
CS135	1.377E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01
BA135	4.061E-07	4.480E-07	9.473E-07	9.889E-07	1.031E-06	1.072E-06	1.114E-06	1.155E-06	1.197E-06
XE136	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01
CS136	6.083E-05	2.467E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	7.910E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04
BA136M	2.728E-12	1.106E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.318E-01	1.288E-01	9.763E-02	9.540E-02	9.323E-02	9.110E-02	8.902E-02	8.698E-02	8.500E-02
BA137	1.466E-03	4.477E-03	3.567E-02	3.790E-02	4.008E-02	4.221E-02	4.429E-02	4.633E-02	4.831E-02
BA137M	2.025E-08	1.971E-08	1.494E-08	1.460E-08	1.426E-08	1.394E-08	1.362E-08	1.331E-08	1.300E-08
BA138	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01
LA138	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07
LA139	1.411E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01
BA140	7.152E-03	1.809E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	9.531E-04	2.728E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.311E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01
CE141	1.826E-02	7.621E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.162E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01
CE142	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01
ND142	4.491E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04
PR143	7.103E-03	6.220E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.215E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01
CE144	8.136E-02	3.339E-02	7.621E-07	3.128E-07	1.284E-07	5.268E-08	2.162E-08	8.872E-09	3.641E-09
PR144	3.443E-06	1.410E-06	3.218E-11	1.321E-11	5.420E-12	2.224E-12	9.129E-13	3.746E-13	1.537E-13
PR144M	1.719E-08	7.048E-09	1.609E-13	6.602E-14	2.709E-14	1.112E-14	4.563E-15	1.873E-15	7.686E-16
ND144	4.009E-02	8.807E-02	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01
ND145	8.743E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02
ND146	6.923E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02
PM146	2.374E-06	2.093E-06	4.613E-07	4.067E-07	3.585E-07	3.161E-07	2.786E-07	2.456E-07	2.166E-07
SM146	4.650E-07	5.690E-07	1.173E-06	1.193E-06	1.211E-06	1.226E-06	1.240E-06	1.253E-06	1.263E-06
ND147	2.584E-03	2.961E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	4.409E-02	3.586E-02	1.505E-03	1.156E-03	8.875E-04	6.814E-04	5.232E-04	4.017E-04	3.084E-04
SM147	5.523E-03	1.637E-02	5.072E-02	5.107E-02	5.134E-02	5.154E-02	5.170E-02	5.182E-02	5.192E-02
ND148	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02
PM148	7.201E-05	9.576E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	6.010E-04	1.306E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.999E-03	3.671E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03
SM149	2.554E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02
ND150	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02
SM150	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03
EU150	5.410E-10	5.307E-10	4.214E-10	4.134E-10	4.056E-10	3.978E-10	3.903E-10	3.829E-10	3.756E-10
SM151	1.038E-02	1.036E-02	9.444E-03	9.372E-03	9.300E-03	9.229E-03	9.158E-03	9.088E-03	9.018E-03
EU151	3.487E-05	1.150E-04	1.029E-03	1.102E-03	1.174E-03	1.245E-03	1.316E-03	1.386E-03	1.456E-03
SM152	8.023E-03	8.023E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03
EU152	2.325E-06	2.209E-06	1.195E-06	1.135E-06	1.079E-06	1.025E-06	9.738E-07	9.252E-07	8.790E-07
GD152	8.930E-07	9.299E-07	1.212E-06	1.229E-06	1.245E-06	1.260E-06	1.274E-06	1.288E-06	1.300E-06
EU153	4.845E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03
GD153	5.280E-08	1.855E-08	6.555E-14	2.303E-14	8.089E-15	2.842E-15	9.983E-16	3.507E-16	1.232E-16
SM154	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03
EU154	2.818E-04	2.600E-04	9.877E-05	9.111E-05	8.405E-05	7.754E-05	7.153E-05	6.599E-05	6.088E-05
GD154	7.064E-06	2.890E-05	1.901E-04	1.978E-04	2.048E-04	2.114E-04	2.174E-04	2.229E-04	2.280E-04
EU155	1.347E-03	1.164E-03	2.028E-04	1.754E-04	1.516E-04	1.310E-04	1.133E-04	9.793E-05	8.466E-05
GD155	9.204E-05	2.746E-04	1.236E-03	1.264E-03	1.287E-03	1.308E-03	1.326E-03	1.341E-03	1.354E-03
EU156	5.779E-05	3.391E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	7.808E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04
GD157	4.394E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04
GD158	2.925E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04
TB159	1.044E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04
GD160	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05
TB160	1.625E-06	4.901E-08	2.766E-26	2.766E-26	2.766E-26	2.766E-26	2.766E-26	2.766E-26	2.766E-26
DY160	2.020E-06	3.596E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06
TB161	7.571E-07	9.789E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	2.199E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05
DY162	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05
DY163	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06
DY164	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06
HO165	1.741E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06
HO166M	4.336E-09	4.334E-09	4.304E-09	4.301E-09	4.299E-09	4.296E-09	4.294E-09	4.291E-09	4.289E-09
ER166	9.888E-07	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06
ER167	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07
ER168	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08
ER169	2.553E-12	5.129E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.925E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11
ER170	2.927E-16	9.664E-16	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15
TM170	5.364E-13	7.488E-14	4.108E-24	4.108E-24	4.108E-24	4.108E-24	4.108E-24	4.108E-24	4.108E-24
YB170	1.993E-13	6.601E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13

```
sbwss2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04    at 14:05:00
             345.0D      1.0YR    13.0YR    14.0YR    15.0YR    16.0YR    17.0YR    18.0YR    19.0YR

TM171      4.384E-15 3.055E-15 4.015E-17 2.798E-17 1.950E-17 1.359E-17 9.473E-18 6.602E-18 4.602E-18
YB171      1.181E-15 2.509E-15 5.524E-15 5.537E-15 5.545E-15 5.551E-15 5.555E-15 5.558E-15 5.560E-15
YB172      1.302E-17 1.357E-17 1.357E-17 1.357E-17 1.357E-17 1.357E-17 1.357E-17 1.357E-17 1.357E-17
```

File SBWSS3.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) EBR-II
  BAS     ONE ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  381  382  383   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE EBR-II ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                ELEMENT
  BUP
  IRP      50.0   .01068   1   2   4 2
  IRP     100.0   .01068   2   3   4 0
  IRP     200.0   .01068   3   4   4 0
  IRP     250.0   .01068   4   5   4 0
  IRP     300.0   .01068   5   6   4 0
  IRP     345.0   .01068   6   7   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC       1.    1   2   5   4
  DEC      20.    2   3   5   0
  DEC      21.    3   4   5   0
  DEC      22.    4   5   5   0
  DEC      23.    5   6   5   0
  DEC      24.    6   7   5   0
  DEC      25.    7   8   5   0
  DEC      26.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340 1.04E-2 922350 33.6    922360 5.10E-2 922380 30.34    FUEL 52.5%
  1    60120 5.64E-3  60130 6.27E-5 140280 1.75E-1 140290 8.87E-3
  1   140300 5.89E-3 150310 8.55E-3 160320 5.42E-3 160330 4.28E-5
  1   160340 2.40E-4 160350 1.14E-6 260540 7.61E-1 240500 1.57E-1
  1   240520 3.02E+0 240530 3.43E-1 240540 8.54E-2 250240 3.00E-1
  1   250250 3.80E-2 250260 4.18E-2 260560 1.18E+1 260570 2.71E-1
  1   260580 3.61E-2 410930 1.90E+0 280580 2.69E+0 280600 1.03E+0
  1   280610 4.45E-2 280620 1.41E-1 280640 3.59E-2      0 0.
  0
```

File SBWSS3.BAT

```
echo off
echo **                                                                  **
echo **                          O R I G E N 2                           **
echo **                                                                  **
copy sbwss3.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\fftfc.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwss3.u6 >nul
copy tape13.out+tape11.out sbwss3.u11 >nul
ren tape7.out sbwss3.pch
ren tape15.out sbwss3.dbg
ren tape16.out sbwss3.vxs
ren tape50.out sbwss3.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwss3.pch
del sbwss3.dbg
del sbwss3.vxs
del sbwss3.ech
del sbwss3.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

sbwss3.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
H 1	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05
H 2	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10
H 3	1.587E-13	1.500E-13	5.156E-14	4.874E-14	4.608E-14	4.356E-14	4.118E-14	3.893E-14	3.680E-14
HE 3	1.872E-15	1.055E-14	1.090E-13	1.118E-13	1.145E-13	1.170E-13	1.194E-13	1.217E-13	1.238E-13
HE 4	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06
LI 6	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11
LI 7	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17
BE 9	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08
BE 10	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09
B 10	3.978E-16	1.300E-15	1.844E-14	1.934E-14	2.025E-14	2.115E-14	2.205E-14	2.295E-14	2.386E-14
B 11	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17
C 12	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03
C 13	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05
C 14	7.848E-12	7.847E-12	7.829E-12	7.828E-12	7.827E-12	7.826E-12	7.826E-12	7.825E-12	7.824E-12
N 14	4.393E-16	1.389E-15	1.941E-14	2.035E-14	2.130E-14	2.225E-14	2.319E-14	2.414E-14	2.509E-14
N 15	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22
O 16	3.185E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34
O 17	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21
NE 20	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17
NE 21	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19
NE 22	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10
NA 22	4.882E-20	3.741E-20	2.355E-22	1.811E-22	1.393E-22	1.071E-22	8.238E-23	6.336E-23	4.873E-23
NA 23	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12
MG 24	2.210E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14
MG 25	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06
MG 26	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07
AL 27	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09
SI 28	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01
SI 29	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03
SI 30	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03
SI 32	2.944E-14	2.941E-14	2.882E-14	2.878E-14	2.875E-14	2.872E-14	2.869E-14	2.866E-14	2.863E-14
P 31	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03
P 32	2.484E-07	5.086E-15	1.736E-18	1.734E-18	1.732E-18	1.730E-18	1.728E-18	1.727E-18	1.725E-18
P 33	3.781E-13	1.512E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 32	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03
S 33	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05
S 34	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04
S 35	7.620E-08	4.291E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 36	1.891E-17	7.072E-17	1.055E-15	1.107E-15	1.159E-15	1.211E-15	1.262E-15	1.314E-15	1.366E-15
CL 35	1.065E-06	1.137E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06
CL 36	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09
CL 37	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13
AR 36	9.759E-16	3.651E-15	5.448E-14	5.715E-14	5.983E-14	6.250E-14	6.518E-14	6.785E-14	7.053E-14
AR 37	2.405E-20	1.745E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 38	1.538E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18
AR 39	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24
AR 42	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29
K 41	4.569E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18
K 42	1.506E-24	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33
CA 42	1.478E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22
CA 43	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20
CA 44	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11
CA 45	4.404E-16	9.313E-17	1.412E-29	1.412E-29	1.412E-29	1.412E-29	1.412E-29	1.412E-29	1.412E-29
CA 46	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11
SC 45	1.650E-16	5.123E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16
SC 46	2.401E-20	1.169E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	1.199E-20	3.483E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20
TI 47	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06
TI 48	9.616E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11
TI 49	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06
TI 50	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05
V 50	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05
V 51	1.138E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04
CR 50	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01
CR 51	1.567E-05	1.686E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00
CR 53	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01
CR 54	8.586E-02	8.610E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02
MN 54	4.228E-04	1.880E-04	3.883E-11	1.727E-11	7.683E-12	3.417E-12	1.520E-12	6.761E-13	3.007E-13
MN 55	1.174E-05	3.040E-05	9.112E-05	9.121E-05	9.128E-05	9.134E-05	9.138E-05	9.141E-05	9.143E-05
FE 54	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01
FE 55	7.977E-05	6.111E-05	3.857E-07	2.954E-07	2.263E-07	1.733E-07	1.328E-07	1.017E-07	7.791E-08
FE 56	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01
FE 57	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01
FE 58	3.840E-02	3.928E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02
FE 59	8.180E-07	2.949E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwss3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
CO 58	9.057E-04	2.532E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	4.272E-04	4.280E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04	4.281E-04
CO 60	2.423E-05	2.124E-05	1.745E-06	1.530E-06	1.341E-06	1.176E-06	1.031E-06	9.041E-07	7.926E-07
NI 58	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00
NI 59	5.344E-04	5.344E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04
NI 60	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00
NI 61	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02
NI 62	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01
NI 63	8.675E-05	8.609E-05	7.461E-05	7.405E-05	7.350E-05	7.294E-05	7.240E-05	7.185E-05	7.131E-05
NI 64	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02
CU 63	3.030E-07	9.541E-07	1.244E-05	1.300E-05	1.355E-05	1.410E-05	1.465E-05	1.520E-05	1.573E-05
CU 65	3.584E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06
ZN 64	2.255E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11
ZN 65	6.480E-16	2.294E-16	6.226E-25	6.226E-25	6.226E-25	6.226E-25	6.226E-25	6.226E-25	6.226E-25
ZN 66	3.905E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10
ZN 67	9.450E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15
ZN 68	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18
GA 69	2.285E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22
GA 71	0.000E+00	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43
GE 70	1.155E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29
SR 87	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14
SR 88	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15
SR 89	4.655E-12	3.094E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	3.419E-12	3.338E-12	2.112E-12	2.062E-12	2.013E-12	1.965E-12	1.918E-12	1.872E-12	1.828E-12
Y 89	8.492E-12	1.312E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11
Y 90	1.522E-08	8.470E-16	5.359E-16	5.232E-16	5.107E-16	4.986E-16	4.867E-16	4.751E-16	4.638E-16
Y 91	2.580E-11	3.406E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	1.285E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06
ZR 91	9.769E-10	1.002E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09
ZR 92	3.195E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05
ZR 93	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05
ZR 94	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08
ZR 95	5.361E-12	1.025E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14
NB 92	1.491E-06	2.247E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00
NB 93M	2.337E-12	7.211E-12	6.504E-11	6.680E-11	6.847E-11	7.006E-11	7.157E-11	7.300E-11	7.436E-11
NB 94	2.118E-02	2.118E-02	2.116E-02	2.116E-02	2.116E-02	2.116E-02	2.116E-02	2.116E-02	2.116E-02
NB 95	3.366E-05	2.506E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	2.171E-15	4.290E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	3.358E-07	1.059E-06	1.479E-05	1.551E-05	1.624E-05	1.696E-05	1.768E-05	1.840E-05	1.913E-05
MO 95	9.551E-05	1.291E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04
MO 96	7.299E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07
MO 97	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10
MO 98	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12
MO100	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19
TC 98	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22
TC 99	2.070E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16
RU 99	6.654E-23	7.971E-22	1.468E-20	1.541E-20	1.614E-20	1.687E-20	1.760E-20	1.833E-20	1.906E-20
RU100	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19
RU101	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21
HE 4	1.572E-07	5.337E-07	7.567E-06	7.931E-06	8.295E-06	8.658E-06	9.021E-06	9.383E-06	9.744E-06
TL206	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34
TL207	7.950E-20	4.091E-19	3.919E-17	4.270E-17	4.625E-17	4.991E-17	5.366E-17	5.752E-17	6.148E-17
TL208	3.437E-17	2.341E-16	2.802E-15	2.797E-15	2.780E-15	2.761E-15	2.740E-15	2.718E-15	2.695E-15
TL209	9.970E-23	2.696E-22	3.286E-21	3.448E-21	3.610E-21	3.773E-21	3.936E-21	4.100E-21	4.263E-21
PB206	2.879E-18	4.281E-17	2.654E-14	3.162E-14	3.724E-14	4.359E-14	5.075E-14	5.879E-14	6.777E-14
PB207	1.758E-15	1.858E-14	2.198E-11	2.510E-11	2.849E-11	3.216E-11	3.611E-11	4.035E-11	4.489E-11
PB208	2.784E-12	4.249E-11	1.377E-08	1.470E-08	1.562E-08	1.653E-08	1.744E-08	1.834E-08	1.924E-08
PB209	4.154E-19	1.123E-18	1.369E-17	1.437E-17	1.504E-17	1.572E-17	1.640E-17	1.708E-17	1.776E-17
PB210	1.564E-15	2.075E-15	1.610E-13	1.838E-13	2.085E-13	2.353E-13	2.641E-13	2.951E-13	3.282E-13
PB211	6.150E-19	3.165E-18	3.032E-16	3.304E-16	3.578E-16	3.861E-16	4.151E-16	4.450E-16	4.756E-16
PB212	2.028E-14	1.381E-13	1.652E-12	1.650E-12	1.640E-12	1.628E-12	1.616E-12	1.603E-12	1.590E-12
PB214	3.634E-21	1.623E-20	2.012E-18	2.210E-18	2.416E-18	2.632E-18	2.857E-18	3.092E-18	3.335E-18
BI208	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21
BI209	2.233E-16	1.629E-15	2.582E-13	2.840E-13	3.110E-13	3.393E-13	3.688E-13	3.996E-13	4.316E-13
BI210M	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22
BI210	8.992E-19	1.277E-18	9.906E-17	1.131E-16	1.284E-16	1.448E-16	1.626E-16	1.817E-16	2.021E-16
BI211	3.629E-20	1.867E-19	1.789E-17	1.949E-17	2.111E-17	2.278E-17	2.449E-17	2.626E-17	2.806E-17
BI212	1.923E-15	1.310E-14	1.567E-13	1.565E-13	1.555E-13	1.545E-13	1.533E-13	1.521E-13	1.508E-13
BI213	9.761E-20	2.639E-19	3.217E-18	3.376E-18	3.535E-18	3.694E-18	3.854E-18	4.014E-18	4.174E-18
BI214	2.699E-21	1.205E-20	1.494E-18	1.641E-18	1.794E-18	1.954E-18	2.122E-18	2.296E-18	2.477E-18
PO210	7.777E-18	2.995E-17	2.736E-15	2.913E-15	3.280E-15	3.706E-15	4.171E-15	4.671E-15	5.208E-15
PO211	4.452E-25	2.291E-24	2.195E-22	2.392E-22	2.590E-22	2.795E-22	3.005E-22	3.221E-22	3.443E-22
PO212	1.018E-25	6.929E-25	8.293E-24	8.280E-24	8.230E-24	8.172E-24	8.111E-24	8.045E-24	7.977E-24
PO213	1.464E-28	3.960E-28	4.827E-27	5.069E-27	5.303E-27	5.542E-27	5.781E-27	6.021E-27	6.262E-27

sbwss3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
PO214	4.241E-26	1.658E-27	2.055E 25	2.257E-25	2.468E-25	2.689E-25	2.919E-25	3.158E-25	3.407E-25
PO215	5.150E-25	2.650E-24	2.539E 22	2.766E-22	2.996E-22	3.233E-22	3.476E-22	3.726E-22	3.983E-22
PO216	8.090E-20	5.509E-19	6.594E-18	6.584E-18	6.543E-18	6.498E-18	6.449E-18	6.397E-18	6.343E-18
PO218	4.214E-22	1.881E-21	2.333E 19	2.562E-19	2.802E-19	3.052E-19	3.313E-19	3.585E 19	3.868E-19
AT217	1.173E-24	3.171E-24	3.865E-23	4.056E 23	4.247E-23	4.438E 23	4.630E-23	4.822E 23	5.015E-23
RN218	9.122E-24	4.724E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.167E-21	6.006E-21	5.753E 19	6.269E-19	6.790E 19	7.326E-19	7.878E-19	8.444E-19	9.025E-19
RN220	3.054E-17	2.080E-16	2.489E 15	2.486E-15	2.470E 15	2.453E-15	2.435E-15	2.415E 15	2.395E-15
RN222	7.748E-19	3.459E-18	4.290E 16	4.711E-16	5.151E 16	5.612E-16	6.092E 16	6.591E-16	7.111E-16
FR221	1.065E-20	2.879E-20	3.510E-19	3.683E 19	3.856E-19	4.030E 19	4.204E-19	4.379E 19	4.554E 19
FR223	6.848E-21	2.786E-20	2.670E 18	2.904E-18	3.145E 18	3.393E-18	3.649E-18	3.911E-18	4.180E-18
RA222	1.009E-20	5.223E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	2.965E-16	1.526E-15	1.461E 13	1.592E-13	1.725E 13	1.861E-13	2.001E 13	2.145E-13	2.293E 13
RA224	1.769E-13	1.204E-12	1.441E-11	1.439E 11	1.430E-11	1.421E-11	1.410E-11	1.398E 11	1.387E-11
RA225	5.273E-17	1.302E-16	1.587E-15	1.665E 15	1.744E-15	1.822E-15	1.901E-15	1.980E-15	2.059E-15
RA226	1.205E-13	5.381E-13	6.673E-11	7.328E-11	8.014E-11	8.730E-11	9.477E-11	1.025E-10	1.106E-10
RA228	2.272E 19	1.545E-18	1.514E 16	1.622E-16	1.731E 16	1.841E-16	1.952E-16	2.064E-16	2.176E-16
AC225	3.252E-17	8.794E-17	1.072E-15	1.125E-15	1.178E-15	1.231E-15	1.284E-15	1.337E-15	1.391E-15
AC227	2.654E-13	1.080E-12	1.035E-10	1.125E 10	1.219E 10	1.315E-10	1.414E-10	1.515E-10	1.620E-10
AC228	6.223E-18	1.879E-22	1.842E 20	1.973E-20	2.106E 20	2.240E-20	2.374E-20	2.510E-20	2.647E-20
TH226	5.025E-19	2.603E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	5.358E-16	2.507E-15	2.401E-13	2.617E 13	2.834E-13	3.058E 13	3.288E-13	3.525E-13	3.767E-13
TH228	3.422E-11	2.339E-10	2.801E-09	2.787E 09	2.770E-09	2.750E 09	2.730E-09	2.708E-09	2.685E-09
TH229	1.015E-11	2.399E 11	2.925E-10	3.069E 10	3.213E-10	3.358E 10	3.503E-10	3.649E-10	3.794E 10
TH230	2.989E-08	6.458E-08	7.263E-07	7.613E-07	7.963E-07	8.312E 07	8.662E-07	9.012E 07	9.362E-07
TH231	1.192E-10	1.177E 10	1.177E-10	1.177E 10	1.177E-10	1.177E 10	1.177E-10	1.177E-10	1.177E-10
TH232	1.453E-08	4.370E-08	5.980E-07	6.272E 07	6.564E-07	6.856E-07	7.147E-07	7.439E-07	7.731E 07
TH234	4.306E-10	4.295E-10	4.295E 10	4.295E 10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10
PA231	2.599E-08	5.413E 08	5.866E-07	6.147E 07	6.428E-07	6.710E 07	6.991E-07	7.272E 07	7.554E-07
PA233	6.097E-10	7.458E 10	7.458E-10	7.459E 10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E 10
PA234M	1.458E 14	1.448E-14	1.448E 14	1.448E-14	1.448E 14	1.448E-14	1.448E 14	1.448E-14	1.448E-14
PA234	2.758E-14	6.468E 15	6.468E-15	6.468E 15	6.468E 15	6.468E-15	6.468E-15	6.468E 15	6.468E-15
U230	4.941E-16	2.557E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.262E 08	3.565E-08	1.013E 07	1.005E 07	9.964E-08	9.875E-08	9.785E-08	9.694E-08	9.602E 08
U233	3.231E-06	3.239E-06	3.371E-06	3.379E-06	3.387E 06	3.395E-06	3.402E 06	3.410E-06	3.418E-06
U234	1.250E-02	1.251E-02	1.259E-02	1.260E 02	1.260E-02	1.261E 02	1.261E-02	1.262E-02	1.262E 02
U235	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01
U236	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
U237	1.087E-03	2.292E-12	9.154E-13	8.722E-13	8.311E-13	7.919E 13	7.546E-13	7.190E-13	6.851E 13
U238	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01
U240	1.000E-10	1.168E 24	1.168E-24	1.168E 24	1.168E-24	1.168E-24	1.168E-24	1.168E 24	1.168E-24
NP235	1.471E-09	7.763E 10	4.126E-15	2.177E-15	1.149E-15	6.063E-16	3.199E-16	1.688E 16	8.909E-17
NP236	8.392E-08	8.392E-08	8.391E-08	8.391E-08	8.391E-08	8.391E-08	8.390E-08	8.390E 08	8.390E-08
NP237	2.091E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E 02	2.200E-02
NP238	1.604E-05	6.744E-16	6.143E-16	6.113E-16	6.083E-16	6.053E-16	6.023E-16	5.994E-16	5.965E-16
NP239	6.254E-03	2.331E-15	2.327E-15	2.327E-15	2.327E 15	2.326E-15	2.326E-15	2.326E-15	2.326E-15
NP240M	1.784E-10	1.021E 26	1.021E-26	1.021E-26	1.021E-26	1.021E 26	1.021E-26	1.021E-26	1.021E-26
PU236	1.083E-07	8.591E-08	8.472E 10	6.644E 10	5.210E 10	4.086E-10	3.205E-10	2.513E-10	1.971E-10
PU237	1.198E-08	4.651E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	6.478E-04	6.586E-04	5.668E 04	5.623E-04	5.579E 04	5.535E-04	5.492E-04	5.448E-04	5.405E-04
PU239	5.604E 01	5.667E-01	5.664E-01	5.664E 01	5.663E 01	5.663E-01	5.663E-01	5.663E 01	5.663E-01
PU240	7.751E-03	7.750E-03	7.734E 03	7.733E-03	7.733E 03	7.732E-03	7.731E-03	7.730E-03	7.729E-03
PU241	7.742E-05	7.377E-05	2.947E-05	2.808E 05	2.675E-05	2.549E-05	2.429E-05	2.315E-05	2.205E-05
PU242	5.141E-07	5.142E 07	5.142E-07	5.142E 07	5.142E-07	5.142E 07	5.142E-07	5.142E-07	5.142E-07
PU243	1.211E 11	1.977E-29	1.977E-29	1.977E 29	1.977E-29	1.977E-29	1.977E 29	1.977E-29	1.977E-29
PU244	5.970E-14	5.971E 14	5.971E-14	5.971E 14	5.971E-14	5.971E 14	5.971E-14	5.971E-14	5.971E 14
PU246	9.442E-22	6.939E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM241	8.576E-07	4.504E-06	4.790E-05	4.921E 05	5.046E-05	5.164E-05	5.275E-05	5.381E 05	5.482E-05
AM242M	3.353E 09	3.337E-09	3.039E 09	3.024E-09	3.010E-09	2.995E-09	2.980E-09	2.966E-09	2.951E-09
AM242	1.974E 10	4.298E-14	3.914E 14	3.895E 14	3.876E-14	3.857E-14	3.838E 14	3.819E-14	3.801E-14
AM243	2.697E-09	2.709E-09	2.704E-09	2.704E-09	2.704E 09	2.704E 09	2.703E-09	2.703E-09	2.703E 09
AM245	2.502E-19	1.138E-35	3.433E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM246	1.511E 24	1.112E-34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM241	1.855E 15	1.637E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	9.180E-09	1.987E-09	7.925E 12	7.896E 12	7.859E 12	7.821E-12	7.783E-12	7.745E-12	7.707E 12
CM243	2.617E 11	2.554E-11	1.609E 11	1.570E 11	1.532E-11	1.496E-11	1.460E 11	1.425E-11	1.390E-11
CM244	2.558E-11	2.465E-11	1.191E 11	1.146E-11	1.103E-11	1.062E 11	1.022E 11	9.835E-12	9.466E-12
CM245	1.726E 13	1.726E-13	1.723E-13	1.723E 13	1.723E-13	1.723E 13	1.722E-13	1.722E-13	1.722E-13
CM246	3.874E-16	3.873E-16	3.862E 16	3.862E 16	3.861E-16	3.861E-16	3.860E 16	3.860E 16	3.859E 16
CM247	5.546E 19	5.546E 19	5.546E-19	5.546E-19	5.546E 19	5.546E 19	5.546E 19	5.546E-19	5.546E-19
CM248	9.207E-22	9.207E-22	9.207E 22	9.207E 22	9.207E 22	9.207E 22	9.207E-22	9.207E-22	9.207E-22
CM250	5.969E-36	5.969E-36	5.969E 36	5.969E 36	5.969E 36	5.969E 36	5.969E 36	5.969E-36	5.969E-36
BK249	4.701E-28	2.960E-27	8.779E 34	8.779E 34	8.779E 34	8.779E-34	8.779E 34	8.779E 34	8.779E 34
CF250	0.000E+00	1.286E-32	1.286E 32	1.286E 32	1.286E-32	1.286E 32	1.286E 32	1.286E-32	1.286E-32
CF251	0.000E+00	8.677E-38	8.677E 38	8.677E 38	8.677E 38	8.677E-38	8.677E-38	8.677E-38	8.677E-38
SF250	1.870E-14	7.463E-14	1.112E 12	1.166E-12	1.220E 12	1.273E-12	1.327E-12	1.380E 12	1.434E 12

sbwss3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
H 3	9.585E-06	9.062E-06	3.119E-06	2.949E-06	2.788E-06	2.636E-06	2.492E-06	2.356E-06	2.227E-06
LI 6	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08
LI 7	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09
BE 9	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09
BE 10	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08
C 14	2.974E-09	2.974E-09	2.967E-09	2.967E-09	2.966E-09	2.966E-09	2.966E-09	2.965E-09	2.965E-09
ZN 66	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11
ZN 67	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12
ZN 68	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15
GA 69	3.786E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19
GE 70	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22
GA 71	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09
GE 72	6.756E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06
GE 73	1.792E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05
GE 74	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05
AS 75	6.092E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05
GE 76	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04
SE 76	6.077E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07
SE 77	2.871E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04
SE 78	5.850E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04
SE 79	8.705E-04	8.705E-04	8.703E-04	8.703E-04	8.703E-04	8.703E-04	8.703E-04	8.703E-04	8.703E-04
BR 79	4.384E-09	1.367E-08	1.901E-07	1.994E-07	2.087E-07	2.180E-07	2.273E-07	2.366E-07	2.458E-07
SE 80	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03
KR 80	3.617E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09
BR 81	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03
KR 81	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10
SE 82	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03
KR 82	3.884E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05
KR 83	7.574E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03
KR 84	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02
KR 85	3.634E-03	3.409E-03	9.979E-04	9.354E-04	8.769E-04	8.220E-04	7.705E-04	7.223E-04	6.770E-04
RB 85	1.387E-02	1.411E-02	1.652E-02	1.658E-02	1.664E-02	1.670E-02	1.675E-02	1.680E-02	1.684E-02
KR 86	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02
RB 86	1.233E-05	1.577E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	7.161E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05
RB 87	3.467E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02
SR 87	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07
SR 88	5.106E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02
SR 89	1.344E-02	8.939E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	5.111E-02	6.446E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02
SR 90	7.720E-02	7.538E-02	4.796E-02	4.683E-02	4.573E-02	4.465E-02	4.360E-02	4.258E-02	4.158E-02
Y 90	2.024E-05	1.890E-05	1.203E-05	1.174E-05	1.147E-05	1.120E-05	1.093E-05	1.068E-05	1.043E-05
ZR 90	1.668E-03	3.485E-03	3.092E-02	3.204E-02	3.315E-02	3.422E-02	3.527E-02	3.630E-02	3.730E-02
Y 91	1.951E-02	2.595E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.198E-02	8.138E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02
ZR 92	8.553E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02
NB 92	1.046E-15	1.576E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	9.383E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02
NB 93	1.443E-09	5.528E-09	3.579E-07	3.866E-07	4.160E-07	4.460E-07	4.767E-07	5.080E-07	5.398E-07
NB 93M	1.896E-08	5.746E-08	5.142E-07	5.281E-07	5.413E-07	5.539E-07	5.658E-07	5.771E-07	5.879E-07
ZR 94	9.087E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02
NB 94	1.254E-08	1.254E-08	1.253E-08	1.253E-08	1.253E-08	1.253E-08	1.253E-08	1.253E-08	1.253E-08
ZR 95	2.520E-02	4.819E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	1.343E-02	5.954E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	1.032E-05	2.016E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	5.764E-02	9.523E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02
ZR 96	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02
MO 96	5.126E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04
MO 97	9.175E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02
MO 98	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02
TC 98	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06
TC 99	8.944E-02	9.057E-02	9.057E-02	9.057E-02	9.057E-02	9.057E-02	9.057E-02	9.057E-02	9.057E-02
RU 99	1.381E-07	4.355E-07	6.086E-06	6.383E-06	6.680E-06	6.978E-06	7.275E-06	7.572E-06	7.870E-06
MO100	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01
RU100	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03
RU101	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02
RU102	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02
RH102	1.709E-07	1.346E-07	1.434E-09	1.129E-09	8.893E-10	7.002E-10	5.514E-10	4.341E-10	3.418E-10
RU103	9.405E-03	1.499E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.649E-02	5.589E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02
RH103M	8.406E-06	1.340E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02
PD104	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04
PD105	2.170E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02
RU106	9.048E-03	4.549E-03	9.632E-09	4.843E-09	2.435E-09	1.224E-09	6.154E-10	3.094E-10	1.555E-10
RH106	8.513E-03	4.276E-09	9.054E-15	4.552E-15	2.288E-15	1.151E-15	5.784E-16	2.908E-16	1.462E-16
PD106	3.737E-03	8.236E-03	1.278E-02	1.278E-02	1.278E-02	1.278E-02	1.278E-02	1.278E-02	1.278E-02

sbwss3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
AG106	2.553E 16	2.962E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	8.100E 03	8.101E-03	8.101E 03	8.101E-03	8.101E 03	8.101E-03	8.101E 03	8.101E 03	8.101E-03
AG107	3.971E-10	1.261E-09	1.768E 08	1.854E-08	1.940E 08	2.027E-08	2.113E 08	2.200E-08	2.286E-08
PD108	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E 03	5.234E-03	5.234E-03	5.234E-03	5.234E-03
AG108	5.075E-13	5.045E-21	4.888E-21	4.880E 21	4.872E-21	4.864E 21	4.856E-21	4.848E 21	4.840E-21
AG108M	5.266E 12	5.258E-12	5.095E-12	5.086E-12	5.078E-12	5.069E 12	5.061E-12	5.053E-12	5.044E 12
CD108	3.401E-08	3.401E-08	3.401E 08	3.401E-08	3.401E 08	3.401E-08	3.401E 08	3.401E-08	3.401E-08
AG109	3.613E-03	3.623E-03	3.623E 03	3.623E-03	3.623E 03	3.623E-03	3.623E-03	3.623E-03	3.623E 03
AG109M	7.552E-09	6.682E-17	2.102E 21	1.218E-21	7.058E 22	4.090E-22	2.370E-22	1.373E-22	7.959E 23
CD109	1.167E-10	6.764E-11	2.128E 15	1.233E-15	7.146E 16	4.141E-16	2.399E-16	1.390E-16	8.057E 17
PD110	2.696E 03	2.696E-03	2.696E-03	2.696E 03	2.696E-03	2.696E 03	2.696E 03	2.696E 03	2.696E 03
AG110	1.247E-10	4.697E-14	2.050E 22	7.442E-23	2.702E 23	9.810E-24	3.562E 24	1.293E-24	4.695E-25
AG110M	8.537E-06	3.100E-06	1.353E-14	4.911E 15	1.783E-15	6.473E 16	2.350E-16	8.533E 17	3.098E-17
CD110	5.204E-05	5.748E-05	6.058E-05	6.058E-05	6.058E-05	6.058E 05	6.058E-05	6.058E-05	6.058E-05
AG111	7.071E 05	1.237E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	2.126E 03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E 03	2.197E-03	2.197E-03	2.197E-03
CD112	1.958E-03	1.965E-03	1.965E 03	1.965E-03	1.965E 03	1.965E 03	1.965E 03	1.965E-03	1.965E-03
CD113	1.903E-03	1.904E 03	1.904E-03	1.904E 03	1.904E-03	1.904E 03	1.904E-03	1.904E-03	1.904E-03
CD113M	3.206E-05	3.054E-05	1.200E 05	1.143E-05	1.088E 05	1.036E-05	9.859E 06	9.387E-06	8.936E-06
IN113	7.256E-07	2.263E-06	2.078E 05	2.136E-05	2.190E 05	2.243E-05	2.292E 05	2.339E-05	2.384E-05
CD114	1.855E 03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E 03	1.855E-03	1.855E-03
IN114	1.227E-13	1.706E 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	1.763E-09	1.061E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.077E 08	1.239E-08	1.240E-08	1.240E-08	1.240E-08	1.240E 08	1.240E-08	1.240E 08	1.240E-08
CD115M	3.099E 05	1.061E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.559E 03	1.607E-03	1.607E 03	1.607E-03	1.607E 03	1.607E-03	1.607E 03	1.607E-03	1.607E-03
IN115M	1.290E 06	2.997E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	6.265E 05	6.329E-05	6.329E 05	6.329E-05	6.329E 05	6.329E-05	6.329E 05	6.329E-05	6.329E 05
CD116	1.855E 03	1.855E-03	1.855E-03	1.855E-03	1.855E 03	1.855E 03	1.855E-03	1.855E 03	1.855E-03
SN116	2.109E 04	2.109E-04	2.109E 04	2.109E-04	2.109E 04	2.109E-04	2.109E 04	2.109E-04	2.109E 04
SN117	1.831E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E 03	1.833E-03	1.833E 03	1.833E-03
SN117M	1.146E-08	1.616E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	1.919E-03	1.920E-03	1.920E 03	1.920E-03	1.920E-03	1.920E 03	1.920E-03	1.920E-03	1.920E-03
SN119	1.884E-03	1.896E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E 03	1.902E-03	1.902E-03
SN119M	1.792E 05	6.376E-06	1.899E 14	6.758E-15	2.405E 15	8.557E-16	3.045E 16	1.084E-16	3.856E-17
SN120	1.959E 03	1.959E-03	1.959E-03	1.959E 03	1.959E-03	1.959E 03	1.959E-03	1.959E 03	1.959E-03
SN121M	8.765E 07	8.655E-07	6.812E-07	6.727E-07	6.643E-07	6.559E 07	6.477E-07	6.396E-07	6.316E-07
SB121	1.915E 03	1.924E-03	1.924E 03	1.924E-03	1.924E-03	1.924E 03	1.924E 03	1.924E-03	1.924E-03
SN122	2.123E 03	2.123E 03	2.123E-03	2.123E 03	2.123E-03	2.123E 03	2.123E-03	2.123E 03	2.123E-03
TE122	2.501E 05	2.560E-05	2.560E 05	2.560E-05	2.560E-05	2.560E 05	2.560E 05	2.560E-05	2.560E-05
SN123	2.122E-04	2.989E-05	2.005E-21	2.735E 22	4.334E 23	1.390E-23	0.000E+00	0.000E+00	0.000E+00
SB123	2.063E-03	2.246E-03	2.276E-03	2.276E 03	2.276E-03	2.276E 03	2.276E 03	2.276E 03	2.276E-03
TE123	1.684E 07	1.824E-07	1.843E-07	1.843E-07	1.843E-07	1.843E 07	1.843E-07	1.843E 07	1.843E-07
TE123M	1.586E 08	1.913E-09	6.692E 27	6.692E-27	6.692E 27	6.692E 27	6.692E-27	6.692E-27	6.692E 27
SN124	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E 03	2.729E-03	2.729E 03	2.729E-03
SB124	6.413E-06	9.561E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.107E-05	1.739E-05	1.748E-05	1.748E 05	1.748E-05	1.748E 05	1.748E-05	1.748E 05	1.748E-05
SN125	3.964E 05	1.558E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.839E-03	2.242E-03	1.930E-05	1.503E-05	1.170E 05	9.111E 06	7.094E 06	5.524E-06	4.301E-06
TE125	3.156E-04	9.508E-04	3.204E-03	3.208E 03	3.212E-03	3.214E 03	3.216E-03	3.218E 03	3.219E-03
TE125M	2.901E-05	3.121E-05	2.700E-07	2.102E-07	1.637E-07	1.274E 07	9.923E-08	7.726E 08	6.016E-08
SN126	4.710E-03	4.710E 03	4.709E-03	4.709E 03	4.709E 03	4.709E 03	4.709E-03	4.709E 03	4.709E-03
SB126	6.270E-06	2.250E 10	2.250E-10	2.250E 10	2.250E-10	2.250E-10	2.250E-10	2.250E 10	2.250E-10
SB126M	3.345E-09	1.715E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E 12
TE126	1.478E-04	1.541E 04	1.547E-04	1.547E 04	1.548E 04	1.548E 04	1.548E-04	1.549E 04	1.549E-04
TE127	1.372E-05	1.709E 07	1.169E-26	1.165E 26	1.165E 26	1.165E 26	1.165E 26	1.165E 26	1.165E-26
TE127M	4.778E 04	4.881E-05	3.338E 24	3.338E-24	3.338E 24	3.338E 24	3.338E-24	3.338E-24	3.338E 24
I127	7.886E 03	8.470E-03	8.519E 03	8.519E-03	8.519E 03	8.519E 03	8.519E 03	8.519E 03	8.519E-03
XE127	2.377E-10	2.272E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.596E-02	1.596E 02	1.596E-02	1.596E 02	1.596E-02	1.596E 02	1.596E-02	1.596E-02	1.596E 02
XE128	1.068E 04	1.068E-04	1.068E 04	1.068E 04	1.068E-04	1.068E 04	1.068E 04	1.068E-04	1.068E 04
TE129	4.553E-06	2.367E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	4.710E 04	2.527E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.309E 02	2.358E-02	2.358E 02	2.358E 02	2.358E-02	2.358E 02	2.358E-02	2.358E-02	2.358E 02
XE129	4.332E-07	4.345E 07	4.543E 07	4.554E 07	4.564E 07	4.575E 07	4.585E 07	4.595E 07	4.606E 07
XE129M	2.648E-10	4.776E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.181E-02	4.181E 02	4.181E 02	4.181E-02	4.181E 02	4.181E 02	4.181E 02	4.181E 02	4.181E 02
XE130	2.733E-04	2.745E 04	2.745E 04	2.745E 04	2.745E 04	2.745E 04	2.745E 04	2.745E-04	2.745E 04
I131	2.324E 03	5.048E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.691E 02	6.933E 02	6.933E 02	6.933E 02	6.933E-02	6.933E 02	6.933E 02	6.933E-02	6.933E 02
XE131M	3.841E-05	6.889E 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	9.865E 02	1.000E 01	1.000E 01	1.000E-01	1.000E 01	1.000E 01	1.000E 01	1.000E 01	1.000E-01
CS132	1.116E 07	1.163E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	3.857E-08	4.080E 08	4.080E 08	4.080E-08	4.080E 08	4.080E 08	4.080E 08	4.080E-08	4.080E 08
XE133	2.972E-03	4.005E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.353E 01	1.388E-01	1.388E-01	1.388E 01	1.388E 01	1.388E 01	1.388E 01	1.388E-01	1.388E-01
XE134	1.650E 01	1.650E-01	1.650E-01	1.650E 01	1.650E-01	1.650E 01	1.650E 01	1.650E-01	1.650E 01

sbwss3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
CS134	1.800E-03	1.287E-03	2.170E-06	1.551E-06	1.108E-06	7.917E-07	5.657E-07	4.042E-07	2.888E-07
BA134	1.890E-04	7.031E-04	1.988E-03	1.988E-03	1.989E-03	1.989E-03	1.989E-03	1.989E-03	1.989E-03
CS135	1.377E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01
BA135	4.061E-07	4.480E-07	1.239E-06	1.280E-06	1.322E-06	1.363E-06	1.405E-06	1.447E-06	1.488E-06
XE136	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01
CS136	6.083E-05	2.467E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	7.910E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04
BA136M	2.728E-12	1.106E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.318E-01	1.288E-01	8.305E-02	8.116E-02	7.930E-02	7.749E-02	7.572E-02	7.399E-02	7.230E-02
BA137	1.466E-03	4.477E-03	5.025E-02	5.215E-02	5.400E-02	5.582E-02	5.759E-02	5.931E-02	6.100E-02
BA137M	2.025E-08	1.971E-08	1.271E-08	1.242E-08	1.213E-08	1.186E-08	1.158E-08	1.132E-08	1.106E-08
BA138	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01
LA138	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07
LA139	1.411E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01
BA140	7.152E-03	1.809E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	9.531E-04	2.728E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.311E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01
CE141	1.826E-02	7.621E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.162E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01
CE142	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01
ND142	4.491E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04
PR143	7.103E-03	6.220E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.215E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01
CE144	8.136E-02	3.339E-02	1.494E-09	6.133E-10	2.517E-10	1.033E-10	4.239E-11	1.740E-11	7.139E-12
PR144	3.443E-06	1.410E-06	6.310E-14	2.589E-14	1.063E-14	4.361E-15	1.790E-15	7.345E-16	3.015E-16
PR144M	1.719E-08	7.048E-09	3.154E-16	1.294E-16	5.312E-17	2.180E-17	8.947E-18	3.672E-18	1.507E-18
ND144	4.009E-02	8.807E-02	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01
ND145	8.743E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02
ND146	6.923E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02
PM146	2.374E-06	2.093E-06	1.909E-07	1.683E-07	1.484E-07	1.308E-07	1.153E-07	1.017E-07	8.963E-08
SM146	4.650E-07	5.690E-07	1.273E-06	1.281E-06	1.288E-06	1.295E-06	1.301E-06	1.306E-06	1.310E-06
ND147	2.584E-03	2.961E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	4.409E-02	3.586E-02	2.368E-04	1.818E-04	1.396E-04	1.072E-04	8.230E-05	6.319E-05	4.852E-05
SM147	5.523E-03	1.637E-02	5.199E-02	5.204E-02	5.208E-02	5.212E-02	5.214E-02	5.216E-02	5.218E-02
ND148	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02
PM148	7.201E-05	9.576E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	6.010E-04	1.306E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.999E-03	3.671E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03
SM149	2.554E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02
ND150	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02
SM150	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03
EU150	5.410E-10	5.307E-10	3.684E-10	3.614E-10	3.545E-10	3.478E-10	3.412E-10	3.347E-10	3.283E-10
SM151	1.038E-02	1.036E-02	8.949E-03	8.880E-03	8.812E-03	8.744E-03	8.677E-03	8.611E-03	8.545E-03
EU151	3.487E-05	1.150E-04	1.525E-03	1.594E-03	1.662E-03	1.730E-03	1.797E-03	1.863E-03	1.929E-03
SM152	8.023E-03	8.023E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03	8.024E-03
EU152	2.325E-06	2.209E-06	8.352E-07	7.935E-07	7.539E-07	7.163E-07	6.805E-07	6.466E-07	6.143E-07
GD152	8.930E-07	9.299E-07	1.313E-06	1.324E-06	1.335E-06	1.346E-06	1.356E-06	1.365E-06	1.374E-06
EU153	4.845E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03
GD153	5.280E-08	1.855E-08	4.328E-17	1.521E-17	5.342E-18	1.877E-18	6.592E-19	2.316E-19	8.135E-20
SM154	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03
EU154	2.818E-04	2.600E-04	5.616E-05	5.181E-05	4.779E-05	4.409E-05	4.067E-05	3.752E-05	3.461E-05
GD154	7.064E-06	2.890E-05	2.327E-04	2.371E-04	2.411E-04	2.448E-04	2.482E-04	2.514E-04	2.543E-04
EU155	1.347E-03	1.164E-03	7.319E-05	6.327E-05	5.469E-05	4.728E-05	4.087E-05	3.533E-05	3.055E-05
GD155	9.204E-05	2.746E-04	1.366E-03	1.370E-03	1.384E-03	1.392E-03	1.398E-03	1.404E-03	1.409E-03
EU156	5.779E-05	3.391E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	7.808E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04
GD157	4.394E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04
GD158	2.925E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04
TB159	1.044E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04
GD160	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05
TB160	1.625E-06	4.901E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	2.020E-06	3.596E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06
TB161	7.571E-07	9.789E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	2.199E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05
DY162	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05
DY163	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06
DY164	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06
HO165	1.741E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06
HO166M	4.336E-09	4.334E-09	4.286E-09	4.284E-09	4.282E-09	4.279E-09	4.277E-09	4.274E-09	4.272E-09
ER166	9.888E-07	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06
ER167	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07
ER168	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08
ER169	2.553E-12	5.129E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.925E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11
ER170	2.927E-16	9.664E-16	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15
TM170	5.364E-13	7.488E-14	4.247E-30	4.247E-30	4.247E-30	4.247E-30	4.247E-30	4.247E-30	4.247E-30
YB170	1.993E-13	6.601E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13

sbwss3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:08

	345.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
TM171	4.384E-15	3.055E-15	3.201E-18	2.231E-18	1.555E-18	1.084E-18	7.554E-19	5.265E-19	3.669E-19
YB171	1.181E-15	2.509E-15	5.561E-15	5.562E-15	5.563E-15	5.563E-15	5.564E-15	5.564E-15	5.564E-15
YB172	1.302E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17

File SBWSS5.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8 1-91) EBR-II
  BAS     ONE ELEMENT
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  381  382  383   9   50  0  4  0
  TIT     ONE CYCLE FOR ONE EBR-II ELEMENT
  INP     -1   1  -1  -1  1  1
  MOV     -1   1   0   1.0
  HED      1                                                ELEMENT
  BUP
  IRP      50.0   .01068   1   2   4 2
  IRP     100.0   .01068   2   3   4 0
  IRP     200.0   .01068   3   4   4 0
  IRP     250.0   .01068   4   5   4 0
  IRP     300.0   .01068   5   6   4 0
  IRP     345.0   .01068   6   7   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV      7    1    0   1.0
  DEC       1.    1   2   5   4
  DEC      34.    2   3   5   0
  DEC      35.    3   4   5   0
  DEC      36.    4   5   5   0
  DEC      37.    5   6   5   0
  DEC      38.    6   7   5   0
  DEC      39.    7   8   5   0
  DEC      40.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922340 1.04E-2 922350 33.6    922360 5.10E-2 922380 30.34    FUEL 52.5%
  1    60120 5.64E-3  60130 6.27E-5 140280 1.75E-1 140290 8.87E-3
  1   140300 5.89E-3 150310 8.55E-3 160320 5.42E-3 160330 4.28E-5
  1   160340 2.40E-4 160350 1.14E-6 260540 7.61E-1 240500 1.57E-1
  1   240520 3.02E+0 240530 3.43E-1 240540 8.54E-2 250240 3.00E-1
  1   250250 3.80E-2 250260 4.18E-2 260560 1.18E+1 260570 2.71E-1
  1   260580 3.61E-2 410930 1.90E+0 280580 2.69E+0 280600 1.03E+0
  1   280610 4.45E-2 280620 1.41E-1 280640 3.59E-2      0 0.
  0
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File SBWSS5.BAT

sbwss5.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
H 1	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05
H 2	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10	8.300E-10
H 3	1.587E-13	1.500E-13	2.347E-14	2.219E-14	2.097E-14	1.983E-14	1.874E-14	1.772E-14	1.675E-14
HE 3	1.872E-15	1.055E-14	1.371E-13	1.384E-13	1.396E-13	1.408E-13	1.418E-13	1.429E-13	1.438E-13
HE 4	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06
LI 6	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11
LI 7	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17	2.769E-17
BE 9	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08
BE 10	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09	1.498E-09
B 10	3.978E-16	1.300E-15	3.107E-14	3.198E-14	3.288E-14	3.378E-14	3.468E-14	3.559E-14	3.649E-14
B 11	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17	3.328E-17
C 12	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03
C 13	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05
C 14	7.848E-12	7.847E-12	7.816E-12	7.815E-12	7.814E-12	7.813E-12	7.812E-12	7.811E-12	7.810E-12
N 14	4.393E-16	1.389E-15	3.266E-14	3.360E-14	3.455E-14	3.549E-14	3.644E-14	3.738E-14	3.833E-14
N 15	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E-22
O 16	3.185E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34	5.670E-34
O 17	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E-21
NE 20	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17	2.356E-17
NE 21	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19
NE 22	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10	1.233E-10
NA 22	4.882E-20	3.741E-20	5.688E-24	5.688E-24	5.688E-24	5.688E-24	5.688E-24	5.688E-24	5.688E-24
NA 23	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12	9.634E-12
MG 24	2.210E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14	2.222E-14
MG 25	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E-06
MG 26	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E-07
AL 27	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09	6.334E-09
SI 28	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01	1.750E-01
SI 29	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03
SI 30	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03	5.890E-03
SI 32	2.944E-14	2.941E-14	2.839E-14	2.836E-14	2.833E-14	2.830E-14	2.827E-14	2.824E-14	2.821E-14
P 31	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E-03
P 32	2.484E-07	5.086E-15	1.710E-18	1.708E-18	1.706E-18	1.705E-18	1.703E-18	1.701E-18	1.699E-18
P 33	3.781E-13	1.512E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 32	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03	5.419E-03
S 33	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05
S 34	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04	2.400E-04
S 35	7.620E-08	4.291E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 36	1.891E-17	7.072E-17	1.780E-15	1.832E-15	1.884E-15	1.936E-15	1.988E-15	2.039E-15	2.091E-15
CL 35	1.065E-06	1.137E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E-06
CL 36	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09	1.184E-09
CL 37	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13	1.943E-13
AR 36	9.759E-16	3.651E-15	9.193E-14	9.460E-14	9.728E-14	9.995E-14	1.026E-13	1.053E-13	1.080E-13
AR 37	2.405E-20	1.745E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 38	1.538E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18	1.539E-18
AR 39	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24	4.556E-24
AR 42	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29	5.043E-29
K 41	4.569E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18	4.574E-18
K 42	1.506E-24	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E-33
CA 42	1.478E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22	1.493E-22
CA 43	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20	1.577E-20
CA 44	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11	3.523E-11
CA 45	4.404E-16	9.313E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CA 46	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11	1.131E-11
SC 45	1.650E-16	5.123E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16	6.054E-16
SC 46	2.401E-20	1.169E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	1.199E-20	3.483E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20	3.600E-20
TI 47	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06	1.145E-06
TI 48	9.616E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11	9.620E-11
TI 49	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06	2.493E-06
TI 50	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05	1.160E-05
V 50	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05	4.738E-05
V 51	1.138E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04	1.295E-04
CR 50	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01	1.568E-01
CR 51	1.567E-05	1.686E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00
CR 53	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01	3.429E-01
CR 54	8.586E-02	8.610E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02	8.629E-02
MN 54	4.228E-04	1.880E-04	4.607E-16	2.049E-16	9.114E-17	4.054E-17	1.803E-17	8.020E-18	3.567E-18
MN 55	1.174E-05	3.040E-05	9.150E-05	9.150E-05	9.150E-05	9.151E-05	9.151E-05	9.151E-05	9.151E-05
FE 54	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01
FE 55	7.977E-05	6.111E-05	9.232E-09	7.072E-09	5.417E-09	4.149E-09	3.178E-09	2.434E-09	1.865E-09

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
FE 56	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01
FE 57	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01
FE 58	3.840E-02	3.928E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02
FE 59	8.180E-07	2.949E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	9.057E-04	2.532E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	4.272E-04	4.280E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04
CO 60	2.423E-05	2.124E-05	2.767E-07	2.426E-07	2.127E-07	1.865E-07	1.635E-07	1.434E-07	1.257E-07
NI 58	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00
NI 59	5.344E-04	5.344E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.342E-04	5.342E-04
NI 60	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00
NI 61	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02
NI 62	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01
NI 63	8.675E-05	8.609E-05	6.714E-05	6.664E-05	6.614E-05	6.564E-05	6.515E-05	6.466E-05	6.417E-05
NI 64	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02
CU 63	3.030E-07	9.541E-07	1.991E-05	2.041E-05	2.091E-05	2.141E-05	2.190E-05	2.239E-05	2.287E-05
CU 65	3.584E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06
ZN 64	2.255E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11
ZN 65	6.480E-16	2.294E-16	3.034E-31	3.034E-31	3.034E-31	3.034E-31	3.034E-31	3.034E-31	3.034E-31
ZN 66	3.905E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10
ZN 67	9.450E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15
ZN 68	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18
GA 69	2.285E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22
GA 71	0.000E+00	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43
GE 70	1.155E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29
SR 87	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14
SR 88	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15
SR 89	4.655E-12	3.094E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	3.419E-12	3.338E-12	1.508E-12	1.472E-12	1.437E-12	1.402E-12	1.369E-12	1.336E-12	1.305E-12
Y 89	8.492E-12	1.312E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11
Y 90	1.522E-08	8.470E-16	3.825E-16	3.734E-16	3.646E-16	3.559E-16	3.474E-16	3.391E-16	3.311E-16
Y 91	2.580E-11	3.406E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	1.285E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06
ZR 91	9.769E-10	1.002E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09
ZR 92	3.195E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05
ZR 93	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05
ZR 94	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08
ZR 95	5.361E-12	1.025E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14
NB 92	1.491E-06	2.247E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00
NB 93M	2.337E-12	7.211E-12	8.309E-11	8.396E-11	8.478E-11	8.555E-11	8.629E-11	8.700E-11	8.766E-11
NB 94	2.118E-02	2.118E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02
NB 95	3.366E-05	2.506E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	2.171E-15	4.290E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	3.358E-07	1.059E-06	2.491E-05	2.563E-05	2.635E-05	2.707E-05	2.779E-05	2.852E-05	2.924E-05
MO 95	9.551E-05	1.291E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04
MO 96	7.299E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07
MO 97	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10
MO 98	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12
MO100	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19
TC 98	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22
TC 99	2.070E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16
RU 99	6.654E-23	7.971E-22	2.491E-20	2.564E-20	2.637E-20	2.710E-20	2.783E-20	2.856E-20	2.929E-20
RU100	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19
RU101	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21
HE 4	1.572E-07	5.337E-07	1.262E-05	1.297E-05	1.333E-05	1.369E-05	1.404E-05	1.440E-05	1.475E-05
TL206	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34
TL207	7.950E-20	4.091E-19	9.600E-17	1.009E-16	1.057E-16	1.105E-16	1.154E-16	1.204E-16	1.254E-16
TL208	3.437E-17	2.341E-16	2.492E-15	2.476E-15	2.451E-15	2.427E-15	2.402E-15	2.378E-15	2.355E-15
TL209	9.970E-23	2.696E-22	5.583E-21	5.749E-21	5.916E-21	6.083E-21	6.251E-21	6.419E-21	6.587E-21
PB206	2.879E-18	4.281E-17	1.885E-13	2.097E-13	2.321E-13	2.563E-13	2.822E-13	3.101E-13	3.400E-13
PB207	1.758E-15	1.858E-14	9.282E-11	1.004E-10	1.082E-10	1.165E-10	1.251E-10	1.341E-10	1.435E-10
PB208	2.784E-12	4.249E-11	2.931E-08	3.013E-08	3.094E-08	3.175E-08	3.254E-08	3.333E-08	3.412E-08
PB209	4.154E-19	1.123E-18	2.326E-17	2.395E-17	2.465E-17	2.535E-17	2.604E-17	2.674E-17	2.744E-17
PB210	1.564E-15	2.075E-15	6.788E-13	7.339E-13	7.917E-13	8.522E-13	9.155E-13	9.815E-13	1.050E-12
PB211	6.150E-19	3.165E-18	7.427E-16	7.806E-16	8.175E-16	8.549E-16	8.929E-16	9.313E-16	9.702E-16
PB212	2.028E-14	1.381E-13	1.470E-12	1.460E-12	1.446E-12	1.431E-12	1.417E-12	1.403E-12	1.389E-12
PB214	3.634E-21	1.623E-20	5.617E-18	5.943E-18	6.279E-18	6.624E-18	6.979E-18	7.342E-18	7.715E-18
BI208	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21
BI209	2.233E-16	1.629E-15	7.331E-13	7.765E-13	8.212E-13	8.672E-13	9.144E-13	9.629E-13	1.013E-12
BI210M	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22
BI210	8.992E-19	1.277E-18	4.177E-16	4.518E-16	4.874E-16	5.247E-16	5.636E-16	6.043E-16	6.466E-16
BI211	3.629E-20	1.867E-19	4.382E-17	4.606E-17	4.823E-17	5.044E-17	5.268E-17	5.495E-17	5.725E-17
BI212	1.923E-15	1.310E-14	1.394E-13	1.385E-13	1.371E-13	1.358E-13	1.344E-13	1.331E-13	1.317E-13
BI213	9.761E-20	2.639E-19	5.466E-18	5.629E-18	5.792E-18	5.956E-18	6.120E-18	6.284E-18	6.449E-18
BI214	2.699E-21	1.205E-20	4.170E-18	4.413E-18	4.662E-18	4.919E-18	5.182E-18	5.452E-18	5.729E-18

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
PO210	7.777E-18	2.995E-17	1.154E-14	1.192E-14	1.278E-14	1.376E-14	1.479E-14	1.587E-14	1.700E-14
PO211	4.452E-25	2.291E-24	5.376E-22	5.651E-22	5.918E-22	6.189E-22	6.464E-22	6.742E-22	7.024E-22
PO212	1.018E-25	6.929E-25	7.375E-24	7.329E-24	7.255E-24	7.183E-24	7.111E-24	7.040E-24	6.970E-24
PO213	1.464E-28	3.960E-28	8.200E-27	8.445E-27	8.690E-27	8.935E-27	9.181E-27	9.428E-27	9.675E-27
PO214	4.241E-26	1.658E-27	5.738E-25	6.071E-25	6.414E-25	6.767E-25	7.129E-25	7.500E-25	7.881E-25
PO215	5.150E-25	2.650E-24	6.219E-22	6.537E-22	6.845E-22	7.159E-22	7.477E-22	7.798E-22	8.124E-22
PO216	8.090E-20	5.509E-19	5.864E-18	5.827E-18	5.769E-18	5.711E-18	5.654E-18	5.598E-18	5.542E-18
PO218	4.214E-22	1.881E-21	6.513E-19	6.892E-19	7.281E-19	7.681E-19	8.092E-19	8.514E-19	8.946E-19
AT217	1.173E-24	3.171E-24	6.566E-23	6.762E-23	6.958E-23	7.155E-23	7.352E-23	7.550E-23	7.748E-23
RN218	9.122E-24	4.724E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.167E-21	6.006E-21	1.409E-18	1.481E-18	1.551E-18	1.622E-18	1.694E-18	1.767E-18	1.841E-18
RN220	3.054E-17	2.080E-16	2.214E-15	2.200E-15	2.178E-15	2.156E-15	2.135E-15	2.113E-15	2.092E-15
RN222	7.748E-19	3.459E-18	1.197E-15	1.267E-15	1.339E-15	1.412E-15	1.488E-15	1.565E-15	1.645E-15
FR221	1.065E-20	2.879E-20	5.963E-19	6.141E-19	6.319E-19	6.497E-19	6.676E-19	6.856E-19	7.035E-19
FR223	6.848E-21	2.786E-20	6.541E-18	6.860E-18	7.185E-18	7.514E-18	7.847E-18	8.185E-18	8.527E-18
RA222	1.009E-20	5.223E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	2.965E-16	1.526E-15	3.580E-13	3.763E-13	3.941E-13	4.121E-13	4.304E-13	4.489E-13	4.677E-13
RA224	1.769E-13	1.204E-12	1.282E-11	1.274E-11	1.261E-11	1.249E-11	1.236E-11	1.224E-11	1.212E-11
RA225	5.273E-17	1.302E-16	2.696E-15	2.776E-15	2.857E-15	2.938E-15	3.019E-15	3.100E-15	3.181E-15
RA226	1.205E-13	5.381E-13	1.863E-10	1.971E-10	2.083E-10	2.197E-10	2.315E-10	2.435E-10	2.559E-10
RA228	2.272E-19	1.545E-18	3.090E-16	3.205E-16	3.321E-16	3.437E-16	3.553E-16	3.670E-16	3.786E-16
AC225	3.252E-17	8.794E-17	1.821E-15	1.876E-15	1.930E-15	1.984E-15	2.039E-15	2.094E-15	2.149E-15
AC227	2.654E-13	1.080E-12	2.535E-10	2.658E-10	2.784E-10	2.911E-10	3.041E-10	3.171E-10	3.304E-10
AC228	6.223E-18	1.879E-22	3.758E-20	3.899E-20	4.040E-20	4.181E-20	4.322E-20	4.464E-20	4.605E-20
TH226	5.025E-19	2.603E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	5.358E-16	2.507E-15	5.882E-13	6.183E-13	6.475E-13	6.772E-13	7.072E-13	7.377E-13	7.685E-13
TH228	3.422E-11	2.339E-10	2.491E-09	2.466E-09	2.442E-09	2.417E-09	2.393E-09	2.369E-09	2.346E-09
TH229	1.015E-11	2.399E-11	4.969E-10	5.117E-10	5.265E-10	5.414E-10	5.563E-10	5.713E-10	5.862E-10
TH230	2.989E-08	6.458E-08	1.217E-06	1.252E-06	1.287E-06	1.322E-06	1.357E-06	1.392E-06	1.428E-06
TH231	1.192E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10
TH232	1.453E-08	4.370E-08	1.006E-06	1.036E-06	1.065E-06	1.094E-06	1.123E-06	1.152E-06	1.182E-06
TH234	4.306E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10
PA231	2.599E-08	5.413E-08	9.787E-07	1.007E-06	1.035E-06	1.063E-06	1.091E-06	1.119E-06	1.147E-06
PA233	6.097E-10	7.458E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10
PA234M	1.458E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14
PA234	2.758E-14	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15
U230	4.941E-16	2.557E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.262E-08	3.565E-08	8.875E-08	8.787E-08	8.700E-08	8.613E-08	8.527E-08	8.442E-08	8.357E-08
U233	3.231E-06	3.239E-06	3.469E-06	3.477E-06	3.485E-06	3.492E-06	3.500E-06	3.508E-06	3.515E-06
U234	1.250E-02	1.251E-02	1.265E-02	1.266E-02	1.266E-02	1.266E-02	1.267E-02	1.267E-02	1.268E-02
U235	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01
U236	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
U237	1.087E-03	2.292E-12	4.655E-13	4.436E-13	4.227E-13	4.027E-13	3.838E-13	3.657E-13	3.484E-13
U238	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01
U240	1.000E-10	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24
NP235	1.471E-09	7.763E-10	5.357E-19	2.827E-19	1.492E-19	7.872E-20	4.153E-20	2.191E-20	1.158E-20
NP236	8.392E-08	8.392E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08
NP237	2.091E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02
NP238	1.604E-05	6.744E-16	5.735E-16	5.706E-16	5.678E-16	5.651E-16	5.623E-16	5.595E-16	5.568E-16
NP239	6.254E-03	2.331E-15	2.324E-15	2.324E-15	2.324E-15	2.323E-15	2.323E-15	2.323E-15	2.323E-15
NP240M	1.784E-10	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26
PU236	1.083E-07	8.591E-08	2.835E-11	2.227E-11	1.750E-11	1.377E-11	1.084E-11	8.537E-12	6.735E-12
PU237	1.198E-08	4.651E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	6.478E-04	6.586E-04	5.074E-04	5.034E-04	4.995E-04	4.955E-04	4.916E-04	4.878E-04	4.839E-04
PU239	5.604E-01	5.667E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01
PU240	7.751E-03	7.750E-03	7.723E-03	7.722E-03	7.721E-03	7.720E-03	7.720E-03	7.719E-03	7.718E-03
PU241	7.742E-05	7.377E-05	1.499E-05	1.428E-05	1.361E-05	1.296E-05	1.235E-05	1.177E-05	1.122E-05
PU242	5.141E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07
PU243	1.211E-11	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29
PU244	5.970E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14
PU246	9.442E-22	6.939E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM241	8.576E-07	4.504E-06	6.114E-05	6.175E-05	6.232E-05	6.286E-05	6.337E-05	6.385E-05	6.430E-05
AM242M	3.353E-09	3.337E-09	2.837E-09	2.823E-09	2.809E-09	2.796E-09	2.782E-09	2.768E-09	2.755E-09
AM242	1.974E-10	4.298E-14	3.654E-14	3.636E-14	3.618E-14	3.601E-14	3.583E-14	3.565E-14	3.548E-14
AM243	2.697E-09	2.709E-09	2.701E-09	2.701E-09	2.700E-09	2.700E-09	2.700E-09	2.700E-09	2.699E-09
AM245	2.502E-19	1.138E-35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM246	1.511E-24	1.112E-34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM241	1.855E-15	1.637E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	9.180E-09	1.987E-09	7.398E-12	7.371E-12	7.337E-12	7.301E-12	7.265E-12	7.230E-12	7.194E-12
CM243	2.617E-11	2.554E-11	1.145E-11	1.117E-11	1.090E-11	1.064E-11	1.038E-11	1.013E-11	9.891E-12
CM244	2.558E-11	2.465E-11	6.969E-12	6.708E-12	6.456E-12	6.213E-12	5.980E-12	5.755E-12	5.539E-12
CM245	1.726E-13	1.726E-13	1.721E-13	1.721E-13	1.721E-13	1.721E-13	1.720E-13	1.720E-13	1.720E-13
CM246	3.874E-16	3.873E-16	3.854E-16	3.854E-16	3.853E-16	3.853E-16	3.852E-16	3.852E-16	3.851E-16
CM247	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19
CM248	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22
CM250	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36
BK249	4.701E-28	2.960E-27	1.360E-38	1.360E-38	1.360E-38	1.360E-38	1.360E-38	1.360E-38	1.360E-38

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
CF250	0.000E+00	1.286E 32	1.286E 32	1.286E 32	1.286E 32	1.286E 32	1.286E 32	1.286E 32	1.286E 32
CF251	0.000E+00	8.677E 38	8.677E 38	8.677E 38	8.677E 38	8.677E 38	8.677E 38	8.677E 38	8.677E 38
SF250	1.870E 14	7.463E 14	1.859E 12	1.912E 12	1.965E 12	2.018E 12	2.070E 12	2.123E 12	2.175E 12
H 3	9.585E 06	9.062E 06	1.422E 06	1.344E 06	1.271E 06	1.201E 06	1.136E 06	1.074E 06	1.015E 06
LI 6	4.827E 08	4.827E 08	4.827E 08	4.827E 08	4.827E 08	4.827E 08	4.827E 08	4.827E 08	4.827E 08
LI 7	1.144E 09	1.144E 09	1.144E 09	1.144E 09	1.144E 09	1.144E 09	1.144E 09	1.144E 09	1.144E 09
BE 9	2.202E 09	2.202E 09	2.202E 09	2.202E 09	2.202E 09	2.202E 09	2.202E 09	2.202E 09	2.202E 09
BE 10	1.471E 08	1.471E 08	1.471E 08	1.471E 08	1.471E 08	1.471E 08	1.471E 08	1.471E 08	1.471E 08
C 14	2.974E 09	2.974E 09	2.962E 09	2.962E 09	2.961E 09	2.961E 09	2.961E 09	2.960E 09	2.960E 09
ZN 66	9.626E 11	9.626E 11	9.626E 11	9.626E 11	9.626E 11	9.626E 11	9.626E 11	9.626E 11	9.626E 11
ZN 67	4.038E 12	4.038E 12	4.038E 12	4.038E 12	4.038E 12	4.038E 12	4.038E 12	4.038E 12	4.038E 12
ZN 68	3.752E 15	3.752E 15	3.752E 15	3.752E 15	3.752E 15	3.752E 15	3.752E 15	3.752E 15	3.752E 15
GA 69	3.786E 19	3.790E 19	3.790E 19	3.790E 19	3.790E 19	3.790E 19	3.790E 19	3.790E 19	3.790E 19
GE 70	1.119E 22	1.119E 22	1.119E 22	1.119E 22	1.119E 22	1.119E 22	1.119E 22	1.119E 22	1.119E 22
GA 71	1.066E 09	1.066E 09	1.066E 09	1.066E 09	1.066E 09	1.066E 09	1.066E 09	1.066E 09	1.066E 09
GE 72	6.756E 06	6.828E 06	6.828E 06	6.828E 06	6.828E 06	6.828E 06	6.828E 06	6.828E 06	6.828E 06
GE 73	1.792E 05	1.794E 05	1.794E 05	1.794E 05	1.794E 05	1.794E 05	1.794E 05	1.794E 05	1.794E 05
GE 74	3.572E 05	3.572E 05	3.572E 05	3.572E 05	3.572E 05	3.572E 05	3.572E 05	3.572E 05	3.572E 05
AS 75	6.092E 05	6.093E 05	6.093E 05	6.093E 05	6.093E 05	6.093E 05	6.093E 05	6.093E 05	6.093E 05
GE 76	1.434E 04	1.434E 04	1.434E 04	1.434E 04	1.434E 04	1.434E 04	1.434E 04	1.434E 04	1.434E 04
SE 76	6.077E 07	6.134E 07	6.134E 07	6.134E 07	6.134E 07	6.134E 07	6.134E 07	6.134E 07	6.134E 07
SE 77	2.871E 04	2.893E 04	2.893E 04	2.893E 04	2.893E 04	2.893E 04	2.893E 04	2.893E 04	2.893E 04
SE 78	5.850E 04	5.853E 04	5.853E 04	5.853E 04	5.853E 04	5.853E 04	5.853E 04	5.853E 04	5.853E 04
SE 79	8.705E 04	8.705E 04	8.702E 04	8.702E 04	8.702E 04	8.701E 04	8.701E 04	8.701E 04	8.701E 04
BR 79	4.384E 09	1.367E 08	3.201E 07	3.294E 07	3.387E 07	3.480E 07	3.573E 07	3.666E 07	3.758E 07
SE 80	1.908E 03	1.908E 03	1.908E 03	1.908E 03	1.908E 03	1.908E 03	1.908E 03	1.908E 03	1.908E 03
KR 80	3.617E 09	3.619E 09	3.619E 09	3.619E 09	3.619E 09	3.619E 09	3.619E 09	3.619E 09	3.619E 09
BR 81	3.035E 03	3.035E 03	3.035E 03	3.035E 03	3.035E 03	3.035E 03	3.035E 03	3.035E 03	3.035E 03
KR 81	1.177E 10	1.177E 10	1.177E 10	1.177E 10	1.177E 10	1.177E 10	1.177E 10	1.177E 10	1.177E 10
SE 82	4.355E 03	4.355E 03	4.355E 03	4.355E 03	4.355E 03	4.355E 03	4.355E 03	4.355E 03	4.355E 03
KR 82	3.884E 05	3.932E 05	3.932E 05	3.932E 05	3.932E 05	3.932E 05	3.932E 05	3.932E 05	3.932E 05
KR 83	7.574E 03	7.579E 03	7.579E 03	7.579E 03	7.579E 03	7.579E 03	7.579E 03	7.579E 03	7.579E 03
KR 84	1.443E 02	1.443E 02	1.443E 02	1.443E 02	1.443E 02	1.443E 02	1.443E 02	1.443E 02	1.443E 02
KR 85	3.634E 03	3.409E 03	4.036E 04	3.783E 04	3.547E 04	3.324E 04	3.116E 04	2.921E 04	2.738E 04
RB 85	1.387E 02	1.411E 02	1.712E 02	1.714E 02	1.716E 02	1.719E 02	1.721E 02	1.723E 02	1.725E 02
KR 86	2.723E 02	2.723E 02	2.723E 02	2.723E 02	2.723E 02	2.723E 02	2.723E 02	2.723E 02	2.723E 02
RB 86	1.233E 05	1.577E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	7.161E 05	8.394E 05	8.394E 05	8.394E 05	8.394E 05	8.394E 05	8.394E 05	8.394E 05	8.394E 05
RB 87	3.467E 02	3.468E 02	3.468E 02	3.468E 02	3.468E 02	3.468E 02	3.468E 02	3.468E 02	3.468E 02
SR 87	4.676E 07	4.676E 07	4.676E 07	4.676E 07	4.676E 07	4.676E 07	4.676E 07	4.676E 07	4.676E 07
SR 88	5.106E 02	5.109E 02	5.109E 02	5.109E 02	5.109E 02	5.109E 02	5.109E 02	5.109E 02	5.109E 02
SR 89	1.344E 02	8.939E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	5.111E 02	6.446E 02	6.455E 02	6.455E 02	6.455E 02	6.455E 02	6.455E 02	6.455E 02	6.455E 02
SR 90	7.720E 02	7.538E 02	3.437E 02	3.356E 02	3.277E 02	3.200E 02	3.125E 02	3.051E 02	2.979E 02
Y 90	2.023E 05	1.890E 05	8.618E 06	8.416E 06	8.218E 06	8.025E 06	7.836E 06	7.651E 06	7.472E 06
ZR 90	1.668E 03	3.485E 03	4.451E 02	4.532E 02	4.611E 02	4.688E 02	4.763E 02	4.837E 02	4.909E 02
Y 91	1.951E 02	2.595E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.198E 02	8.138E 02	8.164E 02	8.164E 02	8.164E 02	8.164E 02	8.164E 02	8.164E 02	8.164E 02
ZR 92	8.553E 02	8.562E 02	8.562E 02	8.562E 02	8.562E 02	8.562E 02	8.562E 02	8.562E 02	8.562E 02
NB 92	1.046E 15	1.576E 26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	9.383E 02	9.400E 02	9.400E 02	9.400E 02	9.400E 02	9.400E 02	9.400E 02	9.400E 02	9.400E 02
NB 93	1.443E 09	5.528E 09	8.115E 07	8.473E 07	8.834E 07	9.199E 07	9.566E 07	9.936E 07	1.031E 06
NB 93M	1.896E 08	5.746E 08	6.568E 07	6.637E 07	6.701E 07	6.763E 07	6.821E 07	6.877E 07	6.929E 07
ZR 94	9.087E 02	9.088E 02	9.088E 02	9.088E 02	9.088E 02	9.088E 02	9.088E 02	9.088E 02	9.088E 02
NB 94	1.254E 08	1.254E 08	1.252E 08	1.252E 08	1.252E 08	1.252E 08	1.252E 08	1.252E 08	1.252E 08
ZR 95	2.520E 02	4.819E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	1.343E 02	5.954E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	1.032E 05	2.016E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	5.764E 02	9.523E 02	9.630E 02	9.630E 02	9.630E 02	9.630E 02	9.630E 02	9.630E 02	9.630E 02
ZR 96	9.533E 02	9.533E 02	9.533E 02	9.533E 02	9.533E 02	9.533E 02	9.533E 02	9.533E 02	9.533E 02
MO 96	5.126E 04	5.137E 04	5.137E 04	5.137E 04	5.137E 04	5.137E 04	5.137E 04	5.137E 04	5.137E 04
MO 97	9.175E 02	9.204E 02	9.204E 02	9.204E 02	9.204E 02	9.204E 02	9.204E 02	9.204E 02	9.204E 02
MO 98	9.399E 02	9.399E 02	9.399E 02	9.399E 02	9.399E 02	9.399E 02	9.399E 02	9.399E 02	9.399E 02
TC 98	1.064E 06	1.064E 06	1.064E 06	1.064E 06	1.064E 06	1.064E 06	1.064E 06	1.064E 06	1.064E 06
TC 99	8.944E 02	9.057E 02	9.056E 02	9.056E 02	9.056E 02	9.056E 02	9.056E 02	9.056E 02	9.056E 02
RU 99	1.381E 07	4.355E 07	1.025E 05	1.055E 05	1.084E 05	1.114E 05	1.144E 05	1.174E 05	1.203E 05
MO100	1.009E 01	1.009E 01	1.009E 01	1.009E 01	1.009E 01	1.009E 01	1.009E 01	1.009E 01	1.009E 01
RU100	1.176E 03	1.176E 03	1.176E 03	1.176E 03	1.176E 03	1.176E 03	1.176E 03	1.176E 03	1.176E 03
RU101	8.733E 02	8.733E 02	8.733E 02	8.733E 02	8.733E 02	8.733E 02	8.733E 02	8.733E 02	8.733E 02
RU102	7.721E 02	7.721E 02	7.721E 02	7.721E 02	7.721E 02	7.721E 02	7.721E 02	7.721E 02	7.721E 02
RH102	1.709E 07	1.346E 07	5.051E 11	3.977E 11	3.132E 11	2.466E 11	1.942E 11	1.529E 11	1.204E 11
RU103	9.405E 03	1.499E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.649E 02	5.589E 02	5.590E 02	5.590E 02	5.590E 02	5.590E 02	5.590E 02	5.590E 02	5.590E 02
RH103M	8.406E 06	1.340E 08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.043E 02	4.043E 02	4.043E 02	4.043E 02	4.043E 02	4.043E 02	4.043E 02	4.043E 02	4.043E 02
PD104	9.317E 04	9.317E 04	9.317E 04	9.317E 04	9.317E 04	9.317E 04	9.317E 04	9.317E 04	9.317E 04

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
PD105	2.170E 02	2.186E 02	2.186E-02	2.186E-02	2.186E 02	2.186E-02	2.186E-02	2.186E-02	2.186E-02
RU106	9.048E-03	4.549E-03	6.349E-13	3.192E-13	1.605E-13	8.069E-14	4.057E 14	2.040E-14	1.025E-14
RH106	8.513E-09	4.276E-09	5.968E 19	3.001E 19	1.509E-19	7.584E-20	3.813E 20	1.917E-20	9.638E-21
PD106	3.737E-03	8.236E-03	1.278E 02	1.278E-02	1.278E-02	1.278E-02	1.278E 02	1.278E-02	1.278E-02
AG106	2.553E-16	2.962E 29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	8.100E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E 03	8.101E-03	8.101E-03	8.101E 03
AG107	3.971E-10	1.261E-09	2.977E 08	3.063E-08	3.150E-08	3.236E-08	3.323E 08	3.409E 08	3.495E 08
PD108	5.234E-03	5.234E 03	5.234E 03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03
AG108	5.075E-13	5.045E 21	4.776E 21	4.768E-21	4.760E-21	4.752E-21	4.744E-21	4.737E 21	4.729E 21
AG108M	5.266E 12	5.258E 12	4.978E-12	4.969E-12	4.961E 12	4.953E-12	4.945E-12	4.937E-12	4.928E 12
CD108	3.401E 08	3.401E 08	3.401E-08	3.401E-08	3.401E 08	3.401E-08	3.401E-08	3.401E-08	3.401E 08
AG109	3.613E-03	3.623E-03	3.623E 03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E 03
AG109M	7.552E-09	6.682E 17	1.012E-24	5.864E-25	3.398E-25	1.969E 25	1.141E-25	6.612E-26	3.831E 26
CD109	1.167E-10	6.764E 11	1.024E 18	5.937E-19	3.440E 19	1.994E 19	1.155E-19	6.693E 20	3.878E 20
PD110	2.696E 03	2.696E-03	2.696E 03	2.696E-03	2.696E-03	2.696E-03	2.696E 03	2.696E-03	2.696E 03
AG110	1.247E-10	4.697E 14	1.418E 28	5.150E-29	1.870E-29	6.905E 30	2.559E-30	9.293E-31	4.182E 31
AG110M	8.537E-06	3.100E 06	9.355E-21	3.398E-21	1.229E-21	4.557E-22	1.689E 22	5.519E 23	2.760E 23
CD110	5.204E-05	5.748E-05	6.058E 05	6.058E-05	6.058E-05	6.058E-05	6.058E 05	6.058E-05	6.058E 05
AG111	7.071E 05	1.237E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	2.126E-03	2.197E 03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E 03	2.197E 03	2.197E 03
CD112	1.958E-03	1.965E-03	1.965E 03	1.965E-03	1.965E-03	1.965E 03	1.965E-03	1.965E-03	1.965E 03
CD113	1.903E-03	1.904E-03	1.904E-03	1.904E 03	1.904E-03	1.904E-03	1.904E 03	1.904E-03	1.904E-03
CD113M	3.206E-05	3.054E-05	6.031E-06	5.742E-06	5.466E 06	5.204E-06	4.954E-06	4.717E-06	4.490E-06
IN113	7.256E-07	2.263E 06	2.675E-05	2.704E 05	2.731E-05	2.757E 05	2.782E 05	2.806E-05	2.829E-05
CD114	1.855E-03	1.855E-03	1.855E 03	1.855E-03	1.855E-03	1.855E 03	1.855E-03	1.855E-03	1.855E-03
IN114	1.227E-13	1.706E 16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	1.763E 09	1.061E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.077E-08	1.239E-08	1.240E 08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E 08
CD115M	3.099E 05	1.061E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.559E-03	1.607E-03	1.607E 03	1.607E-03	1.607E-03	1.607E 03	1.607E-03	1.607E-03	1.607E-03
IN115M	1.290E-06	2.997E 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	6.265E 05	6.329E-05	6.329E 05	6.329E-05	6.329E-05	6.329E 05	6.329E-05	6.329E-05	6.329E 05
CD116	1.855E-03	1.855E 03	1.855E-03	1.855E 03	1.855E-03	1.855E-03	1.855E 03	1.855E 03	1.855E-03
SN116	2.109E-04	2.109E 04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E 04
SN117	1.831E-03	1.833E-03	1.833E 03	1.833E-03	1.833E-03	1.833E 03	1.833E-03	1.833E-03	1.833E 03
SN117M	1.146E-08	1.616E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	1.919E 03	1.920E-03	1.920E 03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E 03
SN119	1.884E 03	1.896E 03	1.902E 03	1.902E 03	1.902E-03	1.902E-03	1.902E 03	1.902E 03	1.902E-03
SN119M	1.792E-05	6.376E 06	9.913E-21	3.530E-21	1.251E 21	4.433E-22	1.614E-22	5.113E-23	2.559E 23
SN120	1.959E-03	1.959E 03	1.959E 03	1.959E-03	1.959E-03	1.959E 03	1.959E-03	1.959E 03	1.959E 03
SN121M	8.765E-07	8.655E 07	5.710E-07	5.639E-07	5.568E 07	5.499E-07	5.430E-07	5.362E 07	5.295E 07
SB121	1.915E 03	1.924E-03	1.924E 03	1.924E-03	1.924E-03	1.924E 03	1.924E-03	1.924E-03	1.924E 03
SN122	2.123E-03	2.123E-03	2.123E 03	2.123E 03	2.123E-03	2.123E-03	2.123E-03	2.123E 03	2.123E-03
TE122	2.501E-05	2.560E-05	2.560E 05	2.560E-05	2.560E-05	2.560E 05	2.560E-05	2.560E-05	2.560E 05
SN123	2.122E-04	2.989E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB123	2.063E-03	2.246E 03	2.276E 03	2.276E-03	2.276E-03	2.276E 03	2.276E-03	2.276E-03	2.276E 03
TE123	1.684E 07	1.824E-07	1.843E 07	1.843E-07	1.843E-07	1.843E-07	1.843E 07	1.843E 07	1.843E-07
TE123M	1.586E-08	1.913E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	2.729E-03	2.729E-03	2.729E 03	2.729E-03	2.729E-03	2.729E-03	2.729E 03	2.729E-03	2.729E 03
SB124	6.413E-06	9.561E 08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.107E-05	1.739E 05	1.748E 05	1.748E-05	1.748E-05	1.748E 05	1.748E 05	1.748E-05	1.748E 05
SN125	3.964E 05	1.558E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.839E 03	2.242E-03	5.809E 07	4.523E-07	3.521E-07	2.742E-07	2.135E-07	1.662E 07	1.294E-07
TE125	3.156E-04	9.508E-04	3.223E 03	3.223E-03	3.223E-03	3.223E-03	3.223E-03	3.223E-03	3.223E 03
TE125M	2.901E-05	3.121E 05	8.125E-09	6.326E-09	4.925E 09	3.835E-09	2.986E-09	2.325E-09	1.810E-09
SN126	4.710E-03	4.710E 03	4.709E 03	4.709E-03	4.709E-03	4.709E 03	4.709E-03	4.709E-03	4.708E-03
SB126	6.270E-06	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E 10
SB126M	3.345E-09	1.715E 12	1.714E 12	1.714E 12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E 12
TE126	1.478E-04	1.541E 04	1.551E 04	1.552E-04	1.552E 04	1.552E-04	1.553E-04	1.553E-04	1.553E 04
TE127	1.372E-05	1.709E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.778E-04	4.881E 05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	7.886E-03	8.470E 03	8.519E-03	8.519E-03	8.519E 03	8.519E 03	8.519E-03	8.519E-03	8.519E 03
XE127	2.377E-10	2.272E 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.596E-02	1.596E 02	1.596E-02	1.596E 02	1.596E 02	1.596E-02	1.596E-02	1.596E-02	1.596E 02
XE128	1.068E 04	1.068E 04	1.068E 04	1.068E 04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E 04
TE129	4.553E 06	2.367E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	4.710E 04	2.527E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.309E-02	2.358E 02	2.358E 02	2.358E 02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E 02
XE129	4.332E 07	4.345E 07	4.689E 07	4.699E-07	4.710E 07	4.720E 07	4.731E 07	4.741E 07	4.752E 07
XE129M	2.648E-10	4.776E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.181E 02	4.181E 02	4.181E 02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E 02
XE130	2.733E 04	2.745E 04	2.745E 04	2.745E-04	2.745E 04	2.745E 04	2.745E 04	2.745E 04	2.745E 04
I131	2.324E-03	5.048E 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.691E 02	6.933E 02	6.933E-02	6.933E 02	6.933E 02	6.933E 02	6.933E 02	6.933E 02	6.933E 02
XE131M	3.841E-05	6.889E 14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	9.865E 02	1.000E 01	1.000E 01	1.000E-01	1.000E-01	1.000E-01	1.000E 01	1.000E 01	1.000E 01
CS132	1.116E 07	1.163E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
BA132	3.857E 08	4.080E 08	4.080E 08	4.080E 08	4.080E 08	4.080E 08	4.080E 08	4.080E 08	4.080E 08
XE133	2.972E 03	4.005E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.353E 01	1.388E 01	1.388E 01	1.388E 01	1.388E 01	1.388E 01	1.388E 01	1.388E 01	1.388E 01
XE134	1.650E 01	1.650E 01	1.650E 01	1.650E 01	1.650E 01	1.650E 01	1.650E 01	1.650E 01	1.650E 01
CS134	1.800E 03	1.287E 03	1.957E 08	1.399E 08	9.992E 09	7.140E 09	5.101E 09	3.645E 09	2.604E 09
BA134	1.890E 04	7.031E 04	1.990E 03	1.990E 03	1.990E 03	1.990E 03	1.990E 03	1.990E 03	1.990E 03
CS135	1.377E 01	1.381E 01	1.381E 01	1.381E 01	1.381E 01	1.381E 01	1.381E 01	1.381E 01	1.381E 01
BA135	4.061E 07	4.480E 07	1.821E 06	1.863E 06	1.904E 06	1.946E 06	1.987E 06	2.029E 06	2.071E 06
XE136	1.402E 01	1.402E 01	1.402E 01	1.402E 01	1.402E 01	1.402E 01	1.402E 01	1.402E 01	1.402E 01
CS136	6.083E 05	2.467E 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	7.910E 04	8.518E 04	8.518E 04	8.518E 04	8.518E 04	8.518E 04	8.518E 04	8.518E 04	8.518E 04
BA136M	2.728E 12	1.106E 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.318E 01	1.288E 01	6.010E 02	5.873E 02	5.739E 02	5.608E 02	5.479E 02	5.354E 02	5.232E 02
BA137	1.466E 03	4.477E 03	7.321E 02	7.458E 02	7.592E 02	7.723E 02	7.851E 02	7.976E 02	8.099E 02
BA137M	2.025E 08	1.971E 08	9.195E 09	8.985E 09	8.779E 09	8.579E 09	8.383E 09	8.191E 09	8.004E 09
BA138	1.449E 01	1.449E 01	1.449E 01	1.449E 01	1.449E 01	1.449E 01	1.449E 01	1.449E 01	1.449E 01
LA138	5.972E 07	5.972E 07	5.972E 07	5.972E 07	5.972E 07	5.972E 07	5.972E 07	5.972E 07	5.972E 07
LA139	1.411E 01	1.412E 01	1.412E 01	1.412E 01	1.412E 01	1.412E 01	1.412E 01	1.412E 01	1.412E 01
BA140	7.152E 03	1.809E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	9.531E 04	2.728E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.311E 01	1.392E 01	1.392E 01	1.392E 01	1.392E 01	1.392E 01	1.392E 01	1.392E 01	1.392E 01
CE141	1.826E 02	7.621E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.162E 01	1.346E 01	1.346E 01	1.346E 01	1.346E 01	1.346E 01	1.346E 01	1.346E 01	1.346E 01
CE142	1.267E 01	1.267E 01	1.267E 01	1.267E 01	1.267E 01	1.267E 01	1.267E 01	1.267E 01	1.267E 01
ND142	4.491E 04	4.524E 04	4.524E 04	4.524E 04	4.524E 04	4.524E 04	4.524E 04	4.524E 04	4.524E 04
PR143	7.103E 03	6.220E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.215E 01	1.294E 01	1.294E 01	1.294E 01	1.294E 01	1.294E 01	1.294E 01	1.294E 01	1.294E 01
CE144	8.136E 02	3.339E 02	5.745E 15	2.358E 15	9.675E 16	3.971E 16	1.630E 16	6.687E 17	2.744E 17
PR144	3.443E 06	1.410E 06	2.426E 19	9.955E 20	4.085E 20	1.677E 20	6.881E 21	2.824E 21	1.159E 21
PR144M	1.719E 08	7.048E 09	1.213E 21	4.976E 22	2.042E 22	8.381E 23	3.440E 23	1.412E 23	5.793E 24
ND144	4.009E 02	8.807E 02	1.215E 01	1.215E 01	1.215E 01	1.215E 01	1.215E 01	1.215E 01	1.215E 01
ND145	8.743E 02	8.752E 02	8.752E 02	8.752E 02	8.752E 02	8.752E 02	8.752E 02	8.752E 02	8.752E 02
ND146	6.923E 02	6.924E 02	6.924E 02	6.924E 02	6.924E 02	6.924E 02	6.924E 02	6.924E 02	6.924E 02
PM146	2.374E 06	2.093E 06	3.270E 08	2.883E 08	2.542E 08	2.241E 08	1.975E 08	1.741E 08	1.535E 08
SM146	4.650E 07	5.690E 07	1.331E 06	1.333E 06	1.334E 06	1.335E 06	1.336E 06	1.337E 06	1.338E 06
ND147	2.584E 03	2.961E 13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	4.409E 02	3.586E 02	5.861E 06	4.500E 06	3.455E 06	2.653E 06	2.037E 06	1.564E 06	1.201E 06
SM147	5.523E 03	1.637E 02	5.222E 02	5.222E 02	5.222E 02	5.222E 02	5.222E 02	5.222E 02	5.222E 02
ND148	4.038E 02	4.038E 02	4.038E 02	4.038E 02	4.038E 02	4.038E 02	4.038E 02	4.038E 02	4.038E 02
PM148	7.201E 05	9.576E 09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	6.010E 04	1.306E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.999E 03	3.671E 03	3.672E 03	3.672E 03	3.672E 03	3.672E 03	3.672E 03	3.672E 03	3.672E 03
SM149	2.554E 02	2.580E 02	2.580E 02	2.580E 02	2.580E 02	2.580E 02	2.580E 02	2.580E 02	2.580E 02
ND150	1.679E 02	1.679E 02	1.679E 02	1.679E 02	1.679E 02	1.679E 02	1.679E 02	1.679E 02	1.679E 02
SM150	1.038E 03	1.038E 03	1.038E 03	1.038E 03	1.038E 03	1.038E 03	1.038E 03	1.038E 03	1.038E 03
EU150	5.410E 10	5.307E 10	2.816E 10	2.762E 10	2.710E 10	2.658E 10	2.607E 10	2.558E 10	2.509E 10
SM151	1.038E 02	1.036E 02	8.034E 03	7.972E 03	7.911E 03	7.850E 03	7.790E 03	7.730E 03	7.671E 03
EU151	3.487E 05	1.150E 04	2.440E 03	2.502E 03	2.563E 03	2.623E 03	2.684E 03	2.743E 03	2.803E 03
SM152	8.023E 03	8.023E 03	8.025E 03	8.025E 03	8.025E 03	8.025E 03	8.025E 03	8.025E 03	8.025E 03
EU152	2.325E 06	2.209E 06	4.079E 07	3.875E 07	3.682E 07	3.498E 07	3.324E 07	3.158E 07	3.000E 07
GD152	8.930E 07	9.299E 07	1.432E 06	1.437E 06	1.443E 06	1.448E 06	1.453E 06	1.457E 06	1.462E 06
EU153	4.845E 03	4.888E 03	4.888E 03	4.888E 03	4.888E 03	4.888E 03	4.888E 03	4.888E 03	4.888E 03
GD153	5.280E 08	1.855E 08	1.887E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM154	2.352E 03	2.352E 03	2.352E 03	2.352E 03	2.352E 03	2.352E 03	2.352E 03	2.352E 03	2.352E 03
EU154	2.818E 04	2.600E 04	1.816E 05	1.675E 05	1.545E 05	1.425E 05	1.315E 05	1.213E 05	1.119E 05
GD154	7.064E 06	2.890E 05	2.707E 04	2.721E 04	2.734E 04	2.746E 04	2.757E 04	2.768E 04	2.777E 04
EU155	1.347E 03	1.164E 03	9.527E 06	8.236E 06	7.119E 06	6.155E 06	5.320E 06	4.599E 06	3.976E 06
GD155	9.204E 05	2.746E 04	1.430E 03	1.431E 03	1.432E 03	1.433E 03	1.434E 03	1.434E 03	1.435E 03
EU156	5.779E 05	3.391E 12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	7.808E 04	8.398E 04	8.398E 04	8.398E 04	8.398E 04	8.398E 04	8.398E 04	8.398E 04	8.398E 04
GD157	4.394E 04	4.407E 04	4.407E 04	4.407E 04	4.407E 04	4.407E 04	4.407E 04	4.407E 04	4.407E 04
GD158	2.925E 04	2.926E 04	2.926E 04	2.926E 04	2.926E 04	2.926E 04	2.926E 04	2.926E 04	2.926E 04
TB159	1.044E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04
GD160	5.346E 05	5.346E 05	5.346E 05	5.346E 05	5.346E 05	5.346E 05	5.346E 05	5.346E 05	5.346E 05
TB160	1.625E 06	4.901E 08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	2.020E 06	3.596E 06	3.645E 06	3.645E 06	3.645E 06	3.645E 06	3.645E 06	3.645E 06	3.645E 06
TB161	7.571E 07	9.789E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	2.199E 05	2.274E 05	2.274E 05	2.274E 05	2.274E 05	2.274E 05	2.274E 05	2.274E 05	2.274E 05
DY162	1.521E 05	1.521E 05	1.521E 05	1.521E 05	1.521E 05	1.521E 05	1.521E 05	1.521E 05	1.521E 05
DY163	6.139E 06	6.139E 06	6.139E 06	6.139E 06	6.139E 06	6.139E 06	6.139E 06	6.139E 06	6.139E 06
DY164	3.410E 06	3.410E 06	3.410E 06	3.410E 06	3.410E 06	3.410E 06	3.410E 06	3.410E 06	3.410E 06
HO165	1.741E 06	1.742E 06	1.742E 06	1.742E 06	1.742E 06	1.742E 06	1.742E 06	1.742E 06	1.742E 06
HO166M	4.336E 09	4.334E 09	4.252E 09	4.249E 09	4.247E 09	4.245E 09	4.242E 09	4.240E 09	4.237E 09
ER166	9.888E 07	1.010E 06	1.010E 06	1.010E 06	1.010E 06	1.010E 06	1.010E 06	1.010E 06	1.010E 06
ER167	5.707E 07	5.707E 07	5.707E 07	5.707E 07	5.707E 07	5.707E 07	5.707E 07	5.707E 07	5.707E 07
ER168	2.068E 08	2.068E 08	2.068E 08	2.068E 08	2.068E 08	2.068E 08	2.068E 08	2.068E 08	2.068E 08
ER169	2.553E 12	5.129E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
TM169	1.925E 11	2.180E 11	2.180E-11	2.180E 11	2.180E-11	2.180E-11	2.180E-11	2.180E 11	2.180E-11
ER170	2.927E-16	9.664E 16	1.076E-15	1.076E-15	1.076E 15	1.076E-15	1.076E-15	1.076E 15	1.076E-15
TM170	5.364E-13	7.488E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	1.993E-13	6.601E-13	7.349E-13	7.349E-13	7.349E-13	7.349E 13	7.349E-13	7.349E-13	7.349E-13
TM171	4.384E 15	3.055E-15	2.047E-20	1.425E-20	9.924E-21	6.910E 21	4.811E-21	3.350E-21	2.333E-21
YB171	1.181E 15	2.509E-15	5.565E-15	5.565E 15	5.565E-15	5.565E-15	5.565E 15	5.565E-15	5.565E 15
YB172	1.302E 17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E 17	1.357E 17	1.357E-17
H 1	7.784E 05	7.784E 05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05	7.784E-05
H 2	8.300E-10	8.300E-10	8.300E 10	8.300E-10	8.300E-10	8.300E 10	8.300E-10	8.300E-10	8.300E 10
H 3	1.587E 13	1.500E-13	2.347E-14	2.219E-14	2.097E-14	1.983E-14	1.874E 14	1.772E-14	1.675E-14
HE 3	1.872E 15	1.055E-14	1.371E-13	1.384E-13	1.396E-13	1.408E-13	1.418E 13	1.429E-13	1.438E-13
HE 4	8.998E 06	8.998E-06	8.998E 06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E-06	8.998E 06
LI 6	3.129E 11	3.129E-11	3.129E 11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11	3.129E-11
LI 7	2.769E-17	2.769E 17	2.769E-17	2.769E-17	2.769E 17	2.769E-17	2.769E-17	2.769E-17	2.769E-17
BE 9	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08	6.356E-08
BE 10	1.498E 09	1.498E-09	1.498E-09	1.498E 09	1.498E-09	1.498E-09	1.498E 09	1.498E-09	1.498E 09
B 10	3.978E-16	1.300E 15	3.107E-14	3.198E-14	3.288E 14	3.378E-14	3.468E-14	3.559E-14	3.649E-14
B 11	3.328E-17	3.328E 17	3.328E-17	3.328E-17	3.328E 17	3.328E-17	3.328E-17	3.328E 17	3.328E-17
C 12	5.640E 03	5.640E-03	5.640E 03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03	5.640E-03
C 13	6.270E 05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05	6.270E-05
C 14	7.848E-12	7.847E 12	7.816E-12	7.815E-12	7.814E-12	7.813E-12	7.812E 12	7.811E-12	7.810E-12
N 14	4.393E-16	1.389E-15	3.266E-14	3.360E-14	3.455E 14	3.549E-14	3.644E-14	3.738E-14	3.833E-14
N 15	7.087E-22	7.087E-22	7.087E-22	7.087E-22	7.087E 22	7.087E-22	7.087E 22	7.087E-22	7.087E-22
O 16	3.185E 34	5.670E-34	5.670E 34	5.670E-34	5.670E-34	5.670E-34	5.670E 34	5.670E-34	5.670E-34
O 17	1.193E-21	1.193E 21	1.193E-21	1.193E 21	1.193E-21	1.193E-21	1.193E-21	1.193E-21	1.193E 21
NE 20	2.356E-17	2.356E 17	2.356E-17	2.356E-17	2.356E 17	2.356E-17	2.356E-17	2.356E 17	2.356E-17
NE 21	1.154E-19	1.154E 19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19	1.154E-19
NE 22	1.233E 10	1.233E-10	1.233E 10	1.233E-10	1.233E 10	1.233E-10	1.233E-10	1.233E-10	1.233E-10
NA 22	4.882E 20	3.741E-20	5.688E 24	5.688E-24	5.688E 24	5.688E-24	5.688E-24	5.688E-24	5.688E-24
NA 23	9.634E 12	9.634E-12	9.634E 12	9.634E-12	9.634E 12	9.634E-12	9.634E-12	9.634E 12	9.634E-12
MG 24	2.210E 14	2.222E-14	2.222E-14	2.222E-14	2.222E 14	2.222E-14	2.222E-14	2.222E 14	2.222E-14
MG 25	1.380E-06	1.380E 06	1.380E-06	1.380E 06	1.380E-06	1.380E-06	1.380E-06	1.380E-06	1.380E 06
MG 26	6.077E 07	6.077E-07	6.077E-07	6.077E-07	6.077E-07	6.077E 07	6.077E-07	6.077E 07	6.077E-07
AL 27	6.334E 09	6.334E-09	6.334E-09	6.334E-09	6.334E 09	6.334E-09	6.334E 09	6.334E-09	6.334E-09
SI 28	1.750E 01	1.750E-01	1.750E 01	1.750E-01	1.750E-01	1.750E 01	1.750E-01	1.750E-01	1.750E 01
SI 29	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03	8.871E-03
SI 30	5.890E 03	5.890E-03	5.890E-03	5.890E 03	5.890E-03	5.890E 03	5.890E-03	5.890E-03	5.890E 03
SI 32	2.944E 14	2.941E-14	2.839E 14	2.836E-14	2.833E-14	2.830E 14	2.827E-14	2.824E 14	2.821E-14
P 31	8.550E 03	8.550E-03	8.550E-03	8.550E-03	8.550E-03	8.550E 03	8.550E-03	8.550E 03	8.550E-03
P 32	2.484E-07	5.086E-15	1.710E-18	1.708E-18	1.706E 18	1.705E-18	1.703E 18	1.701E-18	1.699E-18
P 33	3.781E-13	1.512E 17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 32	5.419E-03	5.419E 03	5.419E-03	5.419E 03	5.419E-03	5.419E 03	5.419E-03	5.419E-03	5.419E 03
S 33	4.292E 05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E-05	4.292E 05	4.292E-05
S 34	2.400E-04	2.400E-04	2.400E 04	2.400E-04	2.400E-04	2.400E 04	2.400E-04	2.400E-04	2.400E-04
S 35	7.620E-08	4.291E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 36	1.891E-17	7.072E 17	1.780E-15	1.832E-15	1.884E-15	1.936E-15	1.988E 15	2.039E-15	2.091E-15
CL 35	1.065E-06	1.137E-06	1.141E 06	1.141E-06	1.141E-06	1.141E-06	1.141E-06	1.141E 06	1.141E 06
CL 36	1.184E 09	1.184E-09	1.184E 09	1.184E-09	1.184E-09	1.184E 09	1.184E-09	1.184E-09	1.184E 09
CL 37	1.943E 13	1.943E-13	1.943E-13	1.943E 13	1.943E-13	1.943E 13	1.943E-13	1.943E-13	1.943E-13
AR 36	9.759E 16	3.651E-15	9.193E 14	9.460E-14	9.728E 14	9.995E 14	1.026E-13	1.053E 13	1.080E-13
AR 37	2.405E-20	1.745E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 38	1.538E-18	1.539E-18	1.539E-18	1.539E-18	1.539E 18	1.539E 18	1.539E-18	1.539E 18	1.539E 18
AR 39	4.556E 24	4.556E-24	4.556E-24	4.556E 24	4.556E-24	4.556E 24	4.556E-24	4.556E-24	4.556E-24
AR 42	5.043E-29	5.043E 29	5.043E 29	5.043E-29	5.043E-29	5.043E 29	5.043E-29	5.043E-29	5.043E-29
K 41	4.569E 18	4.574E 18	4.574E-18	4.574E 18	4.574E-18	4.574E 18	4.574E 18	4.574E-18	4.574E-18
K 42	1.506E-24	2.155E-33	2.155E-33	2.155E-33	2.155E-33	2.155E 33	2.155E 33	2.155E-33	2.155E-33
CA 42	1.478E 22	1.493E-22	1.493E 22	1.493E-22	1.493E-22	1.493E 22	1.493E-22	1.493E-22	1.493E 22
CA 43	1.577E-20	1.577E-20	1.577E-20	1.577E 20	1.577E-20	1.577E 20	1.577E-20	1.577E-20	1.577E 20
CA 44	3.523E-11	3.523E 11	3.523E-11	3.523E 11	3.523E-11	3.523E-11	3.523E 11	3.523E-11	3.523E-11
CA 45	4.404E 16	9.313E 17	0.000E+00	0.000E+00	0.000E+00	0.000E-00	0.000E+00	0.000E+00	0.000E+00
CA 46	1.131E 11	1.131E-11	1.131E 11	1.131E-11	1.131E 11	1.131E-11	1.131E-11	1.131E-11	1.131E-11
SC 45	1.650E 16	5.123E-16	6.054E-16	6.054E-16	6.054E 16	6.054E 16	6.054E-16	6.054E 16	6.054E 16
SC 46	2.401E 20	1.169E 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	1.199E 20	3.483E 20	3.600E-20	3.600E 20	3.600E-20	3.600E 20	3.600E 20	3.600E 20	3.600E-20
TI 47	1.145E-06	1.145E 06	1.145E-06	1.145E-06	1.145E-06	1.145E 06	1.145E 06	1.145E 06	1.145E-06
TI 48	9.616E-11	9.620E 11	9.620E-11	9.620E-11	9.620E 11	9.620E-11	9.620E-11	9.620E-11	9.620E 11
TI 49	2.493E 06	2.493E-06	2.493E 06	2.493E-06	2.493E 06	2.493E 06	2.493E-06	2.493E-06	2.493E-06
TI 50	1.160E 05	1.160E 05	1.160E-05	1.160E 05	1.160E-05	1.160E-05	1.160E 05	1.160E-05	1.160E-05
V 50	4.738E-05	4.738E 05	4.738E-05	4.738E 05	4.738E 05	4.738E-05	4.738E-05	4.738E 05	4.738E 05
V 51	1.138E 04	1.295E-04	1.295E 04	1.295E-04	1.295E-04	1.295E 04	1.295E 04	1.295E-04	1.295E-04
CR 50	1.568E 01	1.568E-01	1.568E 01	1.568E-01	1.568E-01	1.568E 01	1.568E-01	1.568E-01	1.568E-01
CR 51	1.567E 05	1.686E-09	0.000E+00	0.000E+00	0.000E+00	0.000E-00	0.000E+00	0.000E+00	0.000E+00
CR 52	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00	3.020E+00
CR 53	3.429E 01	3.429E 01	3.429E-01	3.429E 01	3.429E 01	3.429E 01	3.429E-01	3.429E-01	3.429E-01
CR 54	8.586E-02	8.610E 02	8.629E-02	8.629E 02	8.629E-02	8.629E-02	8.629E 02	8.629E 02	8.629E 02
MN 54	4.228E-04	1.880E-04	4.607E 16	2.049E 16	9.114E 17	4.054E 17	1.803E 17	8.020E 18	3.567E 18
MN 55	1.174E 05	3.040E-05	9.150E 05	9.150E-05	9.150E 05	9.151E 05	9.151E-05	9.151E-05	9.151E 05

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
FE 54	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01	7.603E-01
FE 55	7.977E-05	6.111E-05	9.232E-09	7.072E-09	5.417E-09	4.149E-09	3.178E-09	2.434E-09	1.865E-09
FE 56	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01	1.180E+01
FE 57	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01	2.725E-01
FE 58	3.840E-02	3.928E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02	3.930E-02
FE 59	8.180E-07	2.949E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	9.057E-04	2.532E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	4.272E-04	4.280E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04	4.282E-04
CO 60	2.423E-05	2.124E-05	2.767E-07	2.426E-07	2.127E-07	1.865E-07	1.635E-07	1.434E-07	1.257E-07
NI 58	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00	2.686E+00
NI 59	5.344E-04	5.344E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.343E-04	5.342E-04	5.342E-04
NI 60	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00	1.030E+00
NI 61	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02	4.463E-02
NI 62	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01	1.409E-01
NI 63	8.675E-05	8.609E-05	6.714E-05	6.664E-05	6.614E-05	6.564E-05	6.515E-05	6.466E-05	6.417E-05
NI 64	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02	3.590E-02
CU 63	3.030E-07	9.541E-07	1.991E-05	2.041E-05	2.091E-05	2.141E-05	2.190E-05	2.239E-05	2.287E-05
CU 65	3.584E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06	3.586E-06
ZN 64	2.255E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11	2.270E-11
ZN 65	6.480E-16	2.294E-16	3.034E-31	3.034E-31	3.034E-31	3.034E-31	3.034E-31	3.034E-31	3.034E-31
ZN 66	3.905E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10	3.906E-10
ZN 67	9.450E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15	9.451E-15
ZN 68	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18	4.288E-18
GA 69	2.285E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22	2.290E-22
GA 71	0.000E+00	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43	1.990E-43
GE 70	1.155E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29	3.245E-29
SR 87	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14	2.686E-14
SR 88	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15	5.783E-15
SR 89	4.655E-12	3.094E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	3.419E-12	3.338E-12	1.508E-12	1.472E-12	1.437E-12	1.402E-12	1.369E-12	1.336E-12	1.305E-12
Y 89	8.492E-12	1.312E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11	1.315E-11
Y 90	1.522E-08	8.470E-16	3.825E-16	3.734E-16	3.646E-16	3.559E-16	3.474E-16	3.391E-16	3.311E-16
Y 91	2.580E-11	3.406E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	1.285E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06	1.301E-06
ZR 91	9.769E-10	1.002E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09	1.003E-09
ZR 92	3.195E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05	3.344E-05
ZR 93	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05	1.189E-05
ZR 94	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08	2.679E-08
ZR 95	5.361E-12	1.025E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14	1.258E-14
NB 92	1.491E-06	2.247E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00	1.879E+00
NB 93M	2.337E-12	7.211E-12	8.309E-11	8.396E-11	8.478E-11	8.555E-11	8.629E-11	8.700E-11	8.766E-11
NB 94	2.118E-02	2.118E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02	2.115E-02
NB 95	3.366E-05	2.506E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	2.171E-15	4.290E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	3.358E-07	1.059E-06	2.491E-05	2.563E-05	2.635E-05	2.707E-05	2.779E-05	2.852E-05	2.924E-05
MO 95	9.551E-05	1.291E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04	1.292E-04
MO 96	7.299E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07	7.326E-07
MO 97	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10	5.944E-10
MO 98	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12	1.797E-12
MO100	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19	5.273E-19
TC 98	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22	6.784E-22
TC 99	2.070E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16	2.225E-16
RU 99	6.654E-23	7.971E-22	2.491E-20	2.564E-20	2.637E-20	2.710E-20	2.783E-20	2.856E-20	2.929E-20
RU100	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19	7.872E-19
RU101	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21	1.159E-21
HE 4	1.572E-07	5.337E-07	1.262E-05	1.297E-05	1.333E-05	1.369E-05	1.404E-05	1.440E-05	1.475E-05
TL206	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34	8.627E-34
TL207	7.950E-20	4.091E-19	9.600E-17	1.009E-16	1.057E-16	1.105E-16	1.154E-16	1.204E-16	1.254E-16
TL208	3.437E-17	2.341E-16	2.492E-15	2.476E-15	2.451E-15	2.427E-15	2.402E-15	2.378E-15	2.355E-15
TL209	9.970E-23	2.696E-22	5.583E-21	5.749E-21	5.916E-21	6.083E-21	6.251E-21	6.419E-21	6.587E-21
PB206	2.879E-18	4.281E-17	1.885E-13	2.097E-13	2.321E-13	2.563E-13	2.822E-13	3.101E-13	3.400E-13
PB207	1.758E-15	1.858E-14	9.282E-11	1.004E-10	1.082E-10	1.165E-10	1.251E-10	1.341E-10	1.435E-10
PB208	2.784E-12	4.249E-11	2.931E-08	3.013E-08	3.094E-08	3.175E-08	3.254E-08	3.333E-08	3.412E-08
PB209	4.154E-19	1.123E-18	2.326E-17	2.393E-17	2.465E-17	2.535E-17	2.604E-17	2.674E-17	2.744E-17
PB210	1.564E-15	2.075E-15	6.788E-13	7.339E-13	7.917E-13	8.522E-13	9.155E-13	9.815E-13	1.050E-12
PB211	6.150E-19	3.165E-18	7.427E-16	7.806E-16	8.175E-16	8.549E-16	8.929E-16	9.313E-16	9.702E-16
PB212	2.028E-14	1.381E-13	1.470E-12	1.460E-12	1.446E-12	1.431E-12	1.417E-12	1.403E-12	1.389E-12
PB214	3.634E-21	1.623E-20	5.617E-18	5.943E-18	6.279E-18	6.624E-18	6.979E-18	7.342E-18	7.715E-18
BI208	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21	1.192E-21
BI209	2.233E-16	1.629E-15	7.331E-13	7.765E-13	8.212E-13	8.672E-13	9.144E-13	9.629E-13	1.013E-12
BI210M	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22	3.325E-22
BI210	8.992E-19	1.277E-18	4.177E-16	4.518E-16	4.874E-16	5.247E-16	5.636E-16	6.043E-16	6.466E-16
BI211	3.629E-20	1.867E-19	4.382E-17	4.606E-17	4.823E-17	5.044E-17	5.268E-17	5.495E-17	5.725E-17
BI212	1.923E-15	1.310E-14	1.394E-13	1.386E-13	1.371E-13	1.358E-13	1.244E-13	1.331E-13	1.317E-13

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
BI213	9.761E-20	2.639E-19	5.466E-18	5.629E-18	5.792E-18	5.956E-18	6.120E-18	6.284E-18	6.449E-18
BI214	2.699E-21	1.205E-20	4.170E-18	4.413E-18	4.662E-18	4.919E-18	5.182E-18	5.452E-18	5.729E-18
PO210	7.777E-18	2.995E-17	1.154E-14	1.192E-14	1.278E-14	1.376E-14	1.479E-14	1.587E-14	1.700E-14
PO211	4.452E-25	2.291E-24	5.376E-22	5.651E-22	5.918E-22	6.189E-22	6.464E-22	6.742E-22	7.024E-22
PO212	1.018E-25	6.929E-25	7.375E-24	7.329E-24	7.255E-24	7.183E-24	7.111E-24	7.040E-24	6.970E-24
PO213	1.464E-28	3.960E-28	8.200E-27	8.445E-27	8.690E-27	8.935E-27	9.181E-27	9.428E-27	9.675E-27
PO214	4.241E-26	1.658E-27	5.738E-25	6.071E-25	6.414E-25	6.767E-25	7.129E-25	7.500E-25	7.881E-25
PO215	5.150E-25	2.650E-24	6.219E-22	6.537E-22	6.845E-22	7.159E-22	7.477E-22	7.798E-22	8.124E-22
PO216	8.090E-20	5.509E-19	5.864E-18	5.827E-18	5.769E-18	5.711E-18	5.654E-18	5.598E-18	5.542E-18
PO218	4.214E-22	1.881E-21	6.513E-19	6.892E-19	7.281E-19	7.681E-19	8.092E-19	8.514E-19	8.946E-19
AT217	1.173E-24	3.171E-24	6.566E-23	6.762E-23	6.958E-23	7.155E-23	7.352E-23	7.550E-23	7.748E-23
RN218	9.122E-24	4.724E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	1.167E-21	6.006E-21	1.409E-18	1.481E-18	1.551E-18	1.622E-18	1.694E-18	1.767E-18	1.841E-18
RN220	3.054E-17	2.080E-16	2.214E-15	2.200E-15	2.178E-15	2.156E-15	2.135E-15	2.113E-15	2.092E-15
RN222	7.748E-19	3.459E-18	1.197E-15	1.267E-15	1.339E-15	1.412E-15	1.488E-15	1.565E-15	1.645E-15
FR221	1.065E-20	2.879E-20	5.963E-19	6.141E-19	6.319E-19	6.497E-19	6.676E-19	6.856E-19	7.035E-19
FR223	6.848E-21	2.786E-20	6.541E-18	6.860E-18	7.185E-18	7.514E-18	7.847E-18	8.185E-18	8.527E-18
RA222	1.009E-20	5.223E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	2.965E-16	1.526E-15	3.580E-13	3.763E-13	3.941E-13	4.121E-13	4.304E-13	4.489E-13	4.677E-13
RA224	1.769E-13	1.204E-12	1.282E-11	1.274E-11	1.261E-11	1.249E-11	1.236E-11	1.224E-11	1.212E-11
RA225	5.273E-17	1.302E-16	2.696E-15	2.776E-15	2.857E-15	2.938E-15	3.019E-15	3.100E-15	3.181E-15
RA226	1.205E-13	5.381E-13	1.863E-10	1.971E-10	2.083E-10	2.197E-10	2.315E-10	2.435E-10	2.559E-10
RA228	2.272E-19	1.545E-18	3.090E-16	3.205E-16	3.321E-16	3.437E-16	3.553E-16	3.670E-16	3.786E-16
AC225	3.252E-17	8.794E-17	1.821E-15	1.876E-15	1.930E-15	1.984E-15	2.039E-15	2.094E-15	2.149E-15
AC227	2.654E-13	1.080E-12	2.535E-10	2.658E-10	2.784E-10	2.911E-10	3.041E-10	3.171E-10	3.304E-10
AC228	6.223E-18	1.879E-22	3.758E-20	3.899E-20	4.040E-20	4.181E-20	4.322E-20	4.464E-20	4.605E-20
TH226	5.025E-19	2.603E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	5.358E-16	2.507E-15	5.882E-13	6.183E-13	6.475E-13	6.772E-13	7.072E-13	7.377E-13	7.685E-13
TH228	3.422E-11	2.339E-10	2.491E-09	2.466E-09	2.442E-09	2.417E-09	2.393E-09	2.369E-09	2.346E-09
TH229	1.015E-11	2.399E-11	4.969E-10	5.117E-10	5.265E-10	5.414E-10	5.563E-10	5.713E-10	5.862E-10
TH230	2.989E-08	6.458E-08	1.217E-06	1.252E-06	1.287E-06	1.322E-06	1.357E-06	1.392E-06	1.428E-06
TH231	1.192E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10
TH232	1.453E-08	4.370E-08	1.006E-06	1.036E-06	1.065E-06	1.094E-06	1.123E-06	1.152E-06	1.182E-06
TH234	4.306E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10	4.295E-10
PA231	2.599E-08	5.413E-08	9.787E-07	1.007E-06	1.035E-06	1.063E-06	1.091E-06	1.119E-06	1.147E-06
PA233	6.097E-10	7.458E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10	7.459E-10
PA234M	1.458E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14	1.448E-14
PA234	2.758E-14	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15	6.468E-15
U230	4.941E-16	2.557E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	1.262E-08	3.565E-08	8.875E-08	8.787E-08	8.700E-08	8.613E-08	8.527E-08	8.442E-08	8.357E-08
U233	3.231E-06	3.239E-06	3.469E-06	3.477E-06	3.485E-06	3.492E-06	3.500E-06	3.508E-06	3.515E-06
U234	1.250E-02	1.251E-02	1.265E-02	1.266E-02	1.266E-02	1.266E-02	1.267E-02	1.267E-02	1.268E-02
U235	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01	2.895E+01
U236	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
U237	1.087E-03	2.292E-12	4.655E-13	4.436E-13	4.227E-13	4.027E-13	3.838E-13	3.657E-13	3.484E-13
U238	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01	2.960E+01
U240	1.000E-10	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24	1.168E-24
NP235	1.471E-09	7.763E-10	5.357E-19	2.827E-19	1.492E-19	7.872E-20	4.153E-20	2.191E-20	1.158E-20
NP236	8.392E-08	8.392E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08	8.390E-08
NP237	2.091E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02	2.200E-02
NP238	1.604E-05	6.744E-16	5.735E-16	5.706E-16	5.678E-16	5.651E-16	5.623E-16	5.595E-16	5.568E-16
NP239	6.254E-03	2.331E-15	2.324E-15	2.324E-15	2.324E-15	2.323E-15	2.323E-15	2.323E-15	2.323E-15
NP240M	1.784E-10	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26	1.021E-26
PU236	1.083E-07	8.591E-08	2.835E-11	2.227E-11	1.750E-11	1.377E-11	1.084E-11	8.537E-12	6.735E-12
PU237	1.198E-08	4.651E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	6.478E-04	6.586E-04	5.074E-04	5.034E-04	4.995E-04	4.955E-04	4.916E-04	4.878E-04	4.839E-04
PU239	5.604E-01	5.667E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01	5.661E-01
PU240	7.751E-03	7.750E-03	7.723E-03	7.722E-03	7.721E-03	7.720E-03	7.720E-03	7.719E-03	7.718E-03
PU241	7.742E-05	7.377E-05	1.499E-05	1.428E-05	1.361E-05	1.296E-05	1.235E-05	1.177E-05	1.122E-05
PU242	5.141E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07	5.142E-07
PU243	1.211E-11	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29	1.977E-29
PU244	5.970E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14	5.971E-14
PU246	9.442E-22	6.939E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM241	8.576E-07	4.504E-06	6.114E-05	6.175E-05	6.232E-05	6.286E-05	6.337E-05	6.385E-05	6.430E-05
AM242M	3.353E-09	3.337E-09	2.837E-09	2.823E-09	2.809E-09	2.796E-09	2.782E-09	2.768E-09	2.755E-09
AM242	1.974E-10	4.298E-14	3.654E-14	3.636E-14	3.618E-14	3.601E-14	3.583E-14	3.565E-14	3.548E-14
AM243	2.697E-09	2.709E-09	2.701E-09	2.701E-09	2.700E-09	2.700E-09	2.700E-09	2.700E-09	2.699E-09
AM245	2.502E-19	1.138E-35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AM246	1.511E-24	1.112E-34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM241	1.855E-15	1.637E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	9.180E-09	1.987E-09	7.398E-12	7.371E-12	7.337E-12	7.301E-12	7.265E-12	7.230E-12	7.194E-12
CM243	2.617E-11	2.554E-11	1.145E-11	1.117E-11	1.090E-11	1.064E-11	1.038E-11	1.013E-11	9.891E-12
CM244	2.558E-11	2.465E-11	6.969E-12	6.708E-12	6.456E-12	6.213E-12	5.980E-12	5.755E-12	5.539E-12
CM245	1.726E-13	1.726E-13	1.721E-13	1.721E-13	1.721E-13	1.721E-13	1.720E-13	1.720E-13	1.720E-13
CM246	3.874E-16	3.873E-16	3.854E-16	3.854E-16	3.853E-16	3.853E-16	3.852E-16	3.852E-16	3.851E-16
CM247	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19	5.546E-19
CM248	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22	9.207E-22

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
CM250	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36	5.969E-36
BK249	4.701E-28	2.960E-27	1.360E-38	1.360E-38	1.360E-38	1.360E-38	1.360E-38	1.360E-38	1.360E-38
CF250	0.000E+00	1.286E-32	1.286E-32	1.286E-32	1.286E-32	1.286E-32	1.286E-32	1.286E-32	1.286E-32
CF251	0.000E+00	8.677E-38	8.677E-38	8.677E-38	8.677E-38	8.677E-38	8.677E-38	8.677E-38	8.677E-38
SF250	1.870E-14	7.463E-14	1.859E-12	1.912E-12	1.965E-12	2.018E-12	2.070E-12	2.123E-12	2.175E-12
H 3	9.585E-06	9.062E-06	1.422E-06	1.344E-06	1.271E-06	1.201E-06	1.136E-06	1.074E-06	1.015E-06
LI 6	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08	4.827E-08
LI 7	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09	1.144E-09
BE 9	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09	2.202E-09
BE 10	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08	1.471E-08
C 14	2.974E-09	2.974E-09	2.962E-09	2.962E-09	2.961E-09	2.961E-09	2.961E-09	2.960E-09	2.960E-09
ZN 66	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11	9.626E-11
ZN 67	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12	4.038E-12
ZN 68	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15	3.752E-15
GA 69	3.786E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19	3.790E-19
GE 70	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22	1.119E-22
GA 71	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09	1.066E-09
GE 72	6.756E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06	6.828E-06
GE 73	1.792E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05	1.794E-05
GE 74	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05	3.572E-05
AS 75	6.092E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05	6.093E-05
GE 76	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04	1.434E-04
SE 76	6.077E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07	6.134E-07
SE 77	2.871E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04	2.893E-04
SE 78	5.850E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04	5.853E-04
SE 79	8.705E-04	8.705E-04	8.702E-04	8.702E-04	8.702E-04	8.701E-04	8.701E-04	8.701E-04	8.701E-04
BR 79	4.384E-09	1.367E-08	3.201E-07	3.294E-07	3.387E-07	3.480E-07	3.573E-07	3.666E-07	3.758E-07
SE 80	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03	1.908E-03
KR 80	3.617E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09	3.619E-09
BR 81	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03	3.035E-03
KR 81	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10	1.177E-10
SE 82	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03	4.355E-03
KR 82	3.884E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05	3.932E-05
KR 83	7.574E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03	7.579E-03
KR 84	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02	1.443E-02
KR 85	3.634E-03	3.409E-03	4.036E-04	3.783E-04	3.547E-04	3.324E-04	3.116E-04	2.921E-04	2.738E-04
RB 85	1.387E-02	1.411E-02	1.712E-02	1.714E-02	1.716E-02	1.719E-02	1.721E-02	1.723E-02	1.725E-02
KR 86	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02	2.723E-02
RB 86	1.233E-05	1.577E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	7.161E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05	8.394E-05
RB 87	3.467E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02	3.468E-02
SR 87	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07	4.676E-07
SR 88	5.106E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02	5.109E-02
SR 89	1.344E-02	8.939E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	5.111E-02	6.446E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02	6.455E-02
SR 90	7.720E-02	7.538E-02	3.437E-02	3.356E-02	3.277E-02	3.200E-02	3.125E-02	3.051E-02	2.979E-02
Y 90	2.023E-05	1.890E-05	8.618E-06	8.416E-06	8.218E-06	8.025E-06	7.836E-06	7.651E-06	7.472E-06
ZR 90	1.668E-03	3.485E-03	4.451E-02	4.532E-02	4.611E-02	4.688E-02	4.763E-02	4.837E-02	4.909E-02
Y 91	1.951E-02	2.595E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	6.198E-02	8.138E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02	8.164E-02
ZR 92	8.553E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02	8.562E-02
NB 92	1.046E-15	1.576E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	9.383E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02	9.400E-02
NB 93	1.443E-09	5.528E-09	8.115E-07	8.473E-07	8.834E-07	9.199E-07	9.566E-07	9.936E-07	1.031E-06
NB 93M	1.896E-08	5.746E-08	6.568E-07	6.637E-07	6.701E-07	6.763E-07	6.821E-07	6.877E-07	6.929E-07
ZR 94	9.087E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02	9.088E-02
NB 94	1.254E-08	1.254E-08	1.252E-08	1.252E-08	1.252E-08	1.252E-08	1.252E-08	1.252E-08	1.252E-08
ZR 95	2.520E-02	4.819E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	1.343E-02	5.954E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	1.032E-05	2.016E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	5.764E-02	9.523E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02	9.630E-02
ZR 96	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02	9.533E-02
MO 96	5.126E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04	5.137E-04
MO 97	9.175E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02	9.204E-02
MO 98	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02	9.399E-02
TC 98	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06	1.064E-06
TC 99	8.944E-02	9.057E-02	9.056E-02	9.056E-02	9.056E-02	9.056E-02	9.056E-02	9.056E-02	9.056E-02
RU 99	1.381E-07	4.355E-07	1.025E-05	1.055E-05	1.084E-05	1.114E-05	1.144E-05	1.174E-05	1.203E-05
MO100	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01	1.009E-01
RU100	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03
RU101	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02	8.733E-02
RU102	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02	7.721E-02
RH102	1.709E-07	1.346E-07	5.051E-11	3.977E-11	3.132E-11	2.466E-11	1.942E-11	1.529E-11	1.204E-11
RU103	9.405E-03	1.499E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.649E-02	5.589E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02	5.590E-02
RH103M	8.406E-06	1.340E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
RU104	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02	4.043E-02
PD104	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04	9.317E-04
PD105	2.170E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02	2.186E-02
RU106	9.048E-03	4.549E-03	6.349E-13	3.192E-13	1.605E-13	8.069E-14	4.057E-14	2.040E-14	1.025E-14
RH106	8.513E-09	4.276E-09	5.968E-19	3.001E-19	1.509E-19	7.584E-20	3.813E-20	1.917E-20	9.638E-21
PD106	3.737E-03	8.236E-03	1.278E-02	1.278E-02	1.278E-02	1.278E-02	1.278E-02	1.278E-02	1.278E-02
AG106	2.553E-16	2.962E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	8.100E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03	8.101E-03
AG107	3.971E-10	1.261E-09	2.977E-08	3.063E-08	3.150E-08	3.236E-08	3.323E-08	3.409E-08	3.495E-08
PD108	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03	5.234E-03
AG108	5.075E-13	5.045E-21	4.776E-21	4.768E-21	4.760E-21	4.752E-21	4.744E-21	4.737E-21	4.729E-21
AG108M	5.266E-12	5.258E-12	4.978E-12	4.969E-12	4.961E-12	4.953E-12	4.945E-12	4.937E-12	4.928E-12
CD108	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08	3.401E-08
AG109	3.613E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03	3.623E-03
AG109M	7.552E-09	6.682E-17	1.012E-24	5.864E-25	3.398E-25	1.969E-25	1.141E-25	6.612E-26	3.831E-26
CD109	1.167E-10	6.764E-11	1.024E-18	5.937E-19	3.440E-19	1.994E-19	1.155E-19	6.693E-20	3.878E-20
PD110	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03	2.696E-03
AG110	1.247E-10	4.697E-14	1.418E-28	5.150E-29	1.870E-29	6.905E-30	2.559E-30	9.293E-31	4.182E-31
AG110M	8.537E-06	3.100E-06	9.355E-21	3.398E-21	1.229E-21	4.557E-22	1.689E-22	5.519E-23	2.760E-23
CD110	5.204E-05	5.748E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05	6.058E-05
AG111	7.071E-05	1.237E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	2.126E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03	2.197E-03
CD112	1.958E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03	1.965E-03
CD113	1.903E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03	1.904E-03
CD113M	3.206E-05	3.054E-05	6.031E-06	5.742E-06	5.466E-06	5.204E-06	4.954E-06	4.717E-06	4.490E-06
IN113	7.256E-07	2.263E-06	2.675E-05	2.704E-05	2.731E-05	2.757E-05	2.782E-05	2.806E-05	2.829E-05
CD114	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03
IN114	1.227E-13	1.706E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	1.763E-09	1.061E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	1.077E-08	1.239E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08	1.240E-08
CD115M	3.099E-05	1.061E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.559E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03	1.607E-03
IN115M	1.290E-06	2.997E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	6.265E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05	6.329E-05
CD116	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03	1.855E-03
SN116	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04	2.109E-04
SN117	1.831E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03	1.833E-03
SN117M	1.146E-08	1.616E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	1.919E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03	1.920E-03
SN119	1.884E-03	1.896E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03	1.902E-03
SN119M	1.792E-05	6.376E-06	9.913E-21	3.530E-21	1.251E-21	4.433E-22	1.614E-22	5.113E-23	2.559E-23
SN120	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03	1.959E-03
SN121M	8.765E-07	8.655E-07	5.710E-07	5.639E-07	5.568E-07	5.499E-07	5.430E-07	5.362E-07	5.295E-07
SB121	1.915E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03	1.924E-03
SN122	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03	2.123E-03
TE122	2.501E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05	2.560E-05
SN123	2.122E-04	2.989E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB123	2.063E-03	2.246E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03	2.276E-03
TE123	1.684E-07	1.824E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07	1.843E-07
TE123M	1.586E-08	1.913E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03	2.729E-03
SB124	6.413E-06	9.561E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.107E-05	1.739E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05	1.748E-05
SN125	3.964E-05	1.558E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.839E-03	2.242E-03	5.809E-07	4.523E-07	3.521E-07	2.742E-07	2.135E-07	1.662E-07	1.294E-07
TE125	3.156E-04	9.508E-04	3.223E-03	3.223E-03	3.223E-03	3.223E-03	3.223E-03	3.223E-03	3.223E-03
TE125M	2.901E-05	3.121E-05	8.125E-09	6.326E-09	4.925E-09	3.835E-09	2.986E-09	2.325E-09	1.810E-09
SN126	4.710E-03	4.710E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03	4.709E-03	4.708E-03
SB126	6.270E-06	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10	2.250E-10
SB126M	3.345E-09	1.715E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12	1.714E-12
TE126	1.478E-04	1.541E-04	1.551E-04	1.552E-04	1.552E-04	1.552E-04	1.553E-04	1.553E-04	1.553E-04
TE127	1.372E-05	1.709E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.778E-04	4.881E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	7.886E-03	8.470E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03	8.519E-03
XE127	2.377E-10	2.272E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02	1.596E-02
XE128	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04
TE129	4.553E-06	2.367E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	4.710E-04	2.527E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	2.309E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02	2.358E-02
XE129	4.332E-07	4.345E-07	4.689E-07	4.699E-07	4.710E-07	4.720E-07	4.731E-07	4.741E-07	4.752E-07
XE129M	2.648E-10	4.776E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02	4.181E-02
XE130	2.733E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04	2.745E-04
I131	2.324E-03	5.048E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.691E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02	6.933E-02
XE131M	3.841E-05	6.889E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
XE132	9.865E-02	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01
CS132	1.116E-07	1.163E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	3.857E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08	4.080E-08
XE133	2.972E-03	4.005E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.353E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01
XE134	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01	1.650E-01
CS134	1.800E-03	1.287E-03	1.957E-08	1.399E-08	9.992E-09	7.140E-09	5.101E-09	3.645E-09	2.604E-09
BA134	1.890E-04	7.031E-04	1.990E-03	1.990E-03	1.990E-03	1.990E-03	1.990E-03	1.990E-03	1.990E-03
CS135	1.377E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01	1.381E-01
BA135	4.061E-07	4.480E-07	1.821E-06	1.863E-06	1.904E-06	1.946E-06	1.987E-06	2.029E-06	2.071E-06
XE136	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01	1.402E-01
CS136	6.083E-05	2.467E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	7.910E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04	8.518E-04
BA136M	2.728E-12	1.106E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.318E-01	1.288E-01	6.010E-02	5.873E-02	5.739E-02	5.608E-02	5.479E-02	5.354E-02	5.232E-02
BA137	1.466E-03	4.477E-03	7.321E-02	7.458E-02	7.592E-02	7.723E-02	7.851E-02	7.976E-02	8.099E-02
BA137M	2.025E-08	1.971E-08	9.195E-09	8.985E-09	8.779E-09	8.579E-09	8.383E-09	8.191E-09	8.004E-09
BA138	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01	1.449E-01
LA138	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07	5.972E-07
LA139	1.411E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01	1.412E-01
BA140	7.152E-03	1.809E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	9.531E-04	2.728E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.311E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01	1.392E-01
CE141	1.826E-02	7.621E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.162E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01	1.346E-01
CE142	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01
ND142	4.491E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04	4.524E-04
PR143	7.103E-03	6.220E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.215E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01	1.294E-01
CE144	8.136E-02	3.339E-02	5.745E-15	2.358E-15	9.675E-16	3.971E-16	1.630E-16	6.687E-17	2.744E-17
PR144	3.443E-06	1.410E-06	2.426E-19	9.955E-20	4.085E-20	1.677E-20	6.881E-21	2.824E-21	1.159E-21
PR144M	1.719E-08	7.048E-09	1.213E-21	4.976E-22	2.042E-22	8.381E-23	3.440E-23	1.412E-23	5.793E-24
ND144	4.009E-02	8.807E-02	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01	1.215E-01
ND145	8.743E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02	8.752E-02
ND146	6.923E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02	6.924E-02
PM146	2.374E-06	2.093E-06	3.270E-08	2.883E-08	2.542E-08	2.241E-08	1.975E-08	1.741E-08	1.535E-08
SM146	4.650E-07	5.690E-07	1.331E-06	1.333E-06	1.334E-06	1.335E-06	1.336E-06	1.337E-06	1.338E-06
ND147	2.584E-03	2.961E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	4.409E-02	3.586E-02	5.861E-06	4.500E-06	3.455E-06	2.653E-06	2.037E-06	1.564E-06	1.201E-06
SM147	5.523E-03	1.637E-02	5.222E-02	5.222E-02	5.222E-02	5.222E-02	5.222E-02	5.222E-02	5.222E-02
ND148	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02	4.038E-02
PM148	7.201E-05	9.576E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	6.010E-04	1.306E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.999E-03	3.671E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03	3.672E-03
SM149	2.554E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.580E-02
ND150	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02	1.679E-02
SM150	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03	1.038E-03
EU150	5.410E-10	5.307E-10	2.816E-10	2.762E-10	2.710E-10	2.658E-10	2.607E-10	2.558E-10	2.509E-10
SM151	1.038E-02	1.036E-02	8.034E-03	7.972E-03	7.911E-03	7.850E-03	7.790E-03	7.730E-03	7.671E-03
EU151	3.487E-05	1.150E-04	2.440E-03	2.502E-03	2.563E-03	2.623E-03	2.684E-03	2.743E-03	2.803E-03
SM152	8.023E-03	8.023E-03	8.025E-03	8.025E-03	8.025E-03	8.025E-03	8.025E-03	8.025E-03	8.025E-03
EU152	2.325E-06	2.209E-06	4.079E-07	3.875E-07	3.682E-07	3.498E-07	3.324E-07	3.158E-07	3.000E-07
GD152	8.930E-07	9.299E-07	1.432E-06	1.437E-06	1.443E-06	1.448E-06	1.453E-06	1.457E-06	1.462E-06
EU153	4.845E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03	4.888E-03
GD153	5.280E-08	1.855E-08	1.887E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM154	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03	2.352E-03
EU154	2.818E-04	2.600E-04	1.816E-05	1.675E-05	1.545E-05	1.425E-05	1.315E-05	1.213E-05	1.119E-05
GD154	7.064E-06	2.890E-05	2.707E-04	2.721E-04	2.734E-04	2.746E-04	2.757E-04	2.768E-04	2.777E-04
EU155	1.347E-03	1.164E-03	9.527E-06	8.236E-06	7.119E-06	6.155E-06	5.320E-06	4.599E-06	3.976E-06
GD155	9.204E-05	2.746E-04	1.430E-03	1.431E-03	1.432E-03	1.433E-03	1.434E-03	1.434E-03	1.435E-03
EU156	5.779E-05	3.391E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	7.808E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04	8.398E-04
GD157	4.394E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04	4.407E-04
GD158	2.925E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04	2.926E-04
TB159	1.044E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04
GD160	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05	5.346E-05
TB160	1.625E-06	4.901E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	2.020E-06	3.596E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06	3.645E-06
TB161	7.571E-07	9.789E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	2.199E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05	2.274E-05
DY162	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05	1.521E-05
DY163	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06	6.139E-06
DY164	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06	3.410E-06
HO165	1.741E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06	1.742E-06
HO166M	4.336E-09	4.334E-09	4.252E-09	4.249E-09	4.247E-09	4.245E-09	4.242E-09	4.240E-09	4.237E-09
ER166	9.888E-07	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06	1.010E-06
ER167	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07	5.707E-07

sbwss5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:05:15

	345.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
ER168	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08	2.068E-08
ER169	2.553E-12	5.129E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.925E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11	2.180E-11
ER170	2.927E-16	9.664E-16	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15	1.076E-15
TM170	5.364E-13	7.488E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	1.993E-13	6.601E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13	7.349E-13
TM171	4.384E-15	3.055E-15	2.047E-20	1.425E-20	9.924E-21	6.910E-21	4.811E-21	3.350E-21	2.333E-21
YB171	1.181E-15	2.509E-15	5.565E-15	5.565E-15	5.565E-15	5.565E-15	5.565E-15	5.565E-15	5.565E-15
YB172	1.302E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17	1.357E-17

File SBWZR1.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) GENERIC FUEL
  BAS     PWRU FUEL
  RDA     -1 = 1 KG FUEL
  RDA     WARNING:  VECTORS ARE OFTEN CHANGED WITH RESPECT TO THEIR CONTENT.
  RDA               THESE CHANGES WILL BE NOTED ON RDA CARDS.
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  601  602  603   9   3   0  1   38
  TIT     INITIAL COMPOSITIONS OF UNIT AMOUNTS OF FUEL AND STRUCT MAT'LS
  RDA     READ FUEL COMPOSITION INCLUDING IMPURITIES
  INP     -1   1  -1  -1  1  1
  TIT     IRRADIATION OF GENERIC FUEL
  MOV     -1   1   0   1.0
  HED      1                                                  CHARGE
  BUP
  IRP     100.0   .2577   1   2   4 2
  IRP     200.0   .2577   2   3   4 0
  IRP     400.0   .2577   3   4   4 0
  IRP     600.0   .2577   4   5   4 0
  IRP     800.0   .2577   5   6   4 0
  IRP    1000.0   .2577   6   7   4 0
  IRP    1200.0   .2577   7   8   4 0
  IRP    1400.0   .2577   8   9   4 0
  IRP    1600.0   .2577   9  10   4 0
  IRP    1800.0   .2577  10  11   4 0
  IRP    1826.0   .2577  11  12   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV       12    1   0  1.0
  DEC       1.    1   2   5   4
  DEC       6.    2   3   5   0
  DEC       7.    3   4   5   0
  DEC       8.    4   5   5   0
  DEC       9.    5   6   5   0
  DEC      10.    6   7   5   0
  DEC      11.    7   8   5   0
  DEC      12.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922350  1000.0 922360  .4366  922380  8.6636       0     0.0   FUEL 97%
  1    60120  .92669  60130 .01031       0 .0           0      .0   C
  1    70140  1.2454  70150 .00463       0 .0           0      .0   N
  1    80160  74.720  80170 .02996   80180 0.1498       0      .0   O
  1   130270  1.2500      0 .0           0 .0           0      .0   Al
  1   220460  .04992 220470 .04555  220480 .46051  220490 .03432    Ti
  1   220500  .03370      0 .0           0 .0           0      .0
  1   240500  2.7113 240520 52.285  240530 5.9280  240540 1.4758    Cr
```

File SBWZR1.INP (continued)

```
  1   260540  5.5283 260560 85.942  260570 1.9677  260580 .26236    Fe
  1   280580  21.300 280600 8.1432  280610 .35256  280620 1.1201    Ni
  1   280640  .28392      0 .0           0 .0           0     .0
  1   400900  31494. 400910 6866.6  400920 10496.  400940 10637.    Zr
  1   400960  1713.6      0 .0           0 .0           0     .0
  1   410930  6.2400      0 .0           0 .0           0     .0    Nb
  1   501120  9.4187 501140 6.3115  501150 3.4956  501160 141.09    Sn
  1   501170  74.573 501180 235.18  501190 83.312  501200 316.45
  1   501220  44.957 501240 56.221       0 .0           0 .0
  1   721740  .02025 721760 .65075  721770 2.3258  721780 3.4121    Hf
  1   721790  1.7036 721800 4.3875       0 .0           0 .0
  1   731801  .00007 731810 .62393       0 .0           0 .0        Ta
  0
```

File SBWZR1.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwzr1.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\pwrus.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwzr1.u6 >nul
copy tape13.out+tape11.out sbwzr1.u11 >nul
ren tape7.out sbwzr1.pch
ren tape15.out sbwzr1.dbg
ren tape16.out sbwzr1.vxs
ren tape50.out sbwzr1.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwzr1.dbg
del sbwzr1.pch
del sbwzr1.vxs
del sbwzr1.ech
del sbwzr1.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

sbwzr1.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
H 1	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03
H 2	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07
H 3	8.092E-11	7.649E-11	5.775E-11	5.459E-11	5.161E-11	4.879E-11	4.612E-11	4.360E-11	4.122E-11
HE 3	1.387E-12	5.810E-12	2.455E-11	2.771E-11	3.070E-11	3.352E-11	3.618E-11	3.871E-11	4.109E-11
HE 4	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03
LI 6	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10
LI 7	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13
BE 9	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06
BE 10	7.841E-08	7.841E-08	7.841E-08	7.841E-08	7.841E-08	7.841E-08	7.841E-08	7.841E-08	7.841E-08
B 10	5.066E-13	5.539E-13	7.900E-13	8.372E-13	8.844E-13	9.316E-13	9.788E-13	1.026E-12	1.073E-12
B 11	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04
C 12	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01
C 13	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02
C 14	3.319E-03	3.319E-03	3.317E-03	3.316E-03	3.316E-03	3.315E-03	3.315E-03	3.315E-03	3.314E-03
N 14	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00
N 15	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03
O 16	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01
O 17	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02
O 18	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01
F 19	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08
NE 20	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13
NE 21	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12
NE 22	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14
NA 23	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18
MG 24	2.446E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06
MG 25	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10
MG 26	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13
AL 27	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00
SI 28	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04
SI 29	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08
SI 30	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12
SI 32	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23
P 31	2.822E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16
P 32	1.196E-21	7.518E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28
S 32	1.340E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20
S 34	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22
CL 37	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16
AR 38	5.748E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20
AR 39	1.509E-20	1.505E-20	1.486E-20	1.482E-20	1.478E-20	1.474E-20	1.470E-20	1.467E-20	1.463E-20
AR 40	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12
AR 42	2.206E-21	2.159E-21	1.944E-21	1.904E-21	1.864E-21	1.824E-21	1.786E-21	1.749E-21	1.712E-21
K 39	1.746E-23	5.634E-23	2.502E-22	2.885E-22	3.267E-22	3.648E-22	4.028E-22	4.407E-22	4.784E-22
K 41	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14
K 42	1.111E-18	9.229E-26	8.309E-26	8.136E-26	7.965E-26	7.798E-26	7.634E-26	7.474E-26	7.317E-26
CA 42	7.716E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16
CA 43	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07
CA 44	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07
CA 45	3.038E-09	6.426E-10	2.719E-13	5.751E-14	1.216E-14	2.572E-15	5.440E-16	1.151E-16	2.433E-17
CA 46	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08
SC 45	1.343E-08	1.583E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08
SC 46	2.122E-07	1.034E-08	2.844E-15	1.386E-16	6.757E-18	3.293E-19	1.605E-20	7.861E-22	4.132E-23
TI 46	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02
TI 47	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02
TI 48	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01
TI 49	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02
TI 50	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02
V 50	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04
V 51	5.683E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02
CR 50	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00
CR 51	1.978E-03	2.128E-07	3.070E-27	3.304E-31	3.555E-35	3.825E-39	4.288E-43	0.000E+00	0.000E+00
CR 52	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01
CR 53	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00
CR 54	1.625E+00	1.625E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00
MN 54	3.791E-04	1.686E-04	2.935E-06	1.306E-06	5.807E-07	2.583E-07	1.149E-07	5.110E-08	2.273E-08
MN 55	7.699E-03	1.023E-02	1.633E-02	1.684E-02	1.723E-02	1.753E-02	1.776E-02	1.793E-02	1.807E-02
FE 54	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00
FE 55	1.081E-02	8.280E-03	2.183E-03	1.673E-03	1.281E-03	9.813E-04	7.517E-04	5.758E-04	4.410E-04
FE 56	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01
FE 57	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00
FE 58	2.744E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01
FE 59	2.693E-05	9.706E-08	5.892E-20	2.109E-22	3.312E-24	2.146E-24	0.000E+00	0.000E+00	0.000E+00
CO 58	4.277E-04	1.196E-05	2.042E-13	5.708E-15	1.596E-16	4.461E-18	1.247E-19	3.483E-21	9.557E-23
CO 59	1.843E-03	1.871E-03	1.876E-03	1.877E-03	1.878E-03	1.879E-03	1.880E-03	1.881E-03	1.882E-03
CO 60	1.264E-04	1.108E-04	5.742E-05	5.034E-05	4.413E-05	3.870E-05	3.393E-05	2.974E-05	2.608E-05
NI 58	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01
NI 59	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01
NI 60	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00

sbwzr1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
NI 61	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01
NI 62	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00
NI 63	2.103E-02	2.087E-02	2.010E-02	1.995E-02	1.980E-02	1.965E-02	1.950E-02	1.935E-02	1.921E-02
NI 64	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01
CU 63	3.412E-04	4.990E-04	1.271E-03	1.421E-03	1.571E-03	1.720E-03	1.867E-03	2.014E-03	2.159E-03
CU 65	6.203E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04
ZN 64	3.540E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07
ZN 65	7.597E-11	2.690E-11	1.498E-13	5.304E-14	1.878E-14	6.651E-15	2.355E-15	8.340E-16	2.953E-16
ZN 66	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06
ZN 67	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10
ZN 68	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12
GA 69	9.098E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16
GA 71	7.637E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22
GE 70	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18
GE 71	7.964E-23	3.830E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 72	9.679E-27	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26
SR 87	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04
SR 88	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02
SR 89	1.543E-04	1.026E-06	1.331E-17	8.849E-20	5.853E-22	4.583E-25	4.583E-25	4.583E-25	4.583E-25
SR 90	1.544E-06	1.507E-06	1.336E-06	1.304E-06	1.273E-06	1.243E-06	1.213E-06	1.184E-06	1.156E-06
Y 89	2.396E-03	2.549E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03
Y 90	3.286E-04	3.824E-10	3.390E-10	3.310E-10	3.231E-10	3.154E-10	3.079E-10	3.006E-10	2.934E-10
Y 91	4.667E-04	6.163E-06	2.474E-15	3.267E-17	4.313E-19	5.699E-21	7.198E-23	0.000E+00	0.000E+00
ZR 90	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04
ZR 91	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03
ZR 92	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04
ZR 93	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01
ZR 94	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04
ZR 95	2.492E-01	4.765E-03	1.218E-11	2.329E-13	4.453E-15	8.515E-17	1.628E-18	3.114E-20	5.910E-22
ZR 96	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03
NB 92	3.999E-07	6.025E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	6.190E+00	6.190E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00
NB 93M	1.560E-05	2.252E-05	5.228E-05	5.738E-05	6.222E-05	6.682E-05	7.120E-05	7.535E-05	7.930E-05
NB 94	3.937E-02	3.937E-02	3.936E-02	3.936E-02	3.936E-02	3.936E-02	3.935E-02	3.935E-02	3.935E-02
NB 95	1.328E-01	5.887E-03	1.486E-11	2.940E-13	5.629E-15	1.076E-16	2.058E-18	3.935E-20	7.525E-22
NB 95M	9.792E-05	1.994E-06	5.096E-15	9.745E-17	1.863E-18	3.563E-20	6.813E-22	1.303E-23	2.491E-25
MO 94	2.903E-06	4.248E-06	1.097E-05	1.231E-05	1.366E-05	1.500E-05	1.634E-05	1.769E-05	1.903E-05
MO 95	2.820E+00	3.192E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00
MO 96	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02
MO 97	4.882E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00
MO 98	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02
MO100	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09
TC 98	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11
TC 99	2.212E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05
RU 98	4.535E-18	1.076E-17	4.187E-17	4.810E-17	5.432E-17	6.054E-17	6.676E-17	7.299E-17	7.921E-17
RU 99	6.787E-11	1.413E-10	5.084E-10	5.818E-10	6.552E-10	7.286E-10	8.020E-10	8.754E-10	9.489E-10
RU100	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07
RU101	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09
RU102	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11
RU103	2.407E-15	3.829E-18	3.874E-32	3.874E-32	3.874E-32	3.874E-32	3.874E-32	3.874E-32	3.874E-32
RU104	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17
RU106	1.409E-29	1.409E-29	1.409E-29	1.409E-29	1.409E-29	1.409E-29	1.409E-29	1.409E-29	1.409E-29
RH102	1.578E-22	1.201E-22	3.837E-23	3.837E-23	3.837E-23	3.837E-23	3.837E-23	3.837E-23	3.837E-23
RH103	6.390E-16	8.778E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16
RH106	7.088E-28	1.324E-35	1.324E-35	1.324E-35	1.324E-35	1.324E-35	1.324E-35	1.324E-35	1.324E-35
PD104	5.171E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17
PD105	6.561E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20
PD106	6.093E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22
PD107	1.607E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32
CD111	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07
CD112	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06
CD113	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08
CD114	3.937E-04	4.212E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04
CD115M	1.542E-08	5.283E-11	2.484E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD116	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06
IN113	8.656E-02	9.494E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02
IN113M	5.656E-06	6.271E-07	1.050E-11	1.164E-12	1.290E-13	1.431E-14	1.586E-15	1.758E-16	1.949E-17
IN114	1.614E-08	3.561E-11	2.809E-22	1.690E-24	1.017E-26	6.070E-29	0.000E+00	0.000E+00	0.000E+00
IN114M	3.679E-04	2.214E-06	1.746E-17	1.051E-19	6.272E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.255E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06
SN112	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00
SN113	9.419E-03	1.044E-03	1.748E-08	1.938E-09	2.149E-10	2.382E-11	2.641E-12	2.927E-13	3.245E-14
SN114	6.315E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00
SN115	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00
SN116	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02
SN117	7.501E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01
SN117M	9.722E-03	1.370E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwzrl.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
SN118	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02
SN119	8.423E+01	8.433E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01
SN119M	1.508E-01	5.365E-02	3.062E-04	1.090E-04	3.877E-05	1.380E-05	4.910E-06	1.747E-06	6.217E-07
SN120	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02
SN121M	1.546E-03	1.524E-03	1.422E-03	1.403E-03	1.383E-03	1.364E-03	1.345E-03	1.327E-03	1.309E-03
SN122	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01
SN123	4.329E-03	6.097E-04	3.380E-08	4.761E-09	6.706E-10	9.446E-11	1.330E-11	1.874E-12	2.640E-13
SN124	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01
SN125	2.449E-03	9.625E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB121	2.832E-01	2.837E-01	2.838E-01	2.838E-01	2.838E-01	2.839E-01	2.839E-01	2.839E-01	2.839E-01
SB123	2.498E-02	2.869E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02
SB124	8.778E-05	1.309E-06	9.643E-16	1.438E-17	2.144E-19	3.191E-21	5.197E-23	7.757E-24	6.257E-24
SB125	2.131E-01	1.681E-01	4.844E-02	3.776E-02	2.944E-02	2.296E-02	1.790E-02	1.395E-02	1.088E-02
SB126	3.716E-05	5.617E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE122	1.217E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02
TE123	1.135E-04	1.279E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04
TE123M	1.635E-05	1.972E-06	5.025E-11	6.059E-12	7.306E-13	8.809E-14	1.062E-14	1.281E-15	1.544E-16
TE124	6.257E-04	7.122E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04
TE125	1.253E-01	1.731E-01	2.944E-01	3.052E-01	3.137E-01	3.203E-01	3.254E-01	3.294E-01	3.325E-01
TE125M	2.619E-03	2.308E-03	6.661E-04	5.194E-04	4.049E-04	3.157E-04	2.462E-04	1.919E-04	1.496E-04
TE126	2.154E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03
TE127	7.770E-09	4.612E-11	4.173E-16	4.090E-17	4.009E-18	3.930E-19	3.852E-20	3.776E-21	3.702E-22
TE127M	1.344E-07	1.317E-08	1.192E-13	1.168E-14	1.145E-15	1.123E-16	1.100E-17	1.079E-18	1.057E-19
TE128	7.062E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09
TE129	8.154E-16	6.894E-21	2.995E-37	1.600E-40	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.379E-14	7.362E-18	3.199E-34	1.708E-37	9.129E-41	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17
I127	5.095E-06	5.224E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06
I129	2.639E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12
I131	1.297E-19	2.743E-33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE127	1.863E-14	1.780E-17	1.420E-32	1.357E-35	1.297E-38	1.246E-41	0.000E+00	0.000E+00	0.000E+00
XE128	9.227E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08
XE129	1.963E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10
XE129M	6.501E-13	1.172E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE130	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12
XE131	5.920E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15
XE131M	4.971E-17	2.854E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16
XE133	3.734E-21	4.100E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE134	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22
XE136	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30
CS132	2.603E-26	1.850E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	6.236E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20
CS134	1.000E-21	7.208E-22	1.390E-22	9.234E-23	6.135E-23	4.076E-23	2.708E-23	2.708E-23	2.708E-23
CS135	4.120E-30	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29
CS137	6.896E-40	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39
BA132	1.034E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28
BA133	2.066E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34
BA134	7.914E-23	3.585E-22	9.403E-22	9.870E-22	1.018E-21	1.039E-21	1.052E-21	1.052E-21	1.052E-21
BA135	7.109E-29	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28
BA136	1.555E-36	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35
ER166	1.258E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28
ER167	1.116E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37
ER169	1.553E-19	3.121E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER170	6.143E-22	9.649E-22	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21
TM169	3.807E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18
TM170	2.851E-19	3.981E-20	2.112E-24	2.112E-24	2.112E-24	2.112E-24	2.112E-24	2.112E-24	2.112E-24
TM171	5.935E-20	4.144E-20	6.811E-21	4.743E-21	3.302E-21	2.299E-21	1.601E-21	1.127E-21	7.939E-22
YB170	4.405E-19	6.854E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19
YB171	2.334E-20	4.135E-20	7.598E-20	7.805E-20	7.949E-20	8.049E-20	8.119E-20	8.166E-20	8.199E-20
YB172	3.370E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10
YB173	2.121E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10
YB174	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12
LU175	7.445E-03	8.021E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03
LU176	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04
LU177	4.829E-06	5.175E-10	1.469E-13	2.869E-14	5.602E-15	1.094E-15	2.136E-16	4.171E-17	8.145E-18
LU177M	2.662E-07	5.199E-08	1.476E-11	2.882E-12	5.628E-13	1.099E-13	2.146E-14	4.191E-15	8.183E-16
HF174	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02
HF175	5.915E-04	1.589E-05	2.226E-13	5.982E-15	1.607E-16	4.319E-18	1.160E-19	3.114E-21	9.086E-23
HF176	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01
HF177	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01
HF178	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00
HF179	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00
HF180	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00
HF181	7.713E-03	1.966E-05	2.120E-18	5.397E-21	8.031E-24	1.105E-23	0.000E+00	0.000E+00	0.000E+00
HF182	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04
TA181	5.896E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01

sbwzr1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
TA182	9.547E-03	1.056E-03	1.752E-08	1.946E 09	2.235E-10	3.292E-11	1.183E-11	9.496E-12	9.238E-12
TA183	6.272E-04	1.731E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W182	7.216E-02	8.065E-02	8.171E-02	8.171E 02	8.171E 02	8.171E-02	8.171E-02	8.171E-02	8.171E-02
W183	8.421E-02	8.484E-02	8.484E 02	8.484E 02	8.484E-02	8.484E 02	8.484E-02	8.484E-02	8.484E-02
W184	5.126E-03	5.126E-03	5.126E-03	5.126E 03	5.126E-03	5.126E 03	5.126E 03	5.126E-03	5.126E 03
W185	2.694E-06	9.253E-08	4.425E-15	1.520E 16	5.222E-18	1.794E-19	6.171E 21	2.178E-22	0.000E+00
W186	8.086E-08	8.258E-08	8.258E-08	8.258E 08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08
W188	1.394E 12	3.629E-14	4.346E-22	2.398E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RE185	7.346E-06	9.947E-06	1.004E-05	1.004E-05	1.004E 05	1.004E-05	1.004E-05	1.004E 05	1.004E-05
RE187	3.365E-09	3.388E-09	3.388E 09	3.388E 09	3.388E-09	3.388E 09	3.388E-09	3.388E-09	3.388E-09
RE188	6.110E 13	3.738E-16	4.476E-24	2.456E 25	6.431E-27	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS186	1.213E-06	1.238E 06	1.238E-06	1.238E 06	1.238E 06	1.238E-06	1.238E 06	1.238E-06	1.238E 06
OS187	2.367E-20	7.064E-20	3.055E-19	3.524E 19	3.994E-19	4.464E 19	4.933E-19	5.403E-19	5.873E-19
OS188	1.070E-10	1.090E-10	1.090E-10	1.090E-10	1.090E 10	1.090E-10	1.090E-10	1.090E-10	1.090E-10
OS189	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E 13	7.571E-13
OS190	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14
OS191	1.181E-17	8.861E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS192	3.158E-19	5.976E 19	6.071E 19	6.071E-19	6.071E-19	6.071E-19	6.071E 19	6.071E-19	6.071E-19
OS194	6.360E-27	6.360E-27	6.360E 27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27
IR191	5.432E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17
IR192	6.094E-18	1.992E-19	4.562E 24	4.562E 24	4.562E-24	4.562E-24	4.562E-24	4.562E-24	4.562E-24
IR192M	5.491E 21	5.491E-21	5.412E-21	5.412E-21	5.412E-21	5.412E-21	5.412E 21	5.412E-21	5.412E-21
IR193	8.109E-19	8.110E-19	8.111E-19	8.112E 19	8.112E-19	8.113E-19	8.113E-19	8.113E-19	8.114E-19
IR194	4.896E-22	2.316E-30	2.316E-30	2.316E 30	2.316E 30	2.316E-30	2.316E-30	2.316E-30	2.316E-30
PT192	6.270E-18	1.188E-17	1.207E-17	1.207E 17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17
PT193	2.562E-20	2.583E-20	2.565E 20	2.562E-20	2.558E 20	2.554E-20	2.551E-20	2.547E-20	2.544E-20
PT194	4.234E 20	4.283E-20	4.283E-20	4.283E 20	4.283E-20	4.283E 20	4.283E-20	4.283E-20	4.283E-20
PT195	2.565E 27	2.791E-26	2.791E-26	2.791E 26	2.791E-26	2.791E-26	2.791E 26	2.791E-26	2.791E-26
HE 4	1.613E-04	3.125E-04	1.049E 03	1.192E-03	1.335E-03	1.476E-03	1.617E-03	1.756E-03	1.894E-03
TL206	2.320E-29	2.320E-29	2.320E-29	2.320E 29	2.320E-29	2.320E 29	2.320E-29	2.320E-29	2.320E-29
TL207	3.787E-17	5.254E-17	1.611E-16	1.899E-16	2.207E 16	2.535E-16	2.882E-16	3.249E-16	3.635E-16
TL208	2.481E-14	4.984E-14	1.751E-13	1.921E 13	2.056E 13	2.163E-13	2.247E-13	2.311E-13	2.358E-13
TL209	1.121E-19	3.961E-20	4.321E-20	4.424E 20	4.539E-20	4.665E 20	4.802E-20	4.951E-20	5.111E 20
PB206	1.519E-15	3.824E 15	1.807E-14	2.135E-14	2.490E-14	2.890E 14	3.350E-14	3.889E-14	4.526E-14
PB207	6.465E-12	9.859E-12	4.851E-11	6.182E 11	7.741E 11	9.541E-11	1.160E-10	1.393E-10	1.655E-10
PB208	9.813E-09	2.197E-08	2.153E 07	2.761E 07	3.418E-07	4.115E-07	4.844E-07	5.597E-07	6.368E-07
PB209	4.680E-16	1.650E-16	1.800E-16	1.844E-16	1.891E-16	1.944E-16	2.001E-16	2.063E-16	2.130E-16
PB210	8.585E-14	9.107E-14	1.049E 13	1.157E-13	1.307E 13	1.507E-13	1.765E-13	2.089E-13	2.490E-13
PB211	2.930E 16	4.065E-16	1.247E-15	1.469E 15	1.707E 15	1.961E 15	2.230E 15	2.514E-15	2.812E 15
PB212	1.464E-11	2.940E-11	1.033E-10	1.133E-10	1.213E 10	1.276E-10	1.325E-10	1.363E-10	1.391E-10
PB214	6.459E-20	1.168E-19	9.174E-19	1.230E-18	1.609E-18	2.059E-18	2.587E-18	3.198E-18	3.900E 18
BI208	1.256E 18	1.256E-18	1.256E-18	1.256E 18	1.256E-18	1.256E 18	1.256E-18	1.256E-18	1.256E-18
BI209	8.310E-13	1.190E-12	2.769E 12	3.104E 12	3.447E 12	3.800E-12	4.162E-12	4.536E 12	4.921E-12
BI210M	8.941E 18	8.941E-18	8.941E-18	8.941E 18	8.941E-18	8.941E 18	8.941E-18	8.941E-18	8.941E 18
BI210	5.220E-17	5.607E-17	6.456E-17	7.122E 17	8.046E-17	9.276E-17	1.086E-16	1.286E-16	1.533E-16
BI211	1.729E-17	2.398E-17	7.355E-17	8.670E-17	1.007E 16	1.157E-16	1.316E-16	1.483E 16	1.659E-16
BI212	1.388E 12	2.788E-12	9.796E-12	1.075E 11	1.150E-11	1.210E 11	1.257E 11	1.293E-11	1.319E-11
BI213	1.097E-16	3.878E-17	4.231E 17	4.332E-17	4.444E 17	4.567E-17	4.702E-17	4.847E-17	5.004E-17
BI214	4.796E-20	8.671E-20	6.812E-19	9.136E 19	1.195E-18	1.529E-18	1.921E-18	2.375E 18	2.896E-18
PO210	9.369E-16	1.441E-15	1.783E-15	1.858E 15	2.060E-15	2.348E-15	2.728E-15	3.212E-15	3.816E-15
PO211	2.121E-22	2.943E 22	9.024E-22	1.064E 21	1.236E 21	1.419E-21	1.614E 21	1.820E-21	2.036E-21
PO212	7.345E 23	1.475E-22	5.183E-22	5.687E 22	6.085E 22	6.403E-22	6.651E-22	6.840E-22	6.978E 22
PO213	1.646E 25	5.818E-26	6.347E 26	6.499E 26	6.667E 26	6.852E 26	7.054E-26	7.272E-26	7.507E-26
PO214	6.465E-25	1.193E 26	9.371E-26	1.257E 25	1.644E 25	2.103E-25	2.643E 25	3.267E-25	3.984E-25
PO215	2.453E-22	3.404E 22	1.044E-21	1.230E 21	1.429E-21	1.642E-21	1.867E-21	2.105E 21	2.355E-21
PO216	5.840E-17	1.173E-16	4.121E-16	4.522E 16	4.839E-16	5.091E-16	5.288E 16	5.438E-16	5.549E-16
PO218	7.490E-21	1.354E 20	1.064E-19	1.427E 19	1.866E-19	2.388E-19	3.000E 19	3.709E-19	4.522E-19
AT217	1.318E-21	4.659E-22	5.083E-22	5.204E 22	5.339E-22	5.487E-22	5.649E-22	5.824E 22	6.012E-22
RN218	1.389E-22	7.190E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	5.559E-19	7.713E-19	2.366E-18	2.788E 18	3.239E-18	3.721E-18	4.231E-18	4.770E-18	5.336E-18
RN220	2.205E-14	4.428E-14	1.556E 13	1.707E 13	1.827E-13	1.922E 13	1.997E 13	2.053E-13	2.095E-13
RN222	1.377E 17	2.490E-17	1.956E 16	2.623E-16	3.430E 16	4.390E 16	5.515E-16	6.819E-16	8.314E-16
FR221	1.197E-17	4.231E 18	4.615E-18	4.726E 18	4.848E-18	4.983E-18	5.129E 18	5.288E-18	5.459E-18
FR223	2.595E 18	3.574E-18	1.097E 17	1.292E 17	1.501E 17	1.724E-17	1.960E-17	2.210E-17	2.472E 17
RA222	1.535E-19	7.950E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	1.412E 13	1.959E-13	6.009E 13	7.083E-13	8.229E 13	9.451E 13	1.075E-12	1.212E-12	1.356E-12
RA224	1.277E 10	2.564E-10	9.009E 10	9.885E 10	1.058E-09	1.113E-09	1.156E-09	1.189E-09	1.213E-09
RA225	5.557E 14	1.913E-14	2.087E 14	2.137E 14	2.192E 14	2.253E-14	2.319E-14	2.391E-14	2.468E-14
RA226	2.161E-12	3.873E-12	3.043E-11	4.081E 11	5.336E 11	6.829E-11	8.580E-11	1.061E-10	1.293E-10
RA228	5.379E-16	8.951E 16	3.921E-15	4.713E 15	5.552E-15	6.433E-15	7.350E 15	8.299E 15	9.277E 15
AC225	3.655E 14	1.292E-14	1.410E 14	1.443E 14	1.481E-14	1.522E-14	1.567E 14	1.615E 14	1.667E 14
AC227	1.006E 10	1.385E-10	4.252E 10	5.005E 10	5.815E 10	6.678E-10	7.594E-10	8.561E-10	9.578E-10
AC228	2.287E-14	1.089E-19	4.769E 19	5.733E 19	6.754E 19	7.825E 19	8.940E 19	1.010E-18	1.129E-18
TH226	7.650E-18	3.961E 23	0.000E+00	0.000E+00	0.000E-00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	2.321E 13	3.220E-13	9.874E 13	1.164E-12	1.352E-12	1.553E-12	1.766E-12	1.991E 12	2.227E 12
TH228	2.505E-08	4.974E 08	1.750E-07	1.915E 07	2.049E-07	2.155E-07	2.239E 07	2.302E 07	2.349E-07

sbwzr1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
TH229	3.489E-09	3.526E-09	3.846E-09	3.938E-09	4.040E-09	4.152E-09	4.274E-09	4.407E-09	4.549E-09
TH230	1.500E-07	2.415E-07	1.060E-06	1.295E-06	1.552E-06	1.833E-06	2.137E-06	2.463E-06	2.812E-06
TH231	1.704E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09
TH232	7.632E-06	1.062E-05	2.557E-05	2.857E-05	3.156E-05	3.455E-05	3.754E-05	4.053E-05	4.352E-05
TH234	1.246E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10
PA231	1.811E-06	2.200E-06	4.138E-06	4.526E-06	4.915E-06	5.304E-06	5.693E-06	6.082E-06	6.470E-06
PA233	2.217E-07	2.277E-07	2.276E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07
PA234M	4.849E-14	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15
PA234	1.528E-11	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15
U230	7.519E-15	3.891E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	3.048E-06	4.579E-06	8.239E-06	8.519E-06	8.718E-06	8.853E-06	8.939E-06	8.987E-06	9.004E-06
U233	7.251E-06	9.607E-06	2.028E-05	2.264E-05	2.500E-05	2.736E-05	2.972E-05	3.209E-05	3.445E-05
U234	2.857E-02	3.737E-02	8.033E-02	8.872E-02	9.704E-02	1.053E-01	1.135E-01	1.216E-01	1.297E-01
U235	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02
U236	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02
U237	1.154E-01	2.582E-10	2.028E-10	1.933E-10	1.842E-10	1.755E-10	1.672E-10	1.593E-10	1.518E-10
U238	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00
U240	5.608E-11	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19
NP235	3.251E-08	1.716E-08	7.020E-10	3.705E-10	1.955E-10	1.032E-10	5.444E-11	2.873E-11	1.516E-11
NP236	3.749E-06	3.749E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06
NP237	6.600E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00
NP238	9.351E-03	2.032E-12	1.982E-12	1.973E-12	1.963E-12	1.953E-12	1.944E-12	1.934E-12	1.925E-12
NP239	3.690E-04	9.917E-11	9.913E-11	9.912E-11	9.911E-11	9.910E-11	9.909E-11	9.908E-11	9.907E-11
NP240M	1.021E-10	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21
PU236	7.349E-06	5.789E-06	1.717E-06	1.346E-06	1.056E-06	8.277E-07	6.491E-07	5.090E-07	3.992E-07
PU237	7.562E-07	2.932E-09	2.577E-21	2.184E-24	2.184E-24	2.184E-24	2.184E-24	2.184E-24	2.184E-24
PU238	1.127E+00	1.128E+00	1.084E+00	1.076E+00	1.067E+00	1.059E+00	1.050E+00	1.042E+00	1.034E+00
PU239	1.613E-01	1.617E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01
PU240	3.359E-02	3.359E-02	3.358E-02	3.357E-02	3.357E-02	3.357E-02	3.356E-02	3.356E-02	3.356E-02
PU241	8.724E-03	8.313E-03	6.529E-03	6.221E-03	5.928E-03	5.649E-03	5.382E-03	5.129E-03	4.887E-03
PU242	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03
PU243	1.529E-07	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21
PU244	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08
PU246	4.021E-16	3.107E-26	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27
AM241	3.078E-04	7.183E-04	2.489E-03	2.792E-03	3.081E-03	3.355E-03	3.616E-03	3.864E-03	4.099E-03
AM242M	1.010E-05	1.005E-05	9.809E-06	9.760E-06	9.713E-06	9.665E-06	9.618E-06	9.570E-06	9.524E-06
AM242	3.143E-07	1.295E-10	1.263E-10	1.257E-10	1.251E-10	1.245E-10	1.239E-10	1.233E-10	1.227E-10
AM243	1.151E-04	1.153E-04	1.152E-04	1.152E-04	1.152E-04	1.152E-04	1.152E-04	1.151E-04	1.151E-04
AM245	2.436E-14	3.523E-23	6.747E-25	3.059E-25	1.387E-25	6.286E-26	2.850E-26	1.292E-26	5.857E-27
AM246	6.435E-19	4.979E-29	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30
CM241	1.081E-12	9.540E-16	5.111E-31	4.512E-34	3.982E-37	3.516E-40	3.377E-43	0.000E+00	0.000E+00
CM242	3.560E-05	7.622E-06	2.884E-08	2.617E-08	2.551E-08	2.527E-08	2.512E-08	2.500E-08	2.487E-08
CM243	5.657E-07	5.521E-07	4.889E-07	4.772E-07	4.657E-07	4.545E-07	4.436E-07	4.329E-07	4.225E-07
CM244	1.624E-05	1.564E-05	1.291E-05	1.243E-05	1.196E-05	1.151E-05	1.108E-05	1.066E-05	1.026E-05
CM245	3.670E-07	3.670E-07	3.668E-07	3.668E-07	3.668E-07	3.668E-07	3.667E-07	3.667E-07	3.667E-07
CM246	2.209E-08	2.209E-08	2.207E-08	2.207E-08	2.207E-08	2.206E-08	2.206E-08	2.206E-08	2.205E-08
CM247	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10
CM248	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12
CM249	1.877E-17	1.307E-30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	3.617E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21
BK249	2.019E-14	9.161E-15	1.754E-16	7.953E-17	3.605E-17	1.634E-17	7.410E-18	3.359E-18	1.523E-18
BK250	1.228E-17	4.440E-24	4.494E-26	1.936E-26	7.736E-27	1.591E-27	1.591E-27	1.591E-27	1.591E-27
CF249	3.877E-15	1.490E-14	2.367E-14	2.372E-14	2.372E-14	2.369E-14	2.366E-14	2.361E-14	2.357E-14
CF250	3.410E-15	3.245E-15	2.490E-15	2.361E-15	2.240E-15	2.124E-15	2.014E-15	1.910E-15	1.812E-15
CF251	1.058E-15	1.057E-15	1.053E-15	1.053E-15	1.052E-15	1.051E-15	1.050E-15	1.049E-15	1.048E-15
CF252	3.213E-16	2.471E-16	6.642E-17	5.107E-17	3.927E-17	3.020E-17	2.322E-17	1.785E-17	1.373E-17
CF253	2.544E-19	1.709E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	5.630E-21	9.293E-23	7.608E-32	7.608E-32	7.608E-32	7.608E-32	7.608E-32	7.608E-32	7.608E-32
ES253	2.406E-19	8.017E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	2.319E-20	9.242E-21	8.017E-23	4.039E-23	3.297E-24	3.297E-24	3.297E-24	3.297E-24	3.297E-24
SF250	2.227E-11	4.260E-11	1.324E-10	1.497E-10	1.670E-10	1.840E-10	2.009E-10	2.177E-10	2.343E-10
H 3	6.014E-04	5.685E-04	4.294E-04	4.060E-04	3.838E-04	3.629E-04	3.431E-04	3.243E-04	3.066E-04
LI 6	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06
LI 7	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07
BE 9	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07
BE 10	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06
C 14	3.795E-07	3.794E-07	3.792E-07	3.791E-07	3.791E-07	3.791E-07	3.790E-07	3.790E-07	3.789E-07
ZN 66	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10
ZN 67	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11
ZN 68	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06
GA 69	9.063E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09
ZN 70	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05
GE 70	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11
GA 71	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09
GE 72	1.046E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04
GE 73	3.676E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04

sbwzr1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
GE 74	9.973E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04
AS 75	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03
GE 76	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03
SE 76	4.545E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05
SE 77	1.581E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02
SE 78	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02
SE 79	8.723E-02	8.723E-02	8.722E-02	8.722E-02	8.722E-02	8.722E-02	8.722E-02	8.722E-02	8.722E-02
BR 79	2.253E-06	3.184E-06	7.837E-06	8.768E-06	9.699E-06	1.063E-05	1.156E-05	1.249E-05	1.342E-05
SE 80	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01
KR 80	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06
BR 81	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01
KR 81	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08
SE 82	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01
KR 82	9.495E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03
KR 83	7.796E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01
KR 84	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00
KR 85	4.116E-01	3.859E-01	2.793E-01	2.618E-01	2.454E-01	2.301E-01	2.157E-01	2.022E-01	1.895E-01
RB 85	1.846E+00	1.873E+00	1.979E+00	1.997E+00	2.013E+00	2.028E+00	2.043E+00	2.056E+00	2.069E+00
KR 86	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00
RB 86	1.883E-04	2.408E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	4.630E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03
RB 87	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00
SR 87	2.043E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05
SR 88	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00
SR 89	3.468E-01	2.306E-03	2.992E-14	1.989E-16	1.322E-18	8.787E-21	5.407E-23	0.000E+00	0.000E+00
Y 89	8.536E+00	8.880E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00
SR 90	1.013E+01	9.891E+00	8.781E+00	8.575E+00	8.373E+00	8.176E+00	7.984E+00	7.796E+00	7.613E+00
Y 90	2.594E-03	2.480E-03	2.202E-03	2.150E-03	2.100E-03	2.050E-03	2.002E-03	1.955E-03	1.909E-03
ZR 90	6.404E-01	8.788E-01	1.989E+00	2.195E+00	2.397E+00	2.594E+00	2.786E+00	2.974E+00	3.158E+00
Y 91	5.021E-01	6.678E-03	2.681E-12	3.539E-14	4.673E-16	6.171E-18	8.149E-20	1.073E-21	1.642E-23
ZR 91	1.058E+01	1.108E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01
ZR 92	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01
NB 92	1.142E-13	1.721E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.243E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01
NB 93	1.798E-06	2.829E-06	1.120E-05	1.344E-05	1.586E-05	1.843E-05	2.115E-05	2.402E-05	2.703E-05
NB 93M	1.239E-05	1.700E-05	3.680E-05	4.019E-05	4.341E-05	4.647E-05	4.938E-05	5.214E-05	5.477E-05
ZR 94	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01
NB 94	1.654E-06	1.654E-06	1.654E-06	1.654E-06	1.654E-06	1.654E-06	1.654E-06	1.654E-06	1.653E-06
ZR 95	6.298E-01	1.204E-02	3.079E-11	5.887E-13	1.126E-14	2.152E-16	4.115E-18	7.870E-20	1.507E-21
NB 95	3.479E-01	1.489E-02	3.755E-11	7.430E-13	1.423E-14	2.720E-16	5.202E-18	9.947E-20	1.903E-21
NB 95M	2.492E-04	5.040E-06	1.288E-14	2.463E-16	4.710E-18	9.006E-20	1.722E-21	3.293E-23	6.307E-25
MO 95	1.132E+01	1.227E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01
ZR 96	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01
MO 96	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01
MO 97	1.185E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01
MO 98	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01
TC 98	4.572E-05	4.572E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05
TC 99	1.150E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01
RU 99	9.490E-05	1.327E-04	3.220E-04	3.598E-04	3.977E-04	4.355E-04	4.734E-04	5.112E-04	5.491E-04
MO100	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01
RU100	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
RU101	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01
RU102	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00
RH102	5.323E-06	4.191E-06	1.269E-06	9.989E-07	7.866E-07	6.193E-07	4.877E-07	3.840E-07	3.024E-07
RU103	2.067E-01	3.286E-04	3.325E-18	5.286E-21	1.623E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.659E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00
RH103M	1.847E-04	2.939E-07	2.973E-21	4.727E-24	1.451E-26	2.306E-29	0.000E+00	0.000E+00	0.000E+00
RU104	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00
PD104	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00
PD105	2.157E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00
RU106	2.595E-01	1.305E-01	4.191E-03	2.107E-03	1.059E-03	5.326E-04	2.677E-04	1.346E-04	6.768E-05
RH106	2.616E-07	1.226E-07	3.939E-09	1.980E-09	9.957E-10	5.006E-10	2.517E-10	1.265E-10	6.361E-11
PD106	7.981E-01	9.272E-01	1.053E+00	1.056E+00	1.057E+00	1.057E+00	1.057E+00	1.058E+00	1.058E+00
AG106	5.871E-15	6.813E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01
AG107	1.092E-07	1.544E-07	3.801E-07	4.253E-07	4.704E-07	5.156E-07	5.608E-07	6.059E-07	6.511E-07
PD108	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01
AG108	9.552E-13	2.960E-19	2.935E-19	2.930E-19	2.926E-19	2.921E-19	2.916E-19	2.911E-19	2.906E-19
AG108M	3.090E-10	3.085E-10	3.059E-10	3.054E-10	3.049E-10	3.044E-10	3.039E-10	3.034E-10	3.029E-10
CD108	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07
AG109	8.224E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02
AG109M	5.107E-08	1.294E-16	8.458E-18	4.901E-18	2.840E-18	1.646E-18	9.537E-19	5.527E-19	3.203E-19
CD109	2.261E-10	1.310E-10	8.563E-12	4.962E-12	2.875E-12	1.666E-12	9.655E-13	5.595E-13	3.242E-13
PD110	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02
AG110	1.878E-08	2.972E-12	1.875E-14	6.806E-15	2.471E-15	8.972E-16	3.258E-16	1.183E-16	4.294E-17
AG110M	5.402E-04	1.961E-04	1.237E-06	4.491E-07	1.631E-07	5.921E-08	2.150E-08	7.805E-09	2.834E-09
CD110	3.243E-02	3.277E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02

sbwzr1.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
AG111	3.630E-04	6.352E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	5.953E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02
CD112	4.625E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02
CD113	4.385E-04	4.452E-04	4.454E-04	4.454E-04	4.455E-04	4.455E-04	4.455E-04	4.456E-04	4.456E-04
CD113M	8.755E-04	8.335E-04	6.519E-04	6.206E-04	5.909E-04	5.625E-04	5.356E-04	5.099E-04	4.854E-04
IN113	9.778E-05	1.397E-04	3.212E-04	3.524E-04	3.822E-04	4.105E-04	4.374E-04	4.631E-04	4.875E-04
CD114	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02
IN114	1.811E-11	3.957E-14	3.121E-25	1.938E-27	5.943E-29	6.508E-29	7.126E-29	7.804E-29	8.546E-29
IN114M	4.089E-07	2.460E-09	1.940E-20	1.205E-22	3.695E-24	4.046E-24	4.431E-24	4.852E-24	5.313E-24
SN114	6.881E-06	7.256E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06
CD115M	1.216E-04	4.164E-07	1.958E-19	6.650E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.111E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02
IN115M	5.122E-06	1.176E-13	5.528E-26	1.892E-28	6.428E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.262E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03
CD116	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02
SN116	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02
SN117	4.004E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02
SN117M	1.819E-06	2.563E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02
SN119	4.269E-02	4.278E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02
SN119M	1.423E-04	5.063E-05	2.889E-07	1.028E-07	3.659E-08	1.302E-08	4.633E-09	1.649E-09	5.866E-10
SN120	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02
SN121M	2.162E-05	2.135E-05	2.004E-05	1.979E-05	1.954E-05	1.930E-05	1.906E-05	1.882E-05	1.858E-05
SB121	4.515E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02
SN122	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02
TE122	2.238E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03
SN123	1.474E-03	2.076E-04	1.151E-08	1.621E-09	2.284E-10	3.216E-11	4.530E-12	6.381E-13	8.988E-14
SB123	5.702E-02	5.829E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02
TE123	2.198E-05	2.470E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05
TE123M	3.090E-06	3.725E-07	9.494E-12	1.145E-12	1.380E-13	1.664E-14	2.007E-15	2.420E-16	2.917E-17
SN124	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02
SB124	2.076E-04	3.096E-06	2.281E-15	3.401E-17	5.070E-19	7.562E-21	1.100E-22	0.000E+00	0.000E+00
TE124	1.566E-03	1.770E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03
SN125	3.077E-04	1.209E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	5.871E-02	4.596E-02	1.315E-02	1.024E-02	7.972E-03	6.207E-03	4.833E-03	3.763E-03	2.930E-03
TE125	4.338E-02	5.657E-02	8.983E-02	9.278E-02	9.508E-02	9.687E-02	9.826E-02	9.935E-02	1.002E-01
TE125M	7.575E-04	6.419E-04	1.839E-04	1.432E-04	1.115E-04	8.682E-05	6.760E-05	5.263E-05	4.098E-05
SN126	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01
SB126	3.639E-05	9.078E-09	9.077E-09	9.077E-09	9.077E-09	9.077E-09	9.077E-09	9.077E-09	9.077E-09
SB126M	1.490E-08	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11
TE126	4.547E-03	4.585E-03	4.591E-03	4.592E-03	4.594E-03	4.595E-03	4.596E-03	4.598E-03	4.599E-03
TE127	1.288E-04	1.759E-06	1.591E-11	1.560E-12	1.529E-13	1.499E-14	1.469E-15	1.440E-16	1.411E-17
TE127M	4.938E-03	5.024E-04	4.546E-09	4.456E-10	4.368E-11	4.281E-12	4.196E-13	4.113E-14	4.032E-15
I127	3.994E-01	4.053E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01
XE127	3.721E-09	3.557E-12	2.837E-27	2.712E-30	2.592E-33	2.477E-36	2.368E-39	2.314E-42	0.000E+00
TE128	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00
XE128	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02
TE129	6.927E-05	3.569E-09	1.551E-25	8.282E-29	4.423E-32	2.362E-35	1.262E-38	6.688E-42	0.000E+00
TE129M	7.102E-03	3.811E-06	1.656E-22	8.844E-26	4.723E-29	2.523E-32	1.347E-35	7.195E-39	3.796E-42
I129	1.835E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00
XE129	6.480E-05	6.500E-05	6.541E-05	6.549E-05	6.557E-05	6.565E-05	6.573E-05	6.582E-05	6.590E-05
XE129M	1.213E-07	2.187E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00
XE130	8.569E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02
I131	4.925E-02	1.070E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.011E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00
XE131M	7.973E-04	1.451E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.364E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01
CS132	9.291E-06	9.682E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	1.342E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05
XE133	7.367E-02	9.963E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.678E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01
XE134	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01
CS134	1.124E+00	8.031E-01	1.495E-01	1.069E-01	7.635E-02	5.455E-02	3.898E-02	2.785E-02	1.990E-02
BA134	6.001E-01	9.210E-01	1.575E+00	1.617E+00	1.648E+00	1.670E+00	1.685E+00	1.696E+00	1.704E+00
CS135	9.090E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00
BA135	2.738E-03	2.742E-03	2.755E-03	2.758E-03	2.761E-03	2.763E-03	2.766E-03	2.769E-03	2.772E-03
XE136	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01
CS136	6.042E-03	2.450E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	2.349E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01
BA136M	2.709E-10	1.099E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.651E+01	1.614E+01	1.438E+01	1.405E+01	1.373E+01	1.341E+01	1.311E+01	1.281E+01	1.252E+01
BA137	9.727E-01	1.350E+00	3.110E+00	3.439E+00	3.760E+00	4.073E+00	4.380E+00	4.679E+00	4.971E+00
BA137M	2.527E-06	2.469E-06	2.199E-06	2.149E-06	2.100E-06	2.052E-06	2.005E-06	1.959E-06	1.915E-06
BA138	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01
LA138	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04
LA139	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01

sbwzr1.g (Cointinued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:02

	1826.0D	1.0YR	6.0YR	7.0YR	8.0YR	9.0YR	10.0YR	11.0YR	12.0YR
BA140	1.798E 01	4.548E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	2.504E-02	6.858E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.816E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01
CE141	4.339E 01	1.811E-04	2.230E 21	9.256E-25	3.841E-28	1.594E 31	6.617E-35	2.746E-38	1.146E-41
PR141	1.663E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01
CE142	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01
ND142	2.736E 01	2.741E-01	2.741E-01	2.741E 01	2.741E-01	2.741E-01	2.741E 01	2.741E-01	2.741E 01
PR143	1.798E 01	1.577E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.373E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01
CE144	3.589E+00	1.473E+00	1.714E-02	7.036E-03	2.887E-03	1.185E-03	4.863E 04	1.996E-04	8.191E 05
PR144	1.520E 04	6.218E-05	7.239E-07	2.971E 07	1.219E-07	5.004E-08	2.053E-08	8.427E-09	3.458E-09
PR144M	7.579E-07	3.109E 07	3.619E-09	1.485E-09	6.095E 10	2.501E-10	1.026E-10	4.213E-11	1.729E-11
ND144	1.638E+01	1.850E+01	1.995E+01	1.996E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01
ND145	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01
ND146	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00
PM146	4.960E-05	4.372E 05	2.328E-05	2.053E-05	1.810E-05	1.595E-05	1.406E-05	1.240E-05	1.093E-05
SM146	8.176E-05	8.394E-05	9.150E-05	9.252E-05	9.342E-05	9.421E-05	9.491E-05	9.553E-05	9.607E-05
ND147	6.040E-02	6.922E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	2.102E+00	1.661E+00	4.432E-01	3.403E-01	2.613E-01	2.006E-01	1.540E-01	1.183E-01	9.080E-02
SM147	1.853E+00	2.355E+00	3.573E+00	3.676E+00	3.755E+00	3.815E+00	3.862E+00	3.898E+00	3.925E+00
ND148	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00
PM148	1.273E-02	2.501E-07	1.218E 20	2.651E-23	5.768E-26	9.076E-27	9.076E-27	9.076E-27	9.076E-27
PM148M	1.569E-02	3.414E-05	1.663E 18	3.620E-21	1.424E-24	1.424E 24	1.424E-24	1.424E 24	1.424E-24
SM148	2.311E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00
SM149	2.812E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02
ND150	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00
SM150	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00
EU150	4.537E-09	4.451E-09	4.043E-09	3.966E-09	3.891E-09	3.817E 09	3.744E-09	3.673E-09	3.603E-09
SM151	1.636E-01	1.636E-01	1.575E-01	1.563E-01	1.551E-01	1.539E 01	1.527E-01	1.515E-01	1.504E-01
EU151	2.742E 04	1.539E-03	7.722E-03	8.930E-03	1.013E 02	1.132E-02	1.250E-02	1.367E-02	1.483E-02
SM152	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00
EU152	1.217E-03	1.157E-03	8.955E 04	8.508E-04	8.083E-04	7.680E 04	7.297E-04	6.933E-04	6.587E-04
GD152	1.111E 03	1.129E-03	1.201E-03	1.214E-03	1.226E-03	1.237E 03	1.248E-03	1.258E-03	1.267E-03
EU153	1.120E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00
GD153	4.330E 05	1.521E 05	8.142E-08	2.860E-08	1.005E-08	3.530E 09	1.240E-09	4.356E-10	1.530E-10
SM154	2.463E-01	2.463E-01	2.463E 01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E 01	2.463E-01
EU154	2.588E 01	2.387E-01	1.595E-01	1.471E-01	1.357E-01	1.252E 01	1.155E-01	1.066E 01	9.830E-02
GD154	2.828E 02	4.833E-02	1.276E 01	1.399E-01	1.513E-01	1.618E 01	1.715E-01	1.805E 01	1.887E-01
EU155	7.957E 02	6.879E-02	3.321E 02	2.871E-02	2.482E 02	2.145E 02	1.855E-02	1.603E-02	1.386E-02
GD155	1.069E 03	1.185E-02	4.743E 02	5.193E 02	5.582E 02	5.919E 02	6.209E-02	6.461E 02	6.678E-02
EU156	8.576E-03	4.936E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	2.689E 01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E 01	2.775E-01	2.775E-01	2.775E-01
GD157	2.482E 04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E 04	2.689E-04	2.689E-04	2.689E 04
GD158	4.817E 02	4.817E-02	4.817E-02	4.817E-02	4.817E 02	4.817E 02	4.817E-02	4.817E 02	4.817E-02
TB159	4.519E 03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E 03	4.524E-03	4.524E-03	4.524E-03
GD160	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E 03	1.757E 03	1.757E 03	1.757E-03	1.757E-03
TB160	7.859E 05	2.369E-06	5.904E-14	1.780E 15	5.368E-17	1.618E 18	4.880E-20	1.476E-21	3.628E-23
DY160	3.786E 04	4.548E-04	4.571E-04	4.571E-04	4.571E 04	4.571E 04	4.571E-04	4.571E-04	4.571E 04
TB161	3.523E-06	4.555E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	3.769E-04	3.804E-04	3.804E 04	3.804E-04	3.804E 04	3.804E 04	3.804E-04	3.804E 04	3.804E-04
DY162	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E 04	3.008E-04	3.008E-04	3.008E 04
DY163	2.031E-04	2.031E 04	2.031E-04	2.031E-04	2.031E 04	2.031E 04	2.031E 04	2.031E-04	2.031E-04
DY164	3.788E 05	3.788E-05	3.788E-05	3.788E 05	3.788E-05	3.788E 05	3.788E-05	3.788E 05	3.788E-05
HO165	6.662E 05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E 05	6.663E-05	6.663E 05	6.663E-05
HO166M	4.628E-07	4.625E-07	4.612E 07	4.609E-07	4.607E 07	4.604E-07	4.601E-07	4.599E 07	4.596E-07
ER166	1.514E-05	1.519E 05	1.520E-05	1.520E-05	1.520E 05	1.520E 05	1.520E-05	1.520E 05	1.520E-05
ER167	2.061E 06	2.061E-06	2.061E 06	2.061E 06	2.061E 06	2.061E 06	2.061E 06	2.061E-06	2.061E-06
ER168	2.843E-06	2.843E 06	2.843E-06	2.843E-06	2.843E 06	2.843E-06	2.843E 06	2.843E 06	2.843E-06
ER169	5.081E-10	1.021E 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.408E 08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E 08	1.458E-08	1.458E 08	1.458E-08
ER170	2.803E-12	4.181E 12	4.405E-12	4.405E 12	4.405E-12	4.405E 12	4.405E 12	4.405E-12	4.405E-12
TM170	1.098E 09	1.532E-10	8.129E-15	1.135E 15	1.585E-16	2.212E 17	3.089E 18	4.313E-19	6.021E-20
YB170	1.875E 09	2.818E-09	2.971E-09	2.971E 09	2.971E 09	2.971E 09	2.971E 09	2.971E-09	2.971E-09
TM171	5.745E-11	4.004E 11	6.585E 12	4.590E-12	3.199E 12	2.229E-12	1.554E-12	1.083E 12	7.548E 13
YB171	6.068E 11	7.809E-11	1.115E-10	1.135E 10	1.149E 10	1.159E 10	1.166E-10	1.170E-10	1.174E-10
YB172	2.427E 12	2.436E-12	2.436E 12	2.436E-12	2.436E 12	2.436E 12	2.436E-12	2.436E-12	2.436E 12

File SBWZR2.INP

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-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) GENERIC FUEL
  BAS     PWRU FUEL
  RDA     -1 = 1 KG FUEL
  RDA     WARNING:  VECTORS ARE OFTEN CHANGED WITH RESPECT TO THEIR CONTENT.
  RDA               THESE CHANGES WILL BE NOTED ON RDA CARDS.
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  601  602  603   9   3   0  1   38
  TIT     INITIAL COMPOSITIONS OF UNIT AMOUNTS OF FUEL AND STRUCT MAT'LS
  RDA     READ FUEL COMPOSITION INCLUDING IMPURITIES
  INP     -1   1  -1  -1  1  1
  TIT     IRRADIATION OF GENERIC FUEL
  MOV     -1   1   0   1.0
  HED      1                                                  CHARGE
  BUP
  IRP     100.0   .2577   1   2   4 2
  IRP     200.0   .2577   2   3   4 0
  IRP     400.0   .2577   3   4   4 0
  IRP     600.0   .2577   4   5   4 0
  IRP     800.0   .2577   5   6   4 0
  IRP    1000.0   .2577   6   7   4 0
  IRP    1200.0   .2577   7   8   4 0
  IRP    1400.0   .2577   8   9   4 0
  IRP    1600.0   .2577   9  10   4 0
  IRP    1800.0   .2577  10  11   4 0
  IRP    1826.0   .2577  11  12   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV       12    1   0  1.0
  DEC       1.    1   2   5   4
  DEC      13.    2   3   5   0
  DEC      14.    3   4   5   0
  DEC      15.    4   5   5   0
  DEC      16.    5   6   5   0
  DEC      17.    6   7   5   0
  DEC      18.    7   8   5   0
  DEC      19.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922350  1000.0 922360  .4366  922380  8.6636       0     0.0   FUEL 97%
  1    60120  .92669  60130 .01031       0 .0           0      .0   C
  1    70140  1.2454  70150 .00463       0 .0           0      .0   N
  1    80160  74.720  80170 .02996   80180 0.1498       0      .0   O
  1   130270  1.2500      0 .0           0 .0           0      .0   Al
  1   220460  .04992 220470 .04555  220480 .46051  220490 .03432    Ti
  1   220500  .03370      0 .0           0 .0           0      .0
  1   240500  2.7113 240520 52.285  240530 5.9280  240540 1.4758    Cr
  1   260540  5.5283 260560 85.942  260570 1.9677  260580 .26236    Fe
```

File SBWZR2.INP (continued)

```
  1   280580  21.300 280600 8.1432  280610 .35256  280620 1.1201    Ni
  1   280640  .28392      0 .0           0 .0           0     .0
  1   400900  31494. 400910 6866.6  400920 10496.  400940 10637.    Zr
  1   400960  1713.6      0 .0           0 .0           0     .0
  1   410930  6.2400      0 .0           0 .0           0     .0    Nb
  1   501120  9.4187 501140 6.3115  501150 3.4956  501160 141.09    Sn
  1   501170  74.573 501180 235.18  501190 83.312  501200 316.45
  1   501220  44.957 501240 56.221       0 .0           0 .0
  1   721740  .02025 721760 .65075  721770 2.3258  721780 3.4121    Hf
  1   721790  1.7036 721800 4.3875       0 .0           0 .0
  1   731801  .00007 731810 .62393       0 .0           0 .0        Ta
  0
```

File SBWZR2.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwzr2.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\pwrus.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwzr2.u6 >nul
copy tape13.out+tape11.out sbwzr2.u11 >nul
ren tape7.out sbwzr2.pch
ren tape15.out sbwzr2.dbg
ren tape16.out sbwzr2.vxs
ren tape50.out sbwzr2.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwzr2.dbg
del sbwzr2.pch
del sbwzr2.vxs
del sbwzr2.ech
del sbwzr2.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ********************** Execution Completed ****************************
echo ************************************************************************
echo on
```

sbwzr2.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
H 1	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03
H 2	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07
H 3	8.092E-11	7.649E-11	3.896E-11	3.683E-11	3.482E-11	3.292E-11	3.112E-11	2.942E-11	2.781E-11
HE 3	1.387E-12	5.810E-12	4.334E-11	4.547E-11	4.749E-11	4.939E-11	5.119E-11	5.289E-11	5.450E-11
HE 4	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03
LI 6	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10
LI 7	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13
BE 9	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06
BE 10	7.841E-08	7.841E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08
B 10	5.066E-13	5.539E-13	1.121E-12	1.168E-12	1.215E-12	1.262E-12	1.309E-12	1.357E-12	1.404E-12
B 11	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04
C 12	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01
C 13	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02
C 14	3.319E-03	3.319E-03	3.314E-03	3.313E-03	3.313E-03	3.313E-03	3.312E-03	3.312E-03	3.311E-03
N 14	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00
N 15	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03
O 16	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01
O 17	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02
O 18	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01
F 19	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08
NE 20	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13
NE 21	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12
NE 22	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14
NA 23	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18
MG 24	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06
MG 25	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10
MG 26	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13
AL 27	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00
SI 28	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04
SI 29	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08
SI 30	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12
SI 32	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23
P 31	2.822E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16
P 32	1.196E-21	7.518E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28
S 32	1.340E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20
S 34	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22
CL 37	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16
AR 38	5.748E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20
AR 39	1.509E-20	1.505E-20	1.459E-20	1.455E-20	1.452E-20	1.448E-20	1.444E-20	1.440E-20	1.437E-20
AR 40	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12
AR 42	2.206E-21	2.159E-21	1.678E-21	1.643E-21	1.608E-21	1.574E-21	1.541E-21	1.509E-21	1.477E-21
K 39	1.746E-23	5.634E-23	5.145E-22	5.521E-22	5.896E-22	6.270E-22	6.643E-22	7.015E-22	7.386E-22
K 41	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14
K 42	1.111E-18	9.229E-26	7.171E-26	7.021E-26	6.873E-26	6.729E-26	6.588E-26	6.449E-26	6.314E-26
CA 42	7.716E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16
CA 43	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07
CA 44	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07
CA 45	3.038E-09	6.426E-10	5.146E-18	1.088E-18	2.302E-19	4.869E-20	1.030E-20	2.179E-21	4.593E-22
CA 46	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08
SC 45	1.343E-08	1.583E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08
SC 46	2.122E-07	1.034E-08	1.858E-24	2.635E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02
TI 47	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02
TI 48	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01
TI 49	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02
TI 50	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02
V 50	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04
V 51	5.683E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02
CR 50	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00
CR 51	1.978E-03	2.128E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01
CR 53	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00
CR 54	1.625E+00	1.625E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00
MN 54	3.791E-04	1.686E-04	1.011E-08	4.497E-09	2.000E-09	8.896E-10	3.957E-10	1.760E-10	7.828E-11
MN 55	7.699E-03	1.023E-02	1.817E-02	1.825E-02	1.831E-02	1.836E-02	1.839E-02	1.842E-02	1.844E-02
FE 54	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00
FE 55	1.081E-02	8.280E-03	3.378E-04	2.588E-04	1.982E-04	1.518E-04	1.163E-04	8.908E-05	6.823E-05
FE 56	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01
FE 57	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00
FE 58	2.744E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01
FE 59	2.693E-05	9.706E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	4.277E-04	1.196E-05	2.725E-24	2.843E-24	2.966E-24	3.095E-24	3.229E-24	3.369E-24	3.515E-24
CO 59	1.843E-03	1.871E-03	1.883E-03	1.884E-03	1.885E-03	1.886E-03	1.887E-03	1.888E-03	1.889E-03
CO 60	1.264E-04	1.108E-04	2.286E-05	2.005E-05	1.758E-05	1.541E-05	1.351E-05	1.185E-05	1.039E-05
NI 58	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01
NI 59	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
NI 60	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00
NI 61	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01
NI 62	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00
NI 63	2.103E-02	2.087E-02	1.907E-02	1.892E-02	1.878E-02	1.864E-02	1.850E-02	1.836E-02	1.822E-02
NI 64	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01
CU 63	3.412E-04	4.990E-04	2.303E-03	2.446E-03	2.588E-03	2.729E-03	2.869E-03	3.008E-03	3.146E-03
CU 65	6.203E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04
ZN 64	3.540E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07
ZN 65	7.597E-11	2.690E-11	1.046E-16	3.702E-17	1.311E-17	4.642E-18	1.644E-18	5.821E-19	2.061E-19
ZN 66	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06
ZN 67	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10
ZN 68	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12
GA 69	9.098E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16
GA 71	7.637E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22
GE 70	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18
GE 71	7.964E-23	3.830E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 72	9.679E-27	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26
SR 87	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04
SR 88	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02
SR 89	1.543E-04	1.026E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	1.544E-06	1.507E-06	1.129E-06	1.102E-06	1.076E-06	1.050E-06	1.025E-06	1.001E-06	9.769E-07
Y 89	2.396E-03	2.549E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03
Y 90	3.286E-04	3.824E-10	2.864E-10	2.796E-10	2.730E-10	2.665E-10	2.601E-10	2.539E-10	2.479E-10
Y 91	4.667E-04	6.163E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04
ZR 91	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03
ZR 92	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04
ZR 93	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01
ZR 94	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04
ZR 95	2.492E-01	4.765E-03	1.138E-23	5.520E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03
NB 92	3.999E-07	6.025E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	6.190E+00	6.190E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00
NB 93M	1.560E-05	2.252E-05	8.306E-05	8.662E-05	9.001E-05	9.323E-05	9.629E-05	9.920E-05	1.020E-04
NB 94	3.937E-02	3.937E-02	3.935E-02	3.935E-02	3.935E-02	3.935E-02	3.934E-02	3.934E-02	3.934E-02
NB 95	1.328E-01	5.887E-03	1.388E-23	3.188E-24	1.306E-25	9.729E-29	7.245E-32	5.396E-35	4.018E-38
NB 95M	9.792E-05	1.994E-06	4.763E-27	2.185E-27	4.417E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	2.903E-06	4.248E-06	2.037E-05	2.172E-05	2.306E-05	2.441E-05	2.575E-05	2.709E-05	2.844E-05
MO 95	2.820E+00	3.192E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00
MO 96	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02
MO 97	4.882E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00
MO 98	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02
MO100	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09
TC 98	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11
TC 99	2.212E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05
RU 98	4.535E-18	1.076E-17	8.543E-17	9.166E-17	9.788E-17	1.041E-16	1.103E-16	1.165E-16	1.228E-16
RU 99	6.787E-11	1.413E-10	1.022E-09	1.096E-09	1.169E-09	1.243E-09	1.316E-09	1.389E-09	1.463E-09
RU100	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07
RU101	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09
RU102	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11
RU103	2.407E-15	3.829E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17
RU106	1.409E-29	1.409E-29	3.675E-33	3.675E-33	3.675E-33	3.675E-33	3.675E-33	3.675E-33	3.675E-33
RH102	1.578E-22	1.201E-22	1.018E-23	1.018E-23	1.018E-23	1.018E-23	1.018E-23	1.018E-23	1.018E-23
RH103	6.390E-16	8.778E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16
RH106	7.088E-28	1.324E-35	3.454E-39	3.454E-39	3.454E-39	3.454E-39	3.454E-39	3.454E-39	3.454E-39
PD104	5.171E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17
PD105	6.561E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20
PD106	6.093E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22
PD107	1.607E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32
CD111	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07
CD112	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06
CD113	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08
CD114	3.937E-04	4.212E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04
CD115M	1.542E-08	5.283E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD116	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06
IN113	8.656E-02	9.494E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02
IN113M	5.656E-06	6.271E-07	2.161E-18	2.395E-19	2.655E-20	2.943E-21	3.263E-22	3.618E-23	4.015E-24
IN114	1.614E-08	3.561E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	3.679E-04	2.214E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.255E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06
SN112	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00
SN113	9.419E-03	1.044E-03	3.598E-15	3.988E-16	4.421E-17	4.901E-18	5.433E-19	6.024E-20	6.685E-21
SN114	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00
SN115	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00
SN116	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02
SN117	7.501E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
SN117M	9.722E-03	1.370E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02
SN119	8.423E+01	8.433E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01
SN119M	1.508E-01	5.365E-02	2.212E-07	7.670E-08	2.801E-08	9.966E-09	3.546E-09	1.262E-09	4.491E-10
SN120	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02
SN121M	1.546E-03	1.524E-03	1.291E-03	1.273E-03	1.255E-03	1.238E-03	1.221E-03	1.204E-03	1.187E-03
SN122	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01
SN123	4.329E-03	6.097E-04	3.718E-14	5.237E-15	7.376E-16	1.039E-16	1.463E-17	2.061E-18	2.903E-19
SN124	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01
SN125	2.449E-03	9.625E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB121	2.832E-01	2.837E-01	2.839E-01	2.839E-01	2.840E-01	2.840E-01	2.840E-01	2.840E-01	2.840E-01
SB123	2.498E-02	2.869E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02
SB124	8.778E-05	1.309E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.131E-01	1.681E-01	8.483E-03	6.614E-03	5.157E-03	4.021E-03	3.135E-03	2.444E-03	1.906E-03
SB126	3.716E-05	5.617E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE122	1.217E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02
TE123	1.135E-04	1.279E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04
TE123M	1.635E-05	1.972E-06	1.862E-17	2.245E-18	2.707E-19	3.264E-20	3.938E-21	4.824E-22	5.429E-23
TE124	6.257E-04	7.122E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04
TE125	1.253E-01	1.731E-01	3.349E-01	3.368E-01	3.383E-01	3.395E-01	3.404E-01	3.411E-01	3.416E-01
TE125M	2.619E-03	2.308E-03	1.167E-04	9.096E-05	7.092E-05	5.530E-05	4.311E-05	3.361E-05	2.621E-05
TE126	2.154E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03
TE127	7.770E-09	4.612E-11	3.628E-23	3.564E-24	3.649E-25	5.604E-26	2.792E-26	2.744E-27	0.000E+00
TE127M	1.344E-07	1.317E-08	1.036E-20	1.018E-21	1.043E-22	1.603E-23	7.997E-24	0.000E+00	0.000E+00
TE128	7.062E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09
TE129	8.154E-16	6.894E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.379E-14	7.362E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17
I127	5.095E-06	5.224E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06
I129	2.639E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12
I131	1.297E-19	2.743E-33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE127	1.863E-14	1.780E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE128	9.227E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08
XE129	1.963E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10
XE129M	6.501E-13	1.172E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE130	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12
XE131	5.920E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15
XE131M	4.971E-17	2.854E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16
XE133	3.734E-21	4.100E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE134	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22
XE136	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30
CS132	2.603E-26	1.850E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	6.236E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20
CS134	1.000E-21	7.208E-22	1.942E-23	1.942E-23	1.942E-23	1.942E-23	1.942E-23	1.942E-23	1.942E-23
CS135	4.120E-30	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29
CS137	6.896E-40	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39
BA132	1.034E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28
BA133	2.066E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34
BA134	7.914E-23	3.585E-22	1.060E-21	1.060E-21	1.060E-21	1.060E-21	1.060E-21	1.060E-21	1.060E-21
BA135	7.109E-29	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28
BA136	1.555E-36	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35
ER166	1.258E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28
ER167	1.116E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37
ER169	1.553E-19	3.121E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER170	6.143E-22	9.649E-22	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21
TM169	3.807E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18
TM170	2.851E-19	3.981E-20	2.184E-30	2.184E-30	2.184E-30	2.184E-30	2.184E-30	2.184E-30	2.184E-30
TM171	5.935E-20	4.144E-20	5.507E-22	3.877E-22	2.730E-22	1.923E-22	1.228E-22	7.850E-23	5.016E-23
YB170	4.405E-19	6.854E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19
YB171	2.334E-20	4.135E-20	8.224E-20	8.240E-20	8.252E-20	8.260E-20	8.267E-20	8.271E-20	8.274E-20
YB172	3.370E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10
YB173	2.121E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10
YB174	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12
LU175	7.445E-03	8.021E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03
LU176	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04
LU177	4.829E-06	5.175E-10	1.591E-18	3.106E-19	6.065E-20	1.184E-20	2.313E-21	4.516E-22	8.825E-23
LU177M	2.662E-07	5.199E-08	1.598E-16	3.120E-17	6.093E-18	1.190E-18	2.323E-19	4.536E-20	8.866E-21
HF174	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02
HF175	5.915E-04	1.589E-05	2.251E-24	2.251E-24	2.251E-24	2.251E-24	2.251E-24	2.251E-24	2.251E-24
HF176	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01
HF177	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01
HF178	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00
HF179	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00
HF180	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00
HF181	7.713E-03	1.966E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF182	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
TA181	5.896E 01	5.973E-01	5.973E 01	5.973E 01	5.973E-01	5.973E 01	5.973E-01	5.973E-01	5.973E-01
TA182	9.547E 03	1.056E-03	9.209E 12	9.206E-12	9.206E-12	9.206E 12	9.206E-12	9.206E-12	9.206E-12
TA183	6.272E-04	1.731E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W182	7.216E-02	8.065E 02	8.171E 02	8.171E 02	8.171E-02	8.171E-02	8.171E-02	8.171E 02	8.171E-02
W183	8.421E-02	8.484E-02	8.484E 02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E 02	8.484E 02
W184	5.126E 03	5.126E-03	5.126E 03	5.126E 03	5.126E-03	5.126E 03	5.126E-03	5.126E-03	5.126E-03
W185	2.694E-06	9.253E-08	2.497E-25	2.497E-25	2.497E 25	2.497E-25	2.497E-25	2.497E-25	2.497E 25
W186	8.086E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E 08	8.258E-08	8.258E-08	8.258E 08
W188	1.394E-12	3.629E-14	3.528E 33	3.528E-33	3.528E-33	3.528E-33	3.528E 33	3.528E-33	3.528E-33
RE185	7.346E 06	9.947E-06	1.004E 05	1.004E-05	1.004E-05	1.004E 05	1.004E-05	1.004E-05	1.004E 05
RE187	3.365E-09	3.388E-09	3.388E 09	3.388E-09	3.388E 09	3.388E-09	3.388E-09	3.388E-09	3.388E 09
RE188	6.110E-13	3.738E-16	3.634E 35	3.599E-35	3.599E 35	3.599E-35	3.599E-35	3.599E-35	3.599E 35
OS186	1.213E 06	1.238E 06	1.238E 06	1.238E 06	1.238E-06	1.238E-06	1.238E-06	1.238E 06	1.238E 06
OS187	2.367E-20	7.064E 20	6.342E-19	6.812E 19	7.282E-19	7.751E-19	8.221E-19	8.691E-19	9.160E 19
OS188	1.070E 10	1.090E 10	1.090E 10	1.090E-10	1.090E 10	1.090E 10	1.090E-10	1.090E-10	1.090E-10
OS189	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E 13	7.571E 13	7.571E-13	7.571E-13	7.571E-13
OS190	2.676E-14	2.676E 14	2.676E 14	2.676E-14	2.676E-14	2.676E 14	2.676E-14	2.676E-14	2.676E-14
OS191	1.181E-17	8.861E 25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS192	3.158E-19	5.976E-19	6.071E-19	6.071E 19	6.071E-19	6.071E-19	6.071E-19	6.071E 19	6.071E 19
OS194	6.360E-27	6.360E 27	6.360E-27	6.360E-27	6.360E-27	6.360E 27	6.360E-27	6.360E-27	6.360E-27
IR191	5.432E-17	6.647E-17	6.647E-17	6.647E-17	6.647E 17	6.647E-17	6.647E-17	6.647E-17	6.647E 17
IR192	6.094E-18	1.992E-19	4.464E 24	4.464E 24	4.464E-24	4.464E-24	4.464E-24	4.464E-24	4.464E 24
IR192M	5.491E-21	5.491E-21	5.301E-21	5.301E-21	5.301E 21	5.301E-21	5.301E-21	5.301E-21	5.301E-21
IR193	8.109E-19	8.110E-19	8.114E 19	8.114E-19	8.115E-19	8.115E 19	8.115E 19	8.116E-19	8.116E-19
IR194	4.896E-22	2.316E-30	2.316E-30	2.316E-30	2.316E 30	2.316E-30	2.316E-30	2.316E-30	2.316E 30
PT192	6.270E-18	1.188E-17	1.207E 17	1.207E-17	1.207E-17	1.207E 17	1.207E-17	1.207E-17	1.207E-17
PT193	2.562E-20	2.583E-20	2.540E 20	2.536E 20	2.533E 20	2.529E-20	2.526E-20	2.522E-20	2.519E 20
PT194	4.234E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20
PT195	2.565E-27	2.791E-26	2.791E-26	2.791E-26	2.791E 26	2.791E-26	2.791E-26	2.791E-26	2.791E 26
HE 4	1.613E-04	3.125E-04	2.032E 03	2.168E-03	2.303E-03	2.437E-03	2.570E-03	2.701E-03	2.832E 03
TL206	2.320E-29	2.320E 29	2.320E-29	2.320E-29	2.320E 29	2.320E-29	2.320E-29	2.320E-29	2.320E 29
TL207	3.787E-17	5.254E 17	4.028E-16	4.456E-16	4.894E 16	5.348E-16	5.818E-16	6.304E-16	6.804E 16
TL208	2.481E-14	4.984E 14	2.382E-13	2.412E-13	2.425E-13	2.430E-13	2.429E-13	2.423E-13	2.414E 13
TL209	1.121E-19	3.961E-20	5.256E 20	5.431E-20	5.617E-20	5.815E 20	6.024E 20	6.244E-20	6.476E-20
PB206	1.519E-15	3.824E 15	5.504E 14	6.453E-14	7.545E 14	8.842E 14	1.038E-13	1.221E-13	1.436E 13
PB207	6.465E-12	9.859E 12	1.948E 10	2.272E-10	2.628E 10	3.018E 10	3.443E-10	3.906E-10	4.405E-10
PB208	9.813E 09	2.197E-08	7.142E-07	7.935E 07	8.734E-07	9.536E-07	1.034E-06	1.114E 06	1.194E 06
PB209	4.680E-16	1.650E-16	2.190E 16	2.263E-16	2.340E-16	2.423E 16	2.510E-16	2.602E-16	2.698E-16
PB210	8.585E-14	9.107E-14	2.979E 13	3.562E 13	4.252E 13	5.061E-13	5.999E-13	7.080E-13	8.315E 13
PB211	2.930E-16	4.065E-16	3.116E 15	3.447E 15	3.786E 15	4.137E-15	4.501E-15	4.877E-15	5.264E 15
PB212	1.464E-11	2.940E-11	1.405E-10	1.423E-10	1.430E 10	1.433E-10	1.433E-10	1.429E-10	1.424E-10
PB214	6.459E 20	1.168E 19	4.697E 18	5.595E-18	6.601E 18	7.720E-18	8.958E-18	1.032E-17	1.181E 17
BI208	1.256E-18	1.256E 18	1.256E 18	1.256E-18	1.256E-18	1.256E 18	1.256E 18	1.256E-18	1.256E 18
BI209	8.310E-13	1.190E 12	5.316E 12	5.725E-12	6.148E 12	6.586E 12	7.039E-12	7.509E-12	7.996E-12
BI210M	8.941E-18	8.941E-18	8.941E 18	8.941E 18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E 18
BI210	5.220E-17	5.607E-17	1.833E 16	2.193E-16	2.618E 16	3.116E 16	3.693E 16	4.359E-16	5.119E-16
BI211	1.729E-17	2.398E-17	1.839E 16	2.034E-16	2.234E-16	2.441E 16	2.656E-16	2.877E-16	3.106E 16
BI212	1.388E-12	2.788E-12	1.333E-11	1.350E 11	1.357E 11	1.359E-11	1.359E-11	1.356E-11	1.350E 11
BI213	1.097E-16	3.878E-17	5.146E 17	5.317E-17	5.499E-17	5.693E-17	5.898E-17	6.113E-17	6.340E-17
BI214	4.796E-20	8.671E 20	3.487E 18	4.155E-18	4.902E-18	5.732E 18	6.652E 18	7.663E-18	8.772E 18
PO210	9.369E-16	1.441E 15	5.063E 15	5.530E-15	6.523E-15	7.761E 15	9.217E-15	1.090E-14	1.283E 14
PO211	2.121E 22	2.943E-22	2.256E-21	2.496E 21	2.741E 21	2.995E-21	3.258E-21	3.530E-21	3.810E 21
PO212	7.345E-23	1.475E-22	7.051E 22	7.140E 22	7.177E 22	7.192E-22	7.189E-22	7.172E-22	7.144E 22
PO213	1.646E-25	5.818E-26	7.720E-26	7.977E-26	8.251E-26	8.541E-26	8.848E-26	9.172E-26	9.512E 26
PO214	6.465E 25	1.193E 26	4.798E 25	5.716E 25	6.743E-25	7.886E 25	9.151E-25	1.054E 24	1.207E-24
PO215	2.453E-22	3.404E-22	2.609E 21	2.887E 21	3.170E-21	3.464E-21	3.769E-21	4.083E-21	4.408E 21
PO216	5.840E-17	1.173E 16	5.605E 16	5.678E-16	5.707E-16	5.719E 16	5.716E 16	5.703E 16	5.681E 16
PO218	7.490E-21	1.354E 20	5.446E-19	6.488E-19	7.654E-19	8.952E-19	1.039E-18	1.197E-18	1.370E 18
AT217	1.318E-21	4.659E-22	6.182E 22	6.388E 22	6.607E 22	6.840E-22	7.085E-22	7.345E-22	7.617E 22
RN218	1.389E-22	7.190E 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	5.559E 19	7.713E 19	5.913E-18	6.542E-18	7.184E 18	7.851E 18	8.541E-18	9.254E 18	9.988E 18
RN220	2.205E-14	4.428E 14	2.117E 13	2.143E-13	2.155E-13	2.159E-13	2.158E-13	2.153E-13	2.145E 13
RN222	1.377E 17	2.490E-17	1.001E 15	1.193E 15	1.407E 15	1.646E-15	1.910E 15	2.200E-15	2.519E 15
FR221	1.197E-17	4.231E 18	5.614E-18	5.801E-18	6.000E 18	6.211E 18	6.434E 18	6.670E 18	6.917E 18
FR223	2.595E-18	3.574E-18	2.744E 17	3.030E-17	3.328E-17	3.636E-17	3.956E-17	4.286E-17	4.626E 17
RA222	1.535E-19	7.950E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	1.412E 13	1.959E-13	1.502E 12	1.662E 12	1.825E 12	1.994E 12	2.170E-12	2.351E-12	2.537E 12
RA224	1.277E-10	2.564E 10	1.226E 09	1.241E-09	1.248E-09	1.250E 09	1.250E-09	1.247E-09	1.242E-09
RA225	5.557E 14	1.913E-14	2.538E 14	2.623E-14	2.713E-14	2.808E 14	2.909E-14	3.016E-14	3.127E 14
RA226	2.161E-12	3.873E 12	1.558E-10	1.856E-10	2.189E 10	2.560E 10	2.971E 10	3.423E 10	3.918E 10
RA228	5.379E-16	8.951E-16	1.028E 14	1.131E-14	1.235E-14	1.342E-14	1.450E-14	1.559E-14	1.670E 14
AC225	3.655E-14	1.292E 14	1.715E 14	1.772E-14	1.832E-14	1.897E-14	1.965E-14	2.037E 14	2.113E 14
AC227	1.006E 10	1.385E 10	1.063E 09	1.174E 09	1.289E 09	1.409E-09	1.533E 09	1.661E 09	1.793E 09
AC228	2.287E-14	1.089E 19	1.250E 18	1.375E 18	1.503E 18	1.632E 18	1.764E 18	1.897E 18	2.031E 18
TH226	7.650E 18	3.961E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	2.321E-13	3.220E 13	2.468E 12	2.731E-12	2.999E 12	3.277E 12	3.565E-12	3.863E 12	4.169E 12

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
TH228	2.505E 08	4.974E-08	2.382E 07	2.403E-07	2.416E-07	2.421E 07	2.420E 07	2.414E 07	2.404E-07
TH229	3.489E-09	3.526E-09	4.678E 09	4.833E-09	4.999E 09	5.175E-09	5.361E-09	5.558E-09	5.764E-09
TH230	1.500E 07	2.415E 07	3.183E 06	3.576E-06	3.991E 06	4.428E-06	4.886E-06	5.366E-06	5.867E 06
TH231	1.704E 09	1.627E-09	1.627E 09	1.627E 09	1.627E-09	1.627E 09	1.627E-09	1.627E 09	1.627E 09
TH232	7.632E-06	1.062E 05	4.651E 05	4.950E-05	5.249E 05	5.548E-05	5.847E 05	6.146E-05	6.445E-05
TH234	1.246E 10	1.242E-10	1.242E 10	1.242E 10	1.242E 10	1.242E 10	1.242E 10	1.242E-10	1.242E-10
PA231	1.811E 06	2.200E-06	6.848E-06	7.236E-06	7.625E 06	8.014E-06	8.403E-06	8.791E-06	9.180E 06
PA233	2.217E 07	2.277E-07	2.276E 07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E 07
PA234M	4.849E-14	4.189E 15	4.189E 15	4.189E 15	4.189E 15	4.189E 15	4.189E 15	4.189E 15	4.189E 15
PA234	1.528E-11	1.871E 15	1.871E-15	1.871E 15	1.871E-15	1.871E-15	1.871E-15	1.871E 15	1.871E-15
U230	7.519E-15	3.891E 20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	3.048E 06	4.579E 06	8.999E-06	8.975E 06	8.936E 06	8.888E 06	8.831E 06	8.767E 06	8.699E 06
U233	7.251E 06	9.607E-06	3.522E-05	3.758E 05	3.994E-05	4.230E-05	4.466E 05	4.703E 05	4.939E 05
U234	2.857E 02	3.737E 02	1.377E-01	1.456E 01	1.535E 01	1.613E 01	1.691E 01	1.768E-01	1.844E 01
U235	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02
U236	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02
U237	1.154E-01	2.582E-10	1.446E-10	1.378E-10	1.313E-10	1.251E-10	1.192E 10	1.136E 10	1.083E 10
U238	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00
U240	5.608E-11	2.476E 19	2.476E-19	2.476E-19	2.476E 19	2.476E-19	2.476E-19	2.476E-19	2.476E 19
NP235	3.251E-08	1.716E 08	8.000E 12	4.222E-12	2.228E 12	1.176E-12	6.204E 13	3.274E 13	1.728E-13
NP236	3.749E 06	3.749E-06	3.748E-06	3.748E 06	3.748E-06	3.748E 06	3.748E 06	3.748E-06	3.748E-06
NP237	6.600E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00
NP238	9.351E-03	2.032E 12	1.915E 12	1.906E 12	1.897E-12	1.887E 12	1.878E-12	1.869E 12	1.860E 12
NP239	3.690E 04	9.917E-11	9.906E 11	9.905E-11	9.904E-11	9.903E 11	9.902E-11	9.901E 11	9.900E-11
NP240M	1.021E-10	2.166E 21	2.166E 21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E 21	2.166E 21
PU236	7.349E 06	5.789E-06	3.130E 07	2.455E 07	1.925E-07	1.509E 07	1.184E-07	9.282E 08	7.279E-08
PU237	7.562E-07	2.932E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	1.127E+00	1.128E+00	1.026E+00	1.018E+00	1.010E+00	1.002E+00	9.939E-01	9.861E 01	9.783E-01
PU239	1.613E-01	1.617E-01	1.616E 01	1.616E-01	1.616E-01	1.616E-01	1.616E 01	1.616E-01	1.616E-01
PU240	3.359E-02	3.359E 02	3.355E-02	3.355E-02	3.355E-02	3.354E 02	3.354E 02	3.354E 02	3.353E 02
PU241	8.724E-03	8.313E 03	4.656E-03	4.437E-03	4.228E-03	4.028E-03	3.838E-03	3.657E 03	3.485E 03
PU242	1.215E 03	1.215E-03	1.215E-03	1.215E 03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03
PU243	1.529E-07	4.098E-21	4.098E 21	4.098E 21	4.098E-21	4.098E-21	4.098E-21	4.098E 21	4.098E-21
PU244	1.266E-08	1.266E 08	1.266E 08	1.266E-08	1.266E-08	1.266E-08	1.266E 08	1.266E-08	1.266E 08
PU246	4.021E-16	3.107E-26	1.521E 27	1.521E-27	1.521E-27	1.521E 27	1.521E-27	1.521E-27	1.521E-27
AM241	3.078E 04	7.183E-04	4.323E 03	4.535E-03	4.737E-03	4.928E-03	5.110E-03	5.283E 03	5.447E 03
AM242M	1.010E-05	1.005E 05	9.477E 06	9.430E-06	9.384E 06	9.338E 06	9.292E 06	9.247E 06	9.201E 06
AM242	3.143E 07	1.295E-10	1.221E-10	1.215E 10	1.209E 10	1.203E 10	1.197E 10	1.191E 10	1.185E 10
AM243	1.151E 04	1.153E 04	1.151E-04	1.151E 04	1.151E 04	1.151E 04	1.151E-04	1.151E 04	1.151E 04
AM245	2.436E 14	3.523E 23	2.655E 27	1.204E 27	5.457E-28	2.474E 28	1.122E 28	5.082E 29	2.302E 29
AM246	6.435E 19	4.979E 29	2.434E 30	2.434E 30	2.434E 30	2.434E-30	2.434E 30	2.434E 30	2.434E-30
CM241	1.081E-12	9.540E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	3.560E 05	7.622E 06	2.471E-08	2.462E 08	2.451E 08	2.439E-08	2.427E 08	2.415E 08	2.403E 08
CM243	5.657E-07	5.521E-07	4.124E-07	4.025E 07	3.928E 07	3.834E-07	3.742E-07	3.652E 07	3.564E-07
CM244	1.624E 05	1.564E 05	9.878E 06	9.507E-06	9.150E-06	8.807E-06	8.476E-06	8.158E 06	7.851E 06
CM245	3.670E-07	3.670E 07	3.666E-07	3.666E 07	3.666E 07	3.666E 07	3.665E-07	3.665E 07	3.665E 07
CM246	2.209E-08	2.209E 08	2.205E-08	2.205E-08	2.204E 08	2.204E 08	2.204E 08	2.203E 08	2.203E-08
CM247	1.150E-10	1.150E-10	1.150E 10	1.150E 10	1.150E 10	1.150E-10	1.150E-10	1.150E 10	1.150E 10
CM248	3.443E-12	3.443E 12	3.443E 12	3.443E 12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E 12
CM249	1.877E 17	1.307E 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	3.617E 21	3.621E 21	3.621E 21	3.621E 21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E 21
BK249	2.019E 14	9.161E-15	6.904E-19	3.130E 19	1.419E-19	6.433E-20	2.914E-20	1.320E 20	5.982E 21
BK250	1.228E-17	4.440E-24	8.330E 29	8.328E 29	8.328E 29	8.328E-29	8.328E-29	8.328E 29	8.328E 29
CF249	3.877E 15	1.490E 14	2.352E 14	2.348E 14	2.343E-14	2.338E-14	2.334E 14	2.329E 14	2.325E-14
CF250	3.410E 15	3.245E-15	1.718E-15	1.630E-15	1.545E-15	1.466E-15	1.390E 15	1.318E-15	1.250E-15
CF251	1.068E-15	1.057E-15	1.048E 15	1.047E 15	1.046E-15	1.045E-15	1.044E-15	1.044E 15	1.043E-15
CF252	3.213E 16	2.471E 16	1.056E-17	8.117E 18	6.242E-18	4.799E-18	3.690E-18	2.838E-18	2.182E-18
CF253	2.544E 19	1.709E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	5.630E 21	9.293E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	2.406E 19	8.017E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	2.319E 20	9.242E 21	1.514E 25	1.514E 25	1.514E 25	1.514E-25	1.514E 25	1.514E 25	1.514E 25
SF250	2.227E 11	4.260E 11	2.508E-10	2.671E 10	2.833E-10	2.993E-10	3.152E-10	3.310E 10	3.466E-10
H 3	6.014E 04	5.685E 04	2.899E 04	2.741E-04	2.591E-04	2.450E-04	2.316E-04	2.190E 04	2.070E 04
LI 6	3.308E-06	3.308E 06	3.308E-06	3.308E 06	3.308E-06	3.308E 06	3.308E-06	3.308E 06	3.308E-06
LI 7	1.461E 07	1.461E 07	1.461E-07	1.461E 07	1.461E-07	1.461E-07	1.461E-07	1.461E 07	1.461E 07
BE 9	2.814E-07	2.814E 07	2.814E-07	2.814E 07	2.814E-07	2.814E-07	2.814E-07	2.814E 07	2.814E 07
BE 10	1.877E-06	1.877E-06	1.877E 06	1.877E 06	1.877E 06	1.877E 06	1.877E 06	1.877E 06	1.877E 06
C 14	3.795E 07	3.794E 07	3.789E-07	3.788E 07	3.788E 07	3.787E-07	3.787E 07	3.786E 07	3.786E 07
ZN 66	7.465E 10	7.465E-10	7.465E-10	7.465E 10	7.465E 10	7.465E 10	7.465E 10	7.465E 10	7.465E 10
ZN 67	3.324E 11	3.324E 11	3.324E 11	3.324E 11	3.324E-11	3.324E-11	3.324E 11	3.324E 11	3.324E-11
ZN 68	5.868E 06	5.868E 06	5.868E-06	5.868E 06	5.868E 06	5.868E-06	5.868E 06	5.868E 06	5.868E 06
GA 69	9.063E 09	9.065E 09	9.065E-09	9.065E-09	9.065E 09	9.065E 09	9.065E-09	9.065E 09	9.065E 09
ZN 70	2.002E 05	2.002E 05	2.002E 05	2.002E 05	2.002E 05	2.002E 05	2.002E 05	2.002E 05	2.002E 05
GE 70	2.602E 11	2.602E-11	2.602E 11	2.602E 11	2.602E 11	2.602E-11	2.602E 11	2.602E 11	2.602E 11
GA 71	9.808E 09	9.808E-09	9.808E-09	9.808E-09	9.808E 09	9.808E-09	9.808E-09	9.808E 09	9.808E 09
GE 72	1.046E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04	1.048E 04

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
GE 73	3.676E-04	3.677E-04	3.677E 04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E 04	3.677E-04
GE 74	9.973E-04	9.974E-04	9.974E 04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E 04	9.974E-04
AS 75	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03
GE 76	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03
SE 76	4.545E 05	4.556E 05	4.556E 05	4.556E 05	4.556E-05	4.556E 05	4.556E 05	4.556E-05	4.556E-05
SE 77	1.581E 02	1.584E 02	1.584E 02	1.584E-02	1.584E 02	1.584E 02	1.584E 02	1.584E 02	1.584E-02
SE 78	3.426E 02	3.426E 02	3.426E 02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E 02	3.426E 02
SE 79	8.723E 02	8.723E 02	8.722E-02	8.721E-02	8.721E-02	8.721E 02	8.721E-02	8.721E-02	8.721E-02
BR 79	2.253E-06	3.184E 06	1.435E-05	1.528E-05	1.621E-05	1.714E 05	1.807E-05	1.900E-05	1.994E-05
SE 80	2.102E 01	2.102E 01	2.102E 01	2.102E-01	2.102E-01	2.102E 01	2.102E-01	2.102E-01	2.102E 01
KR 80	1.077E 06	1.077E 06	1.077E-06	1.077E-06	1.077E 06	1.077E-06	1.077E-06	1.077E-06	1.077E 06
BR 81	3.512E-01	3.512E-01	3.512E 01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E 01
KR 81	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E 08	4.171E-08	4.171E-08	4.171E-08	4.171E-08
SE 82	5.691E-01	5.691E 01	5.691E 01	5.691E 01	5.691E 01	5.691E 01	5.691E 01	5.691E-01	5.691E 01
KR 82	9.495E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E 03	9.527E-03	9.527E-03	9.527E-03
KR 83	7.796E 01	7.797E-01	7.797E 01	7.797E 01	7.797E-01	7.797E-01	7.797E-01	7.797E 01	7.797E-01
KR 84	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00
KR 85	4.116E 01	3.859E 01	1.776E-01	1.665E-01	1.561E 01	1.463E-01	1.372E-01	1.286E-01	1.205E 01
RB 85	1.846E+00	1.873E+00	2.081E+00	2.092E+00	2.102E+00	2.112E+00	2.121E+00	2.130E+00	2.138E+00
KR 86	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00
RB 86	1.883E 04	2.408E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	4.630E-03	4.818E 03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03
RB 87	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00
SR 87	2.043E 05	2.044E-05	2.044E-05	2.044E 05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05
SR 88	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00
SR 89	3.468E-01	2.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	8.536E+00	8.880E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00
SR 90	1.013E+01	9.891E+00	7.433E+00	7.259E+00	7.088E+00	6.921E+00	6.758E+00	6.599E+00	6.444E+00
Y 90	2.594E-03	2.480E-03	1.864E-03	1.820E-03	1.777E-03	1.736E-03	1.695E-03	1.655E-03	1.616E 03
ZR 90	6.404E 01	8.788E-01	3.337E+00	3.512E+00	3.682E+00	3.849E+00	4.012E+00	4.171E+00	4.326E+00
Y 91	5.021E-01	6.678E 03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	1.058E+01	1.108E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01
ZR 92	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01
NB 92	1.142E-13	1.721E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.243E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01
NB 93	1.798E-06	2.829E 06	3.017E-05	3.343E-05	3.681E-05	4.030E-05	4.390E-05	4.760E-05	5.139E 05
NB 93M	1.239E 05	1.700E-05	5.727E 05	5.964E 05	6.190E-05	6.404E-05	6.607E 05	6.801E-05	6.985E 05
ZR 94	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01
NB 94	1.654E 06	1.654E 06	1.653E-06	1.653E-06	1.653E 06	1.653E-06	1.653E-06	1.653E 06	1.653E 06
ZR 95	6.298E 01	1.204E 02	2.877E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.479E 01	1.489E 02	3.509E-23	6.944E-25	5.173E-28	3.853E-31	2.869E-34	2.137E-37	1.591E 40
NB 95M	2.492E 04	5.040E-06	1.204E 26	2.302E 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	1.132E+01	1.227E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01
ZR 96	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01
MO 96	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E 01	4.198E-01
MO 97	1.185E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01
MO 98	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01
TC 98	4.572E 05	4.572E 05	4.571E-05	4.571E-05	4.571E 05	4.571E 05	4.571E-05	4.571E-05	4.571E 05
TC 99	1.150E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01
RU 99	9.490E-05	1.327E 04	5.869E 04	6.247E-04	6.626E-04	7.004E-04	7.383E 04	7.761E-04	8.140E-04
MO100	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01
RU100	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
RU101	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01
RU102	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00
RH102	5.323E 06	4.191E-06	2.381E 07	1.875E 07	1.476E-07	1.162E-07	9.152E 08	7.206E-08	5.674E-08
RU103	2.067E 01	3.286E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.659E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00
RH103M	1.847E-04	2.939E 07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00
PD104	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00
PD105	2.157E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00
RU106	2.595E-01	1.305E 01	3.403E-05	1.711E-05	8.600E-06	4.324E-06	2.174E 06	1.093E 06	5.495E 07
RH106	2.616E 07	1.226E 07	3.198E 11	1.608E-11	8.084E-12	4.064E 12	2.043E-12	1.027E-12	5.165E-13
PD106	7.981E 01	9.272E 01	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00
AG106	5.871E-15	6.813E 28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	4.234E 01	4.234E-01	4.234E-01	4.234E 01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E 01
AG107	1.092E 07	1.544E 07	6.962E 07	7.414E-07	7.865E-07	8.317E-07	8.768E-07	9.220E-07	9.671E-07
PD108	2.047E-01	2.047E-01	2.047E-01	2.047E 01	2.047E-01	2.047E-01	2.047E-01	2.047E 01	2.047E 01
AG108	9.552E 13	2.960E-19	2.901E 19	2.897E 19	2.892E-19	2.887E-19	2.882E-19	2.877E-19	2.873E-19
AG108M	3.090E 10	3.085E 10	3.024E-10	3.019E-10	3.014E-10	3.009E-10	3.004E-10	2.999E-10	2.994E-10
CD108	2.724E 07	2.724E 07	2.724E-07	2.724E-07	2.724E-07	2.724E 07	2.724E 07	2.724E 07	2.724E-07
AG109	8.224E-02	8.230E 02	8.230E 02	8.230E 02	8.230E-02	8.230E 02	8.230E-02	8.230E 02	8.230E 02
AG109M	5.107E 08	1.294E 16	1.862E-19	1.079E-19	6.252E-20	3.623E-20	2.099E-20	1.216E-20	7.049E-21
CD109	2.261E 10	1.310E-10	1.885E 13	1.092E 13	6.329E 14	3.667E 14	2.125E 14	1.232E 14	7.136E-15
PD110	7.494E 02	7.494E-02	7.494E 02	7.494E-02	7.494E 02	7.494E 02	7.494E 02	7.494E 02	7.494E 02
AG110	1.878E-08	2.972E 12	1.559E 17	5.662E-18	2.056E 18	7.463E 19	2.710E 19	9.839E 20	3.572E-20
AG110M	5.402E-04	1.961E 04	1.029E-09	3.736E-10	1.356E-10	4.925E-11	1.788E-11	6.492E 12	2.357E 12

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
CD110	3.243E-02	3.277E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02
AG111	3.630E-04	6.352E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	5.953E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02
CD112	4.625E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02
CD113	4.385E-04	4.452E-04	4.456E-04	4.456E-04	4.457E-04	4.457E-04	4.457E-04	4.457E-04	4.457E-04
CD113M	8.755E-04	8.335E-04	4.621E-04	4.400E-04	4.189E-04	3.988E-04	3.796E-04	3.614E-04	3.441E-04
IN113	9.778E-05	1.397E-04	5.108E-04	5.329E-04	5.540E-04	5.741E-04	5.932E-04	6.114E-04	6.287E-04
CD114	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02
IN114	1.811E-11	3.957E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	4.089E-07	2.460E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.881E-06	7.256E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06
CD115M	1.216E-04	4.164E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.111E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02
IN115M	5.122E-06	1.176E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.262E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03
CD116	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02
SN116	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02
SN117	4.004E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02
SN117M	1.819E-06	2.563E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02
SN119	4.269E-02	4.278E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02
SN119M	1.423E-04	5.063E-05	2.087E-10	7.427E-11	2.643E-11	9.405E-12	3.347E-12	1.191E-12	4.238E-13
SN120	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02
SN121M	2.162E-05	2.135E-05	1.835E-05	1.812E-05	1.789E-05	1.767E-05	1.745E-05	1.723E-05	1.701E-05
SB121	4.515E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.519E-02	4.520E-02	4.520E-02
SN122	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02
TE122	2.238E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03
SN123	1.474E-03	2.076E-04	1.266E-14	1.783E-15	2.512E-16	3.538E-17	4.983E-18	7.019E-19	9.886E-20
SB123	5.702E-02	5.829E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02
TE123	2.198E-05	2.470E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05
TE123M	3.090E-06	3.725E-07	3.518E-18	4.242E-19	5.114E-20	6.170E-21	7.414E-22	8.345E-23	2.143E-24
SN124	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02
SB124	2.076E-04	3.096E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.566E-03	1.770E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03
SN125	3.077E-04	1.209E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	5.871E-02	4.596E-02	2.281E-03	1.776E-03	1.383E-03	1.077E-03	8.384E-04	6.528E-04	5.083E-04
TE125	4.338E-02	5.657E-02	1.008E-01	1.014E-01	1.018E-01	1.021E-01	1.023E-01	1.025E-01	1.026E-01
TE125M	7.575E-04	6.419E-04	3.191E-05	2.484E-05	1.934E-05	1.506E-05	1.173E-05	9.131E-06	7.109E-06
SN126	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01
SB126	3.639E-05	9.078E-09	9.077E-09	9.077E-09	9.077E-09	9.077E-09	9.076E-09	9.076E-09	9.076E-09
SB126M	1.490E-08	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11	6.917E-11
TE126	4.547E-03	4.585E-03	4.600E-03	4.602E-03	4.603E-03	4.604E-03	4.606E-03	4.607E-03	4.608E-03
TE127	1.288E-04	1.759E-06	1.384E-18	1.356E-19	1.329E-20	1.303E-21	1.277E-22	1.255E-23	1.230E-24
TE127M	4.938E-03	5.024E-04	3.952E-16	3.874E-17	3.797E-18	3.722E-19	3.649E-20	3.584E-21	3.476E-22
I127	3.994E-01	4.053E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01
XE127	3.721E-09	3.557E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00
XE128	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02
TE129	6.927E-05	3.569E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	7.102E-03	3.811E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	1.835E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00
XE129	6.480E-05	6.500E-05	6.598E-05	6.606E-05	6.614E-05	6.622E-05	6.630E-05	6.639E-05	6.647E-05
XE129M	1.213E-07	2.187E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00
XE130	8.569E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02
I131	4.926E-02	1.070E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.011E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00
XE131M	7.973E-04	1.451E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.364E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01
CS132	9.291E-06	9.682E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	1.342E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05
XE133	7.367E-02	9.963E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.678E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01
XE134	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01
CS134	1.124E+00	8.031E-01	1.422E-02	1.016E-02	7.258E-03	5.186E-03	3.705E-03	2.648E-03	1.892E-03
BA134	6.001E-01	9.210E-01	1.710E+00	1.714E+00	1.717E+00	1.719E+00	1.720E+00	1.721E+00	1.722E+00
CS135	9.090E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00
BA135	2.738E-03	2.742E-03	2.774E-03	2.777E-03	2.780E-03	2.783E-03	2.785E-03	2.788E-03	2.791E-03
XE136	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01
CS136	6.042E-03	2.450E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	2.349E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01
BA136M	2.709E-10	1.099E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.651E+01	1.614E+01	1.223E+01	1.195E+01	1.168E+01	1.141E+01	1.115E+01	1.089E+01	1.065E+01
BA137	9.727E-01	1.350E+00	5.297E+00	5.537E+00	5.810E+00	6.076E+00	6.337E+00	6.592E+00	6.840E+00
BA137M	2.527E-06	2.469E-06	1.871E-06	1.828E-06	1.786E-06	1.746E-06	1.706E-06	1.667E-06	1.629E-06
BA138	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01
LA138	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04

sbwzr2.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:08

	1826.0D	1.0YR	13.0YR	14.0YR	15.0YR	16.0YR	17.0YR	18.0YR	19.0YR
LA139	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01
BA140	1.798E-01	4.548E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	2.504E-02	6.858E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.816E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01
CE141	4.339E-01	1.811E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.663E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01
CE142	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01
ND142	2.736E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01
PR143	1.798E-01	1.577E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.373E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01
CE144	3.589E+00	1.473E+00	3.361E-05	1.380E-05	5.661E-06	2.323E-06	9.535E-07	3.913E-07	1.606E-07
PR144	1.520E-04	6.218E-05	1.419E-09	5.825E-10	2.391E-10	9.811E-11	4.026E-11	1.652E-11	6.781E-12
PR144M	7.579E-07	3.109E-07	7.095E-12	2.912E-12	1.195E-12	4.904E-13	2.013E-13	8.260E-14	3.390E-14
ND144	1.638E+01	1.850E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01
ND145	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01
ND146	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00
PM146	4.960E-05	4.372E-05	9.637E-06	8.496E-06	7.490E-06	6.603E-06	5.821E-06	5.132E-06	4.524E-06
SM146	8.176E-05	8.394E-05	9.655E-05	9.697E-05	9.734E-05	9.767E-05	9.796E-05	9.822E-05	9.844E-05
ND147	6.040E-02	6.922E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	2.102E+00	1.661E+00	6.972E-02	5.353E-02	4.110E-02	3.156E-02	2.423E-02	1.860E-02	1.428E-02
SM147	1.853E+00	2.355E+00	3.946E+00	3.962E+00	3.975E+00	3.984E+00	3.992E+00	3.997E+00	4.002E+00
ND148	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00
PM148	1.273E-02	2.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	1.569E-02	3.414E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.311E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00
SM149	2.812E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02
ND150	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00
SM150	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00
EU150	4.537E-09	4.451E-09	3.535E-09	3.467E-09	3.401E-09	3.337E-09	3.273E-09	3.211E-09	3.150E-09
SM151	1.636E-01	1.636E-01	1.492E-01	1.481E-01	1.469E-01	1.458E-01	1.447E-01	1.436E-01	1.425E-01
EU151	2.742E-04	1.539E-03	1.599E-02	1.713E-02	1.827E-02	1.939E-02	2.051E-02	2.162E-02	2.272E-02
SM152	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00
EU152	1.217E-03	1.157E-03	6.258E-04	5.946E-04	5.649E-04	5.367E-04	5.099E-04	4.845E-04	4.603E-04
GD152	1.111E-03	1.129E-03	1.276E-03	1.285E-03	1.293E-03	1.301E-03	1.309E-03	1.316E-03	1.323E-03
EU153	1.120E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00
GD153	4.330E-05	1.521E-05	5.375E-11	1.888E-11	6.634E-12	2.330E-12	8.187E-13	2.876E-13	1.010E-13
SM154	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01
EU154	2.588E-01	2.387E-01	9.069E-02	8.366E-02	7.718E-02	7.120E-02	6.568E-02	6.059E-02	5.589E-02
GD154	2.828E-02	4.833E-02	1.964E-01	2.034E-01	2.099E-01	2.159E-01	2.214E-01	2.265E-01	2.312E-01
EU155	7.957E-02	6.879E-02	1.198E-02	1.036E-02	8.955E-03	7.741E-03	6.692E-03	5.785E-03	5.001E-03
GD155	1.069E-03	1.185E-02	6.866E-02	7.028E-02	7.169E-02	7.290E-02	7.395E-02	7.486E-02	7.564E-02
EU156	8.576E-03	4.936E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	2.689E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01
GD157	2.482E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04
GD158	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02
TB159	4.519E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03
GD160	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03
TB160	7.859E-05	2.369E-06	1.338E-24	1.338E-24	1.338E-24	1.338E-24	1.338E-24	1.338E-24	1.338E-24
DY160	3.786E-04	4.548E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04
TB161	3.523E-06	4.555E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	3.769E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04
DY162	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04
DY163	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04
DY164	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05
HO165	6.662E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05
HO166M	4.628E-07	4.625E-07	4.593E-07	4.591E-07	4.588E-07	4.585E-07	4.583E-07	4.580E-07	4.577E-07
ER166	1.514E-05	1.519E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05
ER167	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06
ER168	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06
ER169	5.081E-10	1.021E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.408E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08
ER170	2.803E-12	4.181E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12
TM170	1.098E-09	1.532E-10	8.406E-21	1.182E-21	1.596E-22	1.227E-23	1.190E-23	1.153E-23	1.118E-23
YB170	1.875E-09	2.818E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09
TM171	5.745E-11	4.004E-11	5.261E-13	3.667E-13	2.556E-13	1.781E-13	1.241E-13	8.652E-14	6.030E-14
YB171	6.068E-11	7.809E-11	1.176E-10	1.178E-10	1.179E-10	1.180E-10	1.180E-10	1.180E-10	1.181E-10
YB172	2.427E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12

File SBWZR3.INP

```
-1
-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) GENERIC FUEL
  BAS     PWRU FUEL
  RDA     -1 = 1 KG FUEL
  RDA     WARNING:  VECTORS ARE OFTEN CHANGED WITH RESPECT TO THEIR CONTENT.
  RDA               THESE CHANGES WILL BE NOTED ON RDA CARDS.
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  601  602  603   9   3   0  1   38
  TIT     INITIAL COMPOSITIONS OF UNIT AMOUNTS OF FUEL AND STRUCT MAT'LS
  RDA     READ FUEL COMPOSITION INCLUDING IMPURITIES
  INP     -1   1  -1  -1  1  1
  TIT     IRRADIATION OF GENERIC FUEL
  MOV     -1   1   0   1.0
  HED      1                                                  CHARGE
  BUP
  IRP     100.0   .2577   1   2   4 2
  IRP     200.0   .2577   2   3   4 0
  IRP     400.0   .2577   3   4   4 0
  IRP     600.0   .2577   4   5   4 0
  IRP     800.0   .2577   5   6   4 0
  IRP    1000.0   .2577   6   7   4 0
  IRP    1200.0   .2577   7   8   4 0
  IRP    1400.0   .2577   8   9   4 0
  IRP    1600.0   .2577   9  10   4 0
  IRP    1800.0   .2577  10  11   4 0
  IRP    1826.0   .2577  11  12   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV       12    1   0  1.0
  DEC       1.    1   2   5   4
  DEC      20.    2   3   5   0
  DEC      21.    3   4   5   0
  DEC      22.    4   5   5   0
  DEC      23.    5   6   5   0
  DEC      24.    6   7   5   0
  DEC      25.    7   8   5   0
  DEC      26.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922350  1000.0 922360  .4366  922380  8.6636       0     0.0   FUEL 97%
  1    60120  .92669  60130 .01031       0 .0           0      .0   C
  1    70140  1.2454  70150 .00463       0 .0           0      .0   N
  1    80160  74.720  80170 .02996   80180 0.1498       0      .0   O
  1   130270  1.2500      0 .0           0 .0           0      .0   Al
  1   220460  .04992 220470 .04555  220480 .46051  220490 .03432    Ti
  1   220500  .03370      0 .0           0 .0           0      .0
  1   240500  2.7113 240520 52.285  240530 5.9280  240540 1.4758    Cr
  1   260540  5.5283 260560 85.942  260570 1.9677  260580 .26236    Fe
```

File SBWZR3.INP (continued)

```
1   280580  21.300 280600 8.1432  280610 .35256  280620 1.1201    Ni
1   280640  .28392      0 .0           0 .0           0     .0
1   400900  31494. 400910 6866.6  400920 10496.  400940 10637.    Zr
1   400960  1713.6      0 .0           0 .0           0     .0
1   410930  6.2400      0 .0           0 .0           0     .0    Nb
1   501120  9.4187 501140 6.3115  501150 3.4956  501160 141.09    Sn
1   501170  74.573 501180 235.18  501190 83.312  501200 316.45
1   501220  44.957 501240 56.221       0 .0           0 .0
1   721740  .02025 721760 .65075  721770 2.3258  721780 3.4121    Hf
1   721790  1.7036 721800 4.3875       0 .0           0 .0
1   731801  .00007 731810 .62393       0 .0           0 .0        Ta
0
```

File SBWZR3.BAT

```
echo off
echo **                                                            **
echo **                          O R I G E N 2                     **
echo **                                                            **
copy sbwzr3.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\pwrus.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwzr3.u6 >nul
copy tape13.out+tape11.out sbwzr3.u11 >nul
ren tape7.out sbwzr3.pch
ren tape15.out sbwzr3.dbg
ren tape16.out sbwzr3.vxs
ren tape50.out sbwzr3.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwzr3.dbg
del sbwzr3.pch
del sbwzr3.vxs
del sbwzr3.ech
del sbwzr3.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ********************** Execution Completed ****************************
echo ************************************************************************
echo on
```

sbwzr3.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
H 1	1.765E 03	1.765E 03	1.765E 03	1.765E 03	1.765E 03	1.765E 03	1.765E 03	1.765E 03	1.765E 03
H 2	7.877E 07	7.877E 07	7.877E-07	7.877E-07	7.877E-07	7.877E 07	7.877E-07	7.877E 07	7.877E 07
H 3	8.092E 11	7.649E-11	2.629E 11	2.485E 11	2.349E 11	2.221E 11	2.099E 11	1.985E-11	1.876E-11
HE 3	1.387E 12	5.810E-12	5.602E-11	5.745E-11	5.881E-11	6.010E 11	6.131E 11	6.246E 11	6.354E-11
HE 4	2.710E 03	2.710E 03	2.710E 03	2.710E 03	2.710E-03	2.710E 03	2.710E 03	2.710E 03	2.710E 03
LI 6	3.730E 10	3.730E 10	3.730E 10	3.730E-10	3.730E-10	3.730E 10	3.730E 10	3.730E 10	3.730E-10
LI 7	7.935E 13	7.935E 13	7.935E 13	7.935E 13	7.935E-13	7.935E 13	7.935E 13	7.935E 13	7.935E-13
BE 9	3.804E 06	3.804E 06	3.804E 06	3.804E 06	3.804E-06	3.804E-06	3.804E 06	3.804E 06	3.804E-06
BE 10	7.841E 08	7.841E-08	7.840E 08	7.840E 08	7.840E 08	7.840E 08	7.840E 08	7.840E-08	7.840E-08
B 10	5.056E 13	5.539E-13	1.451E-12	1.498E-12	1.545E 12	1.593E-12	1.640E 12	1.687E-12	1.734E 12
B 11	3.916E 04	3.916E-04	3.916E 04	3.916E-04	3.916E 04	3.916E 04	3.916E-04	3.916E-04	3.916E 04
C 12	9.267E 01	9.267E-01	9.267E-01	9.267E 01	9.267E 01	9.267E 01	9.267E 01	9.267E 01	9.267E-01
C 13	1.276E 02	1.276E 02	1.276E 02	1.276E 02	1.276E-02	1.276E 02	1.276E 02	1.276E 02	1.276E-02
C 14	3.319E 03	3.319E 03	3.311E 03	3.311E 03	3.310E 03	3.310E 03	3.309E 03	3.309E 03	3.309E-03
N 14	1.241E-00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00
N 15	4.765E 03	4.765E 03	4.765E 03	4.765E 03	4.765E-03	4.765E-03	4.765E 03	4.765E 03	4.765E 03
O 16	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01
O 17	2.997E 02	2.997E-02	2.997E 02	2.997E 02	2.997E-02	2.997E 02	2.997E-02	2.997E-02	2.997E-02
O 18	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E 01
F 19	7.567E 08	7.567E-08	7.567E-08	7.567E 08	7.567E-08	7.567E-08	7.567E 08	7.567E 08	7.567E-08
NE 20	6.984E 13	6.984E-13	6.984E 13	6.984E 13	6.984E 13	6.984E 13	6.984E 13	6.984E 13	6.984E-13
NE 21	5.454E 12	5.454E-12	5.454E 12	5.454E 12	5.454E-12	5.454E 12	5.454E 12	5.454E 12	5.454E-12
NE 22	1.153E-14	1.153E-14	1.153E-14	1.153E 14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14
NA 23	1.057E 18	1.057E-18	1.057E 18	1.057E 18	1.057E 18	1.057E 18	1.057E-18	1.057E-18	1.057E-18
MG 24	2.446E 06	2.448E 06	2.448E 06	2.448E 06	2.448E-06	2.448E 06	2.448E-06	2.448E-06	2.448E-06
MG 25	5.761E 10	5.761E 10	5.761E 10	5.761E 10	5.761E 10	5.761E 10	5.761E 10	5.761E 10	5.761E-10
MG 26	3.827E 13	3.827E 13	3.827E 13	3.827E 13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13
AL 27	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00
SI 28	4.315E 04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E 04	4.315E 04	4.315E 04	4.315E-04
SI 29	5.118E 08	5.118E 08	5.118E 08	5.118E 08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08
SI 30	6.643E 12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E 12	6.643E 12	6.643E-12
SI 32	1.207E 23	1.207E-23	1.207E 23	1.207E-23	1.207E-23	1.207E-23	1.207E 23	1.207E-23	1.207E 23
P 31	2.822E 16	2.824E-16	2.824E-16	2.824E 16	2.824E 16	2.824E-16	2.824E 16	2.824E-16	2.824E-16
P 32	1.196E 21	7.518E-28	7.273E-28	7.273E-28	7.273E 28	7.273E 28	7.273E 28	7.273E 28	7.273E-28
S 32	1.340E 20	1.460E-20	1.460E-20	1.460E 20	1.460E 20	1.460E-20	1.460E-20	1.460E 20	1.460E-20
S 34	3.263E 22	3.263E-22	3.263E 22	3.263E-22	3.263E 22	3.263E 22	3.263E 22	3.263E-22	3.263E-22
CL 37	3.626E 16	3.626E-16	3.626E-16	3.626E-16	3.626E 16	3.626E 16	3.626E-16	3.626E 16	3.626E 16
AR 38	5.748E 20	5.749E 20	5.749E 20	5.749E 20	5.749E 20	5.749E 20	5.749E 20	5.749E 20	5.749E-20
AR 39	1.509E 20	1.505E-20	1.433E 20	1.429E-20	1.426E 20	1.422E 20	1.418E-20	1.415E 20	1.411E-20
AR 40	1.387E-12	1.387E-12	1.387E-12	1.387E 12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12
AR 42	2.206E 21	2.159E-21	1.447E 21	1.416E 21	1.386E 21	1.357E 21	1.329E-21	1.301E-21	1.274E-21
K 39	1.746E 23	5.634E-23	7.751E-22	8.120E 22	8.489E 22	8.856E 22	9.222E-22	9.588E 22	9.953E-22
K 41	4.447E 14	4.447E-14	4.447E 14	4.447E-14	4.447E-14	4.447E 14	4.447E 14	4.447E 14	4.447E 14
K 42	1.111E 18	9.229E-26	6.191E-26	6.053E 26	5.926E 26	5.802E-26	5.680E 26	5.560E 26	5.444E-26
CA 42	7.716E 16	7.727E-16	7.727E 16	7.727E 16	7.727E 16	7.727E 16	7.727E 16	7.727E 16	7.727E-16
CA 43	1.044E 07	1.044E-07	1.044E 07	1.044E 07	1.044E-07	1.044E-07	1.044E 07	1.044E 07	1.044E 07
CA 44	7.961E 07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E 07	7.961E-07
CA 45	3.038E-09	6.426E-10	9.741E-23	1.905E 23	5.163E-24	3.373E-24	0.000E+00	0.000E+00	0.000E+00
CA 46	9.472E 08	9.472E-08	9.472E 08	9.472E 08	9.472E-08	9.472E-08	9.472E 08	9.472E-08	9.472E 08
SC 45	1.343E 08	1.583E-08	1.647E-08	1.647E 08	1.647E-08	1.647E 08	1.647E 08	1.647E 08	1.647E-08
SC 46	2.122E 07	1.034E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	4.988E 02	4.988E-02	4.988E-02	4.988E 02	4.988E-02	4.988E 02	4.988E 02	4.988E 02	4.988E 02
TI 47	4.548E 02	4.548E-02	4.548E-02	4.548E-02	4.548E 02	4.548E 02	4.548E 02	4.548E 02	4.548E 02
TI 48	4.558E-01	4.558E-01	4.558E 01	4.558E 01	4.558E 01	4.558E-01	4.558E 01	4.558E-01	4.558E 01
TI 49	3.916E-02	3.916E-02	3.916E 02	3.916E-02	3.916E 02	3.916E-02	3.916E-02	3.916E-02	3.916E-02
TI 50	3.387E 02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E 02	3.387E 02	3.387E 02
V 50	2.191E 04	2.191E 04	2.191E 04	2.191E-04	2.191E 04	2.191E-04	2.191E 04	2.191E 04	2.191E-04
V 51	5.883E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E 02	5.881E 02	5.881E 02	5.881E 02
CR 50	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00
CR 51	1.978E 03	2.128E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01
CR 53	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00
CR 54	1.625E+00	1.625E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00
MN 54	3.791E 04	1.686E 04	3.482E 11	1.549E 11	6.889E 12	3.064E-12	1.363E-12	6.062E-13	2.696E-13
MN 55	7.699E-03	1.023E-02	1.846E 02	1.847E 02	1.848E 02	1.849E-02	1.849E-02	1.850E 02	1.850E-02
FE 54	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00
FE 55	1.081E 02	8.280E-03	5.227E 05	4.004E 05	3.067E-05	2.349E 05	1.799E 05	1.378E 05	1.056E 05
FE 56	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01
FE 57	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00
FE 58	2.744E 01	2.749E-01	2.749E 01	2.749E 01	2.749E 01	2.749E-01	2.749E 01	2.749E 01	2.749E 01
FE 59	2.693E 05	9.706E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	4.277E 04	1.196E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	1.843E 03	1.871E-03	1.890E 03	1.891E 03	1.892E 03	1.893E 03	1.894E-03	1.895E 03	1.896E 03
CO 60	1.264E 04	1.108E-04	9.105E 06	7.983E 06	6.999E 06	6.136E 06	5.380E 06	4.717E 06	4.136E 06
NI 58	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01
NI 59	1.133E 01	1.133E 01	1.133E 01	1.133E 01	1.133E 01	1.133E-01	1.133E 01	1.133E 01	1.133E 01

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
NI 60	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00
NI 61	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01
NI 62	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00
NI 63	2.103E-02	2.087E-02	1.809E-02	1.795E-02	1.782E-02	1.768E-02	1.755E-02	1.742E-02	1.729E-02
NI 64	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01
CU 63	3.412E-04	4.990E-04	3.282E-03	3.418E-03	3.553E-03	3.687E-03	3.819E-03	3.951E-03	4.082E-03
CU 65	6.203E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04
ZN 64	3.540E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07
ZN 65	7.597E-11	2.690E-11	7.299E-20	2.584E-20	9.151E-21	3.242E-21	1.143E-21	4.031E-22	1.462E-22
ZN 66	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06
ZN 67	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10
ZN 68	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12
GA 69	9.098E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16
GA 71	7.637E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22
GE 70	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18
GE 71	7.964E-23	3.830E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 72	9.679E-27	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26
SR 87	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04
SR 88	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02
SR 89	1.543E-04	1.026E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	1.544E-06	1.507E-06	9.537E-07	9.310E-07	9.088E-07	8.872E-07	8.661E-07	8.455E-07	8.253E-07
Y 89	2.396E-03	2.549E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03
Y 90	3.286E-04	3.824E-10	2.420E-10	2.362E-10	2.306E-10	2.251E-10	2.198E-10	2.145E-10	2.094E-10
Y 91	4.667E-04	6.163E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04
ZR 91	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03
ZR 92	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04
ZR 93	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01
ZR 94	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04
ZR 95	2.492E-01	4.765E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03
NB 92	3.999E-07	6.025E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	6.190E+00	6.190E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00
NB 93M	1.560E-05	2.252E-05	1.046E-04	1.071E-04	1.095E-04	1.117E-04	1.139E-04	1.159E-04	1.178E-04
NB 94	3.937E-02	3.937E-02	3.934E-02	3.934E-02	3.934E-02	3.934E-02	3.934E-02	3.933E-02	3.933E-02
NB 95	1.328E-01	5.887E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	9.792E-05	1.994E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	2.903E-06	4.248E-06	2.978E-05	3.112E-05	3.247E-05	3.381E-05	3.515E-05	3.650E-05	3.784E-05
MO 95	2.820E+00	3.192E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00
MO 96	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02
MO 97	4.882E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00
MO 98	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02
MO100	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09
TC 98	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11
TC 99	2.212E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05
RU 98	4.535E-18	1.076E-17	1.290E-16	1.352E-16	1.414E-16	1.477E-16	1.539E-16	1.601E-16	1.663E-16
RU 99	6.787E-11	1.413E-10	1.536E-09	1.610E-09	1.683E-09	1.756E-09	1.830E-09	1.903E-09	1.977E-09
RU100	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07
RU101	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09
RU102	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11
RU103	2.407E-15	3.829E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17
RU106	1.409E-29	1.409E-29	2.984E-35	2.984E-35	2.984E-35	2.984E-35	2.984E-35	2.984E-35	2.984E-35
RH102	1.578E-22	1.201E-22	6.345E-24	6.345E-24	6.345E-24	6.345E-24	6.345E-24	6.345E-24	6.345E-24
RH103	6.390E-16	8.778E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16
RH106	7.088E-28	1.324E-35	2.807E-41	2.570E-41	2.570E-41	2.570E-41	2.570E-41	2.570E-41	2.570E-41
PD104	5.171E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17
PD105	6.561E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20
PD106	6.093E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22
PD107	1.607E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32
CD111	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07
CD112	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06
CD113	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08
CD114	3.937E-04	4.212E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04
CD115M	1.542E-08	5.283E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD116	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06
IN113	8.656E-02	9.494E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02
IN113M	5.656E-06	6.271E-07	4.446E-25	4.928E-26	6.640E-27	7.362E-28	0.000E+00	0.000E+00	0.000E+00
IN114	1.614E-08	3.561E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	3.679E-04	2.214E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.255E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06
SN112	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00
SN113	9.419E-03	1.044E-03	7.402E-22	7.401E-23	1.196E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00
SN115	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00
SN116	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02
SN117	7.501E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
SN117M	9.722E-03	1.370E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02
SN119	8.423E+01	8.433E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01
SN119M	1.508E-01	5.365E-02	1.598E-10	5.686E-11	2.023E-11	7.200E-12	2.562E-12	9.117E-13	3.244E-13
SN120	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02
SN121M	1.546E-03	1.524E-03	1.171E-03	1.155E-03	1.139E-03	1.123E-03	1.108E-03	1.093E-03	1.078E-03
SN122	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01
SN123	4.329E-03	6.097E-04	4.089E-20	5.752E-21	8.158E-22	1.113E-22	8.874E-24	8.527E-24	8.193E-24
SN124	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01
SN125	2.449E-03	9.625E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB121	2.832E-01	2.837E-01	2.840E-01	2.841E-01	2.841E-01	2.841E-01	2.841E-01	2.841E-01	2.841E-01
SB123	2.498E-02	2.869E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02
SB124	8.778E-05	1.309E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.131E-01	1.681E-01	1.486E-03	1.158E-03	9.032E-04	7.042E-04	5.491E-04	4.281E-04	3.338E-04
SB126	3.716E-05	5.617E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE122	1.217E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02
TE123	1.135E-04	1.279E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04
TE123M	1.635E-05	1.972E-06	6.899E-24	7.742E-24	8.687E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	6.257E-04	7.122E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04
TE125	1.253E-01	1.731E-01	3.420E-01	3.424E-01	3.426E-01	3.428E-01	3.430E-01	3.431E-01	3.432E-01
TE125M	2.619E-03	2.308E-03	2.043E-05	1.592E-05	1.242E-05	9.685E-06	7.551E-06	5.888E-06	4.590E-06
TE126	2.154E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03
TE127	7.770E-09	4.612E-11	3.154E-30	3.144E-30	3.144E-30	3.144E-30	3.144E-30	3.144E-30	3.144E-30
TE127M	1.344E-07	1.317E-08	9.010E-28	9.010E-28	9.010E-28	9.010E-28	9.010E-28	9.010E-28	9.010E-28
TE128	7.062E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09
TE129	8.154E-16	6.894E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.379E-14	7.362E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17
I127	5.095E-06	5.224E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06
I129	2.639E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12
I131	1.297E-19	2.743E-33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE127	1.863E-14	1.780E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE128	9.227E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08
XE129	1.963E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10
XE129M	6.501E-13	1.172E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE130	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12
XE131	5.920E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15
XE131M	4.971E-17	2.854E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16
XE133	3.734E-21	4.100E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE134	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22
XE136	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30
CS132	2.603E-26	1.850E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	6.236E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20
CS134	1.000E-21	7.208E-22	9.920E-24	9.920E-24	9.920E-24	9.920E-24	9.920E-24	9.920E-24	9.920E-24
CS135	4.120E-30	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29
CS137	6.896E-40	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39
BA132	1.034E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28
BA133	2.066E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34
BA134	7.914E-23	3.585E-22	1.069E-21	1.069E-21	1.069E-21	1.069E-21	1.069E-21	1.069E-21	1.069E-21
BA135	7.109E-29	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28
BA136	1.555E-36	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35
ER166	1.258E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28
ER167	1.116E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37
ER169	1.553E-19	3.121E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER170	6.143E-22	9.649E-22	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21
TM169	3.807E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18
TM170	2.851E-19	3.981E-20	2.258E-36	2.258E-36	2.258E-36	2.258E-36	2.258E-36	2.258E-36	2.258E-36
TM171	5.935E-20	4.144E-20	3.757E-23	3.757E-23	3.757E-23	3.757E-23	3.757E-23	3.757E-23	3.757E-23
YB170	4.405E-19	6.854E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19
YB171	2.334E-20	4.135E-20	8.275E-20	8.275E-20	8.275E-20	8.275E-20	8.275E-20	8.275E-20	8.275E-20
YB172	3.370E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10
YB173	2.121E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10
YB174	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12
LU175	7.445E-03	8.021E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03
LU176	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04
LU177	4.829E-06	5.175E-10	1.722E-23	3.446E-24	6.737E-25	1.606E-25	1.104E-25	2.224E-26	9.921E-43
LU177M	2.662E-07	5.199E-08	1.730E-21	3.466E-22	6.030E-23	1.633E-23	1.144E-23	0.000E+00	0.000E+00
HF174	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02
HF175	5.915E-04	1.589E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF176	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01
HF177	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01
HF178	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00
HF179	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00
HF180	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00
HF181	7.713E-03	1.966E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF182	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
TA181	5.896E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01
TA182	9.547E-03	1.056E-03	9.206E-12	9.206E-12	9.205E-12	9.205E-12	9.205E-12	9.205E-12	9.205E-12
TA183	6.272E-04	1.731E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W182	7.216E-02	8.065E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02
W183	8.421E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02
W184	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03
W185	2.694E-06	9.253E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W186	8.086E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08
W188	1.394E-12	3.629E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RE185	7.346E-06	9.947E-06	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05
RE187	3.365E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09
RE188	6.110E-13	3.738E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS186	1.213E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06
OS187	2.367E-20	7.064E-20	9.630E-19	1.010E-18	1.057E-18	1.104E-18	1.151E-18	1.198E-18	1.245E-18
OS188	1.070E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10
OS189	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13
OS190	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14
OS191	1.181E-17	8.861E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS192	3.158E-19	5.976E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19
OS194	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27
IR191	5.432E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17
IR192	6.094E-18	1.992E-19	4.375E-24	4.375E-24	4.375E-24	4.375E-24	4.375E-24	4.375E-24	4.375E-24
IR192M	5.491E-21	5.491E-21	5.191E-21	5.191E-21	5.191E-21	5.191E-21	5.191E-21	5.191E-21	5.191E-21
IR193	8.109E-19	8.110E-19	8.116E-19	8.117E-19	8.117E-19	8.118E-19	8.118E-19	8.118E-19	8.119E-19
IR194	4.896E-22	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30
PT192	6.270E-18	1.188E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17
PT193	2.562E-20	2.583E-20	2.515E-20	2.511E-20	2.508E-20	2.505E-20	2.501E-20	2.498E-20	2.494E-20
PT194	4.234E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20
PT195	2.565E-27	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26
HE 4	1.613E-04	3.125E-04	2.962E-03	3.091E-03	3.219E-03	3.346E-03	3.471E-03	3.596E-03	3.720E-03
TL206	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29
TL207	3.787E-17	5.254E-17	7.301E-16	7.844E-16	8.386E-16	8.941E-16	9.509E-16	1.009E-15	1.068E-15
TL208	2.481E-14	4.984E-14	2.392E-13	2.386E-13	2.370E-13	2.352E-13	2.333E-13	2.313E-13	2.293E-13
TL209	1.121E-19	3.961E-20	6.692E-20	6.939E-20	7.197E-20	7.466E-20	7.747E-20	8.039E-20	8.343E-20
PB206	1.519E-15	3.824E-15	1.769E-13	2.077E-13	2.423E-13	2.821E-13	3.280E-13	3.805E-13	4.405E-13
PB207	6.465E-12	9.859E-12	4.946E-10	5.524E-10	6.143E-10	6.805E-10	7.509E-10	8.257E-10	9.050E-10
PB208	9.813E-09	2.197E-08	1.272E-06	1.351E-06	1.429E-06	1.507E-06	1.585E-06	1.661E-06	1.737E-06
PB209	4.680E-16	1.650E-16	2.788E-16	2.891E-16	2.999E-16	3.111E-16	3.228E-16	3.350E-16	3.476E-16
PB210	8.585E-14	9.107E-14	9.721E-13	1.130E-12	1.308E-12	1.506E-12	1.727E-12	1.971E-12	2.240E-12
PB211	2.930E-16	4.065E-16	5.648E-15	6.068E-15	6.488E-15	6.917E-15	7.356E-15	7.805E-15	8.264E-15
PB212	1.464E-11	2.940E-11	1.411E-10	1.408E-10	1.398E-10	1.387E-10	1.376E-10	1.364E-10	1.352E-10
PB214	6.459E-20	1.168E-19	1.344E-17	1.521E-17	1.713E-17	1.920E-17	2.142E-17	2.381E-17	2.637E-17
BI208	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18
BI209	8.310E-13	1.190E-12	8.499E-12	9.021E-12	9.562E-12	1.012E-11	1.071E-11	1.131E-11	1.194E-11
BI210M	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18
BI210	5.220E-17	5.607E-17	5.982E-16	6.959E-16	8.052E-16	9.272E-16	1.063E-15	1.213E-15	1.379E-15
BI211	1.729E-17	2.398E-17	3.333E-16	3.580E-16	3.828E-16	4.081E-16	4.340E-16	4.605E-16	4.876E-16
BI212	1.388E-12	2.788E-12	1.338E-11	1.335E-11	1.326E-11	1.316E-11	1.305E-11	1.294E-11	1.283E-11
BI213	1.097E-16	3.878E-17	6.552E-17	6.793E-17	7.046E-17	7.310E-17	7.585E-17	7.871E-17	8.168E-17
BI214	4.796E-20	8.671E-20	9.981E-18	1.129E-17	1.272E-17	1.425E-17	1.591E-17	1.768E-17	1.958E-17
PO210	9.369E-16	1.441E-15	1.652E-14	1.777E-14	2.038E-14	2.348E-14	2.698E-14	3.086E-14	3.514E-14
PO211	2.121E-22	2.943E-22	4.089E-21	4.393E-21	4.696E-21	5.007E-21	5.325E-21	5.650E-21	5.982E-21
PO212	7.345E-23	1.475E-22	7.082E-22	7.064E-22	7.015E-22	6.962E-22	6.906E-22	6.847E-22	6.787E-22
PO213	1.646E-25	5.818E-26	9.830E-26	1.019E-25	1.057E-25	1.097E-25	1.138E-25	1.181E-25	1.225E-25
PO214	6.465E-25	1.193E-26	1.373E-24	1.554E-24	1.750E-24	1.961E-24	2.188E-24	2.433E-24	2.694E-24
PO215	2.453E-22	3.404E-22	4.730E-21	5.081E-21	5.432E-21	5.792E-21	6.160E-21	6.536E-21	6.920E-21
PO216	5.840E-17	1.173E-16	5.631E-16	5.617E-16	5.578E-16	5.536E-16	5.491E-16	5.445E-16	5.397E-16
PO218	7.490E-21	1.354E-20	1.559E-18	1.764E-18	1.986E-18	2.226E-18	2.484E-18	2.761E-18	3.058E-18
AT217	1.318E-21	4.659E-22	7.872E-22	8.162E-22	8.465E-22	8.782E-22	9.112E-22	9.456E-22	9.813E-22
RN218	1.389E-22	7.190E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	5.559E-19	7.713E-19	1.072E-17	1.152E-17	1.231E-17	1.313E-17	1.396E-17	1.481E-17	1.568E-17
RN220	2.205E-14	4.428E-14	2.126E-13	2.120E-13	2.106E-13	2.090E-13	2.073E-13	2.055E-13	2.037E-13
RN222	1.377E-17	2.490E-17	2.866E-15	3.243E-15	3.652E-15	4.093E-15	4.567E-15	5.077E-15	5.622E-15
FR221	1.197E-17	4.231E-18	7.148E-18	7.412E-18	7.687E-18	7.975E-18	8.275E-18	8.587E-18	8.911E-18
FR223	2.595E-18	3.574E-18	4.974E-17	5.333E-17	5.702E-17	6.079E-17	6.465E-17	6.860E-17	7.263E-17
RA222	1.535E-19	7.950E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	1.412E-13	1.959E-13	2.723E-12	2.925E-12	3.127E-12	3.334E-12	3.546E-12	3.762E-12	3.983E-12
RA224	1.277E-10	2.564E-10	1.231E-09	1.228E-09	1.219E-09	1.210E-09	1.200E-09	1.190E-09	1.180E-09
RA225	5.557E-14	1.913E-14	3.232E-14	3.351E-14	3.476E-14	3.606E-14	3.741E-14	3.882E-14	4.029E-14
RA226	2.161E-12	3.873E-12	4.458E-10	5.045E-10	5.681E-10	6.367E-10	7.105E-10	7.898E-10	8.746E-10
RA228	5.379E-16	8.951E-16	1.781E-14	1.894E-14	2.008E-14	2.122E-14	2.237E-14	2.353E-14	2.469E-14
AC225	3.655E-14	1.292E-14	2.183E-14	2.264E-14	2.348E-14	2.436E-14	2.527E-14	2.623E-14	2.722E-14
AC227	1.006E-10	1.385E-10	1.927E-09	2.067E-09	2.209E-09	2.356E-09	2.505E-09	2.658E-09	2.814E-09
AC228	2.287E-14	1.089E-19	2.167E-18	2.304E-18	2.442E-18	2.581E-18	2.721E-18	2.862E-18	3.003E-18
TH226	7.650E-18	3.961E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TH227	2.321E-13	3.220E-13	4.474E-12	4.807E-12	5.139E-12	5.479E-12	5.827E-12	6.183E-12	6.545E-12

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
TH228	2.505E-08	4.974E-08	2.392E-07	2.377E-07	2.361E-07	2.343E-07	2.324E-07	2.304E-07	2.284E-07
TH229	3.489E-09	3.526E-09	5.956E-09	6.176E-09	6.405E-09	6.645E-09	6.895E-09	7.155E-09	7.425E-09
TH230	1.500E-07	2.415E-07	6.389E-06	6.933E-06	7.496E-06	8.081E-06	8.686E-06	9.311E-06	9.956E-06
TH231	1.704E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09
TH232	7.632E-06	1.062E-05	6.744E-05	7.043E-05	7.342E-05	7.641E-05	7.940E-05	8.240E-05	8.539E-05
TH234	1.246E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10
PA231	1.811E-06	2.200E-06	9.557E-06	9.946E-06	1.033E-05	1.072E-05	1.111E-05	1.150E-05	1.189E-05
PA233	2.217E-07	2.277E-07	2.276E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07
PA234M	4.849E-14	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15
PA234	1.528E-11	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15
U230	7.519E-15	3.891E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	3.048E-06	4.579E-06	8.627E-06	8.553E-06	8.477E-06	8.399E-06	8.321E-06	8.242E-06	8.163E-06
U233	7.251E-06	9.607E-06	5.016E-05	5.252E-05	5.488E-05	5.724E-05	5.960E-05	6.196E-05	6.433E-05
U234	2.857E-02	3.737E-02	1.920E-01	1.995E-01	2.069E-01	2.143E-01	2.217E-01	2.289E-01	2.362E-01
U235	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02
U236	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02
U237	1.154E-01	2.582E-10	1.032E-10	9.829E-11	9.366E-11	8.924E-11	8.503E-11	8.102E-11	7.720E-11
U238	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00
U240	5.608E-11	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19
NP235	3.251E-08	1.716E-08	9.116E-14	4.811E-14	2.539E-14	1.340E-14	7.069E-15	3.731E-15	1.969E-15
NP236	3.749E-06	3.749E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06
NP237	6.600E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00
NP238	9.351E-03	2.032E-12	1.851E-12	1.842E-12	1.833E-12	1.824E-12	1.815E-12	1.806E-12	1.797E-12
NP239	3.690E-04	9.917E-11	9.900E-11	9.899E-11	9.898E-11	9.897E-11	9.896E-11	9.895E-11	9.894E-11
NP240M	1.021E-10	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21
PU236	7.349E-06	5.789E-06	5.709E-08	4.477E-08	3.511E-08	2.753E-08	2.159E-08	1.693E-08	1.328E-08
PU237	7.562E-07	2.932E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	1.127E+00	1.128E+00	9.706E-01	9.630E-01	9.554E-01	9.479E-01	9.404E-01	9.330E-01	9.257E-01
PU239	1.613E-01	1.617E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01	1.616E-01	1.615E-01
PU240	3.359E-02	3.359E-02	3.353E-02	3.353E-02	3.353E-02	3.352E-02	3.352E-02	3.352E-02	3.351E-02
PU241	8.724E-03	8.313E-03	3.321E-03	3.164E-03	3.015E-03	2.873E-03	2.737E-03	2.608E-03	2.485E-03
PU242	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03
PU243	1.529E-07	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21
PU244	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08
PU246	4.021E-16	3.107E-26	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27
AM241	3.078E-04	7.183E-04	5.602E-03	5.750E-03	5.890E-03	6.022E-03	6.148E-03	6.267E-03	6.380E-03
AM242M	1.010E-05	1.005E-05	9.156E-06	9.111E-06	9.067E-06	9.022E-06	8.978E-06	8.934E-06	8.890E-06
AM242	3.143E-07	1.295E-10	1.179E-10	1.173E-10	1.168E-10	1.162E-10	1.156E-10	1.151E-10	1.145E-10
AM243	1.151E-04	1.153E-04	1.150E-04	1.150E-04	1.150E-04	1.150E-04	1.150E-04	1.150E-04	1.150E-04
AM245	2.436E-14	3.523E-23	1.045E-29	4.761E-30	2.158E-30	9.482E-31	4.794E-31	2.502E-31	1.134E-31
AM246	6.435E-19	4.979E-29	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30
CM241	1.081E-12	9.540E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	3.560E-05	7.622E-06	2.387E-08	2.379E-08	2.368E-08	2.356E-08	2.345E-08	2.333E-08	2.322E-08
CM243	5.657E-07	5.521E-07	3.478E-07	3.395E-07	3.313E-07	3.234E-07	3.156E-07	3.080E-07	3.006E-07
CM244	1.624E-05	1.564E-05	7.556E-06	7.273E-06	7.000E-06	6.737E-06	6.484E-06	6.240E-06	6.006E-06
CM245	3.670E-07	3.670E-07	3.664E-07	3.664E-07	3.664E-07	3.663E-07	3.663E-07	3.663E-07	3.663E-07
CM246	2.209E-08	2.209E-08	2.203E-08	2.203E-08	2.202E-08	2.202E-08	2.202E-08	2.201E-08	2.201E-08
CM247	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10
CM248	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12
CM249	1.877E-17	1.307E-30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	3.617E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21
BK249	2.019E-14	9.161E-15	2.717E-21	1.238E-21	5.438E-22	2.389E-22	1.247E-22	6.505E-23	1.359E-23
BK250	1.228E-17	4.440E-24	1.083E-29	1.083E-29	1.083E-29	1.083E-29	1.083E-29	1.083E-29	1.083E-29
CF249	3.877E-15	1.490E-14	2.320E-14	2.315E-14	2.311E-14	2.306E-14	2.302E-14	2.297E-14	2.293E-14
CF250	3.410E-15	3.245E-15	1.186E-15	1.126E-15	1.067E-15	1.011E-15	9.593E-16	9.098E-16	8.628E-16
CF251	1.058E-15	1.057E-15	1.042E-15	1.041E-15	1.040E-15	1.040E-15	1.039E-15	1.038E-15	1.037E-15
CF252	3.213E-16	2.471E-16	1.678E-18	1.290E-18	9.920E-19	7.628E-19	5.866E-19	4.510E-19	3.468E-19
CF253	2.544E-19	1.709E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	5.630E-21	9.293E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	2.406E-19	8.017E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	2.319E-20	9.242E-21	2.446E-28	2.446E-28	2.446E-28	2.446E-28	2.446E-28	2.446E-28	2.446E-28
SF250	2.227E-11	4.260E-11	3.621E-10	3.775E-10	3.927E-10	4.078E-10	4.228E-10	4.376E-10	4.523E-10
H 3	6.014E-04	5.685E-04	1.957E-04	1.850E-04	1.749E-04	1.654E-04	1.563E-04	1.478E-04	1.397E-04
LI 6	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06
LI 7	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07
BE 9	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07
BE 10	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06
C 14	3.795E-07	3.794E-07	3.786E-07	3.785E-07	3.785E-07	3.784E-07	3.784E-07	3.783E-07	3.783E-07
ZN 66	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10
ZN 67	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11
ZN 68	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06
GA 69	9.063E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09
ZN 70	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05
GE 70	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11
GA 71	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09
GE 72	1.046E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
GE 73	3.676E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04
GE 74	9.973E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04
AS 75	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03
GE 76	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03
SE 76	4.545E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05
SE 77	1.581E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02
SE 78	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02
SE 79	8.723E-02	8.723E-02	8.721E-02	8.721E-02	8.721E-02	8.721E-02	8.720E-02	8.720E-02	8.720E-02
BR 79	2.253E-06	3.184E-06	2.087E-05	2.180E-05	2.273E-05	2.366E-05	2.459E-05	2.552E-05	2.645E-05
SE 80	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01
KR 80	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06
BR 81	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01
KR 81	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08
SE 82	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01
KR 82	9.495E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03
KR 83	7.796E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01
KR 84	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00
KR 85	4.116E-01	3.859E-01	1.130E-01	1.059E-01	9.927E-02	9.305E-02	8.723E-02	8.177E-02	7.665E-02
RB 85	1.846E+00	1.873E+00	2.145E+00	2.153E+00	2.159E+00	2.165E+00	2.171E+00	2.177E+00	2.182E+00
KR 86	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00
RB 86	1.883E-04	2.408E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	4.630E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03
RB 87	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00
SR 87	2.043E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05
SR 88	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00
SR 89	3.468E-01	2.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	8.536E+00	8.880E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00
SR 90	1.013E+01	9.891E+00	6.293E+00	6.145E+00	6.000E+00	5.859E+00	5.721E+00	5.587E+00	5.455E+00
Y 90	2.594E-03	2.480E-03	1.578E-03	1.541E-03	1.505E-03	1.469E-03	1.435E-03	1.401E-03	1.368E-03
ZR 90	6.404E-01	8.788E-01	4.478E+00	4.626E+00	4.771E+00	4.912E+00	5.050E+00	5.184E+00	5.316E+00
Y 91	5.021E-01	6.678E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	1.058E+01	1.108E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01
ZR 92	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01
NB 92	1.142E-13	1.721E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.243E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01
NB 93	1.798E-06	2.829E-06	5.528E-05	5.925E-05	6.331E-05	6.744E-05	7.165E-05	7.593E-05	8.028E-05
NB 93M	1.239E-05	1.700E-05	7.160E-05	7.326E-05	7.484E-05	7.634E-05	7.776E-05	7.911E-05	8.040E-05
ZR 94	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01
NB 94	1.654E-06	1.654E-06	1.653E-06	1.653E-06	1.653E-06	1.653E-06	1.653E-06	1.653E-06	1.653E-06
ZR 95	6.298E-01	1.204E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.479E-01	1.489E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	2.492E-04	5.040E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	1.132E+01	1.227E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01
ZR 96	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01
MO 96	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01
MO 97	1.185E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01
MO 98	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01
TC 98	4.572E-05	4.572E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05
TC 99	1.150E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01
RU 99	9.490E-05	1.327E-04	8.518E-04	8.897E-04	9.275E-04	9.654E-04	1.003E-03	1.041E-03	1.079E-03
MO100	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01
RU100	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
RU101	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01
RU102	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00
RH102	5.323E-06	4.191E-06	4.468E-08	3.518E-08	2.770E-08	2.181E-08	1.717E-08	1.352E-08	1.065E-08
RU103	2.067E-01	3.286E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.659E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00
RH103M	1.847E-04	2.939E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00
PD104	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00
PD105	2.157E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00
RU106	2.585E-01	1.305E-01	2.763E-07	1.389E-07	6.983E-08	3.511E-08	1.765E-08	8.874E-09	4.461E-09
RH106	2.616E-07	1.226E-07	2.597E-13	1.306E-13	6.564E-14	3.300E-14	1.659E-14	8.341E-15	4.193E-15
PD106	7.981E-01	9.272E-01	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00
AG106	5.871E-15	6.813E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01
AG107	1.092E-07	1.544E-07	1.012E-06	1.057E-06	1.103E-06	1.148E-06	1.193E-06	1.238E-06	1.283E-06
PD108	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01
AG108	9.552E-13	2.960E-19	2.868E-19	2.863E-19	2.858E-19	2.854E-19	2.849E-19	2.844E-19	2.839E-19
AG108M	3.090E-10	3.085E-10	2.989E-10	2.984E-10	2.979E-10	2.974E-10	2.969E-10	2.964E-10	2.959E-10
CD108	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07
AG109	8.224E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02
AG109M	5.107E-08	1.294E-16	4.072E-21	2.360E-21	1.367E-21	7.924E-22	4.592E-22	2.661E-22	1.542E-22
CD109	2.261E-10	1.310E-10	4.122E-15	2.389E-15	1.384E-15	8.022E-16	4.648E-16	2.694E-16	1.561E-16
PD110	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02
AG110	1.878E-08	2.972E-12	1.297E-20	4.708E-21	1.710E-21	6.207E-22	2.253E-22	8.182E-23	2.971E-23
AG110M	5.402E-04	1.961E-04	8.558E-13	3.107E-13	1.128E-13	4.096E-14	1.487E-14	5.399E-15	1.960E-15

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
CD110	3.243E-02	3.277E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02
AG111	3.630E-04	6.352E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	5.953E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02
CD112	4.625E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02
CD113	4.385E-04	4.452E-04	4.457E-04	4.458E-04	4.458E-04	4.458E-04	4.458E-04	4.458E-04	4.458E-04
CD113M	8.755E-04	8.335E-04	3.276E-04	3.119E-04	2.969E-04	2.827E-04	2.691E-04	2.562E-04	2.439E-04
IN113	9.778E-05	1.397E-04	6.452E-04	6.609E-04	6.758E-04	6.901E-04	7.036E-04	7.165E-04	7.288E-04
CD114	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02
IN114	1.811E-11	3.957E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	4.089E-07	2.460E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.881E-06	7.256E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06
CD115M	1.216E-04	4.164E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.111E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02
IN115M	5.122E-06	1.176E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.262E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03
CD116	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02
SN116	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02
SN117	4.004E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02
SN117M	1.819E-06	2.563E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02
SN119	4.269E-02	4.278E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02
SN119M	1.423E-04	5.063E-05	1.508E-13	5.366E-14	1.909E-14	6.795E-15	2.418E-15	8.604E-16	3.062E-16
SN120	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02
SN121M	2.162E-05	2.135E-05	1.680E-05	1.659E-05	1.638E-05	1.618E-05	1.598E-05	1.578E-05	1.558E-05
SB121	4.515E-02	4.519E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02
SN122	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02
TE122	2.238E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03
SN123	1.474E-03	2.076E-04	1.392E-20	1.959E-21	2.672E-22	4.235E-23	1.359E-23	0.000E+00	0.000E+00
SB123	5.702E-02	5.829E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02
TE123	2.198E-05	2.470E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05
TE123M	3.090E-06	3.725E-07	1.303E-24	1.303E-24	1.303E-24	1.303E-24	1.303E-24	1.303E-24	1.303E-24
SN124	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02
SB124	2.076E-04	3.096E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.566E-03	1.770E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03
SN125	3.077E-04	1.209E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	5.871E-02	4.596E-02	3.957E-04	3.081E-04	2.399E-04	1.868E-04	1.454E-04	1.132E-04	8.817E-05
TE125	4.338E-02	5.657E-02	1.028E-01	1.029E-01	1.029E-01	1.030E-01	1.030E-01	1.030E-01	1.031E-01
TE125M	7.575E-04	6.419E-04	5.535E-06	4.310E-06	3.356E-06	2.613E-06	2.034E-06	1.584E-06	1.233E-06
SN126	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01
SB126	3.639E-05	9.078E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09
SB126M	1.490E-08	6.917E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11
TE126	4.547E-03	4.585E-03	4.610E-03	4.611E-03	4.612E-03	4.614E-03	4.615E-03	4.616E-03	4.617E-03
TE127	1.288E-04	1.759E-06	1.203E-25	1.179E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.938E-03	5.024E-04	3.436E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	3.994E-01	4.053E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01
XE127	3.721E-09	3.557E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00
XE128	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02
TE129	6.927E-05	3.569E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	7.102E-03	3.811E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	1.835E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00
XE129	6.480E-05	6.500E-05	6.655E-05	6.663E-05	6.671E-05	6.679E-05	6.687E-05	6.695E-05	6.704E-05
XE129M	1.213E-07	2.187E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00
XE130	8.569E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02
I131	4.926E-02	1.070E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.011E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00
XE131M	7.973E-04	1.451E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.364E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01
CS132	9.291E-06	9.682E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	1.342E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05
XE133	7.367E-02	9.963E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.678E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01
XE134	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01
CS134	1.124E+00	8.031E-01	1.351E-03	9.657E-04	6.900E-04	4.930E-04	3.522E-04	2.517E-04	1.798E-04
BA134	6.001E-01	9.210E-01	1.723E+00	1.723E+00	1.723E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00
CS135	9.090E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00
BA135	2.738E-03	2.742E-03	2.794E-03	2.796E-03	2.799E-03	2.802E-03	2.805E-03	2.807E-03	2.810E-03
XE136	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01
CS136	6.042E-03	2.450E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	2.349E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01
BA136M	2.709E-10	1.099E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.651E+01	1.614E+01	1.040E+01	1.017E+01	9.933E+00	9.706E+00	9.485E+00	9.268E+00	9.056E+00
BA137	9.727E-01	1.350E+00	7.084E+00	7.321E+00	7.553E+00	7.780E+00	8.002E+00	8.219E+00	8.430E+00
BA137M	2.527E-06	2.469E-06	1.592E-06	1.555E-06	1.520E-06	1.485E-06	1.451E-06	1.418E-06	1.385E-06
BA138	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01
LA138	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04

sbwzr3.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:13

	1826.0D	1.0YR	20.0YR	21.0YR	22.0YR	23.0YR	24.0YR	25.0YR	26.0YR
LA139	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01
BA140	1.798E 01	4.548E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	2.504E-02	6.858E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.816E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01
CE141	4.339E 01	1.811E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.663E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01
CE142	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01
ND142	2.736E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01
PR143	1.798E-01	1.577E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.373E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01
CE144	3.589E+00	1.473E+00	6.591E-08	2.705E 08	1.110E 08	4.556E-09	1.870E-09	7.673E-10	3.149E-10
PR144	1.520E-04	6.218E-05	2.783E 12	1.142E 12	4.687E-13	1.924E-13	7.894E-14	3.240E-14	1.330E 14
PR144M	7.579E-07	3.109E-07	1.391E 14	5.709E 15	2.343E 15	9.616E-16	3.946E-16	1.620E-16	6.646E-17
ND144	1.638E+01	1.850E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01
ND145	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01
ND146	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00
PM146	4.960E-05	4.372E-05	3.988E-06	3.516E-06	3.100E-06	2.733E 06	2.409E 06	2.124E-06	1.872E-06
SM146	8.176E-05	8.394E-05	9.864E-05	9.881E-05	9.897E-05	9.910E-05	9.922E-05	9.933E-05	9.942E-05
ND147	6.040E-02	6.922E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	2.102E+00	1.661E+00	1.097E-02	8.421E-03	6.466E-03	4.965E-03	3.812E-03	2.927E-03	2.247E-03
SM147	1.853E+00	2.355E+00	4.005E+00	4.007E+00	4.009E+00	4.011E+00	4.012E+00	4.013E+00	4.014E+00
ND148	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00
PM148	1.273E-02	2.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	1.569E-02	3.414E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.311E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00
SM149	2.812E-02	3.714E-02	3.714E 02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02
ND150	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00
SM150	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00
EU150	4.537E-09	4.451E-09	3.090E 09	3.031E 09	2.973E-09	2.917E-09	2.861E 09	2.807E-09	2.754E-09
SM151	1.636E-01	1.636E-01	1.414E-01	1.403E 01	1.392E-01	1.381E 01	1.371E 01	1.360E-01	1.350E-01
EU151	2.742E-04	1.539E-03	2.382E-02	2.490E-02	2.598E-02	2.705E-02	2.811E 02	2.916E-02	3.020E-02
SM152	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00
EU152	1.217E 03	1.157E 03	4.373E-04	4.155E 04	3.948E 04	3.751E-04	3.563E-04	3.386E-04	3.217E-04
GD152	1.111E-03	1.129E-03	1.329E-03	1.335E 03	1.341E 03	1.346E-03	1.352E-03	1.357E-03	1.361E-03
EU153	1.120E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00
GD153	4.330E 05	1.521E-05	3.550E-14	1.247E 14	4.381E-15	1.539E-15	5.406E-16	1.899E-16	6.672E-17
SM154	2.463E 01	2.463E 01	2.463E-01	2.463E-01	2.463E-01	2.463E 01	2.463E 01	2.463E-01	2.463E-01
EU154	2.588E-01	2.387E-01	5.156E 02	4.757E 02	4.388E-02	4.048E-02	3.734E-02	3.445E 02	3.178E-02
GD154	2.828E-02	4.833E-02	2.355E 01	2.395E 01	2.432E-01	2.466E 01	2.497E 01	2.526E 01	2.553E 01
EU155	7.957E-02	6.879E-02	4.323E-03	3.737E 03	3.231E-03	2.793E-03	2.414E 03	2.087E-03	1.804E-03
GD155	1.069E-03	1.185E-02	7.632E 02	7.690E 02	7.741E-02	7.785E-02	7.823E 02	7.855E 02	7.884E-02
EU156	8.576E 03	4.936E 10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	2.689E-01	2.775E-01	2.775E-01	2.775E 01	2.775E-01	2.775E-01	2.775E 01	2.775E-01	2.775E-01
GD157	2.482E-04	2.689E-04	2.689E-04	2.689E 04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04
GD158	4.817E-02	4.817E-02	4.817E-02	4.817E 02	4.817E 02	4.817E-02	4.817E 02	4.817E 02	4.817E-02
TB159	4.519E-03	4.524E-03	4.524E-03	4.524E 03	4.524E 03	4.524E 03	4.524E-03	4.524E 03	4.524E 03
GD160	1.757E-03	1.757E-03	1.757E-03	1.757E 03	1.757E-03	1.757E-03	1.757E-03	1.757E 03	1.757E 03
TB160	7.859E-05	2.369E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	3.786E 04	4.548E-04	4.571E-04	4.571E 04	4.571E-04	4.571E 04	4.571E 04	4.571E 04	4.571E-04
TB161	3.523E-06	4.555E 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	3.769E-04	3.804E-04	3.804E-04	3.804E 04	3.804E 04	3.804E-04	3.804E 04	3.804E-04	3.804E-04
DY162	3.008E-04	3.008E 04	3.008E 04	3.008E-04	3.008E-04	3.008E 04	3.008E 04	3.008E-04	3.008E-04
DY163	2.031E-04	2.031E-04	2.031E 04	2.031E 04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04
DY164	3.788E-05	3.788E-05	3.788E-05	3.788E 05	3.788E 05	3.788E-05	3.788E 05	3.788E 05	3.788E-05
HO165	6.662E 05	6.663E 05	6.663E-05	6.663E-05	6.663E-05	6.663E 05	6.663E 05	6.663E-05	6.663E-05
HO166M	4.628E-07	4.625E-07	4.575E 07	4.572E 07	4.570E-07	4.567E-07	4.564E 07	4.562E-07	4.559E 07
ER166	1.514E-05	1.519E-05	1.520E 05	1.520E 05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E 05
ER167	2.061E 06	2.061E-06	2.061E 06	2.061E 06	2.061E 06	2.061E 06	2.061E-06	2.061E-06	2.061E-06
ER168	2.843E-06	2.843E-06	2.843E 06	2.843E 06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06
ER169	5.081E 10	1.021E 21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.408E-08	1.458E 08	1.458E-08	1.458E 08	1.458E 08	1.458E-08	1.458E 08	1.458E-08	1.458E 08
ER170	2.803E-12	4.181E-12	4.405E-12	4.405E 12	4.405E 12	4.405E-12	4.405E 12	4.405E 12	4.405E 12
TM170	1.098E-09	1.532E-10	8.692E-27	8.692E 27	8.692E-27	8.692E-27	8.692E 27	8.692E 27	8.692E-27
YB170	1.875E-09	2.818E-09	2.971E 09	2.971E 09	2.971E-09	2.971E-09	2.971E-09	2.971E 07	2.971E 09
TM171	5.745E 11	4.004E 11	4.183E-14	2.915E-14	2.032E 14	1.416E-14	9.869E 15	6.879E 15	4.794E-15
YB171	6.068E-11	7.809E-11	1.181E 10	1.181E 10	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E 10
YB172	2.427E 12	2.436E-12	2.436E 12	2.436E 12	2.436E-12	2.436E 12	2.436E 12	2.436E-12	2.436E 12

File SBWZR4.INP

```
-1
-1
-1
 RDA     ORIGEN2, VERSION 2.1 (8-1-91) GENERIC FUEL
 BAS     PWRU FUEL
 RDA     -1 = 1 KG FUEL
 RDA     WARNING:  VECTORS ARE OFTEN CHANGED WITH RESPECT TO THEIR CONTENT.
 RDA               THESE CHANGES WILL BE NOTED ON RDA CARDS.
 CUT     -1
 LIP     0 0 0
 LIB     0  1 2 3  601  602  603   9   3   0  1   38
 TIT     INITIAL COMPOSITIONS OF UNIT AMOUNTS OF FUEL AND STRUCT MAT'LS
 RDA     READ FUEL COMPOSITION INCLUDING IMPURITIES
 INP     -1   1  -1  -1  1  1
 TIT     IRRADIATION OF GENERIC FUEL
 MOV     -1   1   0   1.0
 HED      1                                                    CHARGE
 BUP
 IRP     100.0   .2577   1   2   4 2
 IRP     200.0   .2577   2   3   4 0
 IRP     400.0   .2577   3   4   4 0
 IRP     600.0   .2577   4   5   4 0
 IRP     800.0   .2577   5   6   4 0
 IRP    1000.0   .2577   6   7   4 0
 IRP    1200.0   .2577   7   8   4 0
 IRP    1400.0   .2577   8   9   4 0
 IRP    1600.0   .2577   9  10   4 0
 IRP    1800.0   .2577  10  11   4 0
 IRP    1826.0   .2577  11  12   4 0
 BUP
 OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
 OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
 OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
 MOV       12    1   0  1.0
 DEC       1.    1   2   5   4
 DEC      27.    2   3   5   0
 DEC      28.    3   4   5   0
 DEC      29.    4   5   5   0
 DEC      30.    5   6   5   0
 DEC      31.    6   7   5   0
 DEC      32.    7   8   5   0
 DEC      33.    8   9   5   0
 OUT      -9    1     -1    0
 OUT       9    1     -1    0
 END
 2   922350  1000.0 922360  .4366  922380  8.6636       0    0.0   FUEL 97%
 1    60120  .92669  60130 .01031       0 .0           0     .0   C
 1    70140  1.2454  70150 .00463       0 .0           0     .0   N
 1    80160  74.720  80170 .02996   80180 0.1498       0     .0   O
 1   130270  1.2500      0 .0           0 .0           0     .0   Al
 1   220460  .04992 220470 .04555  220480 .46051  220490 .03432   Ti
 1   220500  .03370      0 .0           0 .0           0     .0
 1   240500  2.7113 240520 52.285  240530 5.9280  240540 1.4758   Cr
 1   260540  5.5283 260560 85.942  260570 1.9677  260580 .26236   Fe
```

File SBWZR4.INP (continued)

```
  1   280580  21.300 280600 8.1432  280610 .35256  280620 1.1201    Ni
  1   280640  .28392      0 .0           0 .0           0     .0
  1   400900  31494. 400910 6866.6  400920 10496.  400940 10637.    Zr
  1   400960  1713.6      0 .0           0 .0           0     .0
  1   410930  6.2400      0 .0           0 .0           0     .0    Nb
  1   501120  9.4187 501140 6.3115  501150 3.4956  501160 141.09    Sn
  1   501170  74.573 501180 235.18  501190 83.312  501200 316.45
  1   501220  44.957 501240 56.221       0 .0           0 .0
  1   721740  .02025 721760 .65075  721770 2.3258  721780 3.4121    Hf
  1   721790  1.7036 721800 4.3875       0 .0           0 .0
  1   731801  .00007 731810 .62393       0 .0           0 .0        Ta
  0
```

File SBWZR4.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwzr4.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\pwrus.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwzr4.u6 >nul
copy tape13.out+tape11.out sbwzr4.u11 >nul
ren tape7.out sbwzr4.pch
ren tape15.out sbwzr4.dbg
ren tape16.out sbwzr4.vxs
ren tape50.out sbwzr4.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwzr4.dbg
del sbwzr4.pch
del sbwzr4.vxs
del sbwzr4.ech
del sbwzr4.u11
echo ************************************************************************
echo ****************** O R I G E N 2 - Version 2.1 ***********************
echo ********************** Execution Completed ***************************
echo ************************************************************************
echo on
```

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
H 1	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03
H 2	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07
H 3	8.092E-11	7.649E-11	1.774E-11	1.677E-11	1.585E-11	1.498E-11	1.416E-11	1.339E-11	1.266E-11
HE 3	1.387E-12	5.810E-12	6.457E-11	6.554E-11	6.646E-11	6.732E-11	6.814E-11	6.892E-11	6.965E-11
HE 4	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03
LI 6	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10
LI 7	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13
BE 9	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06
BE 10	7.841E-08	7.841E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08
B 10	5.066E-13	5.539E-13	1.782E-12	1.829E-12	1.876E-12	1.923E-12	1.970E-12	2.018E-12	2.065E-12
B 11	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04
C 12	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01
C 13	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02
C 14	3.319E-03	3.319E-03	3.308E-03	3.308E-03	3.307E-03	3.307E-03	3.307E-03	3.306E-03	3.306E-03
N 14	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00
N 15	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03
O 16	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01
O 17	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02
O 18	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01
F 19	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08
NE 20	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13
NE 21	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12
NE 22	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14
NA 23	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18
MG 24	2.446E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06
MG 25	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10
MG 26	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13
AL 27	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00
SI 28	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04
SI 29	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08
SI 30	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12
SI 32	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23
P 31	2.822E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16
P 32	1.196E-21	7.518E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28
S 32	1.340E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20
S 34	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22
CL 37	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16
AR 38	5.748E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20
AR 39	1.509E-20	1.505E-20	1.408E-20	1.404E-20	1.400E-20	1.397E-20	1.393E-20	1.389E-20	1.386E-20
AR 40	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12
AR 42	2.206E-21	2.169E-21	1.251E-21	1.225E-21	1.199E-21	1.174E-21	1.150E-21	1.125E-21	1.102E-21
K 39	1.746E-23	5.634E-23	1.031E-21	1.067E-21	1.103E-21	1.139E-21	1.175E-21	1.211E-21	1.247E-21
K 41	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14
K 42	1.111E-18	9.229E-26	5.348E-26	5.237E-26	5.127E-26	5.019E-26	4.913E-26	4.810E-26	4.709E-26
CA 42	7.716E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16
CA 43	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07
CA 44	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07
CA 45	3.038E-09	6.426E-10	1.844E-27	1.844E-27	1.844E-27	1.844E-27	1.844E-27	1.844E-27	1.844E-27
CA 46	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08
SC 45	1.343E-08	1.583E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08
SC 46	2.122E-07	1.034E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02
TI 47	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02
TI 48	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01
TI 49	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02
TI 50	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02
V 50	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04
V 51	5.683E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02
CR 50	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00
CR 51	1.978E-03	2.128E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01
CR 53	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00
CR 54	1.625E+00	1.625E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00
MN 54	3.791E-04	1.686E-04	1.199E-13	5.334E-14	2.373E-14	1.055E-14	4.694E-15	2.088E-15	9.287E-16
MN 55	7.699E-03	1.023E-02	1.850E-02	1.850E-02	1.850E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02
FE 54	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00
FE 55	1.081E-02	8.280E-03	8.086E-06	6.194E-06	4.745E-06	3.634E-06	2.784E-06	2.132E-06	1.633E-06
FE 56	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01
FE 57	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00
FE 58	2.744E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01
FE 59	2.693E-05	9.706E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	4.277E-04	1.196E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	1.843E-03	1.871E-03	1.897E-03	1.898E-03	1.899E-03	1.900E-03	1.901E-03	1.902E-03	1.903E-03
CO 60	1.264E-04	1.108E-04	3.626E-06	3.179E-06	2.787E-06	2.444E-06	2.142E-06	1.878E-06	1.647E-06
NI 58	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
NI 59	1.133E 01	1.133E-01	1.133E-01	1.133E-01	1.133E 01	1.133E-01	1.133E 01	1.133E-01	1.133E-01
NI 60	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00
NI 61	3.831E 01	3.831E-01	3.831E-01	3.831E-01	3.831E 01	3.831E-01	3.831E-01	3.831E-01	3.831E-01
NI 62	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00
NI 63	2.103E-02	2.087E-02	1.716E-02	1.703E-02	1.690E 02	1.677E 02	1.665E-02	1.652E 02	1.640E 02
NI 64	2.836E-01	2.836E 01	2.836E 01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01
CU 63	3.412E 04	4.990E-04	4.212E-03	4.340E-03	4.468E 03	4.595E 03	4.721E-03	4.846E-03	4.970E-03
CU 65	6.203E 04	6.204E-04	6.204E 04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E 04	6.204E-04
ZN 64	3.540E 07	3.547E 07	3.547E 07	3.547E-07	3.547E-07	3.547E 07	3.547E-07	3.547E 07	3.547E-07
ZN 65	7.597E-11	2.690E-11	5.096E 23	1.601E 23	8.018E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 66	1.081E 06	1.081E-06	1.081E-06	1.081E 06	1.081E-06	1.081E-06	1.081E-06	1.081E 06	1.081E 06
ZN 67	4.713E 10	4.713E 10	4.713E-10	4.713E-10	4.713E 10	4.713E 10	4.713E-10	4.713E 10	4.713E-10
ZN 68	1.832E 12	1.832E 12	1.832E-12	1.832E-12	1.832E 12	1.832E 12	1.832E-12	1.832E-12	1.832E 12
GA 69	9.098E 16	9.103E 16	9.103E-16	9.103E-16	9.103E 16	9.103E 16	9.103E-16	9.103E-16	9.103E 16
GA 71	7.637E-22	8.433E-22	8.433E-22	8.433E 22	8.433E 22	8.433E 22	8.433E-22	8.433E-22	8.433E-22
GE 70	1.164E-18	1.164E 18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E 18	1.164E-18
GE 71	7.964E-23	3.830E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 72	9.679E-27	1.952E-26	1.952E-26	1.952E 26	1.952E-26	1.952E-26	1.952E-26	1.952E 26	1.952E-26
SR 87	3.619E 04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E 04
SR 88	3.383E-02	3.383E-02	3.383E 02	3.383E 02	3.383E-02	3.383E-02	3.383E 02	3.383E 02	3.383E-02
SR 89	1.543E-04	1.026E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	1.544E 06	1.507E-06	8.057E-07	7.865E-07	7.678E 07	7.495E-07	7.317E-07	7.143E-07	6.973E-07
Y 89	2.396E-03	2.549E-03	2.550E-03	2.550E-03	2.550E-03	2.550E 03	2.550E-03	2.550E-03	2.550E 03
Y 90	3.286E-04	3.824E-10	2.044E 10	1.996E-10	1.948E-10	1.902E-10	1.857E-10	1.813E-10	1.769E-10
Y 91	4.667E-04	6.163E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04
ZR 91	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03
ZR 92	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04
ZR 93	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01
ZR 94	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04
ZR 95	2.492E-01	4.765E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03
NB 92	3.999E-07	6.025E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	6.190E+00	6.190E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00
NB 93M	1.560E-05	2.252E-05	1.197E-04	1.214E-04	1.231E 04	1.247E 04	1.262E-04	1.276E-04	1.289E-04
NB 94	3.937E 02	3.937E-02	3.933E-02	3.933E-02	3.933E 02	3.933E-02	3.933E-02	3.932E 02	3.932E 02
NB 95	1.328E 01	5.887E 03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	9.792E 05	1.994E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	2.903E 06	4.248E-06	3.918E-05	4.052E-05	4.187E-05	4.321E 05	4.455E 05	4.590E-05	4.724E-05
MO 95	2.820E+00	3.192E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00
MO 96	9.207E-02	9.207E 02	9.207E 02	9.207E-02	9.207E-02	9.207E 02	9.207E-02	9.207E 02	9.207E-02
MO 97	4.882E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00
MO 98	2.691E-02	2.691E-02	2.691E 02	2.691E 02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02
MO100	8.520E-09	8.520E-09	8.520E-09	8.520E 09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09
TC 98	3.769E-11	3.769E-11	3.769E 11	3.769E 11	3.769E 11	3.769E-11	3.769E 11	3.769E-11	3.769E 11
TC 99	2.212E 05	2.236E 05	2.236E-05	2.236E-05	2.236E-05	2.236E 05	2.236E-05	2.236E-05	2.236E-05
RU 98	4.535E-18	1.076E-17	1.726E-16	1.788E 16	1.850E-16	1.912E-16	1.974E-16	2.037E-16	2.099E-16
RU 99	6.787E-11	1.413E-10	2.050E-09	2.123E-09	2.197E 09	2.270E 09	2.344E-09	2.417E-09	2.490E-09
RU100	8.289E-07	8.289E 07	8.289E-07	8.289E-07	8.289E 07	8.289E 07	8.289E-07	8.289E-07	8.289E 07
RU101	2.001E-09	2.001E-09	2.001E 09	2.001E 09	2.001E-09	2.001E 09	2.001E 09	2.001E 09	2.001E 09
RU102	1.587E-11	1.587E-11	1.587E 11	1.587E 11	1.587E 11	1.587E-11	1.587E-11	1.587E-11	1.587E-11
RU103	2.407E 15	3.829E 18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	1.342E 17	1.342E 17	1.342E 17	1.342E-17	1.342E-17	1.342E 17	1.342E 17	1.342E 17	1.342E 17
RU106	1.409E-29	1.409E-29	2.422E 37	2.422E 37	2.422E 37	2.422E-37	2.422E-37	2.422E 37	2.422E 37
RH102	1.578E-22	1.201E 22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	6.390E-16	8.778E-16	8.782E-16	8.782E-16	8.782E 16	8.782E 16	8.782E-16	8.782E-16	8.782E-16
RH106	7.088E 28	1.324E 35	2.971E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD104	5.171E 17	5.172E 17	5.172E 17	5.172E 17	5.172E 17	5.172E-17	5.172E 17	5.172E 17	5.172E 17
PD105	6.561E-20	6.573E 20	6.573E 20	6.573E-20	6.573E-20	6.573E 20	6.573E 20	6.573E 20	6.573E 20
PD106	6.093E 22	6.094E 22	6.094E-22	6.094E-22	6.094E 22	6.094E 22	6.094E-22	6.094E-22	6.094E 22
PD107	1.607E-32	3.596E-32	3.596E 32	3.596E 32	3.596E 32	3.596E-32	3.596E-32	3.596E-32	3.596E 32
CD111	3.889E 07	3.889E-07	3.889E 07	3.889E 07	3.889E-07	3.889E 07	3.889E-07	3.889E-07	3.889E-07
CD112	3.234E-06	3.234E-06	3.234E 06	3.234E 06	3.234E 06	3.234E-06	3.234E 06	3.234E-06	3.234E-06
CD113	1.629E-08	1.629E 08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08
CD114	3.937E-04	4.212E-04	4.214E 04	4.214E 04	4.214E 04	4.214E-04	4.214E-04	4.214E-04	4.214E 04
CD115M	1.542E 08	5.283E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD116	2.411E 06	2.411E 06	2.411E 06	2.411E-06	2.411E-06	2.411E 06	2.411E 06	2.411E-06	2.411E-06
IN113	8.656E 02	9.494E 02	9.599E-02	9.599E-02	9.599E 02	9.599E 02	9.599E 02	9.599E 02	9.599E 02
IN113M	5.656E-06	6.271E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114	1.614E 08	3.561E 11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	3.679E-04	2.214E 06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.255E-06	1.271E 06	1.271E 06	1.271E-06	1.271E-06	1.271E 06	1.271E 06	1.271E 06	1.271E-06
SN112	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00
SN113	9.419E 03	1.044E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.315E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00
SN115	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00
SN116	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
SN117	7.501E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01
SN117M	9.722E-03	1.370E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02
SN119	8.423E+01	8.433E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01
SN119M	1.508E-01	5.365E-02	1.155E-13	4.108E-14	1.462E-14	5.202E-15	1.851E-15	6.587E-16	2.344E-16
SN120	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02
SN121M	1.546E-03	1.524E-03	1.063E-03	1.048E-03	1.034E-03	1.019E-03	1.005E-03	9.916E-04	9.779E-04
SN122	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01
SN123	4.329E-03	6.097E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01
SN125	2.449E-03	9.625E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB121	2.832E-01	2.837E-01	2.842E-01	2.842E-01	2.842E-01	2.842E-01	2.842E-01	2.842E-01	2.842E-01
SB123	2.498E-02	2.869E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02
SB124	8.778E-05	1.309E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.131E-01	1.681E-01	2.601E-04	2.028E-04	1.581E-04	1.233E-04	9.610E-05	7.493E-05	5.842E-05
SB126	3.716E-05	5.617E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE122	1.217E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02
TE123	1.135E-04	1.279E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04
TE123M	1.635E-05	1.972E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	6.257E-04	7.122E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04
TE125	1.253E-01	1.731E-01	3.433E-01	3.433E-01	3.434E-01	3.434E-01	3.434E-01	3.435E-01	3.435E-01
TE125M	2.619E-03	2.308E-03	3.579E-06	2.789E-06	2.174E-06	1.695E-06	1.322E-06	1.031E-06	8.035E-07
TE126	2.154E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03
TE127	7.770E-09	4.612E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	1.344E-07	1.317E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	7.062E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09
TE129	8.154E-16	6.894E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.379E-14	7.362E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17
I127	5.095E-06	5.224E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06
I129	2.639E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12
I131	1.297E-19	2.743E-33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE127	1.863E-14	1.780E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE128	9.227E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08
XE129	1.963E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10
XE129M	6.501E-13	1.172E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE130	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12
XE131	5.920E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15
XE131M	4.971E-17	2.854E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16
XE133	3.734E-21	4.100E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE134	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22
XE136	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30
CS132	2.603E-26	1.850E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	6.236E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20
CS134	1.000E-21	7.208E-22	1.169E-25	1.169E-25	1.169E-25	1.169E-25	1.169E-25	1.169E-25	1.169E-25
CS135	4.120E-30	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29
CS137	6.896E-40	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39
BA132	1.034E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28
BA133	2.066E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34
BA134	7.914E-23	3.585E-22	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21
BA135	7.109E-29	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28
BA136	1.555E-36	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35
ER166	1.258E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28
ER167	1.116E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37
ER169	1.553E-19	3.121E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER170	6.143E-22	9.649E-22	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21
TM169	3.807E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18
TM170	2.851E-19	3.981E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM171	5.935E-20	4.144E-20	3.475E-24	3.475E-24	3.475E-24	3.475E-24	3.475E-24	3.475E-24	3.475E-24
YB170	4.405E-19	6.854E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19
YB171	2.334E-20	4.135E-20	8.278E-20	8.278E-20	8.278E-20	8.278E-20	8.278E-20	8.278E-20	8.278E-20
YB172	3.370E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10
YB173	2.121E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10
YB174	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12
LU175	7.445E-03	8.021E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03
LU176	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04
LU177	4.829E-06	5.175E-10	1.864E-28	1.799E-28	1.799E-28	1.799E-28	1.799E-28	1.799E-28	1.799E-28
LU177M	2.662E-07	5.199E-08	1.873E-26	1.873E-26	1.873E-26	1.873E-26	1.873E-26	1.873E-26	1.873E-26
HF174	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02
HF175	5.915E-04	1.589E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF176	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01
HF177	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01
HF178	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00
HF179	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00
HF180	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00
HF181	7.713E-03	1.966E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
HF182	2.631E 04	2.631E-04	2.631E-04	2.631E 04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04
TA181	5.896E 01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E 01
TA182	9.547E-03	1.056E-03	9.205E 12	9.205E-12	9.205E-12	9.205E-12	9.205E 12	9.205E 12	9.205E-12
TA183	6.272E-04	1.731E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W182	7.216E 02	8.065E-02	8.171E 02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E 02
W183	8.421E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02
W184	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03
W185	2.694E-06	9.253E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W186	8.086E 08	8.258E-08	8.258E 08	8.258E 08	8.258E 08	8.258E-08	8.258E-08	8.258E 08	8.258E-08
W188	1.394E-12	3.629E-14	0.000E-00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RE185	7.346E-06	9.947E-06	1.004E 05	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E 05
RE187	3.365E 09	3.388E-09	3.388E 09	3.388E 09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09
RE188	6.110E-13	3.738E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS186	1.213E-06	1.238E-06	1.238E 06	1.238E 06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E 06
OS187	2.367E-20	7.064E-20	1.292E 18	1.339E-18	1.386E-18	1.433E-18	1.480E 18	1.527E-18	1.574E-18
OS188	1.070E 10	1.090E-10	1.090E 10	1.090E 10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10
OS189	7.571E-13	7.571E 13	7.571E 13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13
OS190	2.676E-14	2.676E-14	2.676E 14	2.676E 14	2.676E 14	2.676E-14	2.676E-14	2.676E 14	2.676E-14
OS191	1.181E-17	8.861E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS192	3.158E-19	5.976E-19	6.071E 19	6.071E 19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19
OS194	6.360E-27	6.360E-27	6.360E 27	6.360E 27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27
IR191	5.432E 17	6.647E-17	6.647E 17	6.647E 17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E 17
IR192	6.094E-18	1.992E-19	4.288E 24	4.288E-24	4.288E-24	4.288E-24	4.288E-24	4.288E-24	4.288E 24
IR192M	5.491E-21	5.491E-21	5.080E-21	5.080E-21	5.080E-21	5.080E-21	5.080E-21	5.080E-21	5.080E-21
IR193	8.109E 19	8.110E-19	8.119E-19	8.119E-19	8.120E-19	8.120E-19	8.120E 19	8.121E 19	8.121E-19
IR194	4.896E-22	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E 30	2.316E 30	2.316E 30	2.316E-30
PT192	6.270E-18	1.188E-17	1.207E-17	1.207E 17	1.207E-17	1.207E 17	1.207E 17	1.207E-17	1.207E-17
PT193	2.562E-20	2.583E-20	2.490E-20	2.486E-20	2.483E-20	2.480E-20	2.476E 20	2.473E 20	2.469E 20
PT194	4.234E-20	4.283E-20	4.283E 20	4.283E 20	4.283E-20	4.283E-20	4.283E 20	4.283E 20	4.283E-20
PT195	2.565E-27	2.791E-26	2.791E 26	2.791E 26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26
HE 4	1.613E-04	3.125E-04	3.843E-03	3.965E-03	4.086E 03	4.206E-03	4.325E-03	4.443E 03	4.560E-03
TL206	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E 29
TL207	3.787E-17	5.254E-17	1.126E 15	1.190E-15	1.252E-15	1.316E 15	1.380E 15	1.446E-15	1.513E-15
TL208	2.481E-14	4.984E-14	2.234E 13	2.230E-13	2.216E 13	2.199E 13	2.181E 13	2.162E-13	2.142E-13
TL209	1.121E-19	3.961E-20	8.630E-20	8.949E 20	9.279E 20	9.620E 20	9.972E-20	1.034E 19	1.071E-19
PB206	1.519E-15	3.824E 15	5.276E 13	6.075E 13	6.949E-13	7.928E-13	9.023E-13	1.024E-12	1.160E-12
PB207	6.465E-12	9.859E-12	9.890E 10	1.078E-09	1.171E 09	1.269E 09	1.372E-09	1.480E 09	1.593E-09
PB208	9.813E-09	2.197E-08	1.830E 06	1.904E 06	1.978E-06	2.051E-06	2.123E-06	2.195E-06	2.266E-06
PB209	4.680E 16	1.650E-16	3.596E-16	3.729E-16	3.866E-16	4.008E-16	4.155E-16	4.306E 16	4.463E 16
PB210	8.585E-14	9.107E 14	2.536E 12	2.859E 12	3.212E 12	3.596E-12	4.013E 12	4.464E 12	4.951E-12
PB211	2.930E-16	4.065E-16	8.710E 15	9.204E-15	9.687E-15	1.018E-14	1.068E-14	1.119E-14	1.170E-14
PB212	1.464E-11	2.940E 11	1.318E-10	1.316E-10	1.307E-10	1.297E-10	1.286E-10	1.275E-10	1.263E-10
PB214	6.459E 20	1.168E 19	2.910E 17	3.201E 17	3.511E-17	3.839E-17	4.187E-17	4.555E-17	4.943E-17
BI208	1.256E-18	1.256E-18	1.256E-18	1.256E 18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18
BI209	8.310E-13	1.190E-12	1.259E 11	1.326E 11	1.396E-11	1.468E-11	1.543E-11	1.621E-11	1.702E-11
BI210M	8.941E-18	8.941E-18	8.941E 18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18
BI210	5.220E-17	5.607E-17	1.560E 15	1.760E 15	1.978E 15	2.214E 15	2.471E 15	2.748E 15	3.048E-15
BI211	1.729E-17	2.398E-17	5.139E 16	5.430E 16	5.716E-16	6.006E-16	6.301E-16	6.601E-16	6.905E 16
BI212	1.388E-12	2.788E-12	1.250E 11	1.248E 11	1.240E 11	1.230E-11	1.220E-11	1.209E-11	1.198E-11
BI213	1.097E-16	3.878E-17	8.449E 17	8.761E-17	9.084E-17	9.418E-17	9.763E 17	1.012E-16	1.049E-16
BI214	4.796E-20	8.671E 20	2.161E 17	2.377E 17	2.607E 17	2.851E 17	3.109E-17	3.382E-17	3.670E-17
PO210	9.369E-16	1.441E-15	4.310E 14	4.557E 14	5.079E 14	5.689E 14	6.357E 14	7.083E 14	7.867E-14
PO211	2.121E-22	2.943E-22	6.305E 21	6.663E 21	7.013E 21	7.369E 21	7.731E-21	8.098E-21	8.471E 21
PO212	7.345E-23	1.475E-22	6.613E 22	6.602E 22	6.558E 22	6.509E 22	6.455E 22	6.398E 22	6.340E 22
PO213	1.646E-25	5.818E-26	1.268E 25	1.314E-25	1.363E-25	1.413E-25	1.465E-25	1.518E-25	1.573E-25
PO214	6.465E-25	1.193E-26	2.973E 24	3.270E 24	3.586E 24	3.922E 24	4.277E 24	4.653E 24	5.049E-24
PO215	2.453E 22	3.404E-22	7.294E 21	7.707E-21	8.112E-21	8.524E 21	8.943E 21	9.368E-21	9.799E-21
PO216	5.840E-17	1.173E-16	5.258E 16	5.250E 16	5.215E-16	5.175E-16	5.132E-16	5.087E 16	5.041E-16
PO218	7.490E 21	1.354E-20	3.375E 18	3.712E-18	4.071E-18	4.452E-18	4.855E 18	5.281E 18	5.731E 18
AT217	1.318E-21	4.659E-22	1.015E 21	1.053E 21	1.091E-21	1.131E-21	1.173E 21	1.216E-21	1.260E-21
RN218	1.389E-22	7.190E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	5.559E-19	7.713E-19	1.653E 17	1.746E-17	1.838E-17	1.932E-17	2.026E-17	2.123E 17	2.221E-17
RN220	2.205E 14	4.428E-14	1.985E 13	1.982E 13	1.969E-13	1.954E-13	1.938E-13	1.921E 13	1.903E 13
RN222	1.377E-17	2.490E-17	6.204E 15	6.825E 15	7.485E-15	8.185E-15	8.926E 15	9.710E 15	1.054E 14
FR221	1.197E 17	4.231E-18	9.218E 18	9.558E-18	9.910E-18	1.027E-17	1.065E-17	1.104E-17	1.144E-17
FR223	2.595E-18	3.574E-18	7.671E 17	8.089E 17	8.514E 17	8.946E 17	9.386E 17	9.832E-17	1.028E-16
RA222	1.535E 19	7.950E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	1.412E 13	1.959E-13	4.199E 12	4.436E-12	4.670E-12	4.907E-12	5.148E 12	5.392E-12	5.641E-12
RA224	1.277E 10	2.564E-10	1.149E 09	1.148E 09	1.140E-09	1.131E-09	1.122E-09	1.112E 09	1.102E 09
RA225	5.557E-14	1.913E-14	4.168E 14	4.322E 14	4.481E-14	4.645E-14	4.816E 14	4.991E-14	5.172E-14
RA226	2.161E-12	3.873E-12	9.652E 10	1.062E 09	1.164E 09	1.273E-09	1.389E 09	1.511E 09	1.639E 09
RA228	5.379E-16	8.951E 16	2.585E 14	2.702E 14	2.820E-14	2.937E-14	3.055E 14	3.174E 14	3.292E 14
AC225	3.655E-14	1.292E 14	2.815E 14	2.919E 14	3.027E-14	3.138E 14	3.253E 14	3.372E-14	3.494E-14
AC227	1.006E 10	1.385E-10	2.972E 09	3.134E 09	3.299E 09	3.467E-09	3.637E-09	3.810E-09	3.985E-09
AC228	2.287E 14	1.089E-19	3.144E 18	3.287E 18	3.430E 18	3.573E 18	3.717E 18	3.860E-18	4.005E-18
TH226	7.650E-18	3.961E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
TH227	2.321E-13	3.220E-13	6.899E-12	7.290E-12	7.673E-12	8.063E-12	8.459E-12	8.861E-12	9.269E-12
TH228	2.505E-08	4.974E-08	2.234E-07	2.222E-07	2.207E-07	2.190E-07	2.172E-07	2.153E-07	2.134E-07
TH229	3.489E-09	3.526E-09	7.681E-09	7.965E-09	8.258E-09	8.562E-09	8.875E-09	9.199E-09	9.532E-09
TH230	1.500E-07	2.415E-07	1.062E-05	1.131E-05	1.201E-05	1.274E-05	1.348E-05	1.424E-05	1.502E-05
TH231	1.704E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09	1.627E-09
TH232	7.632E-06	1.062E-05	8.838E-05	9.137E-05	9.436E-05	9.735E-05	1.003E-04	1.033E-04	1.063E-04
TH234	1.246E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10	1.242E-10
PA231	1.811E-06	2.200E-06	1.227E-05	1.266E-05	1.304E-05	1.343E-05	1.382E-05	1.421E-05	1.460E-05
PA233	2.217E-07	2.277E-07	2.276E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07	2.277E-07
PA234M	4.849E-14	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15	4.189E-15
PA234	1.528E-11	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15	1.871E-15
U230	7.519E-15	3.891E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	3.048E-06	4.579E-06	8.084E-06	8.006E-06	7.927E-06	7.849E-06	7.772E-06	7.695E-06	7.618E-06
U233	7.251E-06	9.607E-06	6.509E-05	6.746E-05	6.982E-05	7.218E-05	7.454E-05	7.690E-05	7.926E-05
U234	2.857E-02	3.737E-02	2.433E-01	2.504E-01	2.575E-01	2.645E-01	2.714E-01	2.783E-01	2.851E-01
U235	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02
U236	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02
U237	1.154E-01	2.582E-10	7.356E-11	7.009E-11	6.679E-11	6.364E-11	6.064E-11	5.778E-11	5.506E-11
U238	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00
U240	5.608E-11	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19	2.476E-19
NP235	3.251E-08	1.716E-08	1.039E-15	5.482E-16	2.893E-16	1.527E-16	8.056E-17	4.251E-17	2.243E-17
NP236	3.749E-06	3.749E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E-06
NP237	6.600E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00
NP238	9.351E-03	2.032E-12	1.788E-12	1.779E-12	1.771E-12	1.762E-12	1.753E-12	1.745E-12	1.736E-12
NP239	3.690E-04	9.917E-11	9.893E-11	9.892E-11	9.891E-11	9.890E-11	9.889E-11	9.888E-11	9.887E-11
NP240M	1.021E-10	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21
PU236	7.349E-06	5.789E-06	1.041E-08	8.162E-09	6.402E-09	5.022E-09	3.940E-09	3.091E-09	2.426E-09
PU237	7.562E-07	2.932E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	1.127E+00	1.128E+00	9.184E-01	9.112E-01	9.040E-01	8.969E-01	8.898E-01	8.828E-01	8.759E-01
PU239	1.613E-01	1.617E-01	1.615E-01	1.615E-01	1.615E-01	1.615E-01	1.615E-01	1.615E-01	1.615E-01
PU240	3.359E-02	3.359E-02	3.351E-02	3.351E-02	3.350E-02	3.350E-02	3.350E-02	3.349E-02	3.349E-02
PU241	8.724E-03	8.313E-03	2.368E-03	2.256E-03	2.150E-03	2.049E-03	1.952E-03	1.860E-03	1.772E-03
PU242	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03	1.215E-03
PU243	1.529E-07	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21
PU244	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08	1.266E-08
PU246	4.021E-16	3.107E-26	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27	1.521E-27
AM241	3.078E-04	7.183E-04	6.487E-03	6.585E-03	6.683E-03	6.774E-03	6.860E-03	6.941E-03	7.017E-03
AM242M	1.010E-05	1.005E-05	8.847E-06	8.803E-06	8.760E-06	8.717E-06	8.674E-06	8.632E-06	8.589E-06
AM242	3.143E-07	1.295E-10	1.139E-10	1.134E-10	1.128E-10	1.123E-10	1.117E-10	1.112E-10	1.106E-10
AM243	1.151E-04	1.153E-04	1.150E-04	1.150E-04	1.149E-04	1.149E-04	1.149E-04	1.149E-04	1.149E-04
AM245	2.436E-14	3.523E-23	4.112E-32	4.112E-32	4.112E-32	4.112E-32	4.112E-32	4.112E-32	4.112E-32
AM246	6.435E-19	4.979E-29	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30	2.434E-30
CM241	1.081E-12	9.540E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	3.560E-05	7.622E-06	2.307E-08	2.298E-08	2.288E-08	2.277E-08	2.265E-08	2.254E-08	2.243E-08
CM243	5.657E-07	5.521E-07	2.934E-07	2.863E-07	2.794E-07	2.727E-07	2.662E-07	2.598E-07	2.535E-07
CM244	1.624E-05	1.564E-05	5.780E-06	5.563E-06	5.354E-06	5.153E-06	4.960E-06	4.774E-06	4.594E-06
CM245	3.670E-07	3.670E-07	3.662E-07	3.662E-07	3.662E-07	3.661E-07	3.661E-07	3.661E-07	3.660E-07
CM246	2.209E-08	2.209E-08	2.201E-08	2.200E-08	2.200E-08	2.200E-08	2.199E-08	2.199E-08	2.199E-08
CM247	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10	1.150E-10
CM248	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12	3.443E-12
CM249	1.877E-17	1.307E-30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	3.617E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21	3.621E-21
BK249	2.019E-14	9.161E-15	1.069E-23	1.069E-23	1.069E-23	1.069E-23	1.069E-23	1.069E-23	1.069E-23
BK250	1.228E-17	4.440E-24	1.071E-29	1.071E-29	1.071E-29	1.071E-29	1.071E-29	1.071E-29	1.071E-29
CF249	3.877E-15	1.490E-14	2.288E-14	2.283E-14	2.279E-14	2.274E-14	2.270E-14	2.266E-14	2.261E-14
CF250	3.410E-15	3.245E-15	8.183E-16	7.761E-16	7.360E-16	6.980E-16	6.620E-16	6.278E-16	5.954E-16
CF251	1.058E-15	1.057E-15	1.036E-15	1.036E-15	1.035E-15	1.034E-15	1.033E-15	1.032E-15	1.032E-15
CF252	3.213E-16	2.471E-16	2.670E-19	2.053E-19	1.579E-19	1.214E-19	9.333E-20	7.175E-20	5.516E-20
CF253	2.544E-19	1.709E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	5.630E-21	9.293E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	2.406E-19	8.017E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	2.319E-20	9.242E-21	3.951E-31	3.951E-31	3.951E-31	3.951E-31	3.951E-31	3.951E-31	3.951E-31
SF250	2.227E-11	4.260E-11	4.669E-10	4.814E-10	4.958E-10	5.100E-10	5.241E-10	5.381E-10	5.520E-10
H 3	6.014E-04	5.685E-04	1.321E-04	1.249E-04	1.181E-04	1.116E-04	1.055E-04	9.979E-05	9.434E-05
LI 6	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06	3.308E-06
LI 7	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07	1.461E-07
BE 9	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07	2.814E-07
BE 10	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E-06
C 14	3.795E-07	3.794E-07	3.782E-07	3.782E-07	3.781E-07	3.781E-07	3.780E-07	3.780E-07	3.780E-07
ZN 66	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10	7.465E-10
ZN 67	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11	3.324E-11
ZN 68	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06	5.868E-06
GA 69	9.063E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09	9.065E-09
ZN 70	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05	2.002E-05
GE 70	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11	2.602E-11
GA 71	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09	9.808E-09

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
GE 72	1.046E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04	1.048E-04
GE 73	3.676E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04	3.677E-04
GE 74	9.973E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04	9.974E-04
AS 75	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03
GE 76	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03
SE 76	4.545E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05
SE 77	1.581E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02	1.584E-02
SE 78	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02	3.426E-02
SE 79	8.723E-02	8.723E-02	8.720E-02	8.720E-02	8.720E-02	8.720E-02	8.720E-02	8.720E-02	8.720E-02
BR 79	2.253E-06	3.184E-06	2.738E-05	2.831E-05	2.924E-05	3.017E-05	3.110E-05	3.203E-05	3.296E-05
SE 80	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01	2.102E-01
KR 80	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06	1.077E-06
BR 81	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01
KR 81	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08	4.171E-08
SE 82	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01	5.691E-01
KR 82	9.495E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03	9.527E-03
KR 83	7.796E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01
KR 84	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00
KR 85	4.116E-01	3.859E-01	7.185E-02	6.735E-02	6.313E-02	5.918E-02	5.547E-02	5.200E-02	4.874E-02
RB 85	1.846E+00	1.873E+00	2.187E+00	2.191E+00	2.195E+00	2.199E+00	2.203E+00	2.206E+00	2.210E+00
KR 86	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00
RB 86	1.883E-04	2.408E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	4.630E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03
RB 87	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00
SR 87	2.043E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E-05
SR 88	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00
SR 89	3.468E-01	2.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	8.536E+00	8.880E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00
SR 90	1.013E+01	9.891E+00	5.327E+00	5.202E+00	5.079E+00	4.960E+00	4.843E+00	4.729E+00	4.618E+00
Y 90	2.594E-03	2.480E-03	1.336E-03	1.304E-03	1.274E-03	1.244E-03	1.215E-03	1.186E-03	1.158E-03
ZR 90	6.404E-01	8.788E-01	5.444E+00	5.569E+00	5.692E+00	5.811E+00	5.928E+00	6.042E+00	6.153E+00
Y 91	5.021E-01	6.678E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	1.058E+01	1.108E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01
ZR 92	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01
NB 92	1.142E-13	1.721E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.243E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01
NB 93	1.798E-06	2.829E-06	8.469E-05	8.916E-05	9.369E-05	9.827E-05	1.029E-04	1.076E-04	1.123E-04
NB 93M	1.239E-05	1.700E-05	8.163E-05	8.279E-05	8.389E-05	8.494E-05	8.594E-05	8.689E-05	8.779E-05
ZR 94	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01
NB 94	1.654E-06	1.654E-06	1.653E-06	1.653E-06	1.653E-06	1.652E-06	1.652E-06	1.652E-06	1.652E-06
ZR 95	6.298E-01	1.204E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.479E-01	1.489E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	2.492E-04	5.040E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	1.132E+01	1.227E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01
ZR 96	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01
MO 96	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E-01
MO 97	1.185E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01
MO 98	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01
TC 98	4.572E-05	4.572E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05	4.571E-05
TC 99	1.150E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01
RU 99	9.490E-05	1.327E-04	1.117E-03	1.155E-03	1.192E-03	1.230E-03	1.268E-03	1.306E-03	1.344E-03
MO100	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01
RU100	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
RU101	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01
RU102	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00
RH102	5.323E-06	4.191E-06	8.393E-09	6.609E-09	5.204E-09	4.098E-09	3.226E-09	2.540E-09	2.000E-09
RU103	2.067E-01	3.286E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.659E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00
RH103M	1.847E-04	2.939E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00
PD104	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00
PD105	2.157E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00
RU106	2.595E-01	1.305E-01	2.243E-09	1.128E-09	5.669E-10	2.850E-10	1.433E-10	7.205E-11	3.622E-11
RH106	2.616E-07	1.226E-07	2.108E-15	1.060E-15	5.329E-16	2.679E-16	1.347E-16	6.772E-17	3.405E-17
PD106	7.981E-01	9.272E-01	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00
AG106	5.871E-15	6.813E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01	4.234E-01
AG107	1.092E-07	1.544E-07	1.328E-06	1.374E-06	1.419E-06	1.464E-06	1.509E-06	1.554E-06	1.599E-06
PD108	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01	2.047E-01
AG108	9.552E-13	2.960E-19	2.835E-19	2.830E-19	2.825E-19	2.821E-19	2.816E-19	2.811E-19	2.807E-19
AG108M	3.090E-10	3.085E-10	2.954E-10	2.950E-10	2.945E-10	2.940E-10	2.935E-10	2.930E-10	2.925E-10
CD108	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07	2.724E-07
AG109	8.224E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02	8.230E-02
AG109M	5.107E-08	1.294E-16	8.935E-23	5.178E-23	3.000E-23	1.739E-23	1.007E-23	5.838E-24	3.383E-24
CD109	2.261E-10	1.310E-10	9.045E-17	5.242E-17	3.037E-17	1.760E-17	1.020E-17	5.910E-18	3.425E-18
PD110	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02	7.494E-02
AG110	1.878E-08	2.972E-12	1.079E-23	3.916E-24	1.422E-24	5.162E-25	1.874E-25	6.804E-26	2.470E-26

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
AG110M	5.402E-04	1.961E-04	7.117E-16	2.584E-16	9.382E-17	3.406E-17	1.237E-17	4.490E-18	1.630E-18
CD110	3.243E-02	3.277E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02
AG111	3.630E-04	6.352E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	5.953E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02
CD112	4.625E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02
CD113	4.385E-04	4.452E-04	4.458E-04	4.458E-04	4.459E-04	4.459E-04	4.459E-04	4.459E-04	4.459E-04
CD113M	8.755E-04	8.335E-04	2.322E-04	2.211E-04	2.105E-04	2.004E-04	1.908E-04	1.816E-04	1.729E-04
IN113	9.778E-05	1.397E-04	7.405E-04	7.516E-04	7.622E-04	7.723E-04	7.819E-04	7.910E-04	7.997E-04
CD114	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02
IN114	1.811E-11	3.957E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	4.089E-07	2.460E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.881E-06	7.256E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06
CD115M	1.216E-04	4.164E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.111E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02
IN115M	5.122E-06	1.176E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.262E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03
CD116	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02
SN116	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02
SN117	4.004E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02
SN117M	1.819E-06	2.563E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02
SN119	4.269E-02	4.278E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02
SN119M	1.423E-04	5.063E-05	1.089E-16	3.877E-17	1.380E-17	4.909E-18	1.747E-18	6.216E-19	2.212E-19
SN120	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02
SN121M	2.162E-05	2.135E-05	1.538E-05	1.519E-05	1.500E-05	1.481E-05	1.463E-05	1.444E-05	1.426E-05
SB121	4.515E-02	4.519E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02
SN122	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02
TE122	2.238E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03
SN123	1.474E-03	2.076E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB123	5.702E-02	5.829E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02
TE123	2.198E-05	2.470E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05
TE123M	3.090E-06	3.725E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02
SB124	2.076E-04	3.096E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.566E-03	1.770E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03
SN125	3.077E-04	1.209E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	5.871E-02	4.596E-02	6.869E-05	5.348E-05	4.164E-05	3.242E-05	2.525E-05	1.966E-05	1.530E-05
TE125	4.338E-02	5.657E-02	1.031E-01	1.031E-01	1.031E-01	1.031E-01	1.031E-01	1.031E-01	1.031E-01
TE125M	7.575E-04	6.419E-04	9.608E-07	7.481E-07	5.825E-07	4.535E-07	3.531E-07	2.749E-07	2.141E-07
SN126	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01
SB126	3.639E-05	9.078E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09	9.076E-09	9.075E-09
SB126M	1.490E-08	6.917E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11
TE126	4.547E-03	4.585E-03	4.619E-03	4.620E-03	4.621E-03	4.623E-03	4.624E-03	4.625E-03	4.627E-03
TE127	1.288E-04	1.759E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.938E-03	5.024E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	3.994E-01	4.053E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01
XE127	3.721E-09	3.557E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00
XE128	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02
TE129	6.927E-05	3.569E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	7.102E-03	3.811E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	1.835E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00
XE129	6.480E-05	6.500E-05	6.712E-05	6.720E-05	6.728E-05	6.736E-05	6.744E-05	6.752E-05	6.761E-05
XE129M	1.213E-07	2.187E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00
XE130	8.569E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02
I131	4.926E-02	1.070E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.011E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00
XE131M	7.973E-04	1.451E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.364E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01
CS132	9.291E-06	9.682E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	1.342E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05
XE133	7.367E-02	9.963E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.678E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01
XE134	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01
CS134	1.124E+00	8.031E-01	1.285E-04	9.182E-05	6.560E-05	4.687E-05	3.349E-05	2.393E-05	1.710E-05
BA134	6.001E-01	9.210E-01	1.724E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00
CS135	9.090E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.096E+00	9.095E+00
BA135	2.738E-03	2.742E-03	2.813E-03	2.816E-03	2.818E-03	2.821E-03	2.824E-03	2.826E-03	2.829E-03
XE136	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01
CS136	6.042E-03	2.450E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	2.349E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01
BA136M	2.709E-10	1.099E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.651E+01	1.614E+01	8.849E+00	8.647E+00	8.450E+00	8.257E+00	8.068E+00	7.884E+00	7.704E+00
BA137	9.727E-01	1.350E+00	8.637E+00	8.839E+00	9.037E+00	9.230E+00	9.418E+00	9.603E+00	9.783E+00
BA137M	2.527E-06	2.469E-06	1.354E-06	1.323E-06	1.293E-06	1.263E-06	1.234E-06	1.206E-06	1.179E-06
BA138	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01

sbwzr4.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:18

	1826.0D	1.0YR	27.0YR	28.0YR	29.0YR	30.0YR	31.0YR	32.0YR	33.0YR
LA138	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04
LA139	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01
BA140	1.798E-01	4.548E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	2.504E-02	6.858E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.816E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01
CE141	4.339E-01	1.811E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.663E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01
CE142	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01
ND142	2.736E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01
PR143	1.798E-01	1.577E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.373E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01
CE144	3.589E+00	1.473E+00	1.292E-10	5.303E-11	2.176E-11	8.932E-12	3.666E-12	1.504E-12	6.174E-13
PR144	1.520E-04	6.218E-05	5.456E-15	2.239E-15	9.190E-16	3.771E-16	1.548E-16	6.352E-17	2.607E-17
PR144M	7.579E-07	3.109E-07	2.728E-17	1.119E-17	4.594E-18	1.885E-18	7.737E-19	3.175E-19	1.303E-19
ND144	1.638E+01	1.850E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01
ND145	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01
ND146	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00
PM146	4.960E-05	4.372E-05	1.651E-06	1.455E-06	1.283E-06	1.131E-06	9.971E-07	8.790E-07	7.750E-07
SM146	8.176E-05	8.394E-05	9.950E-05	9.958E-05	9.964E-05	9.970E-05	9.975E-05	9.979E-05	9.983E-05
ND147	6.040E-02	6.922E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	2.102E+00	1.661E+00	1.723E-03	1.323E-03	1.016E-03	7.800E-04	5.989E-04	4.598E-04	3.531E-04
SM147	1.853E+00	2.355E+00	4.014E+00	4.015E+00	4.015E+00	4.015E+00	4.015E+00	4.015E+00	4.015E+00
ND148	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00
PM148	1.273E-02	2.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	1.569E-02	3.414E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.311E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00
SM149	2.812E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02
ND150	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00
SM150	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00
EU150	4.537E-09	4.451E-09	2.701E-09	2.650E-09	2.599E-09	2.550E-09	2.501E-09	2.454E-09	2.407E-09
SM151	1.636E-01	1.636E-01	1.339E-01	1.329E-01	1.319E-01	1.309E-01	1.299E-01	1.289E-01	1.279E-01
EU151	2.742E-04	1.539E-03	3.124E-02	3.227E-02	3.329E-02	3.430E-02	3.530E-02	3.630E-02	3.729E-02
SM152	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00
EU152	1.217E-03	1.157E-03	3.056E-04	2.904E-04	2.759E-04	2.621E-04	2.490E-04	2.366E-04	2.248E-04
GD152	1.111E-03	1.129E-03	1.366E-03	1.370E-03	1.374E-03	1.378E-03	1.381E-03	1.385E-03	1.388E-03
EU153	1.120E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00
GD153	4.330E-05	1.521E-05	2.344E-17	8.234E-18	2.893E-18	1.016E-18	3.570E-19	1.254E-19	4.405E-20
SM154	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01
EU154	2.588E-01	2.387E-01	2.932E-02	2.705E-02	2.495E-02	2.302E-02	2.123E-02	1.959E-02	1.807E-02
GD154	2.828E-02	4.833E-02	2.577E-01	2.600E-01	2.621E-01	2.640E-01	2.658E-01	2.675E-01	2.690E-01
EU155	7.957E-02	6.879E-02	1.560E-03	1.348E-03	1.166E-03	1.008E-03	8.711E-04	7.531E-04	6.510E-04
GD155	1.069E-03	1.185E-02	7.908E-02	7.929E-02	7.947E-02	7.963E-02	7.977E-02	7.989E-02	7.999E-02
EU156	8.576E-03	4.936E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	2.689E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01
GD157	2.482E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04
GD158	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02
TB159	4.519E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03
GD160	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03
TB160	7.859E-05	2.369E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	3.786E-04	4.548E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04
TB161	3.523E-06	4.555E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	3.769E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04
DY162	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04
DY163	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04
DY164	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05
HO165	6.662E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05
HO166M	4.628E-07	4.625E-07	4.556E-07	4.554E-07	4.551E-07	4.548E-07	4.546E-07	4.543E-07	4.541E-07
ER166	1.514E-05	1.519E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05
ER167	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06
ER168	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06
ER169	5.081E-10	1.021E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.408E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08
ER170	2.803E-12	4.181E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12
TM170	1.098E-09	1.532E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	1.875E-09	2.818E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09
TM171	5.745E-11	4.004E-11	3.357E-15	2.340E-15	1.631E-15	1.137E-15	7.922E-16	5.522E-16	3.848E-16
YB171	6.068E-11	7.809E-11	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E-10
YB172	2.427E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12

File SBWZR5.INP

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-1
-1
  RDA     ORIGEN2, VERSION 2.1 (8-1-91) GENERIC FUEL
  BAS     PWRU FUEL
  RDA     -1 = 1 KG FUEL
  RDA     WARNING:  VECTORS ARE OFTEN CHANGED WITH RESPECT TO THEIR CONTENT.
  RDA               THESE CHANGES WILL BE NOTED ON RDA CARDS.
  CUT     -1
  LIP     0 0 0
  LIB     0  1 2 3  601  602  603   9   3   0  1   38
  TIT     INITIAL COMPOSITIONS OF UNIT AMOUNTS OF FUEL AND STRUCT MAT'LS
  RDA     READ FUEL COMPOSITION INCLUDING IMPURITIES
  INP     -1   1  -1  -1  1  1
  TIT     IRRADIATION OF GENERIC FUEL
  MOV     -1   1   0   1.0
  HED      1                                                  CHARGE
  BUP
  IRP     100.0   .2577   1   2   4 2
  IRP     200.0   .2577   2   3   4 0
  IRP     400.0   .2577   3   4   4 0
  IRP     600.0   .2577   4   5   4 0
  IRP     800.0   .2577   5   6   4 0
  IRP    1000.0   .2577   6   7   4 0
  IRP    1200.0   .2577   7   8   4 0
  IRP    1400.0   .2577   8   9   4 0
  IRP    1600.0   .2577   9  10   4 0
  IRP    1800.0   .2577  10  11   4 0
  IRP    1826.0   .2577  11  12   4 0
  BUP
  OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
  MOV       12    1   0  1.0
  DEC       1.    1   2   5   4
  DEC      34.    2   3   5   0
  DEC      35.    3   4   5   0
  DEC      36.    4   5   5   0
  DEC      37.    5   6   5   0
  DEC      38.    6   7   5   0
  DEC      39.    7   8   5   0
  DEC      40.    8   9   5   0
  OUT      -9    1     -1    0
  OUT       9    1     -1    0
  END
  2   922350  1000.0 922360  .4366  922380  8.6636       0     0.0   FUEL 97%
  1    60120  .92669  60130 .01031       0 .0           0      .0   C
  1    70140  1.2454  70150 .00463       0 .0           0      .0   N
  1    80160  74.720  80170 .02996   80180 0.1498       0      .0   O
  1   130270  1.2500      0 .0           0 .0           0      .0   Al
  1   220460  .04992 220470 .04555  220480 .46051  220490 .03432    Ti
  1   220500  .03370      0 .0           0 .0           0      .0
  1   240500  2.7113 240520 52.285  240530 5.9280  240540 1.4758    Cr
  1   260540  5.5283 260560 85.942  260570 1.9677  260580 .26236    Fe
```

File SBWZR5.INP (continued)

```
1   280580  21.300 280600 8.1432  280610 .35256  280620 1.1201    Ni
1   280640  .28392      0 .0           0 .0           0     .0
1   400900  31494. 400910 6866.6  400920 10496.  400940 10637.    Zr
1   400960  1713.6      0 .0           0 .0           0     .0
1   410930  6.2400      0 .0           0 .0           0     .0    Nb
1   501120  9.4187 501140 6.3115  501150 3.4956  501160 141.09    Sn
1   501170  74.573 501180 235.18  501190 83.312  501200 316.45
1   501220  44.957 501240 56.221       0 .0           0 .0
1   721740  .02025 721760 .65075  721770 2.3258  721780 3.4121    Hf
1   721790  1.7036 721800 4.3875       0 .0           0 .0
1   731801  .00007 731810 .62393       0 .0           0 .0        Ta
0
```

File SBWZR5.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwzr5.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\pwrus.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwzr5.u6 >nul
copy tape13.out+tape11.out sbwzr5.u11 >nul
ren tape7.out sbwzr5.pch
ren tape15.out sbwzr5.dbg
ren tape16.out sbwzr5.vxs
ren tape50.out sbwzr5.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwzr5.dbg
del sbwzr5.pch
del sbwzr5.vxs
del sbwzr5.ech
del sbwzr5.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ********************** Execution Completed ****************************
echo ************************************************************************
echo on
```

sbwzr5.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
H 1	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03
H 2	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07
H 3	8.092E-11	7.649E-11	1.197E-11	1.131E-11	1.069E-11	1.011E-11	9.556E-12	9.034E-12	8.540E-12
HE 3	1.387E-12	5.810E-12	7.034E-11	7.099E-11	7.161E-11	7.220E-11	7.275E-11	7.327E-11	7.377E-11
HE 4	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03
LI 6	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10
LI 7	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13
BE 9	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06
BE 10	7.841E-08	7.841E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08
B 10	5.066E-13	5.539E-13	2.112E-12	2.159E-12	2.207E-12	2.254E-12	2.301E-12	2.348E-12	2.395E-12
B 11	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04
C 12	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01
C 13	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02
C 14	3.319E-03	3.319E-03	3.305E-03	3.305E-03	3.305E-03	3.304E-03	3.304E-03	3.303E-03	3.303E-03
N 14	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00
N 15	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03
O 16	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01
O 17	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02
O 18	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01
F 19	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08
NE 20	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13
NE 21	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12
NE 22	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14
NA 23	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18
MG 24	2.446E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06
MG 25	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10
MG 26	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13
AL 27	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00
SI 28	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04
SI 29	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08
SI 30	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12
SI 32	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23
P 31	2.822E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16
P 32	1.196E-21	7.518E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28
S 32	1.340E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20
S 34	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22
CL 37	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16
AR 38	5.748E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20
AR 39	1.509E-20	1.505E-20	1.382E-20	1.379E-20	1.375E-20	1.372E-20	1.368E-20	1.365E-20	1.361E-20
AR 40	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12
AR 42	2.206E-21	2.159E-21	1.082E-21	1.059E-21	1.037E-21	1.015E-21	9.941E-22	9.732E-22	9.528E-22
K 39	1.746E-23	5.634E-23	1.282E-21	1.317E-21	1.353E-21	1.388E-21	1.424E-21	1.459E-21	1.494E-21
K 41	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14
K 42	1.111E-18	9.229E-26	4.625E-26	4.528E-26	4.433E-26	4.340E-26	4.249E-26	4.160E-26	4.072E-26
CA 42	7.716E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16
CA 43	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07
CA 44	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07
CA 45	3.038E-09	6.426E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CA 46	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08
SC 45	1.343E-08	1.583E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08
SC 46	2.122E-07	1.034E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02
TI 47	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02
TI 48	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01
TI 49	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02
TI 50	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02
V 50	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04
V 51	5.683E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02
CR 50	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00
CR 51	1.978E-03	2.128E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01
CR 53	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00
CR 54	1.625E+00	1.625E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00
MN 54	3.791E-04	1.686E-04	4.131E-16	1.837E-16	8.172E-17	3.635E-17	1.617E-17	7.191E-18	3.199E-18
MN 55	7.699E-03	1.023E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02
FE 54	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00
FE 55	1.081E-02	8.280E-03	1.251E-06	9.583E-07	7.341E-07	5.623E-07	4.307E-07	3.299E-07	2.527E-07
FE 56	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01
FE 57	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00
FE 58	2.744E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01
FE 59	2.693E-05	9.706E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	4.277E-04	1.196E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	1.843E-03	1.871E-03	1.904E-03	1.905E-03	1.906E-03	1.907E-03	1.908E-03	1.909E-03	1.910E-03
CO 60	1.264E-04	1.108E-04	1.444E-06	1.266E-06	1.110E-06	9.732E-07	8.532E-07	7.481E-07	6.559E-07
NI 58	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
NI 59	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01
NI 60	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00
NI 61	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01
NI 62	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00
NI 63	2.103E-02	2.087E-02	1.628E-02	1.615E-02	1.603E-02	1.591E-02	1.579E-02	1.567E-02	1.556E-02
NI 64	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01
CU 63	3.412E-04	4.990E-04	5.093E-03	5.215E-03	5.336E-03	5.457E-03	5.576E-03	5.695E-03	5.812E-03
CU 65	6.203E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04
ZN 64	3.540E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07
ZN 65	7.597E-11	2.690E-11	3.557E-26	3.557E-26	3.557E-26	3.557E-26	3.557E-26	3.557E-26	3.557E-26
ZN 66	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06
ZN 67	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10
ZN 68	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12
GA 69	9.098E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16
GA 71	7.637E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22
GE 70	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18
GE 71	7.964E-23	3.830E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 72	9.679E-27	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26
SR 87	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04
SR 88	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02
SR 89	1.543E-04	1.026E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	1.544E-06	1.507E-06	6.807E-07	6.645E-07	6.487E-07	6.332E-07	6.182E-07	6.035E-07	5.891E-07
Y 89	2.396E-03	2.549E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03
Y 90	3.286E-04	3.824E-10	1.727E-10	1.686E-10	1.646E-10	1.607E-10	1.569E-10	1.531E-10	1.495E-10
Y 91	4.667E-04	6.163E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04
ZR 91	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03
ZR 92	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04
ZR 93	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01
ZR 94	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04
ZR 95	2.492E-01	4.765E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03
NB 92	3.999E-07	6.025E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	6.190E+00	6.190E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00
NB 93M	1.560E-05	2.252E-05	1.302E-04	1.314E-04	1.326E-04	1.337E-04	1.348E-04	1.358E-04	1.367E-04
NB 94	3.937E-02	3.937E-02	3.932E-02	3.932E-02	3.932E-02	3.932E-02	3.932E-02	3.932E-02	3.931E-02
NB 95	1.328E-01	5.887E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	9.792E-05	1.994E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	2.903E-06	4.248E-06	4.858E-05	4.992E-05	5.127E-05	5.261E-05	5.395E-05	5.529E-05	5.664E-05
MO 95	2.820E+00	3.192E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00
MO 96	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02
MO 97	4.882E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00
MO 98	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02
MO100	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09
TC 98	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11
TC 99	2.212E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05
RU 98	4.535E-18	1.076E-17	2.161E-16	2.223E-16	2.286E-16	2.348E-16	2.410E-16	2.472E-16	2.535E-16
RU 99	6.787E-11	1.413E-10	2.564E-09	2.637E-09	2.711E-09	2.784E-09	2.858E-09	2.931E-09	3.004E-09
RU100	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07
RU101	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09
RU102	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11
RU103	2.407E-15	3.829E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17
RU106	1.409E-29	1.409E-29	1.967E-39	1.967E-39	1.967E-39	1.967E-39	1.967E-39	1.967E-39	1.967E-39
RH102	1.578E-22	1.201E-22	4.507E-26	4.507E-26	4.507E-26	4.507E-26	4.507E-26	4.507E-26	4.507E-26
RH103	6.390E-16	8.778E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16
RH106	7.088E-28	1.324E-35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD104	5.171E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17
PD105	6.561E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20
PD106	6.093E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22
PD107	1.607E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32
CD111	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07
CD112	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06
CD113	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08
CD114	3.937E-04	4.212E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04
CD115M	1.542E-08	5.283E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD116	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06
IN113	8.656E-02	9.494E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02
IN113M	5.656E-06	6.271E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114	1.614E-08	3.561E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	3.679E-04	2.214E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.255E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06
SN112	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00
SN113	9.419E-03	1.044E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.315E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00
SN115	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00
SN116	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
SN117	7.501E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01
SN117M	9.722E-03	1.370E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02
SN119	8.423E+01	8.433E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01
SN119M	1.508E-01	5.365E-02	8.341E-17	2.968E-17	1.056E-17	3.759E-18	1.337E-18	4.759E-19	1.694E-19
SN120	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02
SN121M	1.546E-03	1.524E-03	9.644E-04	9.511E-04	9.380E-04	9.251E-04	9.124E-04	8.998E-04	8.874E-04
SN122	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01
SN123	4.329E-03	6.097E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01
SN125	2.449E-03	9.625E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB121	2.832E-01	2.837E-01	2.843E-01	2.843E-01	2.843E-01	2.843E-01	2.843E-01	2.843E-01	2.843E-01
SB123	2.498E-02	2.869E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02
SB124	8.778E-05	1.309E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.131E-01	1.681E-01	4.557E-05	3.553E-05	2.770E-05	2.160E-05	1.684E-05	1.313E-05	1.024E-05
SB126	3.716E-05	5.617E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE122	1.217E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02
TE123	1.135E-04	1.279E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04
TE123M	1.635E-05	1.972E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	6.257E-04	7.122E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04
TE125	1.253E-01	1.731E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01
TE125M	2.619E-03	2.308E-03	6.268E-07	4.887E-07	3.810E-07	2.971E-07	2.316E-07	1.806E-07	1.408E-07
TE126	2.154E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03
TE127	7.770E-09	4.612E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	1.344E-07	1.317E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	7.062E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09
TE129	8.154E-16	6.894E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.379E-14	7.362E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17
I127	5.095E-06	5.224E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06
I129	2.639E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12
I131	1.297E-19	2.743E-33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE127	1.863E-14	1.780E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE128	9.227E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08
XE129	1.963E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10
XE129M	6.501E-13	1.172E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE130	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12
XE131	5.920E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15
XE131M	4.971E-17	2.854E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16
XE133	3.734E-21	4.100E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE134	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22
XE136	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30
CS132	2.603E-26	1.850E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	6.236E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20
CS134	1.000E-21	7.208E-22	1.115E-26	1.115E-26	1.115E-26	1.115E-26	1.115E-26	1.115E-26	1.115E-26
CS135	4.120E-30	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29
CS137	6.896E-40	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39
BA132	1.034E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28
BA133	2.066E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34
BA134	7.914E-23	3.585E-22	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21
BA135	7.109E-29	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28
BA136	1.555E-36	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35
ER166	1.258E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28
ER167	1.116E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37
ER169	1.553E-19	3.121E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER170	6.143E-22	9.649E-22	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21
TM169	3.807E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18
TM170	2.851E-19	3.981E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM171	5.935E-20	4.144E-20	2.776E-25	2.776E-25	2.776E-25	2.776E-25	2.776E-25	2.776E-25	2.776E-25
YB170	4.405E-19	6.854E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19
YB171	2.334E-20	4.135E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20
YB172	3.370E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10
YB173	2.121E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10
YB174	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12
LU175	7.445E-03	8.021E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03
LU176	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04
LU177	4.829E-06	5.175E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LU177M	2.662E-07	5.199E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF174	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02
HF175	5.915E-04	1.589E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF176	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01
HF177	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01
HF178	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00
HF179	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00
HF180	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00
HF181	7.713E-03	1.966E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
HF182	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04
TA181	5.896E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01	5.973E-01
TA182	9.547E-03	1.056E-03	9.205E-12	9.205E-12	9.205E-12	9.205E-12	9.205E-12	9.205E-12	9.205E-12
TA183	6.272E-04	1.731E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W182	7.216E-02	8.065E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02	8.171E-02
W183	8.421E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02	8.484E-02
W184	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03	5.126E-03
W185	2.694E-06	9.253E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W186	8.086E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08	8.258E-08
W188	1.394E-12	3.629E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RE185	7.346E-06	9.947E-06	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05	1.004E-05
RE187	3.365E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09	3.388E-09
RE188	6.110E-13	3.738E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS186	1.213E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06	1.238E-06
OS187	2.367E-20	7.064E-20	1.621E-18	1.668E-18	1.714E-18	1.761E-18	1.808E-18	1.855E-18	1.902E-18
OS188	1.070E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10	1.090E-10
OS189	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13	7.571E-13
OS190	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14	2.676E-14
OS191	1.181E-17	8.861E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OS192	3.158E-19	5.976E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19	6.071E-19
OS194	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27	6.360E-27
IR191	5.432E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17	6.647E-17
IR192	6.094E-18	1.992E-19	4.203E-24	4.203E-24	4.203E-24	4.203E-24	4.203E-24	4.203E-24	4.203E-24
IR192M	5.491E-21	5.491E-21	4.994E-21	4.994E-21	4.994E-21	4.994E-21	4.994E-21	4.994E-21	4.994E-21
IR193	8.109E-19	8.110E-19	8.121E-19	8.122E-19	8.122E-19	8.122E-19	8.123E-19	8.123E-19	8.123E-19
IR194	4.896E-22	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30	2.316E-30
PT192	6.270E-18	1.188E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17	1.207E-17
PT193	2.562E-20	2.583E-20	2.468E-20	2.464E-20	2.461E-20	2.457E-20	2.454E-20	2.450E-20	2.447E-20
PT194	4.234E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20	4.283E-20
PT195	2.565E-27	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26	2.791E-26
HE 4	1.613E-04	3.125E-04	4.677E-03	4.792E-03	4.907E-03	5.020E-03	5.133E-03	5.245E-03	5.356E-03
TL206	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29	2.320E-29
TL207	3.787E-17	5.254E-17	1.576E-15	1.648E-15	1.717E-15	1.787E-15	1.858E-15	1.930E-15	2.002E-15
TL208	2.481E-14	4.984E-14	2.117E-13	2.104E-13	2.083E-13	2.062E-13	2.042E-13	2.021E-13	2.001E-13
TL209	1.121E-19	3.961E-20	1.107E-19	1.146E-19	1.186E-19	1.227E-19	1.270E-19	1.313E-19	1.358E-19
PB206	1.519E-15	3.824E-15	1.348E-12	1.519E-12	1.704E-12	1.906E-12	2.128E-12	2.371E-12	2.637E-12
PB207	6.465E-12	9.859E-12	1.711E-09	1.834E-09	1.963E-09	2.097E-09	2.236E-09	2.381E-09	2.531E-09
PB208	9.813E-09	2.197E-08	2.536E-06	2.606E-06	2.675E-06	2.744E-06	2.811E-06	2.879E-06	2.945E-06
PB209	4.680E-16	1.650E-16	4.612E-16	4.775E-16	4.942E-16	5.114E-16	5.291E-16	5.472E-16	5.658E-16
PB210	8.585E-14	9.107E-14	5.477E-12	6.040E-12	6.644E-12	7.290E-12	7.981E-12	8.717E-12	9.501E-12
PB211	2.930E-16	4.065E-16	1.220E-14	1.275E-14	1.329E-14	1.383E-14	1.438E-14	1.493E-14	1.549E-14
PB212	1.464E-11	2.940E-11	1.249E-10	1.241E-10	1.229E-10	1.216E-10	1.204E-10	1.192E-10	1.180E-10
PB214	6.459E-20	1.168E-19	5.352E-17	5.782E-17	6.235E-17	6.709E-17	7.207E-17	7.728E-17	8.273E-17
BI208	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18	1.256E-18
BI209	8.310E-13	1.190E-12	1.785E-11	1.871E-11	1.961E-11	2.053E-11	2.149E-11	2.248E-11	2.350E-11
BI210M	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18	8.941E-18
BI210	5.220E-17	5.607E-17	3.370E-15	3.719E-15	4.090E-15	4.488E-15	4.913E-15	5.367E-15	5.849E-15
BI211	1.729E-17	2.398E-17	7.196E-16	7.523E-16	7.839E-16	8.159E-16	8.482E-16	8.810E-16	9.140E-16
BI212	1.388E-12	2.788E-12	1.185E-11	1.177E-11	1.165E-11	1.154E-11	1.142E-11	1.131E-11	1.120E-11
BI213	1.097E-16	3.878E-17	1.084E-16	1.122E-16	1.161E-16	1.202E-16	1.243E-16	1.286E-16	1.329E-16
BI214	4.796E-20	8.671E-20	3.974E-17	4.293E-17	4.629E-17	4.982E-17	5.351E-17	5.738E-17	6.143E-17
PO210	9.369E-16	1.441E-15	9.308E-14	9.721E-14	1.062E-13	1.165E-13	1.277E-13	1.396E-13	1.523E-13
PO211	2.121E-22	2.943E-22	8.829E-21	9.230E-21	9.618E-21	1.001E-20	1.041E-20	1.081E-20	1.121E-20
PO212	7.345E-23	1.475E-22	6.268E-22	6.228E-22	6.166E-22	6.104E-22	6.043E-22	5.983E-22	5.923E-22
PO213	1.646E-25	5.818E-26	1.626E-25	1.683E-25	1.742E-25	1.803E-25	1.865E-25	1.929E-25	1.995E-25
PO214	6.465E-25	1.193E-26	5.467E-24	5.907E-24	6.369E-24	6.854E-24	7.362E-24	7.895E-24	8.451E-24
PO215	2.453E-22	3.404E-22	1.021E-20	1.068E-20	1.113E-20	1.158E-20	1.204E-20	1.250E-20	1.297E-20
PO216	5.840E-17	1.173E-16	4.984E-16	4.952E-16	4.903E-16	4.854E-16	4.805E-16	4.757E-16	4.710E-16
PO218	7.490E-21	1.354E-20	6.206E-18	6.705E-18	7.229E-18	7.780E-18	8.357E-18	8.961E-18	9.593E-18
AT217	1.318E-21	4.659E-22	1.302E-21	1.348E-21	1.395E-21	1.444E-21	1.494E-21	1.545E-21	1.597E-21
RN218	1.389E-22	7.190E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RN219	5.559E-19	7.713E-19	2.314E-17	2.419E-17	2.521E-17	2.624E-17	2.728E-17	2.833E-17	2.940E-17
RN220	2.205E-14	4.428E-14	1.881E-13	1.870E-13	1.851E-13	1.832E-13	1.814E-13	1.796E-13	1.778E-13
RN222	1.377E-17	2.490E-17	1.141E-14	1.233E-14	1.329E-14	1.430E-14	1.537E-14	1.648E-14	1.764E-14
FR221	1.197E-17	4.231E-18	1.182E-17	1.224E-17	1.267E-17	1.311E-17	1.356E-17	1.403E-17	1.450E-17
FR223	2.595E-18	3.574E-18	1.074E-16	1.121E-16	1.168E-16	1.215E-16	1.263E-16	1.312E-16	1.361E-16
RA222	1.535E-19	7.950E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RA223	1.412E-13	1.959E-13	5.879E-12	6.146E-12	6.404E-12	6.665E-12	6.930E-12	7.197E-12	7.467E-12
RA224	1.277E-10	2.564E-10	1.089E-09	1.083E-09	1.072E-09	1.061E-09	1.050E-09	1.040E-09	1.030E-09
RA225	5.557E-14	1.913E-14	5.346E-14	5.534E-14	5.728E-14	5.927E-14	6.132E-14	6.342E-14	6.558E-14
RA226	2.161E-12	3.873E-12	1.775E-09	1.918E-09	2.068E-09	2.225E-09	2.390E-09	2.563E-09	2.744E-09
RA228	5.379E-16	8.951E-16	3.411E-14	3.530E-14	3.649E-14	3.768E-14	3.887E-14	4.007E-14	4.126E-14
AC225	3.655E-14	1.292E-14	3.611E-14	3.739E-14	3.869E-14	4.004E-14	4.142E-14	4.284E-14	4.430E-14
AC227	1.006E-10	1.385E-10	4.162E-09	4.342E-09	4.524E-09	4.709E-09	4.896E-09	5.084E-09	5.275E-09
AC228	2.287E-14	1.089E-19	4.149E-18	4.294E-18	4.438E-18	4.583E-18	4.729E-18	4.874E-18	5.019E-18
TH226	7.650E-18	3.961E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
TH227	2.321E 13	3.220E-13	9.660E 12	1.010E 11	1.052E-11	1.095E-11	1.139E-11	1.183E 11	1.227E 11
TH228	2.505E-08	4.974E 08	2.117E 07	2.096E-07	2.075E-07	2.054E-07	2.034E 07	2.014E-07	1.993E 07
TH229	3.489E-09	3.526E 09	9.852E 09	1.020E 08	1.056E-08	1.092E-08	1.130E 08	1.169E-08	1.209E 08
TH230	1.500E-07	2.415E-07	1.582E 05	1.664E 05	1.748E 05	1.834E 05	1.921E 05	2.010E 05	2.102E 05
TH231	1.704E-09	1.627E-09	1.627E 09	1.627E 09	1.627E-09	1.627E 09	1.627E 09	1.627E-09	1.627E-09
TH232	7.632E 06	1.062E-05	1.093E-04	1.123E 04	1.153E-04	1.183E-04	1.213E 04	1.243E 04	1.273E 04
TH234	1.246E-10	1.242E-10	1.242E 10	1.242E 10	1.242E 10	1.242E-10	1.242E 10	1.242E-10	1.242E-10
PA231	1.811E-06	2.200E-06	1.498E 05	1.536E 05	1.575E-05	1.614E 05	1.653E 05	1.692E-05	1.731E-05
PA233	2.217E-07	2.277E 07	2.276E 07	2.277E 07	2.277E-07	2.277E-07	2.277E 07	2.277E-07	2.277E 07
PA234M	4.849E 14	4.189E-15	4.189E-15	4.189E-15	4.189E 15	4.189E 15	4.189E 15	4.189E-15	4.189E 15
PA234	1.528E 11	1.871E 15	1.871E 15	1.871E 15	1.871E 15	1.871E 15	1.871E 15	1.871E 15	1.871E 15
U230	7.519E-15	3.891E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U232	3.048E 06	4.579E-06	7.543E 06	7.467E 06	7.393E 06	7.319E-06	7.246E-06	7.174E 06	7.102E 06
U233	7.251E-06	9.607E-06	8.003E-05	8.239E-05	8.475E 05	8.712E 05	8.948E 05	9.184E 05	9.420E 05
U234	2.857E-02	3.737E 02	2.919E 01	2.986E 01	3.053E 01	3.119E 01	3.185E 01	3.250E 01	3.315E 01
U235	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02	4.000E+02
U236	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02	1.028E+02
U237	1.154E 01	2.582E-10	5.246E 11	4.999E 11	4.763E 11	4.538E-11	4.324E 11	4.121E-11	3.926E 11
U238	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00	8.563E+00
U240	5.608E 11	2.476E-19	2.476E 19	2.476E 19	2.476E-19	2.476E 19	2.476E-19	2.476E-19	2.476E 19
NP235	3.251E-08	1.716E-08	1.184E 17	6.247E 18	3.297E 18	1.740E-18	9.180E-19	4.845E-19	2.557E-19
NP236	3.749E 06	3.749E-06	3.748E 06	3.748E 06	3.748E-06	3.748E-06	3.748E-06	3.748E-06	3.748E 06
NP237	6.600E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00	6.715E+00
NP238	9.351E-03	2.032E 12	1.728E 12	1.719E 12	1.711E-12	1.702E-12	1.694E 12	1.686E 12	1.677E 12
NP239	3.690E 04	9.917E-11	9.886E 11	9.886E 11	9.885E-11	9.884E-11	9.883E-11	9.882E 11	9.881E 11
NP240M	1.021E 10	2.166E-21	2.166E-21	2.166E 21	2.166E-21	2.166E-21	2.166E-21	2.166E-21	2.166E-21
PU236	7.349E-06	5.789E-06	1.906E-09	1.496E 09	1.175E 09	9.234E 10	7.259E 10	5.710E 10	4.496E 10
PU237	7.562E-07	2.932E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PU238	1.127E+00	1.128E+00	8.690E 01	8.621E 01	8.554E-01	8.486E-01	8.419E 01	8.353E-01	8.287E 01
PU239	1.613E 01	1.617E-01	1.615E 01	1.615E-01	1.615E 01	1.615E 01	1.615E 01	1.615E-01	1.615E 01
PU240	3.359E-02	3.359E-02	3.349E-02	3.348E 02	3.348E 02	3.347E-02	3.347E-02	3.347E-02	3.346E 02
PU241	8.724E-03	8.313E-03	1.689E 03	1.609E 03	1.533E-03	1.461E-03	1.392E-03	1.326E-03	1.264E-03
PU242	1.215E-03	1.215E 03	1.215E-03	1.215E-03	1.215E 03	1.215E 03	1.215E 03	1.215E 03	1.215E 03
PU243	1.529E 07	4.098E-21	4.098E 21	4.098E 21	4.098E-21	4.098E-21	4.098E-21	4.098E-21	4.098E-21
PU244	1.266E-08	1.266E-08	1.266E 08	1.266E-08	1.266E 08	1.266E 08	1.266E 08	1.266E 08	1.266E 08
PU246	4.021E-16	3.107E-26	1.521E-27	1.521E 27	1.521E-27	1.521E-27	1.521E 27	1.521E-27	1.521E 27
AM241	3.078E 04	7.183E-04	7.089E 03	7.158E-03	7.222E-03	7.283E-03	7.340E 03	7.394E 03	7.444E 03
AM242M	1.010E 05	1.005E-05	8.547E 06	8.505E 06	8.464E-06	8.422E-06	8.381E 06	8.340E-06	8.299E 06
AM242	3.143E-07	1.295E-10	1.101E 10	1.095E 10	1.090E-10	1.085E 10	1.079E-10	1.074E-10	1.069E 10
AM243	1.151E-04	1.153E-04	1.149E-04	1.149E 04	1.149E-04	1.149E-04	1.149E 04	1.148E-04	1.148E 04
AM245	2.436E-14	3.523E 23	1.618E-34	1.618E 34	1.618E 34	1.618E 34	1.618E-34	1.618E-34	1.618E 34
AM246	6.435E-19	4.979E 29	2.434E 30	2.434E 30	2.434E-30	2.434E-30	2.434E 30	2.434E 30	2.434E 30
CM241	1.081E 12	9.540E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM242	3.560E 05	7.622E-06	2.229E 08	2.220E 08	2.210E-08	2.200E-08	2.189E-08	2.178E-08	2.167E 08
CM243	5.657E-07	5.521E-07	2.474E-07	2.415E-07	2.357E-07	2.300E-07	2.245E 07	2.191E-07	2.139E 07
CM244	1.624E-05	1.564E-05	4.422E-06	4.256E 06	4.096E 06	3.942E-06	3.794E 06	3.652E 06	3.514E 06
CM245	3.670E-07	3.670E-07	3.660E-07	3.660E-07	3.660E 07	3.659E-07	3.659E 07	3.659E 07	3.658E 07
CM246	2.209E 08	2.209E 08	2.198E 08	2.198E 08	2.198E-08	2.197E 08	2.197E-08	2.197E-08	2.196E 08
CM247	1.150E-10	1.150E-10	1.150E-10	1.150E 10	1.150E-10	1.150E-10	1.150E 10	1.150E 10	1.150E 10
CM248	3.443E 12	3.443E 12	3.443E 12	3.443E 12	3.443E 12	3.443E-12	3.443E-12	3.443E-12	3.443E-12
CM249	1.877E 17	1.307E 30	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CM250	3.617E 21	3.621E 21	3.621E 21	3.621E 21	3.621E 21	3.621E 21	3.621E 21	3.621E-21	3.621E 21
BK249	2.019E-14	9.161E-15	4.208E 26	4.208E-26	4.208E-26	4.208E-26	4.208E 26	4.208E-26	4.208E-26
BK250	1.228E 17	4.440E 24	1.071E 29	1.071E-29	1.071E 29	1.071E-29	1.071E-29	1.071E-29	1.071E 29
CF249	3.877E-15	1.490E-14	2.257E-14	2.252E 14	2.248E 14	2.243E-14	2.239E 14	2.234E 14	2.230E 14
CF250	3.410E-15	3.245E 15	5.647E-16	5.356E 16	5.079E-16	4.817E 16	4.568E 16	4.333E-16	4.109E-16
CF251	1.058E-15	1.057E-15	1.031E 15	1.030E 15	1.029E 15	1.028E 15	1.028E 15	1.027E 15	1.026E 15
CF252	3.213E-16	2.471E-16	4.238E-20	3.258E 20	2.505E 20	1.925E 20	1.480E 20	1.138E 20	8.747E 21
CF253	2.544E-19	1.709E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CF254	5.630E 21	9.293E 23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES253	2.406E 19	8.017E 24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ES254	2.319E-20	9.242E-21	6.384E 34	6.384E-34	6.384E 34	6.384E-34	6.384E 34	6.384E 34	6.384E 34
SF250	2.227E-11	4.260E 11	5.657E-10	5.794E 10	5.929E 10	6.064E-10	6.197E 10	6.329E 10	6.460E 10
H 3	6.014E-04	5.685E-04	8.919E 05	8.432E 05	7.972E-05	7.537E-05	7.125E-05	6.736E-05	6.369E 05
LI 6	3.308E-06	3.308E 06	3.308E-06	3.308E-06	3.308E 06	3.308E-06	3.308E-06	3.308E 06	3.308E 06
LI 7	1.461E-07	1.461E 07	1.461E 07	1.461E 07	1.461E 07	1.461E 07	1.461E 07	1.461E 07	1.461E 07
BE 9	2.814E 07	2.814E 07	2.814E 07	2.814E 07	2.814E-07	2.814E-07	2.814E 07	2.814E 07	2.814E 07
BE 10	1.877E-06	1.877E-06	1.877E 06	1.877E 06	1.877E-06	1.877E-06	1.877E-06	1.877E-06	1.877E 06
C 14	3.795E-07	3.794E-07	3.779E 07	3.779E 07	3.778E 07	3.778E-07	3.777E-07	3.777E-07	3.776E-07
ZN 66	7.465E-10	7.465E-10	7.465E 10	7.465E-10	7.465E-10	7.465E 10	7.465E 10	7.465E-10	7.465E-10
ZN 67	3.324E 11	3.324E-11	3.324E 11	3.324E 11	3.324E-11	3.324E-11	3.324E 11	3.324E-11	3.324E 11
ZN 68	5.868E 06	5.868E 06	5.868E-06	5.868E 06	5.868E 06	5.868E-06	5.868E-06	5.868E 06	5.868E-06
GA 69	9.063E 09	9.065E 09	9.065E-09	9.065E 09	9.065E-09	9.065E-09	9.065E 09	9.065E-09	9.065E 09
ZN 70	2.002E 05	2.002E-05	2.002E 05	2.002E 05	2.002E 05	2.002E-05	2.002E 05	2.002E 05	2.002E 05
GE 70	2.602E 11	2.602E 11	2.602E 11	2.602E 11	2.602E-11	2.602E-11	2.602E 11	2.602E-11	2.602E-11
GA 71	9.808E 09	9.808E-09	9.808E-09	9.808E 09	9.808E 09	9.808E 09	9.808E 09	9.808E 09	9.808E 09

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
GE 72	1.046E-04	1.048E 04	1.048E 04	1.048E-04	1.048E-04	1.048E 04	1.048E-04	1.048E-04	1.048E-04
GE 73	3.676E-04	3.677E-04	3.677E 04	3.677E 04	3.677E-04	3.677E-04	3.677E-04	3.677E 04	3.677E 04
GE 74	9.973E-04	9.974E-04	9.974E 04	9.974E-04	9.974E 04	9.974E-04	9.974E-04	9.974E-04	9.974E 04
AS 75	2.385E-03	2.385E-03	2.385E 03	2.385E 03	2.385E-03	2.385E-03	2.385E-03	2.385E 03	2.385E-03
GE 76	7.270E-03	7.270E-03	7.270E 03	7.270E 03	7.270E-03	7.270E-03	7.270E-03	7.270E-03	7.270E-03
SE 76	4.545E 05	4.556E 05	4.556E 05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05	4.556E-05
SE 77	1.581E 02	1.584E-02	1.584E-02	1.584E-02	1.584E 02	1.584E-02	1.584E-02	1.584E-02	1.584E 02
SE 78	3.426E-02	3.426E-02	3.426E 02	3.426E-02	3.426E-02	3.426E 02	3.426E-02	3.426E-02	3.426E-02
SE 79	8.723E-02	8.723E-02	8.720E 02	8.719E-02	8.719E-02	8.719E-02	8.719E-02	8.719E-02	8.719E 02
BR 79	2.253E-06	3.184E-06	3.389E 05	3.482E-05	3.575E-05	3.668E-05	3.761E-05	3.854E-05	3.947E-05
SE 80	2.102E-01	2.102E-01	2.102E 01	2.102E 01	2.102E-01	2.102E 01	2.102E-01	2.102E-01	2.102E-01
KR 80	1.077E-06	1.077E 06	1.077E 06	1.077E-06	1.077E-06	1.077E-06	1.077E 06	1.077E 06	1.077E-06
BR 81	3.512E 01	3.512E-01	3.512E 01	3.512E-01	3.512E-01	3.512E-01	3.512E 01	3.512E 01	3.512E-01
KR 81	4.171E-08	4.171E-08	4.171E 08	4.171E-08	4.171E 08	4.171E-08	4.171E-08	4.171E-08	4.171E-08
SE 82	5.691E-01	5.691E-01	5.691E 01	5.691E-01	5.691E-01	5.691E 01	5.691E-01	5.691E-01	5.691E 01
KR 82	9.495E-03	9.527E-03	9.527E 03	9.527E-03	9.527E-03	9.527E 03	9.527E-03	9.527E-03	9.527E-03
KR 83	7.796E-01	7.797E 01	7.797E 01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01	7.797E-01
KR 84	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00	1.959E+00
KR 85	4.116E-01	3.859E 01	4.569E 02	4.283E-02	4.015E 02	3.764E-02	3.528E-02	3.307E-02	3.100E-02
RB 85	1.846E+00	1.873E+00	2.213E+00	2.216E+00	2.218E+00	2.221E+00	2.223E+00	2.225E+00	2.227E+00
KR 86	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00	3.613E+00
RB 86	1.883E-04	2.408E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 86	4.630E 03	4.818E-03	4.818E 03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E-03	4.818E 03
RB 87	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00	4.675E+00
SR 87	2.043E-05	2.044E 05	2.044E 05	2.044E-05	2.044E-05	2.044E-05	2.044E-05	2.044E 05	2.044E-05
SR 88	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00	6.738E+00
SR 89	3.468E 01	2.306E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89	8.536E+00	8.880E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00	8.882E+00
SR 90	1.013E+01	9.891E+00	4.509E+00	4.403E+00	4.300E+00	4.199E+00	4.100E+00	4.003E+00	3.909E+00
Y 90	2.594E-03	2.480E-03	1.131E 03	1.104E-03	1.078E 03	1.053E-03	1.028E-03	1.004E-03	9.803E-04
ZR 90	6.404E 01	8.788E-01	6.262E+00	6.368E+00	6.471E+00	6.573E+00	6.671E+00	6.768E+00	6.862E+00
Y 91	5.021E-01	6.678E 03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 91	1.058E+01	1.108E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01	1.109E+01
ZR 92	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01	1.154E+01
NB 92	1.142E 13	1.721E-24	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 93	1.243E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01	1.244E+01
NB 93	1.798E-06	2.829E 06	1.171E 04	1.219E-04	1.268E 04	1.317E-04	1.366E-04	1.416E-04	1.466E-04
NB 93M	1.239E 05	1.700E-05	8.864E 05	8.946E-05	9.023E-05	9.097E-05	9.166E 05	9.233E-05	9.296E-05
ZR 94	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01	1.235E+01
NB 94	1.654E-06	1.654E-06	1.652E 06	1.652E-06	1.652E-06	1.652E-06	1.652E-06	1.652E 06	1.652E-06
ZR 95	6.298E-01	1.204E 02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95	3.479E 01	1.489E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	2.492E 04	5.040E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 95	1.132E+01	1.227E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01	1.230E+01
ZR 96	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01	1.259E+01
MO 96	4.198E 01	4.198E-01	4.198E 01	4.198E 01	4.198E-01	4.198E-01	4.198E-01	4.198E-01	4.198E 01
MO 97	1.185E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01	1.186E+01
MO 98	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01	1.189E+01
TC 98	4.572E-05	4.572E 05	4.571E 05	4.571E-05	4.571E 05	4.571E 05	4.571E-05	4.571E-05	4.571E-05
TC 99	1.150E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01
RU 99	9.490E-05	1.327E-04	1.382E 03	1.419E-03	1.457E-03	1.495E-03	1.533E-03	1.571E-03	1.609E 03
MO100	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01	1.312E+01
RU100	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
RU101	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01	1.045E+01
RU102	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00	9.287E+00
RH102	5.323E 06	4.191E-06	1.573E 09	1.239E 09	9.755E-10	7.681E-10	6.048E-10	4.762E-10	3.750E 10
RU103	2.067E-01	3.286E 04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH103	4.659E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00	4.866E+00
RH103M	1.847E 04	2.939E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00	4.110E+00
PD104	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00	1.925E+00
PD105	2.157E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00	2.160E+00
RU106	2.595E-01	1.305E 01	1.821E 11	9.156E-12	4.603E-12	2.314E-12	1.164E-12	5.850E-13	2.941E-13
RH106	2.616E-07	1.226E 07	1.712E 17	8.606E 18	4.327E-18	2.175E 18	1.094E 18	5.498E-19	2.764E-19
PD106	7.981E-01	9.272E 01	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00
AG106	5.871E 15	6.813E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD107	4.234E-01	4.234E-01	4.234E 01	4.234E 01	4.234E 01	4.234E 01	4.234E 01	4.234E 01	4.234E 01
AG107	1.092E-07	1.544E 07	1.644E 06	1.690E-06	1.735E 06	1.780E-06	1.825E-06	1.870E-06	1.915E-06
PD108	2.047E-01	2.047E 01	2.047E 01	2.047E 01	2.047E-01	2.047E-01	2.047E 01	2.047E-01	2.047E 01
AG108	9.552E-13	2.960E 19	2.802E 19	2.797E 19	2.793E 19	2.788E 19	2.784E 19	2.779E-19	2.774E-19
AG108M	3.090E-10	3.085E 10	2.920E 10	2.915E-10	2.911E-10	2.906E 10	2.901E 10	2.896E 10	2.891E 10
CD108	2.724E-07	2.724E-07	2.724E 07	2.724E 07	2.724E-07	2.724E-07	2.724E 07	2.724E-07	2.724E-07
AG109	8.224E-02	8.230E 02	8.230E 02	8.230E 02	8.230E 02	8.230E 02	8.230E 02	8.230E 02	8.230E 02
AG109M	5.107E 08	1.294E-16	1.960E 24	1.136E-24	6.583E-25	3.815E-25	2.211E-25	1.281E-25	7.423E-26
CD109	2.261E-10	1.310E 10	1.985E 18	1.150E 18	6.665E 19	3.862E-19	2.238E-19	1.297E-19	7.514E 20
PD110	7.494E-02	7.494E 02	7.494E 02	7.494E 02	7.494E 02	7.494E 02	7.494E-02	7.494E-02	7.494E-02
AG110	1.878E-08	2.972E 12	8.969E 27	3.257E 27	1.182E 27	4.293E 28	1.559E 28	5.664E-29	2.056E-29

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
AG110M	5.402E-04	1.961E-04	5.919E-19	2.149E-19	7.802E-20	2.832E-20	1.029E-20	3.738E-21	1.352E-21
CD110	3.243E-02	3.277E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.297E-02
AG111	3.630E-04	6.352E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD111	5.953E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02	5.989E-02
CD112	4.625E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02	4.628E-02
CD113	4.385E-04	4.452E-04	4.459E-04	4.459E-04	4.459E-04	4.459E-04	4.459E-04	4.459E-04	4.459E-04
CD113M	8.755E-04	8.335E-04	1.646E-04	1.567E-04	1.492E-04	1.420E-04	1.352E-04	1.287E-04	1.226E-04
IN113	9.778E-05	1.397E-04	8.080E-04	8.159E-04	8.234E-04	8.306E-04	8.374E-04	8.438E-04	8.500E-04
CD114	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02	8.345E-02
IN114	1.811E-11	3.957E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	4.089E-07	2.460E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.881E-06	7.256E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06	7.259E-06
CD115M	1.216E-04	4.164E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.111E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02	1.130E-02
IN115M	5.122E-06	1.176E-13	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN115	1.262E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03	1.265E-03
CD116	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02	4.075E-02
SN116	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02	2.657E-02
SN117	4.004E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02	4.005E-02
SN117M	1.819E-06	2.563E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02	4.477E-02
SN119	4.269E-02	4.278E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02	4.283E-02
SN119M	1.423E-04	5.063E-05	7.872E-20	2.801E-20	9.973E-21	3.551E-21	1.258E-21	4.459E-22	1.624E-22
SN120	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02	4.486E-02
SN121M	2.162E-05	2.135E-05	1.408E-05	1.391E-05	1.373E-05	1.356E-05	1.339E-05	1.322E-05	1.306E-05
SB121	4.519E-02	4.519E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02	4.520E-02
SN122	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02	5.028E-02
TE122	2.238E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03	2.251E-03
SN123	1.474E-03	2.076E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB123	5.702E-02	5.829E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02	5.850E-02
TE123	2.198E-05	2.470E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05	2.507E-05
TE123M	3.090E-06	3.725E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02	7.859E-02
SB124	2.076E-04	3.096E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	1.566E-03	1.770E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03
SN125	3.077E-04	1.209E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	5.871E-02	4.596E-02	1.191E-05	9.272E-06	7.220E-06	5.621E-06	4.377E-06	3.408E-06	2.653E-06
TE125	4.338E-02	5.657E-02	1.032E-01	1.032E-01	1.032E-01	1.032E-01	1.032E-01	1.032E-01	1.032E-01
TE125M	7.575E-04	6.419E-04	1.666E-07	1.297E-07	1.010E-07	7.863E-08	6.122E-08	4.767E-08	3.711E-08
SN126	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01	1.900E-01
SB126	3.639E-05	9.078E-09	9.075E-09	9.075E-09	9.075E-09	9.075E-09	9.075E-09	9.075E-09	9.075E-09
SB126M	1.490E-08	6.917E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11	6.916E-11
TE126	4.547E-03	4.585E-03	4.628E-03	4.629E-03	4.631E-03	4.632E-03	4.633E-03	4.635E-03	4.636E-03
TE127	1.288E-04	1.759E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	4.938E-03	5.024E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I127	3.994E-01	4.053E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01	4.058E-01
XE127	3.721E-09	3.557E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00	1.066E+00
XE128	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02	1.685E-02
TE129	6.927E-05	3.569E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	7.102E-03	3.811E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I129	1.835E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00
XE129	6.480E-05	6.500E-05	6.769E-05	6.777E-05	6.785E-05	6.793E-05	6.801E-05	6.809E-05	6.818E-05
XE129M	1.213E-07	2.187E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00	4.096E+00
XE130	8.569E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02	8.578E-02
I131	4.926E-02	1.070E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131	6.011E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00	6.062E+00
XE131M	7.973E-04	1.451E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	1.364E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01	1.367E+01
CS132	9.291E-06	9.682E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA132	1.342E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05	1.360E-05
XE133	7.367E-02	9.963E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	1.678E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.687E+01
XE134	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01	2.149E+01
CS134	1.124E-00	8.031E-01	1.222E-05	8.729E-06	6.237E-06	4.456E-06	3.184E-06	2.275E-06	1.626E-06
BA134	6.001E-01	9.210E-01	1.724E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00	1.724E+00
CS135	9.090E+00	9.096E+00	9.095E+00	9.095E+00	9.095E+00	9.095E+00	9.095E+00	9.095E+00	9.095E+00
BA135	2.738E-03	2.742E-03	2.832E-03	2.835E-03	2.837E-03	2.840E-03	2.843E-03	2.846E-03	2.848E-03
XE136	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01	2.756E+01
CS136	6.042E-03	2.450E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA136	2.349E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01	2.410E-01
BA136M	2.709E-10	1.099E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	1.651E+01	1.614E+01	7.528E+00	7.356E+00	7.188E+00	7.024E+00	6.863E+00	6.707E+00	6.553E+00
BA137	9.727E-01	1.360E+00	9.959E+00	1.013E+01	1.030E+01	1.046E+01	1.062E+01	1.078E+01	1.093E+01
BA137M	2.527E-06	2.469E-06	1.152E-06	1.125E-06	1.100E-06	1.075E-06	1.050E-06	1.026E-06	1.003E-06
BA138	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01	1.959E+01

sbwzr5.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:23

	1826.0D	1.0YR	34.0YR	35.0YR	36.0YR	37.0YR	38.0YR	39.0YR	40.0YR
LA138	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04	1.370E-04
LA139	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01	1.856E+01
BA140	1.798E-01	4.548E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA140	2.504E-02	6.858E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE140	1.816E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01	1.836E+01
CE141	4.339E-01	1.811E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR141	1.663E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01	1.707E+01
CE142	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01	1.742E+01
ND142	2.736E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01	2.741E-01
PR143	1.798E-01	1.577E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND143	1.373E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01
CE144	3.589E+00	1.473E+00	2.534E-13	1.040E-13	4.267E-14	1.751E-14	7.187E-15	2.950E-15	1.210E-15
PR144	1.520E-04	6.218E-05	1.070E-17	4.391E-18	1.802E-18	7.395E-19	3.035E-19	1.245E-19	5.111E-20
PR144M	7.579E-07	3.109E-07	5.348E-20	2.195E-20	9.007E-21	3.697E-21	1.517E-21	6.226E-22	2.555E-22
ND144	1.638E+01	1.850E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01	1.997E+01
ND145	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01	1.095E+01
ND146	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00	9.987E+00
PM146	4.960E-05	4.372E-05	6.832E-07	6.023E-07	5.310E-07	4.681E-07	4.127E-07	3.638E-07	3.207E-07
SM146	8.176E-05	8.394E-05	9.986E-05	9.989E-05	9.992E-05	9.994E-05	9.996E-05	9.998E-05	1.000E-04
ND147	6.040E-02	6.922E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM147	2.102E+00	1.661E+00	2.714E-04	2.084E-04	1.600E-04	1.229E-04	9.434E-05	7.244E-05	5.562E-05
SM147	1.853E+00	2.355E+00	4.016E+00	4.016E+00	4.016E+00	4.016E+00	4.016E+00	4.016E+00	4.016E+00
ND148	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00	5.199E+00
PM148	1.273E-02	2.501E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM148M	1.569E-02	3.414E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM148	2.311E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00	2.339E+00
SM149	2.812E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02	3.714E-02
ND150	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00	2.023E+00
SM150	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00	3.651E+00
EU150	4.537E-09	4.451E-09	2.361E-09	2.317E-09	2.272E-09	2.229E-09	2.187E-09	2.145E-09	2.104E-09
SM151	1.636E-01	1.636E-01	1.269E-01	1.259E-01	1.250E-01	1.240E-01	1.231E-01	1.221E-01	1.212E-01
EU151	2.742E-04	1.539E-03	3.827E-02	3.924E-02	4.021E-02	4.117E-02	4.212E-02	4.306E-02	4.400E-02
SM152	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00	1.478E+00
EU152	1.217E-03	1.157E-03	2.136E-04	2.029E-04	1.928E-04	1.832E-04	1.740E-04	1.653E-04	1.571E-04
GD152	1.111E-03	1.129E-03	1.391E-03	1.394E-03	1.397E-03	1.400E-03	1.402E-03	1.405E-03	1.407E-03
EU153	1.120E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00	1.126E+00
GD153	4.330E-05	1.521E-05	1.548E-20	5.441E-21	1.903E-21	6.655E-22	2.397E-22	7.437E-23	3.726E-23
SM154	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01	2.463E-01
EU154	2.588E-01	2.387E-01	1.667E-02	1.538E-02	1.419E-02	1.309E-02	1.207E-02	1.114E-02	1.027E-02
GD154	2.828E-02	4.833E-02	2.704E-01	2.717E-01	2.729E-01	2.740E-01	2.750E-01	2.759E-01	2.768E-01
EU155	7.957E-02	6.879E-02	5.627E-04	4.864E-04	4.205E-04	3.635E-04	3.142E-04	2.717E-04	2.348E-04
GD155	1.069E-03	1.185E-02	8.008E-02	8.015E-02	8.022E-02	8.028E-02	8.033E-02	8.037E-02	8.041E-02
EU156	8.576E-03	4.936E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD156	2.689E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01	2.775E-01
GD157	2.482E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04	2.689E-04
GD158	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02	4.817E-02
TB159	4.519E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03	4.524E-03
GD160	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03	1.757E-03
TB160	7.859E-05	2.369E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY160	3.786E-04	4.548E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04	4.571E-04
TB161	3.523E-06	4.555E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
DY161	3.769E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04	3.804E-04
DY162	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04	3.008E-04
DY163	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04	2.031E-04
DY164	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05	3.788E-05
HO165	6.662E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05	6.663E-05
HO166M	4.628E-07	4.625E-07	4.538E-07	4.535E-07	4.533E-07	4.530E-07	4.527E-07	4.525E-07	4.522E-07
ER166	1.514E-05	1.519E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.520E-05	1.521E-05
ER167	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06	2.061E-06
ER168	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06	2.843E-06
ER169	5.081E-10	1.021E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM169	1.408E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08	1.458E-08
ER170	2.803E-12	4.181E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12	4.405E-12
TM170	1.098E-09	1.532E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
YB170	1.875E-09	2.818E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09	2.971E-09
TM171	5.745E-11	4.004E-11	2.682E-16	1.869E-16	1.303E-16	9.081E-17	6.329E-17	4.411E-17	3.074E-17
YB171	6.068E-11	7.809E-11	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E-10	1.181E-10
YB172	2.427E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12	2.436E-12

File SBWZR6.INP

```
-1
-1
-1
 RDA     ORIGEN2, VERSION 2.1 (8-1-91) GENERIC FUEL
 BAS     PWRU FUEL
 RDA     -1 = 1 KG FUEL
 RDA     WARNING:  VECTORS ARE OFTEN CHANGED WITH RESPECT TO THEIR CONTENT.
 RDA               THESE CHANGES WILL BE NOTED ON RDA CARDS.
 CUT     -1
 LIP     0 0 0
 LIB     0  1 2 3  601  602  603   9   3   0  1   38
 TIT     INITIAL COMPOSITIONS OF UNIT AMOUNTS OF FUEL AND STRUCT MAT'LS
 RDA     READ FUEL COMPOSITION INCLUDING IMPURITIES
 INP     -1   1  -1  -1  1  1
 TIT     IRRADIATION OF GENERIC FUEL
 MOV     -1   1   0   1.0
 HED      1                                                  CHARGE
 BUP
 IRP     100.0   .2577   1   2   4 2
 IRP     200.0   .2577   2   3   4 0
 IRP     400.0   .2577   3   4   4 0
 IRP     600.0   .2577   4   5   4 0
 IRP     800.0   .2577   5   6   4 0
 IRP    1000.0   .2577   6   7   4 0
 IRP    1200.0   .2577   7   8   4 0
 IRP    1400.0   .2577   8   9   4 0
 IRP    1600.0   .2577   9  10   4 0
 IRP    1800.0   .2577  10  11   4 0
 IRP    1826.0   .2577  11  12   4 0
 BUP
 OPTL    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
 OPTA    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
 OPTF    8 8 8 8 5   8 5 8 8 8   8 8 8 8 8   8 8 8 8 8   8 8 8 8
 MOV       12    1   0  1.0
 DEC       1.    1   2   5   4
 DEC      41.    2   3   5   0
 DEC      42.    3   4   5   0
 DEC      43.    4   5   5   0
 DEC      44.    5   6   5   0
 DEC      45.    6   7   5   0
 DEC      46.    7   8   5   0
 DEC      47.    8   9   5   0
 OUT      -9    1     -1    0
 OUT       9    1     -1    0
 END
 2   922350  1000.0 922360  .4366  922380  8.6636       0     0.0   FUEL 97%
 1    60120  .92669  60130 .01031       0 .0           0      .0   C
 1    70140  1.2454  70150 .00463       0 .0           0      .0   N
 1    80160  74.720  80170 .02996   80180 0.1498       0      .0   O
 1   130270  1.2500      0 .0           0 .0           0      .0   Al
 1   220460  .04992 220470 .04555  220480 .46051  220490 .03432    Ti
 1   220500  .03370      0 .0           0 .0           0      .0
 1   240500  2.7113 240520 52.285  240530 5.9280  240540 1.4758    Cr
 1   260540  5.5283 260560 85.942  260570 1.9677  260580 .26236    Fe
```

File SBWZR6.INP (continued)

```
  1   280580  21.300 280600 8.1432  280610 .35256  280620 1.1201    Ni
  1   280640  .28392      0 .0           0 .0           0     .0
  1   400900  31494. 400910 6866.6  400920 10496.  400940 10637.    Zr
  1   400960  1713.6      0 .0           0 .0           0     .0
  1   410930  6.2400      0 .0           0 .0           0     .0    Nb
  1   501120  9.4187 501140 6.3115  501150 3.4956  501160 141.09    Sn
  1   501170  74.573 501180 235.18  501190 83.312  501200 316.45
  1   501220  44.957 501240 56.221       0 .0           0 .0
  1   721740  .02025 721760 .65075  721770 2.3258  721780 3.4121    Hf
  1   721790  1.7036 721800 4.3875       0 .0           0 .0
  1   731801  .00007 731810 .62393       0 .0           0 .0        Ta
  0
```

File SBWZR6.BAT

```
echo off
echo **                                                                **
echo **                          O R I G E N 2                         **
echo **                                                                **
copy sbwzr6.INP tape5.inp >nul
copy \origen2\libs\decaymod.lib+\origen2\libs\pwrus.lib tape9.inp >nul
copy \origen2\libs\gxuo2brm.lib tape10.inp >nul
\origen2\code\origen2
echo finished with origen2 calculation
rem  combine and save files from run
copy tape12.out+tape6.out sbwzr6.u6 >nul
copy tape13.out+tape11.out sbwzr6.u11 >nul
ren tape7.out sbwzr6.pch
ren tape15.out sbwzr6.dbg
ren tape16.out sbwzr6.vxs
ren tape50.out sbwzr6.ech
rem  cleanup files
del tape*.inp
del tape*.out
del sbwzr6.dbg
del sbwzr6.pch
del sbwzr6.vxs
del sbwzr6.ech
del sbwzr6.u11
echo ************************************************************************
echo ******************* O R I G E N 2 - Version 2.1 ************************
echo ************************ Execution Completed ***************************
echo ************************************************************************
echo on
```

sbwzr6.g
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:28

	1826.0D	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
H 1	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03	1.765E-03
H 2	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07	7.877E-07
H 3	8.092E-11	7.649E-11	8.073E-12	7.632E-12	7.215E-12	6.820E-12	6.447E-12	6.095E-12	5.762E-12
HE 3	1.387E-12	5.810E-12	7.423E-11	7.467E-11	7.509E-11	7.549E-11	7.586E-11	7.621E-11	7.654E-11
HE 4	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03	2.710E-03
LI 6	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10	3.730E-10
LI 7	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13	7.935E-13
BE 9	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06	3.804E-06
BE 10	7.841E-08	7.841E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08	7.840E-08
B 10	5.066E-13	5.539E-13	2.443E-12	2.490E-12	2.537E-12	2.584E-12	2.632E-12	2.679E-12	2.726E-12
B 11	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04	3.916E-04
C 12	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01	9.267E-01
C 13	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02	1.276E-02
C 14	3.319E-03	3.319E-03	3.303E-03	3.302E-03	3.302E-03	3.301E-03	3.301E-03	3.301E-03	3.300E-03
N 14	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00	1.241E+00
N 15	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03	4.765E-03
O 16	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01	7.472E+01
O 17	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02	2.997E-02
O 18	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01	1.498E-01
F 19	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08	7.567E-08
NE 20	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13	6.984E-13
NE 21	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12	5.454E-12
NE 22	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14	1.153E-14
NA 23	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18	1.057E-18
MG 24	2.446E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06	2.448E-06
MG 25	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10	5.761E-10
MG 26	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13	3.827E-13
AL 27	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00	1.250E+00
SI 28	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04	4.315E-04
SI 29	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08	5.118E-08
SI 30	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12	6.643E-12
SI 32	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23	1.207E-23
P 31	2.822E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16	2.824E-16
P 32	1.196E-21	7.518E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28	7.273E-28
S 32	1.340E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20	1.460E-20
S 34	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22	3.263E-22
CL 37	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16	3.626E-16
AR 38	5.748E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20	5.749E-20
AR 39	1.509E-20	1.505E-20	1.358E-20	1.354E-20	1.351E-20	1.347E-20	1.344E-20	1.340E-20	1.337E-20
AR 40	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12	1.387E-12
AR 42	2.206E-21	2.159E-21	9.311E-22	9.115E-22	8.924E-22	8.736E-22	8.553E-22	8.373E-22	8.197E-22
K 39	1.746E-23	5.634E-23	1.528E-21	1.563E-21	1.597E-21	1.632E-21	1.667E-21	1.702E-21	1.736E-21
K 41	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14	4.447E-14
K 42	1.111E-18	9.229E-26	3.983E-26	3.896E-26	3.814E-26	3.734E-26	3.656E-26	3.579E-26	3.504E-26
CA 42	7.716E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16	7.727E-16
CA 43	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07	1.044E-07
CA 44	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07	7.961E-07
CA 45	3.038E-09	6.426E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CA 46	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08	9.472E-08
SC 45	1.343E-08	1.583E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08	1.647E-08
SC 46	2.122E-07	1.034E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TI 46	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02	4.988E-02
TI 47	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02	4.548E-02
TI 48	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01	4.558E-01
TI 49	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02	3.916E-02
TI 50	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02	3.387E-02
V 50	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04	2.191E-04
V 51	5.683E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02	5.881E-02
CR 50	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00	2.653E+00
CR 51	1.978E-03	2.128E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR 52	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01	5.213E+01
CR 53	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00	5.937E+00
CR 54	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00	1.626E+00
MN 54	3.791E-04	1.686E-04	1.423E-18	6.328E-19	2.815E-19	1.252E-19	5.568E-20	2.477E-20	1.102E-20
MN 55	7.699E-03	1.023E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02	1.851E-02
FE 54	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00	5.510E+00
FE 55	1.081E-02	8.280E-03	1.936E-07	1.483E-07	1.136E-07	8.699E-08	6.663E-08	5.104E-08	3.910E-08
FE 56	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01	8.563E+01
FE 57	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00	2.275E+00
FE 58	2.744E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01	2.749E-01
FE 59	2.693E-05	9.706E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	4.277E-04	1.296E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 59	1.843E-03	1.871E-03	1.911E-03	1.911E-03	1.912E-03	1.913E-03	1.914E-03	1.915E-03	1.916E-03
CO 60	1.264E-04	1.108E-04	5.752E-07	5.043E-07	4.422E-07	3.877E-07	3.399E-07	2.980E-07	2.613E-07
NI 58	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01	2.117E+01
NI 59	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01	1.133E-01

sbwzr6.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:28

	1826.0D	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
NI 60	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00	8.121E+00
NI 61	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01	3.831E-01
NI 62	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00	1.100E+00
NI 63	2.103E-02	2.087E-02	1.544E-02	1.532E-02	1.521E-02	1.509E-02	1.498E-02	1.487E-02	1.476E-02
NI 64	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01	2.836E-01
CU 63	3.412E-04	4.990E-04	5.929E-03	6.045E-03	6.160E-03	6.274E-03	6.387E-03	6.500E-03	6.612E-03
CU 65	6.203E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04	6.204E-04
ZN 64	3.540E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07	3.547E-07
ZN 65	7.597E-11	2.690E-11	2.483E-29	2.483E-29	2.483E-29	2.483E-29	2.483E-29	2.483E-29	2.483E-29
ZN 66	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06	1.081E-06
ZN 67	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10	4.713E-10
ZN 68	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12	1.832E-12
GA 69	9.098E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16	9.103E-16
GA 71	7.637E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22	8.433E-22
GE 70	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18	1.164E-18
GE 71	7.964E-23	3.830E-32	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 72	9.679E-27	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26	1.952E-26
SR 87	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04	3.619E-04
SR 88	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02	3.383E-02
SR 89	1.543E-04	1.026E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 90	1.544E-06	1.507E-06	5.751E-07	5.614E-07	5.480E-07	5.350E-07	5.223E-07	5.098E-07	4.977E-07
Y 89	2.396E-03	2.549E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03	2.550E-03
Y 90	3.286E-04	3.824E-10	1.459E-10	1.425E-10	1.391E-10	1.358E-10	1.325E-10	1.294E-10	1.263E-10
Y 91	4.667E-04	6.163E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 90	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04	3.148E+04
ZR 91	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03	6.849E+03
ZR 92	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04	1.051E+04
ZR 93	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01	1.833E+01
ZR 94	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04	1.063E+04
ZR 95	2.492E-01	4.765E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 96	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03	1.709E+03
NB 92	3.999E-07	6.025E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 93	6.190E+00	6.190E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00	6.191E+00
NB 93M	1.560E-05	2.252E-05	1.376E-04	1.385E-04	1.393E-04	1.400E-04	1.408E-04	1.415E-04	1.421E-04
NB 94	3.937E-02	3.937E-02	3.931E-02	3.931E-02	3.931E-02	3.931E-02	3.931E-02	3.931E-02	3.930E-02
NB 95	1.328E-01	5.887E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 95M	9.792E-05	1.994E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 94	2.903E-06	4.248E-06	5.798E-05	5.932E-05	6.066E-05	6.201E-05	6.335E-05	6.469E-05	6.603E-05
MO 95	2.820E+00	3.192E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00	3.203E+00
MO 96	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02	9.207E-02
MO 97	4.882E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00	4.886E+00
MO 98	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02	2.691E-02
MO100	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09	8.520E-09
TC 98	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11	3.769E-11
TC 99	2.212E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05	2.236E-05
RU 98	4.535E-18	1.076E-17	2.597E-16	2.659E-16	2.721E-16	2.783E-16	2.846E-16	2.908E-16	2.970E-16
RU 99	6.787E-11	1.413E-10	3.078E-09	3.151E-09	3.225E-09	3.298E-09	3.371E-09	3.445E-09	3.518E-09
RU100	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07	8.289E-07
RU101	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09	2.001E-09
RU102	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11	1.587E-11
RU103	2.407E-15	3.829E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU104	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17	1.342E-17
RU106	1.409E-29	1.409E-29	1.604E-41	1.604E-41	1.604E-41	1.604E-41	1.604E-41	1.604E-41	1.604E-41
RH102	1.578E-22	1.201E-22	8.458E-27	8.458E-27	8.458E-27	8.458E-27	8.458E-27	8.458E-27	8.458E-27
RH103	6.390E-16	8.778E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16	8.782E-16
RH106	7.088E-28	1.324E-35	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD104	5.171E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17	5.172E-17
PD105	6.581E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20	6.573E-20
PD106	6.093E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22	6.094E-22
PD107	1.607E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32	3.596E-32
CD111	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07	3.889E-07
CD112	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06	3.234E-06
CD113	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08	1.629E-08
CD114	3.937E-04	4.212E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04	4.214E-04
CD115M	1.542E-08	5.283E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD116	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06	2.411E-06
IN113	8.656E-02	9.494E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02	9.599E-02
IN113M	5.656E-06	6.271E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114	1.614E-08	3.561E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN114M	3.679E-04	2.214E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN115	1.255E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06	1.271E-06
SN112	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00	9.316E+00
SN113	9.419E-03	1.044E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN114	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00	6.316E+00
SN115	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00	3.269E+00
SN116	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02	1.400E+02
SN117	7.501E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01	7.502E+01

sbwzr6.g (Continued)
ORIGEN2 V2.1 (8-1-91), Run on 11/13/04 at 14:18:28

	1826.0D	1.0YR	41.0YR	42.0YR	43.0YR	44.0YR	45.0YR	46.0YR	47.0YR
SN117M	9.722E-03	1.370E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN118	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02	2.346E+02
SN119	8.423E+01	8.433E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01	8.438E+01
SN119M	1.508E-01	5.365E-02	6.027E-20	2.144E-20	7.635E-21	2.719E-21	9.634E-22	3.509E-22	1.278E-22
SN120	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02	3.165E+02
SN121M	1.546E-03	1.524E-03	8.752E-04	8.631E-04	8.512E-04	8.395E-04	8.280E-04	8.165E-04	8.053E-04
SN122	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01	4.493E+01
SN123	4.329E-03	6.097E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01	5.588E+01
SN125	2.449E-03	9.625E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB121	2.832E-01	2.837E-01	2.843E-01	2.844E-01	2.844E-01	2.844E-01	2.844E-01	2.844E-01	2.844E-01
SB123	2.498E-02	2.869E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02	2.930E-02
SB124	8.778E-05	1.309E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB125	2.131E-01	1.681E-01	7.982E-06	6.223E-06	4.852E-06	3.783E-06	2.950E-06	2.300E-06	1.793E-06
SB126	3.716E-05	5.617E-14	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE122	1.217E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02	1.225E-02
TE123	1.135E-04	1.279E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04	1.298E-04
TE123M	1.635E-05	1.972E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE124	6.257E-04	7.122E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04	7.135E-04
TE125	1.253E-01	1.731E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01	3.435E-01
TE125M	2.619E-03	2.308E-03	1.098E-07	8.559E-08	6.673E-08	5.203E-08	4.057E-08	3.163E-08	2.466E-08
TE126	2.154E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03	2.191E-03
TE127	7.770E-09	4.612E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	1.344E-07	1.317E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE128	7.062E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09	7.063E-09
TE129	8.154E-16	6.894E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	1.379E-14	7.362E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE130	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17	1.112E-17
I127	5.095E-06	5.224E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06	5.237E-06
I129	2.639E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12	2.654E-12
I131	1.297E-19	2.743E-33	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE127	1.863E-14	1.780E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE128	9.227E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08	9.228E-08
XE129	1.963E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10	1.969E-10
XE129M	6.501E-13	1.172E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE130	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12	4.286E-12
XE131	5.920E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15	5.970E-15
XE131M	4.971E-17	2.854E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE132	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16	3.558E-16
XE133	3.734E-21	4.100E-42	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE134	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22	1.171E-22
XE136	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30	6.949E-30
CS132	2.603E-26	1.850E-43	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS133	6.236E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20	6.614E-20
CS134	1.000E-21	7.208E-22	1.064E-27	1.064E-27	1.064E-27	1.064E-27	1.064E-27	1.064E-27	1.064E-27
CS135	4.120E-30	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29	1.874E-29
CS137	6.896E-40	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39	6.672E-39
BA132	1.034E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28	6.240E-28
BA133	2.066E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34	4.043E-34
BA134	7.914E-23	3.585E-22	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21	1.079E-21
BA135	7.109E-29	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28	1.730E-28
BA136	1.555E-36	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35	1.369E-35
ER166	1.258E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28	1.977E-28
ER167	1.116E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37	2.541E-37
ER169	1.553E-19	3.121E-31	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER170	6.143E-22	9.649E-22	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21	1.023E-21
TM169	3.807E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18	3.962E-18
TM170	2.851E-19	3.981E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TM171	5.935E-20	4.144E-20	2.218E-26	2.218E-26	2.218E-26	2.218E-26	2.218E-26	2.218E-26	2.218E-26
YB170	4.405E-19	6.854E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19	7.252E-19
YB171	2.334E-20	4.135E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20	8.279E-20
YB172	3.370E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10	3.390E-10
YB173	2.121E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10	2.123E-10
YB174	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12	9.727E-12
LU175	7.445E-03	8.021E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03	8.037E-03
LU176	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04	1.960E-04
LU177	4.829E-06	5.175E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LU177M	2.662E-07	5.199E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF174	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02	1.081E-02
HF175	5.915E-04	1.589E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF176	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01	4.855E-01
HF177	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01	1.625E-01
HF178	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00	2.899E+00
HF179	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00	3.811E+00
HF180	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00	5.016E+00
HF181	7.713E-03	1.966E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF182	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04	2.631E-04